# "MECHANIZATION OF BERTH NO. 12 FOR PROVIDING EQUIPMENTS FOR HANDLING BULK CARGOES AT NEW MANGALORE PORT"

**REQUEST FOR PROPOSAL** 





### **NEW MANGALORE PORT TRUST**

Civil Engineering Department Panambur, Mangalore - 575010

# "MECHANIZATION OF BERTH NO. 12 FOR PROVIDING EQUIPMENTS FOR HANDLING BULK CARGOES AT NMP"

**REQUEST FOR PROPOSAL** 

**VOLUME I - INVITATION FOR PROPOSAL** 

#### **VOLUME - I: INVITATION FOR PROPOSAL**

## Mechanization of Berth No. 12 for Providing Equipments for Handling Bulk Cargoes at New Mangalore Port (NMP)

# Request for Proposal OCTOBER 2015



**New Mangalore Port Trust** 

Panambur, Mangalore- 575010

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#### NEW MANGALORE PORT TRUST

#### LETTER OF INVITATION

| Dated  |
|--|
| To,  |
| Sub: RFP for Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP   |
| Dear Sir,  |
| Pursuant to your application in response to our Request for Qualification for the above said project, (the " <b>RFQ</b> "), you were short listed as a Bidder, and asked vide our letter dated to remit the fee for RFP document (the " <b>RFP</b> ") within a week. We acknowledge your remittance of Rs. 1,05,500 (Rs. One Lakh Five Thousand Five Hundred Only) (including VAT) as the cost of procuring the RFP documents, which are enclosed. |
| You are requested to participate in the Bid Stage and submit your financial proposal (the "Bid") for the aforesaid project in accordance with the RFP.   |
| Please note that the New Mangalore Port Trust reserves the right to accept or reject all or any of the bids without assigning any reason whatsoever.   |
| Thanking you,  |
| Yours faithfully,  |
| (Signature, name and designation of the Signatory)   |

#### Disclaimer

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Authority (New Mangalore Port Trust or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (**Bids**) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents, especially the Detailed Project Report, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select a Bidder or to appoint the Selected Bidder or Concessionaire, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

#### **GLOSSARY**

**Authority** As defined in Clause 1.1.1 As defined in Clause 2.1.14 **Associate Bank Guarantee** As defined in Clause 2.20.1 Bid(s) As defined in Clause 1.2.2 **Bidders** As defined in Clause 1.2.2 **Bidding Documents** As defined in Clause 1.1.7 **Bid Due Date** As defined in Clause 1.1.7 **Bidding Process** As defined in Clause 1.2.1 **Bid Security** As defined in Clause 1.2.4 **Bid Stage** As defined in Clause 1.2.1 Concession As defined in Clause 1.1.5 **Concession Agreement** As defined in Clause 1.1.2 Concessionaire As defined in Clause 1.1.2 **Conflict of Interest** As defined in Clause 2.1.14 As defined in Clause 2.1.14 **Damages DBFOT** As defined in Clause 1.1.1 **Detailed Project Report** As defined in Clause 1.2.3 **Estimated Project Cost** As defined in Clause 1.1.4 Government Government of India **Gross Revenue Share** As defines in Clause 1.2.6 **Highest Bidder** As defined in Clause 1.2.6 LOA As defined in Clause 3.3.5 Member Member of a Consortium **PPP** Public Private Partnership **Project** As defined in Clause 1.1.1 Re. or Rs. or INR Indian Rupee As defined in the Disclaimer **RFP or Request for Proposals RFO** As defined in Clause 2.1.2 As defined in Clause 1.2.6 **Royalty Selected Bidder** As defined in Clause 3.3.1

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein. The words and expressions beginning with capital letters and not defined herein, but defined in the RFQ, shall, unless repugnant to the context, have the meaning ascribed thereto therein.

#### 1. INTRODUCTION

#### 1.1. Background

1.1.1. The New Mangalore Port Trust has decided to undertake Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP and operation/ maintenance thereof (the "**Project**") through Public-Private Partnership (the "**PPP**") on Design, Build, Finance, Operate and Transfer (the "**DBFOT**") Model basis, and has decided to carry out the bidding process for selection of a private entity as the Bidder to whom the Project may be awarded. A brief description of the Project may be seen in the Detailed Project Report (DPR) of the Project provided as a part of this RFP.

Brief particulars of the Project are as follows:

| Sr.<br>No. | Name of the Project   | Capacity     | Estimated<br>Project Cost |
|------------|---|--------------|---------------------------|
| 1          | Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP | 6.73<br>MTPA | Rs. 470 crores            |

- 1.1.2. The Selected Bidder, who is either a company incorporated under the Companies Act, 1956 or undertakes to incorporate as such prior to execution of the concession agreement (the "Concessionaire"), shall be responsible for designing, engineering, financing, procurement, construction, operation and maintenance of the Project under and in accordance with the provisions of a long-term concession agreement (the "Concession Agreement") to be entered into between the Selected Bidder and the Authority in the form provided by the Authority as part of the Bidding Documents pursuant hereto.
- 1.1.3. The scope of work will broadly include mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP and the operation and maintenance thereof.
- 1.1.4. The estimated cost of the Project (the "**Estimated Project Cost**") has been specified in Clause 1.1.1 above. The assessment of actual costs, however, will have to be made by the Bidders.
- 1.1.5. The Concession Agreement sets forth the detailed terms and conditions for grant of the concession to the Concessionaire, including the scope of the Concessionaire's services and obligations (the "Concession").
- 1.1.6. The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and should not be construed or interpreted as limiting in any way or manner the scope of services and obligations of the Concessionaire set forth in the Concession Agreement or the Authority's rights to amend, alter, change, supplement or clarify the scope of work, the Concession to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents including this RFP are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the Authority.

1.1.7. The Authority shall receive Bids pursuant to this RFP in accordance with the terms set forth in this RFP and other documents to be provided by the Authority pursuant to this RFP, as modified, altered, amended and clarified from time to time by the Authority (collectively the "Bidding Documents"), and all Bids shall be prepared and submitted in accordance with such terms on or before the date specified in Clause 1.3 for submission of Bids (the "Bid Due Date").

#### 1.2. Brief description of Bidding Process

- 1.2.1. The Authority has adopted a two-stage process (collectively referred to as the "Bidding Process") for selection of the Bidder for award of the Project. The first stage (the "Qualification Stage") of the process involved pre-qualification of interested parties/ Consortia in accordance with the provisions of the RFQ. At the end of the Qualification Stage, the Authority short-listed Applicants who are eligible for participation in this second stage of the Bidding Process (the "Bid Stage") comprising Request for Proposals.
- 1.2.2. In the Bid Stage, the aforesaid short-listed Applicants, including their successors, (the "Bidders", which expression shall, unless repugnant to the context, include the Members of the Consortium) are being called upon to submit their financial offers (the "Bids") in accordance with the terms specified in the Bidding Documents. The Bid shall be valid for a period of not less than 120 days from the date specified in Clause 1.3 for submission of bids (the "Bid Due Date").
- 1.2.3. The Bidding Documents include the draft Concession Agreement for the Project which is enclosed. The Detailed Project Report prepared by the Authority/consultants of the Authority (the "**Detailed Project Report**") is also enclosed. Subject to the provisions of Clause 2.1.3, the aforesaid documents and any addenda issued subsequent to this RFP Document, will be deemed to form part of the Bidding Documents.
- 1.2.4. A Bidder is required to deposit, along with its Bid, a bid security of Rs. 4,70,00,000/- (Rupees Four Crores Seventy Lakhs Only) (the "**Bid Security**"), refundable not later than 60 (sixty) days from the Bid Due Date having its Branch at Mangalore, except in the case of the Selected Bidder whose Bid Security shall be retained till it has provided a Performance Security under the Concession Agreement. The Bidders shall provide Bid Security in the form of a bank guarantee acceptable to the Authority. The validity period of the bank guarantee shall not be less than 180 (one hundred and eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Authority and the Bidder from time to time. The Bid shall be summarily rejected if it is not accompanied by the Bid Security.
- 1.2.5. During the Bid Stage, Bidders are invited to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Bids for award of the Concession including implementation of the Project.
- 1.2.6. Bids are invited for the Project on the basis of highest Gross Revenue Share quoted as a percentage (the "**Royalty**") offered by a Bidder for implementing the Project. The concession period shall be 30 years. The Royalty amount shall constitute the sole criteria for evaluation of Bids. Subject to Clause 2.16, the Project will be awarded to the Bidder quoting the highest Royalty.

In this RFP, the term "**Highest Bidder**" shall mean the Bidder who is offering the highest Royalty.

- 1.2.7. Generally, the Highest Bidder shall be the Selected Bidder. The remaining Bidders shall be kept in reserve and may, in accordance with the process specified in Clause 3 of this RFP, be invited to match the Bid submitted by the Highest Bidder in case such Highest Bidder withdraws or is not selected for any reason. In the event that none of the other Bidders match the Bid of the Highest Bidder, the Authority may, in its discretion, either invite fresh Bids from the remaining Bidders or annul the Bidding Process.
- 1.2.8. The Concessionaire shall be entitled to levy and charge a pre-determined user fee from users of the Project.
- 1.2.9. Further and other details of the process to be followed at the Bid Stage and the terms thereof are spelt out in this RFP.
- 1.2.10. Any queries or request for additional information concerning this RFP shall be submitted in writing or by fax and e-mail to the officer designated in Clause 2.11.5 below. The envelopes/communication shall clearly bear the following identification/title:

"Queries/Request for Additional Information: RFP for Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP

#### 1.3. Schedule of Bidding Process

The Authority shall endeavour to adhere to the following schedule:

|   | <b>Event Description</b>                | Date                            |
|---|---|---------------------------------|
| 1 | T . 1 . C                               | 26 <sup>th</sup> 0 4 1 2015     |
| 1 | Last date for receiving queries         | 26 <sup>th</sup> October, 2015  |
| 2 | Pre-Bid meeting                         | 29 <sup>th</sup> October, 2015  |
| 3 | Authority response to queries latest by | 6 <sup>th</sup> November, 2015  |
| 4 | Bid Due Date                            | 25 <sup>th</sup> November, 2015 |
| 5 | Opening of Bids                         | On Bid Due Date                 |
| 6 | Letter of Award (LOA)                   | Within 30 days of Bid Due Date  |
| 7 | Validity of Bids                        | 120 days of Bid Due Date        |
| 8 | Signing of Concession Agreement         | Within 30 days of award of LOA  |

New Mangalore Port Trust

#### 2. INSTRUCTIONS TO BIDDERS

#### A. GENERAL

#### 2.1. General terms of Bidding

- 2.1.1. No Bidder shall submit more than one Bid for the Project. A Bidder bidding individually or as a member of a Consortium shall not be entitled to submit another bid either individually or as a member of any Consortium, as the case may be.
- 2.1.2. Unless the context otherwise requires, the terms not defined in this RFP, but defined in the Request for Qualification document for the Project (the "**RFQ**") shall have the meaning assigned thereto in the RFQ.
- 2.1.3. The Detailed Project Report of the Project is being provided only as a preliminary reference document by way of assistance to the Bidders who are expected to carry out their own surveys, investigations and other detailed examination of the Project before submitting their Bids. Nothing contained in the Detailed Project Report shall be binding on the Authority nor confer any right on the Bidders, and the Authority shall have no liability whatsoever in relation to or arising out of any or all contents of the Detailed Project Report.
- 2.1.4. Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the draft Concession Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Concession Agreement.
- 2.1.5. The Bid should be furnished in the format at Appendix-I, clearly indicating the bid amount in both figures and words, in Indian Rupees, and signed by the Bidder's authorised signatory. In the event of any difference between figures and words, the amount indicated in words shall be taken into account.
- 2.1.6. The Bid shall consist of a Royalty to be quoted by the Bidder. The Royalty shall be payable by the Concessionaire to the Authority as per the terms and conditions of this RFP and the provisions of the Concession Agreement.
- 2.1.7. The Bidder shall deposit a Bid Security of Rs. 4,70,00,000 (Rupees Four Crores Seventy Lakhs Only in accordance with the provisions of this RFP. The Bidder shall provide the Bid Security in the form of a Bank Guarantee acceptable to the Authority, as per format at Appendix-II.
- 2.1.8. The validity period of the Bank Guarantee shall not be less than 180 (one hundred and eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Authority and the Bidder. The Bid shall be summarily rejected if it is not accompanied by the Bid Security. The Bid Security shall be refundable no later than 60 (sixty) days from the Bid Due Date except in the case of the Selected Bidder whose Bid Security shall be retained till it has provided a Performance Security under the Concession Agreement.
- 2.1.9. The Bidder should submit a Power of Attorney as per the format at Appendix-III, authorising the signatory of the Bid to commit the Bidder.

- 2.1.10. In case the Bidder is a Consortium, the Members thereof should furnish a Power of Attorney in favour of the Lead Member in the format at Appendix-IV.
- 2.1.11. Any condition or qualification or any other stipulation contained in the Bid shall render the Bid liable to rejection as a non-responsive Bid.
- 2.1.12. The Bid and all communications in relation to or concerning the Bidding Documents and the Bid shall be in English language.
- 2.1.13. The documents including this RFP and all attached documents, provided by the Authority are and shall remain or become the property of the Authority and are transmitted to the Bidders solely for the purpose of preparation and the submission of a Bid in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. The provisions of this Clause 2.1.13 shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and the Authority will not return to the Bidders any Bid, document or any information provided along therewith.
- 2.1.14. A Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine preestimated loss and damage likely to be suffered and incurred by the Authority and not by way of penalty for, *inter alia*, the time, cost and effort of the Authority, including consideration of such Bidder's proposal (the "Damages"), without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Concession Agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:
  - i. the Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 2 (72)73 of the Companies Act, 2013. For the purposes of this Clause 2.1.14, indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the

shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

- ii. a constituent of such Bidder is also a constituent of another Bidder; or
- iii. such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or
- iv. such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- v. such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of either or each other; or
- vi. such Bidder or any Associate thereof has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of the Project.

#### Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause 2.1.14, shall include each Member of such Consortium.

For purposes of this RFP, Associate means, in relation to the Bidder/ Consortium Member, a person who controls, is controlled by, or is under the common control with such Bidder/ Consortium Member (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.

2.1.15. A Bidder shall be liable for disqualification and forfeiture of Bid Security if any legal, financial or technical adviser of the Authority in relation to the Project is engaged by the Bidder, its Members or any Associate thereof, as the case may be, in any manner for matters related to or incidental to such Project during the Bidding Process or subsequent to the (i) issue of the LOA or (ii) execution of the Concession Agreement. In the event any such adviser is engaged by the Selected Bidder or Concessionaire, as the case may be, after issue of the LOA or execution of the Concession Agreement for matters related or incidental to the Project, then notwithstanding anything to the contrary contained herein or in the LOA or the Concession Agreement and without prejudice to any other right or remedy of the Authority, including the forfeiture and appropriation of the Bid Security or Performance Security, as the case may be, which the Authority may have thereunder or otherwise, the LOA or the Concession Agreement, as the case may be, shall be liable to be terminated without the Authority being liable in any manner whatsoever to the Selected Bidder or Concessionaire for the same. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of RFQ for the Project. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.

- 2.1.16. This RFP is not transferable.
- 2.1.17. Any award of Concession pursuant to this RFP shall be subject to the terms of Bidding Documents.
- 2.1.18. The Bidder, in case it does not have the O&M experience specified in Clause 2.2.3 of the RFQ, by submitting its Bid, shall be deemed to acknowledge and agree that for a period of at least 5 (five) years from the date of commercial operation of the Project, it shall enter into an operation & maintenance (O&M) agreement with an entity having the specified experience, failing which the Concession Agreement shall be liable to termination.
- 2.1.19. Integrity Pact (IP) shall cover this RFP throughout its various phases, and IP would be deemed as a part of the contract. The Bidder should sign and submit a 'Pre-Contract Integrity Pact' to be executed between the Bidder and the Authority as per the format at Appendix-V, and shall be submitted along with the Bid Enclosure in the manner provided in this RFP. IP would be implemented through the following Independent External Monitor ("IEM") for this Bid:

Shri Lukose Vallatharia, IAS Retd No 20, Bore Bank Road. Benson Town Bangalore-560046

#### 2.2. Change in composition of the Consortium

- 2.2.1. Where the Bidder is a Consortium, change in composition of the Consortium may be permitted by the Authority during the Bid Stage, only where:
  - a. the Lead Member continues to be the Lead Member of the Consortium;
  - b. the substitute is at least equal, in terms of Technical Capacity or Financial Capacity, to the Consortium Member who is sought to be substituted and the modified Consortium shall continue to meet the pre-qualification and short-listing criteria for Applicants; and
  - c. the new Member(s) expressly adopt(s) the Application already made on behalf of the Consortium as if it were a party to it originally, and is not an Applicant Member/Associate of any other Consortium bidding for this Project.
- 2.2.2. Approval for change in the composition of a Consortium shall be at the sole discretion of the Authority and must be approved by the Authority in writing. The Bidder must submit its application for change in composition of the Consortium no later than 15 (fifteen) days prior to the Bid Due Date.
- 2.2.3. The modified/ reconstituted Consortium shall submit a revised Jt. Bidding Agreement and a Power of Attorney, substantially in the form at Appendix-IV, prior to the Bid Due Date.

#### 2.3. Change in Ownership

- 2.3.1. By submitting the Bid, the Bidder acknowledges that it was pre-qualified and short-listed on the basis of Technical Capacity and Financial Capacity of those of its Consortium Members who shall, until the 3<sup>rd</sup> (third) anniversary of the date of commercial operation of the Project, hold equity share capital representing not less than: (i) 26% (twenty six per cent) of the subscribed and paid-up equity of the Concessionaire; and (ii) 5% (five per cent) of the Total Project Cost specified in the Concession Agreement. The Bidder further acknowledges and agrees that the aforesaid obligation shall be the minimum, and shall be in addition to such other obligations as may be contained in the Concession Agreement, and a breach hereof shall, notwithstanding anything to the contrary contained in the Concession Agreement, be deemed to be a breach of the Concession Agreement and dealt with as such thereunder. For the avoidance of doubt, the provisions of this Clause 2.3.1 shall apply only when the Bidder is a Consortium.
- 2.3.2. By submitting the Bid, the Bidder shall also be deemed to have acknowledged and agreed that in the event of a change in control of a Consortium Member or an Associate whose Technical Capacity and/ or Financial Capacity was taken into consideration for the purposes of shortlisting and pre-qualification under and in accordance with the RFO, the Bidder shall be deemed to have knowledge of the same and shall be required to inform the Authority forthwith along with all relevant particulars about the same and the Authority may, in its sole discretion, disqualify the Bidder or withdraw the LOA from the Selected Bidder, as the case may be. In the event such change in control occurs after signing of the Concession Agreement but prior to Financial Close of the Project, it would, notwithstanding anything to the contrary contained in the Concession Agreement, be deemed to be a breach of the Concession Agreement, and the same shall be liable to be terminated without the Authority being liable in any manner whatsoever to the Concessionaire. In such an event, notwithstanding anything to the contrary contained in the Concession Agreement, the Authority shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Concession Agreement or otherwise.

#### 2.4. Cost of Bidding

The Bidders shall be responsible for all of the costs associated with the preparation of their Bids and their participation in the Bidding Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

#### 2.5. Site visit and verification of information

- 2.5.1. Bidders are encouraged to submit their respective Bids after visiting the Project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them.
- 2.5.2. It shall be deemed that by submitting a Bid, the Bidder has:
  - a. made a complete and careful examination of the Bidding Documents;
  - b. received all relevant information requested from the Authority;
  - c. accepted the risk of inadequacy, error or mistake in the information provided in the

- Bidding Documents or furnished by or on behalf of the Authority relating to any of the matters referred to in Clause 2.5.1 above;
- d. satisfied itself about all matters, things and information including matters referred to in Clause 2.5.1 hereinabove necessary and required for submitting an informed Bid, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations thereunder;
- e. acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bidding Documents or ignorance of any of the matters referred to in Clause 2.5.1 hereinabove shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from the Authority, or a ground for termination of the Concession Agreement by the Concessionaire;
- f. acknowledged that it does not have a Conflict of Interest; and
- g. agreed to be bound by the undertakings provided by it under and in terms hereof.
- 2.5.3. The Authority shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP, RFQ, the Bidding Documents or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

#### 2.6. Verification and Disqualification

- 2.6.1. The Authority reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFQ, the RFP or the Bidding Documents and the Bidder shall, when so required by the Authority, make available all such information, evidence and documents as may be necessary for such verification. Any such verification, or lack of such verification, by the Authority shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Authority thereunder.
- 2.6.2. The Authority reserves the right to reject any Bid and appropriate the Bid Security if:
  - a. at any time, a material misrepresentation is made or uncovered, or
  - b. the Bidder does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Bid.

Such misrepresentation/ improper response shall lead to the disqualification of the Bidder. If the Bidder is a Consortium, then the entire Consortium and each Member may be disqualified/ rejected. If such disqualification/ rejection occurs after the Bids have been opened and the Highest Bidder gets disqualified/ rejected, then the Authority reserves the right to:

- i. invite the remaining Bidders to submit their Bids in accordance with Clauses 3.3.3 and 3.3.4; or
- ii. take any such measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Bidding Process.
- 2.6.3. In case it is found during the evaluation or at any time before signing of the Concession Agreement or after its execution and during the period of subsistence thereof, including the Concession thereby granted by the Authority, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Concessionaire either by issue of the LOA

or entering into of the Concession Agreement, and if the Selected Bidder has already been issued the LOA or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority to the Selected Bidder or the Concessionaire, as the case may be, without the Authority being liable in any manner whatsoever to the Selected Bidder or Concessionaire. In such an event, the Authority shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Concession Agreement, or otherwise.

#### B. DOCUMENTS

#### 2.7. Contents of the RFP

2.7.1. This RFP comprises the Disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addenda issued in accordance with Clause 2.9.

#### Volume I

#### **Invitation for Bids**

- Section 1. Introduction
- Section 2. Instructions to Bidders
- Section 3. Evaluation of Bids
- Section 4. Fraud and Corrupt Practices
- Section 5. Pre-Bid Conference
- Section 6. Miscellaneous

#### **Appendices**

- I. Letter comprising the Bid
- II. Bank Guarantee for Bid Security
- III. Power of Attorney for signing of Bid
- IV. Power of Attorney for Lead Member of Consortium
- V. Proforma of the 'Pre-Contract Integrity Pact' to be executed between the Bidder and the Authority
- VI. Proforma of the undertaking regarding any payment or illegal gratification made to any person/authority connected with the Bid process so as to influence the Bid process
- VII. Proforma of the statement disclosing payment made/proposed to be made to the intermediaries in connection with the Bid
- 2.7.2. The draft Concession Agreement and the Detailed Project Report provided by the Authority as part of the Bid Documents (as Volume II and Volume III) shall be deemed to be part of this RFP.

#### 2.8. Clarifications

- 2.8.1. Bidders requiring any clarification on the RFP may notify the Authority in writing or by fax and e-mail in accordance with Clause 1.2.10. They should send in their queries on or before the date mentioned in the Schedule of Bidding Process specified in Clause 1.3. The Authority shall endeavour to respond to the queries within the period specified therein, but no later than 15 (fifteen) days prior to the Bid Due Date. The responses will be sent by fax or e-mail. The Authority will forward all the queries and its responses thereto, to all Bidders without identifying the source of queries.
- 2.8.2. The Authority shall endeavour to respond to the questions raised or clarifications sought by the Bidders. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification.

2.8.3. The Authority may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority.

#### 2.9. Amendment of RFP

- 2.9.1. At any time prior to the Bid Due Date, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP by the issuance of Addenda.
- 2.9.2. Any Addendum issued hereunder will be in writing and shall be sent to all the Bidders.
- 2.9.3. In order to afford the Bidders a reasonable time for taking an Addendum into account, or for any other reason, the Authority may, in its sole discretion, extend the Bid Due Date.

#### C. PREPARATION AND SUBMISSION OF BIDS

#### 2.10. Format and Signing of Bid

- 2.10.1. The Bidder shall provide all the information sought under this RFP. The Authority will evaluate only those Bids that are received in the required formats and complete in all respects.
- 2.10.2. The Bid and its copy shall be typed or written in indelible ink and signed by the authorised signatory of the Bidder who shall also initial each page, in blue ink. In case of printed and published documents, only the cover shall be initialled. All the alterations, omissions, additions or any other amendments made to the Bid shall be initialled by the person(s) signing the Bid.

#### 2.11. Sealing and Marking of Bids

- 2.11.1. The Bidder shall submit the Bid in the format specified at Appendix-I, and seal it in an envelope and mark the envelope as "**BID**".
- 2.11.2. The documents accompanying the Bid shall be placed in a separate envelope and marked as "Enclosures of the Bid". The documents shall include:
  - a. Bid Security in the format at Appendix-II;
  - b. Power of Attorney for signing of Bid in the format at Appendix-III;
  - c. If applicable, the Power of Attorney for Lead Member of Consortium in the format at Appendix-IV; and
  - d. Hard copies of Volume I (Invitation for Proposals) and Volume II Concession Agreement) formally purchased by the Bidder including amendments/ addenda, if any, with each page initialled by the person signing the Bid in pursuance of the Power of Attorney referred to in sub-clause (b) hereinabove.
  - e. Duly signed 'Pre-Contract Integrity Pact' to be executed between the Bidder and the Authority, as per the proforma at Appendix -V
  - f. An undertaking that the Bidder has not made any payment or illegal gratification to any person/authority connected with the Bid process so as to influence the Bid process and has not committed any offence under the Prevention of Corruption Act in connection with the Bid, as per the proforma at Appendix -VI;
  - g. A statement disclosing payment made/proposed to be made to the intermediaries in connection with the Bid, as per the proforma at Appendix -VII. In case no payment is made or proposed to be made a 'Nil' statement shall be enclosed.

Bids not accompanied by the documents as per (a) to (g) and the proforma given in Appendices V to VII above shall be rejected.

- 2.11.3. A true copy of the documents accompanying the Bid, as specified in Clause 2.11.2 above, shall be bound together in hard cover and the pages shall be numbered serially. Each page thereof shall be initialled in blue ink by the authorised signatory of the Bidder. This copy of the documents shall be placed in a separate envelope and marked "COPY" of Documents".
- 2.11.4. The three envelopes specified in Clauses 2.11.1, 2.11.2 and 2.11.3 shall be placed in an outer envelope, which shall be sealed. Each of the four envelopes shall clearly bear the following identification:

# "Bid for Development of Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP"

and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of each of the envelopes.

2.11.5. Each of the envelopes shall be addressed to:

ATTN. OF: The Chief Engineer (Civil)\_\_\_\_\_

**DESIGNATION** 

ADDRESS: New Mangalore Port Trust,

Panambur, Mangalore - 575 010

Karnataka

FAX NO: 0824 2407493

E-MAIL ADDRESS cec@nmpt.in/ dyce@nmpt.in

- 2.11.6. If the envelopes are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.
- 2.11.7. Bids submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected.

#### 2.12. Bid Due Date

- 2.12.1. Bids should be submitted before 1500 hours IST on the Bid Due Date at the address provided in Clause 2.11.5 in the manner and form as detailed in this RFP. A receipt thereof should be obtained from the person specified at Clause 2.11.5.
- 2.12.2. The Authority may, in its sole discretion, extend the Bid Due Date by issuing an Addendum in accordance with Clause 2.9 uniformly for all Bidders.

#### 2.13. Late Bids

Bids received by the Authority after the specified time on the Bid Due Date shall not be eligible for consideration and shall be summarily rejected.

#### 2.14. Contents of the Bid

- 2.14.1. The Bid shall be furnished in the format at Appendix-I and shall consist of a Royalty to be quoted by the Bidder. The Bidder shall specify (in percentage) the Royalty offered by him to undertake the Project in accordance with this RFP and the provisions of the Concession Agreement.
- 2.14.2. Generally, the Project will be awarded to the Highest Bidder.

- 2.14.3. The opening of Bids and acceptance thereof shall be substantially in accordance with this RFP.
- 2.14.4. The proposed Concession Agreement shall be deemed to be part of the Bid.

#### 2.15. Modifications/ Substitution/ Withdrawal of Bids

- 2.15.1. The Bidder may modify, substitute or withdraw its Bid after submission, provided that written notice of the modification, substitution or withdrawal is received by the Authority prior to the Bid Due Date. No Bid shall be modified, substituted or withdrawn by the Bidder on or after the Bid Due Date.
- 2.15.2. The modification, substitution or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clause 2.11, with the envelopes being additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL", as appropriate.
- 2.15.3. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

#### 2.16. Rejection of Bids

- 2.16.1. Notwithstanding anything contained in this RFP, the Authority reserves the right to reject any Bid and to annul the Bidding Process and reject all Bids at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefor. In the event that the Authority rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.
- 2.16.2. The Authority reserves the right not to proceed with the Bidding Process at any time, without notice or liability, and to reject any Bid without assigning any reasons.

#### 2.17. Validity of Bids

2.17.1. The Bids shall be valid for a period of not less than 120 (one hundred and twenty) days from the Bid Due Date. The validity of Bids may be extended by mutual consent of the respective Bidders and the Authority.

#### 2.18. Confidentiality

2.18.1. Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to, or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority or as may be required by law or in connection with any legal process.

#### 2.19. Correspondence with the Bidder

2.19.1. Save and except as provided in this RFP, the Authority shall not entertain any correspondence with any Bidder in relation to acceptance or rejection of any Bid.

#### D. BID SECURITY

#### 2.20. Bid Security

2.20.1. The Bidder shall furnish as part of its Bid, a Bid Security referred to in Clauses 2.1.7 and 2.1.8 hereinabove in the form of a bank guarantee issued by a nationalised bank, or a Scheduled Bank in India having its branch in Mangalore and having a net worth of at least Rs. 1,000 crore (Rupees One Thousand Crore only), in favour of the Authority in the format at Appendix–II (the "Bank Guarantee") and having a validity period of not less than 180 (one hundred eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Authority and the Bidder from time to time. In case the Bank Guarantee is issued by a foreign bank outside India, confirmation of the same by any nationalised bank in India is required. For the avoidance of doubt, Scheduled Bank shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934.

#### 2.20.2. Not Applicable

- 2.20.3. Any Bid not accompanied by the Bid Security shall be summarily rejected by the Authority as non-responsive.
- 2.20.4. Save and except as provided in Clauses 1.2.4 and 1.2.5 above, the Bid Security unsuccessful Bidders will be returned by the Authority, without any interest, as promptly as possible on acceptance of the Bid of the Selected Bidder or when the Bidding process is cancelled by the Authority, and in any case within 60 (sixty) days from the Bid Due Date. The Selected Bidder's Bid Security will be returned, without any interest, upon the Concessionaire signing the Concession Agreement and furnishing the Performance Security in accordance with the provisions thereof. The Authority may, at the Selected Bidder's option, adjust the amount of Bid Security in the amount of Performance Security to be provided by him in accordance with the provisions of the Concession Agreement.
- 2.20.5. The Authority shall be entitled to forfeit and appropriate the Bid Security as Damages inter alia in any of the events specified in Clause 2.20.7 herein below. The Bidder, by submitting its Bid pursuant to this RFP, shall be deemed to have acknowledged and confirmed that the Authority will suffer loss and damage on account of withdrawal of its Bid or for any other default by the Bidder during the period of Bid validity as specified in this RFP. No relaxation of any kind on Bid Security shall be given to any Bidder.
- 2.20.6. The Bid Security shall be forfeited as Damages without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or under the Concession Agreement, or otherwise, under the following conditions:
  - a. If a Bidder submits a non-responsive Bid;
  - b. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Section 4 of this RFP;
  - c. If a Bidder withdraws its Bid during the period of Bid validity as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and the Authority;
  - d. In the case of Selected Bidder, if it fails within the specified time limit
    - (i) to sign and return the duplicate copy of LOA;

- (ii) to sign the Concession Agreement; or
- (iii) to furnish the Performance Security within the period prescribed therefor in the Concession Agreement; or
- e. In case the Selected Bidder, having signed the Concession Agreement, commits any breach thereof prior to furnishing the Performance Security.

#### 3. EVALUATION OF BIDS

#### 3.1. Opening and Evaluation of Bids

- 3.1.1. The Authority shall open the Bids at 1530 hours on the Bid Due Date, at the place specified in Clause 2.11.5 and in the presence of the Bidders who choose to attend.
- 3.1.2. The Authority will subsequently examine and evaluate the Bids in accordance with the provisions set out in this Section 3.
- 3.1.3. To facilitate evaluation of Bids, the Authority may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Bid.

#### 3.2. Tests of responsiveness

- 3.2.1. Prior to evaluation of Bids, the Authority shall determine whether each Bid is responsive to the requirements of this RFP. A Bid shall be considered responsive only if:
  - a. it is received as per the format at Appendix-I;
  - b. it is received by the Bid Due Date including any extension thereof pursuant to Clause 2.12.2:
  - c. it is signed, sealed, bound together in hard cover and marked as stipulated in Clause2.10 and 2.11;
  - d. it is accompanied by the Bid Security as specified in Clause 2.1.7;
  - e. it is accompanied by the Power(s) of Attorney as specified in Clauses 2.1.9 and 2.1.10, as the case may be;
  - f. it contains all the information (complete in all respects) as requested in this RFP and/or Bidding Documents (in formats same as those specified) including 'Pre-Contract Integrity Pact, undertaking on non-commissioning of offences under Prevention of Corruption Act and the statement disclosing payments made to intermediaries as per the Appendix V, VI and VII respectively;
  - g. it does not contain any condition or qualification; and
  - h. it is not non-responsive in terms hereof.
- 3.2.2. The Authority reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Bid.

#### 3.3. Selection of Bidder

- 3.3.1. Subject to the provisions of Clause 2.16.1, the Bidder whose Bid is adjudged as responsive in terms of Clause 3.2.1 and who quotes the highest Royalty offered to the Authority shall be declared as the selected Bidder (the "Selected Bidder"). In the event that the Authority rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.
- 3.3.2. In the event that two or more Bidders quote the same amount of Royalty (the "**Tie Bidders**"), the Authority shall identify the Selected Bidder by draw of lots, which shall be conducted, with prior notice, in the presence of the Tie Bidders who choose to attend.

- 3.3.3. In the event that the Highest Bidder withdraws or is not selected for any reason in the first instance (the "**first round of bidding**"), the Authority may invite all the remaining Bidders to revalidate or extend their respective Bid Security, as necessary, and match the Bid of the aforesaid Highest Bidder (the "**second round of bidding**"). If in the second round of bidding, only one Bidder matches the Highest Bidder, it shall be the Selected Bidder. If two or more Bidders match the said Highest Bidder in the second round of bidding, then the Bidder whose Bid was higher as compared to other Bidder(s) in the first round of bidding shall be the Selected Bidder. For example, if the third and fifth highest Bidders in the first round of bidding offer to match the said Highest Bidder in the second round of bidding, the said third highest Bidder shall be the Selected Bidder.
- 3.3.4. In the event that no Bidder offers to match the Highest Bidder in the second round of bidding as specified in Clause 3.3.3, the Authority may, in its discretion, invite fresh Bids (the "third round of bidding") from all Bidders except the Highest Bidder of the first round of bidding, or annul the Bidding Process, as the case may be. In case the Bidders are invited in the third round of bidding to revalidate or extend their Bid Security, as necessary, and offer fresh Bids, they shall be eligible for submission of fresh Bids provided, however, that in such third round of bidding only such Bids shall be eligible for consideration which are higher than the Bid of the second highest Bidder in the first round of bidding.
- 3.3.5. After selection, a Letter of Award (the "LOA") shall be issued, in duplicate, by the Authority to the Selected Bidder and the Selected Bidder shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder is not received by the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Bidder as Damages on account of failure of the Selected Bidder to acknowledge the LOA, and the next eligible Bidder may be considered.
- 3.3.6. After acknowledgement of the LOA as aforesaid by the Selected Bidder, it shall cause the Concessionaire to execute the Concession Agreement within the period prescribed in Clause 1.3. The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Concession Agreement.

#### 3.4. Contacts during Bid Evaluation

Bids shall be deemed to be under consideration immediately after they are opened and until such time the Authority makes official intimation of award/ rejection to the Bidders. While the Bids are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the Authority and/ or their employees/ representatives on matters related to the Bids under consideration.

#### 3.5. Upfront Payment

The Selected Bidder shall, simultaneously with the execution of the Concession Agreement, remit a non-refundable Upfront Payment of Rs. 10 Crores (Rupees Ten Crores Only) to the Concessioning Authority, in consideration of the Port's Assets other than the land and water areas to be handed over to the Selected Bidder.

#### 3.6. Payment of Success Fee

The Selected Bidder shall, simultaneously with the execution of the Concession Agreement pay a one-time success fee of Rs. 50,00,000/- (Rupees Fifty Lakhs Only) towards the expenditure met for the preparation of subject project proposal by way of a bank draft drawn on any nationalized or scheduled Bank having its branch at Mangalore in favour of FA & CAO, New Mangalore Port Trust.

#### 4. FRAUD AND CORRUPT PRACTICES

- 4.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LOA and during the subsistence of the Concession Agreement. Notwithstanding anything to the contrary contained herein, or in the LOA or the Concession Agreement, the Authority may reject a Bid, withdraw the LOA, or terminate the Concession Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder or Concessionaire, as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, the Authority shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Concession Agreement, or otherwise.
- 4.2. Without prejudice to the rights of the Authority under Clause 4.1 hereinabove and the rights and remedies which the Authority may have under the LOA or the Concession Agreement, or otherwise if a Bidder or Concessionaire, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, or after the issue of the LOA or the execution of the Concession Agreement, such Bidder or Concessionaire shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Bidder or Concessionaire, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.
- **4.3.** For the purposes of this Clause 4, the following terms shall have the meaning hereinafter respectively assigned to them:
  - "corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Concession Agreement or arising therefrom, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) save and except as permitted under the Clause 2.1.15 of this RFP, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Concession Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Concession Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project;
  - b. "**fraudulent practice**" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

- c. "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process;
- d. "undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- e. "**restrictive practice**" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.
- **4.4.** Independent External Monitor (IEM): The Bidder shall execute the Integrity Pact Agreement with NMPT in the format provided in Appendix V. The following Independent External Monitor is hereby nominated:

Shri Lukose Vallatharia, IAS Retd. No 20, Bore bank Road. Benson Town Bangalore-560046

#### 5. PRE-BID CONFERENCE

- **5.1.** Pre-Bid conferences of the Bidders shall be convened at the designated date, time and place. Only those persons who have purchased the RFP document shall be allowed to participate in the Pre-Bid Conferences. A maximum of five representatives of each Bidder shall be allowed to participate on production of authority letter from the Bidder.
- **5.2.** During the course of Pre-Bid conference(s), the Bidders will be free to seek clarifications and make suggestions for consideration of the Authority. The Authority shall endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

#### 6. MISCELLANEOUS

- **6.1.** The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Mangalore shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- **6.2.** The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
  - a. suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - b. consult with any Bidder in order to receive clarification or further information;
  - c. retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Bidder; and/ or
  - d. independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- **6.3.** It shall be deemed that by submitting the Bid, the Bidder agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
- **6.4.** The Bidding Documents and RFQ are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this RFP, in the event of any conflict between them the priority shall be in the following order:
  - a. the Bidding Documents;
  - b. the RFQ.

i.e. the Bidding Documents at (a) above shall prevail over the RFQ at (b) above.

#### **APPENDIX-I**

#### Letter comprising the Bid

(Refer Clauses 2.1.5 and 2.14)

Dated:

To.

The Chief Engineer (Civil) New Mangalore Port Trust Panambur, Mangalore - 575010

Dear Sir,

Sub: Bid for "Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP"-Reg

With reference to your RFP document dated \*\*\*\*\*\*\* I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Bid for the aforesaid Project. The Bid is unconditional and unqualified.

- I/ We acknowledge that the Authority will be relying on the information provided in the Bid and the documents accompanying the Bid for selection of the Concessionaire for the aforesaid Project, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Bid are true copies of their respective originals.
- 2 This statement is made for the express purpose of our selection as Concessionaire for the development, construction, operation and maintenance of the aforesaid Project.
- I/ We shall make available to the Authority any additional information it may find necessary or require to supplement or authenticate the Bid.
- I/ We acknowledge the right of the Authority to reject our Bid without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- I/ We certify that in the last three years, we/ any of the Consortium Members<sup>14</sup> or our/ their Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
- 6 I/ We declare that:
  - a. I/ We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the Authority; and
  - b. I/ We do not have any conflict of interest in accordance with Clauses 2.1.14 and 2.1.15 of the RFP document; and

-

<sup>&</sup>lt;sup>13</sup>All blank spaces shall be suitably filled up by the Applicant to reflect the particulars relating to each Applicant.

<sup>&</sup>lt;sup>14</sup> If the Bidder is not a Consortium, the provisions applicable to Consortium may be omitted.

- c. I/ We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 4.3 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
- d. I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice; and
- e. the undertakings given by us along with the Application in response to the RFQ for the Project were true and correct as on the date of making the Application and are also true and correct as on the Bid Due Date and I/we shall continue to abide by them.
- I/ We understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any Bid that you may receive nor to invite the Bidders to Bid for the Project, without incurring any liability to the Bidders, in accordance with Clause 2.16 of the RFP document.
- 8 I/ We believe that we/ our Consortium satisfy(s) the Net Worth criteria and meet(s) the requirements as specified in the RFQ document.
- 9 I/ We declare that we/ any Member of the Consortium, or our/ its Associates are not a Member of a/ any other Consortium submitting a Bid for the Project.
- I/ We certify that in regard to matters other than security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- I/ We further certify that in regard to matters relating to security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.
- I/ We further certify that no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our directors/managers/ employees.
- I/We further certify that we/ any Member of the Consortium or any of our/ their Associates are not barred by the Central Government or any entity controlled by it, from participating in any project (BOT or otherwise), and that no bar subsists as on the date of submission of the Bid.
- I/ We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the Authority of the same immediately.
- I/ We acknowledge and undertake that I/our Consortium was pre-qualified and short-listed on the basis of Technical Capacity and Financial Capacity of those of its Members who shall, for a period of 3 (three) years from the date of commercial operation of the Project, hold equity share capital not less than: (i) 26% (twenty six per cent) of the subscribed and paid-up equity of the Concessionaire; and (ii) 5% (five per cent) of the Total Project Cost specified in the Concession Agreement.{Further we acknowledge that, the Lead Member shall have an equity share holding of not less than 26% (twenty six percent) of the paid up and subscribed equity of the SPV and not less than 50% (fifty percent) of the Consortium's holding in the paid up

and subscribed equity of the SPV at all times.} Applicant/ Members of the Consortium shall collectively hold not less than 51% (fifty one percent) of the subscribed and paid up equity of the SPV at all times until the third anniversary of the commercial operation date of the Project and not less than 26% (twenty six percent) of the subscribed and paid up equity of the SPV during the balance Concession Period. We further agree and acknowledge that the aforesaid obligation shall be in addition to the obligations contained in the Concession Agreement in respect of Change in Ownership.

- I/ We acknowledge and agree that in the event of a change in control of an Associate whose Technical Capacity and/ or Financial Capacity was taken into consideration for the purposes of short-listing and pre-qualification under and in accordance with the RFQ. I/We shall inform the Authority forthwith along with all relevant particulars and the Authority may, in its sole discretion, disqualify our Consortium or withdraw the Letter of Award, as the case may be. I/We further acknowledge and agree that in the event such change in control occurs after signing of the Concession Agreement but prior to Financial Close of the Project, it would, notwithstanding anything to the contrary contained in the Agreement, be deemed a breach thereof, and the Concession Agreement shall be liable to be terminated without the Authority being liable to us in any manner whatsoever.
- I/ We understand that the Selected Bidder shall either be an existing Company incorporated under the Indian Companies Act, 1956/2013, or shall incorporate as such prior to execution of the Concession Agreement.
- I/ We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
- In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Concession Agreement in accordance with the draft that has been provided to me/ us prior to the Bid Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
- I/ We have studied all the Bidding Documents carefully and also surveyed the Project Site and the traffic. We understand that except to the extent as expressly set forth in the Concession Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or relating to the Bidding Process including the award of Concession.
- I/ We offer a Bid Security of Rs. 4,70,00,000 (Rupees Four Crore Seventy Lakh Only) to the Authority in accordance with the RFP Document.
- The Bid Security in the form of a Bank Guarantee is attached.
- The documents accompanying the Bid comprising inter-alia Integrity Pact and related undertaking/ statement, as specified in Clause 2.11.2 of the RFP, have been submitted in a separate envelope and marked as "Enclosures of the Bid".
- I/ We agree and understand that the Bid is subject to the provisions of the Bidding Documents. In no case, I/we shall have any claim or right of whatsoever nature if the Project/Concession is not awarded to me/us or our Bid is not opened or rejected.
- The Royalty has been quoted by me/ us after taking into consideration all the terms and conditions stated in the RFP, draft Concession Agreement, our own estimates of costs and traffic and after a careful assessment of the site and all the conditions that may affect the

project cost and implementation of the project.

- 26 I/ We agree and undertake to abide by all the terms and conditions of the RFP document.
- We, the Consortium Members agree and undertake to be jointly and severally liable for all the obligations of the Concessionaire under the Concession Agreement till occurrence of Financial Close in accordance with the Concession Agreement.}
- I/ We shall keep this offer valid for 120 (one hundred and twenty) days from the Bid Due Date specified in the RFP.
- I/ We hereby submit our Bid and offer a Royalty in the form of \_\_\_\_\_\_ per cent (in words) of the gross revenues of the Project as share of the Authority for undertaking the aforesaid Project in accordance with the Bidding Documents and the Concession Agreement.

In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document.

Yours faithfully,

Date: (Signature, name and designation of the Authorised signatory)

Place:

Name and seal of Bidder/Lead Member

Note: Paragraphs in curly parenthesis may be omitted by the Bidder, if not applicable to it, or modified as necessary to reflect Bidder-specific particulars.

#### APPENDIX-II

# **Bank Guarantee for Bid Security**

(Refer Clauses 2.1.7 and 2.20.1)

B.G. No. Dated:

- In consideration of you, \*\*\*\*\*, having its office at \*\*\*\*\*, (hereinafter referred to as the 1 "Authority", which expression shall unless it be repugnant to the subject or context thereof company registered under the Companies Act, 1956) and having its registered office the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/ their executors, administrators, successors and assigns), for Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP (hereinafter referred to as "the Project") pursuant to the RFP Document dated ...... issued in respect of the Project and other related documents including without limitation the draft concession agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at ...... and one of its Bidder, do hereby in terms of Clause 2.1.7 read with Clause 2.1.8 of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. 4,70,00,000/-(Rupees Four Crore Seventy Lakh Only) (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
- Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
- 3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. 4,70,00,000/- (Rupees Four Crore Seventy Lakh Only)
- 4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Bid Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
- 5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and

conditions contained in the Bidding Documents including, *inter alia*, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

- 6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
- 7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
- 8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
- 9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorised to receive the said notice of claim.
- 10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealised.
- 11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
- 12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Bank.
- 13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. 4,70,00,000/- (Rupees Four Crore Seventy Lakh Only) The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [\*\*\* (indicate date falling 180 days after the Bid Due Date)].

| Signed and Delivered by | Bank   |                                   |
|-------------------------|--------|-----------------------------------|
| By the hand of Mr./ Ms  | , its  | and authorised official.          |
|                         | (Signa | ature of the Authorised Signatory |
|                         | (Offic | ial Seal)                         |

# APPENDIX-III Power of Attorney for signing of Bid

(Refer Clause 2.1.9)

|  | ute, nominate, appoint and authorise Mr. / Ms (Name),      |
|--|--|
| son/ daughter/ wife of                         | * *  |
|  | sently employed with us/ the Lead Member of our            |
|  | as our true and lawful attorney                            |
|  |  |
|  | lo in our name and on our behalf, all such acts, deeds     |
|  | nection with or incidental to submission of our bid for    |
|  | ng equipments for handling Bulk Cargoes at NMP             |
|  | galore Port Trust (the "Authority") including but not      |
|  | plications, bids and other documents and writings,         |
|  | nd providing information/ responses to the Authority,      |
|  | ity, signing and execution of all contracts including the  |
| C C  | equent to acceptance of our bid, and generally dealing     |
| •  | with or relating to or arising out of our bid for the said |
| -  | till the entering into of the Concession Agreement with    |
| the Authority.                                 |  |
|  |  |
| AND we hereby agree to ratify and confirm a    | and do hereby ratify and confirm all acts, deeds and       |
| things done or caused to be done by our said   | Attorney pursuant to and in exercise of the powers         |
| conferred by this Power of Attorney and that a | ll acts, deeds and things done by our said Attorney in     |
| •  | nd shall always be deemed to have been done by us.         |
|  | ·  |
| IN WITNESS WHEREOF WE                          | , THE ABOVE NAMED PRINCIPAL                                |
|  | ORNEY ON THIS DAY OF                                       |
|  | ORIVET OIV TIMS BITT OF                                    |
| , 20   |  |
|  | For  |
| Witnesses                                      | (Signature, name, designation and address)                 |
| Witnesses:                                     | (Signature, name, designation and address)                 |
| 1  |  |
| 2  |  |
| Accepted                                       | Notarised  |
| (Signature, name, designation and address of   |  |
| the Attorney)                                  |  |
| Notes:   |  |
|  | 1 111 ' 1 '4 4 1 '6  |
|  |  |

- ♦ The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- ♦ For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.

# APPENDIX-IV Power of Attorney for Lead Member of Consortium

(Refer Clause 2.1.10)

| Whereas the New Mangalore Port Trust (the "Authority") has invited bids from pre-qualified and short-listed parties for Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP (the " <b>Project</b> ").  |
|--|
| Whereas,   |
| Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.   |
| NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS   |
| We,  |
| AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium. |
| IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS  |
| For(Signature, Name & Title)   |

Request for Proposal

|            | For (Signature, Name & Title)                         |
|------------|---|
|            | For(Signature, Name & Title)                          |
|            | (Executants)  |
| Witnesses: | (To be executed by all the Members of the Consortium) |
| 1<br>2     |   |
|            |   |

- Notes:
- ♦ The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- ♦ For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.

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# APPENDIX – V PROFORMA OF PRE-CONTRACT INTEGRITY PACT

#### General

| This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on                  |
|---|
| day of the month of 20, between, on one hand, the Board of Trustees of New                              |
| Mangalore Port Trust acting through Shri, (Designation of the Officer), New                             |
| Mangalore Port Trust (hereinafter called the 'CONCESSIONING AUTHORITY', which expression                |
| shall mean and include, unless the context otherwise requires, his successors in office and assigns) of |
| the First Part and M/s represented by   |
| Shri, Chief Executive Officer (hereinafter called the   |
| "BIDDER/CONCESSIONAIRE" which expression shall mean and include, unless the context                     |
| otherwise requires, his successors and permitted assigns) of the Second Part.                           |

WHEREAS the CONCESSIONING AUTHORITY has invited bids for the project of 'Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP' (hereinafter referred to as the "PROJECT") and the "BIDDER/ CONCESSIONAIRE" is submitting its Bid for the Project, and

WHEREAS the BIDDER is a Private Limited Company/ Public Limited Company/ Government undertaking/ registered partnership firm/ Joint Venture/ Consortium, constituted in accordance with the relevant law in the matter.

#### CONCESSIONING AUTHORITY NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the CONCESSIONING AUTHORITY will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

## **Commitments of the CONCESSIONING AUTHORITY**

- 1.1 The <u>CONCESSIONING AUTHORITY</u> undertakes that no official of the <u>CONCESSIONING</u> <u>AUTHORITY</u>, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The CONCESSIONING AUTHORITY will, during the pre-contract stage, treat all BIDDERS alike and will provide to all BIDDERS the same information and will not provide

- any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the CONCESSIONING AUTHORITY will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the CONCESSIONING AUTHORITY with full and verifiable facts and the same is prima facie found to be correct by the CONCESSIONING AUTHORITY necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the CONCESSIONING AUTHORITY and such a person shall be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by the CONCESSIONING AUTHORITY the proceedings under the contract would not be stalled.

# **Commitments of BIDDERS**

- 3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
- 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CONCESSIONING AUTHORITY connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CONCESSIONING AUTHORITY or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.
- 3.3\* BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 3.4\* BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5\* The BIDDER further confirms and declares to the CONCESSIONING AUTHORITY that the BIDDER has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the CONCESSIONING AUTHORITY or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

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- 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract/ Concession Agreement, shall disclose any payments he has made, is committed to or intends to make to officials of the CONCESSIONING AUTHORITY or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDER shall not use impropriety for purposes of competition or personal gain, or pass on to others, any information provided by the CONCESSIONING AUTHORITY as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the CONCESSIONING AUTHORITY, or alternatively, if any relative of an officer of the CONCESSIONING AUTHORITY has financial interest/stake in the bidder's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.
  - The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the CONCESSIONING AUTHORITY.

# 4. Previous Transgression

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify bidder's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

# 5. <u>Bid Security/ Performance Security Deposit</u>

5.1 While submitting the bid, the BIDDER shall deposit an amount of Rs. 4,70,00,000/- (Rupees Four Crore Seventy Lakh Only) as Bid Security, with the CONCESSIONING AUTHORITY through A bank guarantee issued by a nationalised bank, or a Scheduled Bank in India having

a net worth of at least Rs. 1,000 crore (Rs. One Thousand Crore), promising payment of the guaranteed sum to the CONCESSIONING AUTHORITY on receipt of written demand from the CONCESSIONING AUTHORITY, without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the CONCESSIONING AUTHORITY shall be treated as conclusive proof of payment. In case the Bank Guarantee is issued by a foreign bank outside India, confirmation of the same by any nationalised bank in India is required. For the avoidance of doubt, Scheduled Bank shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934.

- 5.2 The validity period of the bank guarantee (BID SECURITY) shall not be less than 180 (one hundred and eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the CONCESSIONING AUTHORITY and the BIDDER from time to time.
- 5.3 In the case of Successful Bidder, a Performance Security in the form of a Bank Guarantee shall be provided in accordance with the terms of the Concession Agreement and having validity as specified therein.
- 5.4 In case of the successful BIDDER, a clause would also be incorporated in the Article pertaining to Performance Security in the Project Concession Agreement that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Security in case of a decision by the CONCESSIONING AUTHORITY to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 5.5 No interest shall be payable by the CONCESSIONING AUTHORITY to the BIDDER on Bid Security / Performance Security for the period of its currency.

# 6. Sanctions for Violations

- 6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the <a href="CONCESSIONING AUTHORITY">CONCESSIONING AUTHORITY</a> to take all or any one of the following actions, wherever required:
  - a. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
  - b. The Bid Security (in pre-contract stage) and/or /Performance Security (after the contract is signed) shall stand forfeited either fully or partially, as decided by the <a href="CONCESSIONING AUTHORITY">CONCESSIONING AUTHORITY</a> and the <a href="CONCESSIONING AUTHORITY">CONCESSIONING AUTHORITY</a> shall not be required to assign any reason therefore.
  - c. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
  - d. To cancel all or any other Contracts with the BIDDER. The BIDDER shall, be liable to pay compensation for any loss or damage to the CONCESSIONING AUTHORITY resulting from such cancellation/rescission and the CONCESSIONING AUTHORITY shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

- e. To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the CONCESSIONING AUTHORITY.
- f. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- g. Forfeiture of Performance Security in case of a decision by the CONCESSIONING AUTHORITY to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The CONCESSIONING AUTHORITY will be entitled to take all or any of the actions mentioned at para 6.1(a) to (g) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the CONCESSIONING AUTHORITY to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

# 7. Fall Clause

7.1 The BIDDER undertakes that it has not performed /is not performing similar project at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar project was performed by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the CONCESSIONING AUTHORITY, if the contract has already been concluded.

## 8. Independent Monitors

8.1 The CONCESSIONING AUTHORITY has appointed the following Independent Monitors (hereinafter referred to as Monitor) for this Pact in consultation with the Central Vigilance Commission.

#### Shri Lukose Vallatharia, IAS Retd

No 20, Bore Bank Road. Benson Town

# Bangalore-560046

- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/bidding, including minutes of meetings.

- As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the CONCESSIONING AUTHORITY,
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the CONCESSIONING AUTHORITY including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7 The CONCESSIONING AUTHORITY will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of CONCESSIONING AUTHORITY within 8 to 10 weeks from the date of reference or intimation to him by the CONCESSIONING AUTHORITY / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

# 9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this pact or payment of commission, the CONCESSIONING AUTHORITY or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

# 10. Law and Place of Jurisdiction

This Pact is subject to Indian Law.' The place of performance and jurisdiction is the seat of the CONCESSIONING AUTHORITY.

## 11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

# 12. Validity

- 12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the CONCESSIONING AUTHORITY and the BIDDER/ CONCESSIONAIRE, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

| 12  | The         | la a u a la u a a à a u | 41 T.     | ta anitre Do at at |     |
|-----|-------------|-------------------------|-----------|--------------------|-----|
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Request for Proposal

| BIDDER               | CONCESSIONING AUTHORITY |
|----------------------|-------------------------|
| Name of the Officer. | CHAIRMAN                |
| Designation          | Dept./MINISTRY/PSU      |
| Witness              | <u>Witness</u>          |
| 1                    | 1                       |
| 2                    | 2                       |

<sup>\*</sup> Provisions of these clauses would need to be amended/ deleted in line with the policy of the CONCESSIONING AUTHORITY in regard to involvement of Indian agents of foreign bidders.

# APPENDIX – VI PROFORMA OF UNDERTAKING REGARDING ILLEGAL METHODS FOR INFLUENCING BID PROCESS

| То  |                      |
|---|----------------------|
| The Chief Engineer (Civil)  New Mangalore Port Trust,  Panambur, Mangalore- 575010  |                      |
| Dear Sir,   |                      |
| I/ We do hereby undertake that I/ We have not maperson/authority connected with the bid process of influence the bid process and have not committed a Act in connection with the Bid. | f Bid Noso as to     |
|   | Yours faithfully,    |
|   | Signature :          |
|   | Name & Designation : |

# APPENDIX - VII

# PROFORMA OF DISCLOSURE OF PAYMENT MADE/ PROPOSED TO BE MADE TO THE INTERMEDIARIES IN CONNECTION WITH THE BID

To

| New Mangalor  | ineer (Civil),<br>re Port Trust,<br>ngalore – 575 010 |  |
|---------------|---|--|
| Dear Sir,     |   |  |
| I/We have mad | de / proposed to make the following                   | payments in connection with the Bid No |
| 1             | to Mr./Ms./Messrs                                     | (Name and Address)                     |
|               |   |  |
| 2             | to Mr./Ms./Messrs                                     | (Name and Address)                     |
| 3             | to Mr./Ms./Messrs                                     | (Name and Address)                     |
|               |   | Yours faithfully,                      |
|               |   | Signature :                            |
|               |   | Name & Designation :                   |

Note: In case no payment is made or proposed to be made a 'Nil' statement shall be enclosed.

# "MECHANIZATION OF BERTH NO. 12 FOR PROVIDING EQUIPMENTS FOR HANDLING BULK CARGOES AT NMP"

# **REQUEST FOR PROPOSAL**

**VOLUME II - DRAFT CONCESSION AGREEMENT** 

# **VOLUME - II**

# **DRAFT CONCESSION AGREEMENT**

# between

# BOARD OF TRUSTEES FOR NEW MANGALORE PORT TRUST

(The Concessioning Authority)

| and                  |   |
|----------------------|---|
|                      |   |
|                      |   |
|                      |   |
| (The Concessionaire) | • |

for

"MECHANIZATION OF BERTH NO. 12 FOR PROVIDING EQUIPMENTS FOR HANDLING BULK CARGOES AT NEW MANGALORE PORT"

**DATED** -----

OCTOBER, 2015

# DRAFT CONCESSION AGREEMENT

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# **CONCESSION AGREEMENT**

| THIS                    | S CONCESSION AGREEMENT is made at   | on this the                                | day of              |
|-------------------------|---|--|---------------------|
| BET                     | WEEN:   |  |                     |
| provi<br>Panai<br>(whic | RD OF TRUSTEES for New Mangalore Port, a autono sions of the Major Port Trusts Act, 1963 and havimbur, Mangalore – 575010, hereinafter referred to as ch expression shall, unless repugnant to the context essors and permitted assigns); | ng its Administrative "the Concessioning A | Office at uthority" |
| AND                     |   |  |                     |
| expre                   | , a company registered under the Companies tered office at, hereinafter referred to a ession shall, unless repugnant to the context or meaning permitted assigns).  | s "the Concessionaire                      | e" (which           |
| WHE                     | EREAS:  |  |                     |
| (A)                     | The Concessioning Authority is desirous of imples hereinafter) for Mechanization of Berth No. 12 for pure Bulk Cargoes at NMP through private sector participal Operate and Transfer (the " <b>DBFOT</b> ") basis;                        | roviding equipments for                    | r handling          |
| (B)                     | In  | t for Qualification (a                     | s defined           |
| (C)                     | In response to the invitation referred to in recital Authority received applications from various partial dated 18.08.2015 submitted by the Applicant/ Conference Request for Qualification;  | arties including the a                     | pplication          |
| (D)                     | The Concessioning Authority, after evaluating all the number of applicants including the Applicant/Conso them in accordance with the Request for Proposimplementing the Project;  | rtium and invited propo                    | osals from          |
| (E)                     | In response to the Request for Proposal, the Coproposals from the shortlisted applicants include  | •  |                     |

# Applicant/Consortium;

- (F) The Concessioning Authority, after evaluating all the proposals received by it from the shortlisted applicants, accepted the proposal referred to in recital "E" above submitted by the Applicant/Consortium and communicated its acceptance to the Applicant/Consortium vide Letter of Intent for Award of Concession dated \_\_\_\_\_;
- (G) The Selected Bidder has paid an one-time success fee of Rs. 50,00,000/- (Rupees Fifty Lakhs Only) towards the expenditure met for the preparation of subject project proposal by way of a bank draft drawn on any nationalized or scheduled Bank having its branch at Mangalore in favour of FA & CAO, New Mangalore Port Trust.
- (H) The Applicant/ Consortium has/ have incorporated the Concessionaire as a special purpose company in India, under the Companies Act, 1956/2013 to implement the Project;
- (I) Following the issue of the Letter of Intent for Award of Concession, the Concessioning Authority has agreed to grant the Concession to the Concessionaire to implement the Project on the terms, conditions and covenants hereinafter set forth in this Agreement.

# NOW, THIS AGREEMENT WITNESSETH AS FOLLOWS:

#### **ARTICLE 1**

#### **DEFINITIONS AND INTERPRETATION**

#### 1.1. Definitions

In this Agreement, unless the context otherwise requires the following terms shall have the following meanings assigned/ascribed thereto: -

- "Actual Project Cost" means the actual capital cost incurred by the Concessionaire on the Project and/or the Project Facilities and Services as certified by the Statutory Auditor and if the same exceeds the Estimated Project Cost and/or does not form part of the Financing Plan submitted prior to Financial Close, the amount of the Estimated Project Cost or in the Financing Plan as the case may be increased by the amount(s) approved in writing by the Concessioning Authority.
- "Additional Auditor" has the meaning ascribed to it in Article 9.4.
- "Additional Cost" means the additional capital expenditure which the Concessionaire has or would be required to incur and which has arisen as a result of Change in Law.
- "Affiliate" means, with respect to any Party and/or with respect to the Applicant and/or with respect to any member of Consortium, any other Person directly or indirectly controlling, controlled by or under common control with such Party, Applicant and/or member of Consortium. For the purposes of this definition, the term "control" (including with correlative meaning, the terms "controlled by" and "under common control with") as applied to any Party or Applicant or a member of Consortium, means the possession, directly or indirectly, of the power to direct or cause the direction of the management of that Party or Applicant or a member of Consortium whether through ownership of 50 (fifty) % or more of the voting securities, by contract, or otherwise.
- "Agreement" means this agreement as of date hereof, including Appendices 1 through 17 as may be amended, supplemented or modified in accordance with the provisions hereof.
- "Appendix" means the schedules, supplements or documents, appended to this Agreement.
- "Applicable Laws" means all laws in force and effect as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India, including statutes, rules, regulations, directions, bye-laws, notifications, ordinances and judgments having force of law, or any final interpretation by a Court of Law having jurisdiction over the matter in question as may be in force and effect during the

subsistence of this Agreement.

"Applicable Permits" means any and all permissions, clearances, licenses, authorizations, consents, no-objections, approvals and exemptions under or pursuant to any of the Applicable Laws or from any Government Authority required in connection with the Project and for undertaking, performing or discharging the obligations contemplated by this Agreement or any other Transaction Document.

"Applicant" means  $[\bullet]^1$ .

"Bid" means the proposal and the entire set of documents submitted by the Applicant and/or the Consortium in response to the RFQ and the RFP.

"Bid Security" means the bank guarantee [●] dated [●] furnished by the Applicant/Consortium along with its Bid.

"Board" means the Board of Trustees for of the New Mangalore Port.

"Book Value" means the aggregate written down value as on the date of issue of the Termination Notice in the books of the Concessionaire of (i) the tangible assets (including capital works in progress) forming part of, fixed or attached to the ground, created, installed or provided by the Concessionaire and comprised in Project Facilities and Services, which in the reasonable judgement of an Expert are capable of being put to use/utilized by the Concessioning Authority, and (ii) the moveable assets including cargo handling equipment belonging to the Concessionaire, which the Concessioning Authority agrees to take over, in accordance with Indian Accounting Standards using depreciation rates as set forth in the (Indian) Companies Act, 2013, as applicable from time to time.

"Change in Law" shall have the meaning set out under Article 13.1 of this Agreement.

"Change of Scope" shall have the meaning assigned to it under Article 6.8(a).

"Change of Scope Notice" shall have the meaning assigned to it under Article 6.8(b).

"Completion Certificate" shall have the meaning assigned to it under Article 6.3.

"Concession" means the Concession granted by the Concessioning Authority to the Concessionaire in accordance with the provisions of Article 2.1 of this Agreement for implementing the Project and providing Project Facilities and Services.

-

<sup>&</sup>lt;sup>1</sup>The name and registered office address of the single applicant to be inserted.

- "Concessioning Authority Event of Default" shall have the meaning as set out under Article 15.1(b).
- "Concessionaire Event of Default" shall have the meaning as set out under Article 15.1 (a).
- "Concession Period" means the period of the Concession specified in Article 2.2 of this Agreement.
- "Conditions Precedent" shall mean the conditions prescribed in Article 3 of this Agreement.
- "Consortium" means the consortium consisting of (i) XXXX, (ii) YYYY, and (iii) ZZZZ formed, to implement the Project.
- "Construction Phase" means the period from the Date of Award of Concession to the Date of Commercial Operation.
- "Construction Works" means all works, equipments and things necessary to complete the Project and provide the Project Facilities and Services in accordance with this Agreement.
- "Construction Standards" means the construction standards set out in the annexure to Appendix 4.
- "Consultation Notice" has the meaning ascribed to it in Article 15.3.
- "Contractor" means a Person<sup>2</sup> with whom the Concessionaire has entered into/ may enter into a contract relating to the execution of any works and /or operation and maintenance of the Project Facilities and Services, including the Management Contractor.
- "Date of Award of Concession" means the date when the Conditions Precedent have either been satisfied or waived by the Party other than the Party responsible for satisfying the same.
- "Date of Commercial Operation" means the date on which the Concessionaire receives the Completion Certificate in accordance with the provisions of this Agreement/ MPT Act.
- "Day" means the 24 (twenty four) hour period beginning and ending at 12:00

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<sup>&</sup>lt;sup>2</sup> If requested by the Concessionaire, to facilitate custom duty exemptions available to the contractors for certain projects, the names of the persons engaged as Contractors may be specified.

midnight Indian Standard Time.

"**Debt Due**" means the aggregate of the following sums representing the amounts advanced by the Lenders towards Actual Project Cost, expressed in Indian rupees as may be outstanding and payable to the Lenders under the Financing Documents on the Transfer Date:

- a) the principal amount of the debt including any subordinated debt provided by the Lenders under the Financing Documents for financing the Project ("the Principal") but excluding: (i) working capital loans; (ii) any part of the Principal that had fallen due for repayment one year prior to the Transfer Date, if the Transfer Date is related to expiry of the Concession Period or any part of the Principal that had fallen due prior to the Termination Notice, if the Transfer Date is related to termination prior to the expiry of the Concession Period; and (iii) any debt that has been rescheduled or refinanced, unless such repayment had been rescheduled or refinancing made with the prior consent of Concessioning Authority; and
- b) all accrued interest, financing fees and charges payable on or in respect of the debt referred to in sub-clause (a) above upto the Transfer Date but excluding (i) any interest, fees or charges that had fallen due one year prior to the Transfer Date, and (ii) penal interest or charges, payable under the Financing Documents to any Lender.
- "Designs and Drawings" means the designs and drawings, and other technical information submitted by the Concessionaire from time to time and reviewed by the Independent Engineer in accordance with the provisions of this Agreement.
- "Encumbrance" means any encumbrance such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project, physical encumbrances and encroachments on the Project Site/Port's Assets/Project Facilities and Services.
- **"EPC Contract"** means the contract entered into by the Concessionaire with one or more Contractors interalia for the purpose of design, engineering, procurement of equipment and materials (including by import thereof) and construction of the Project in accordance with the provisions of this Agreement.
- "Environmental Law" means any statute, rule, regulation, ordinance, code, guideline or policy having the force of law, in each case, applicable to the Project now or hereafter in effect and any applicable judicial or administrative interpretation, pronouncement, order, decree or judgment, relating to the environment, health and

safety.

- **"Equity"** means the paid up share capital of the Concessionaire representing the equity component of the Actual Project Cost, as capitalized in the books of the Concessionaire and duly certified by the Statutory Auditors.
- **"Equity Documents"** means collectively the documents evidencing subscription to Equity to the extent of equity component of cost of the Project.
- "Escrow Account" shall have the meaning assigned to it under Article 9.5.
- **"Escrow Agreement"** means the agreement to be executed inter alia between the Concessionaire, the Concessioning Authority and the Lenders/Lenders representative substantially in the format set out in Appendix 16 hereto.
- **"Estimated Project Cost"** means the sum of Rs. 470,00,00,000/- (Rupees Four Hundred and Seventy Crores only) being the cost of the Project as estimated by the Concessioning Authority and disclosed in the Request for Proposal.
- "Event of Default" shall have the meaning assigned to it under Article 15.1.
- "Exclusivity Period" shall have the meaning ascribed to it in Article 12.2(c).
- **"Expert"** means any person, body or organization of repute with recognized technical/ professional expertise in respect of any field, matter or subject relevant for the purpose of this Agreement.
- "Financial Assistance" means all funded and non-funded credit assistance including but not limited to loans, advances, lease assistance and guarantees required for the Project.
- **"Financial Close"** means the date on which the Financing Documents providing for Financial Assistance by the Lenders, Equity Documents and the documents in respect of debt, if any, committed by the Applicant/Consortium have become effective and the Concessionaire has access to such Financial Assistance.
- **"Financial Year"** means any twelve month period commencing from 1 April and ending on 31 March.
- "Financing Documents" means, collectively, the documents executed in favour of or entered into with the Lenders, by the Concessionaire in respect of the Financial Assistance relating to the financing (including any re-financing) of the Actual Project Cost and includes any document providing security for the Financial Assistance.

**"Financing Plan"** means the financing plan as envisaged under the Financing Documents for financing the cost to be incurred for implementing the Project submitted by the Concessionaire in accordance with Article 3.1(a)(vii).

**"Force Majeure Event"** shall have the meaning ascribed to it in Article 14.1 of this Agreement.

"GoI" means the Government of India.

"Good Industry Practice" means the exercise of that degree of skill, diligence and prudence and those practices, methods, specifications and standards of equipment, safety and performance, as may change from time to time and which would reasonably and ordinarily be expected to be used by a skilled and experienced operator engaged in construction, operation and maintenance of facilities, equipment or systems of the type and size similar to the Project Facilities and Services.

"Government Authority" means GoI, any state government or any governmental department, commission, board, body, bureau, agency, authority, instrumentality, administrative body, at central, state, or local level, having jurisdiction over the Concessionaire, the Port's Assets, the Project Facilities and Services or any portion thereof, but shall not include the Concessioning Authority.

"Gross Revenue" means all the revenues chargeable by the Concessionaire from the Project /Project Facilities and Services.

**"Independent Engineer"** means a Person appointed in accordance with Article 5.1 for supervision and monitoring of compliance by the Concessionaire with the Project Requirements, more particularly to undertake, perform, carry out the duties, responsibilities, services and activities set forth in Appendix 7.

"Indian Accounting Standards" means the Indian accounting standards issued by the Institute of Chartered Accountants of India.

"Insurance Cover" shall have the meaning ascribed to it in Article 12.1(c)(ii).

"Land Area" shall have the meaning assigned to it under Appendix 1.

"Lenders" means any Persons based in India or abroad providing Financial Assistance under the Financing Documents and includes a trustee for the holders of debentures/ or other debt instruments issued by the Concessionaire to finance the Project.

"License Fee for Land Area" shall have the meaning assigned to it under Article

9.1.2(a).

"License Fee for Water Area" shall have the meaning assigned to it under Article 9.1.2(a).

"Management Contract<sup>3</sup>" means the contract between the Concessionaire and the Management Contractor, in respect of obligations of the Management Contractor in respect of the Project in accordance with the Request for Proposal.

"Management Contractor<sup>4</sup>" means [•].

"Management Control" means the possession, directly or indirectly of the power to direct or cause the direction of the management and policies of the Concessionaire, whether through the ownership of voting securities, by contract or otherwise or the power to elect or appoint more than 50% (fifty percent) of the directors, managers, partners or other individuals exercising similar authority with respect to the Concessionaire.

"Material Adverse Effect" means material adverse effect on (a) the ability of either Party to exercise any of their rights or perform/discharge any of their duties/obligations under and in accordance with the provisions of this Agreement and/or (b) the legality, validity, binding nature or enforceability of this Agreement.

"Milestone Dates" means the dates for completion of specified Project activities as contained in the Project Schedule.

"Minimum Guaranteed Cargo" shall have the meaning ascribed to it in Article 7.1(a)(xii).

"Month" means the calendar month as per the Gregorian calendar.

"MPT Act" means The Major Port Trusts Act, 1963 as amended, supplemented, reenacted or replaced from time to time.

"Non Political Event" means the Force Majeure Events set out in Article 14.2.

"O&M Contract" means the contract, if any, entered into by the Concessionaire for the operation and maintenance of the Project in accordance with the provisions of this Agreement and shall include the Management Contract.

<sup>3</sup>This definition may be included only in cases where such a contract is envisaged.

<sup>&</sup>lt;sup>4</sup>This definition and the usage will be retained depending on the bids i.e. where the consortium meets the technical criteria on the strength of its management contractor who is not a member of the consortium. In such instances the management contractor would need to be identifiable in the contract.

- "Operations Phase" means the period from the Date of Commercial Operation to the expiry/termination of the Concession Period.
- "Operations and Maintenance Standards" means the minimum standards of operations and maintenance set out in the annexure to Appendix 4 with regards the Project Facilities and Services.
- "Other Events" means the Force Majeure Events set out in Article 14.4.
- "Party" means either the Concessioning Authority or the Concessionaire as the context may require or admit and "Parties" means both Concessioning Authority and Concessionaire.
- "Performance Standards" means the minimum standards of performance set out in Appendix 15 with regards the Project Facilities and Services.
- **"Performance Guarantee"** shall mean the bank guarantee(s)/letter(s) of credit procured by the Concessionaire for the benefit of the Concessioning Authority guaranteeing the performance of the obligations of the Concessionaire hereunder in the manner specified in Article 4.1.
- "Person" means any individual, company, corporation, partnership, joint venture, trust, unincorporated organization, government or governmental authority or agency or any other legal entity.
- "Political Event" means the Force Majeure Events set out in Article 14.3.
- "Port's Assets" means the assets set out in Appendix 2, belonging to the Concessioning Authority.
- "Port Limits" means the limits of New Mangalore Port as defined under Section 5 of the Indian Ports Act, 1908, as amended from time to time. Copy of gazette notification enclosed as Appendix-17.
- **"Project"** means the design, finance, construction, operation, maintenance, and marketing and providing of the Project Facilities and Services in accordance with the provisions of this Agreement.
- **"Project Capacity"** means the capacity of the Project Facilities and Services to handle 6.73 MMTPA of Coal and Other Cargo (fertilizer, limestone, gypsum and dolomite)
- "Project Contracts" means collectively this Agreement, the EPC Contract, O&M Contract and any other material contract (other than the Financing Documents, the Escrow Agreement, the Substitution Agreement or any commercial agreement with

the users) entered into or may hereafter be entered into by the Concessionaire in connection with the Project and Project Facilities and Services.

"Project Facilities and Services" means the facilities and services as set out under the Project Requirements, to be provided by the Concessionaire during the Concession Period, in accordance with this Agreement.

**"Project Requirements"** means the minimum requirements as to the construction, operation and maintenance of the Project and provision of Project Facilities and Services set out in Appendix 4.

"Project Schedule" means the Appendix 5 hereto.

**"Project Site"** means the area demarcated in Appendix 1 including the waterfront, existing berth, land and easement rights thereto that may be given to the Concessionaire and all other assets comprised therein on which the Concessionaire is authorized to develop and operate the Project Facilities and Services as set forth in this Agreement.

"Provisional Certificate" shall have the meaning assigned to it under Article 6.7 (d).

"Punch List" shall have the meaning assigned to it under Article 6.7 (d).

"Quarter" means a period of 3 (three) Months.

"Remedial Period" has the meaning ascribed to it in Article 15.4.

"Request for Proposal" or "RFP" means the Request for Proposal dated [●] issued by the Concessioning Authority to the applicants shortlisted pursuant to the Request for Qualification and includes any addendum / clarifications issued in respect thereof by the Concessioning Authority.

"Request for Qualification" or "RFQ" means the Request for Qualification dated 26.06.2015, issued by the Concessioning Authority inviting applications in accordance therewith for shortlisting the competent applicants that can subsequently bid for the Project, and includes any addendum / clarifications issued in respect thereof by the Concessioning Authority.

"Requisition" has the meaning ascribed to it in Article 16.3.

"Royalty" means the revenue share payable by the Concessionaire to the Concessioning Authority, pursuant to Article 9.2 hereof.

"Safety Standards" means the minimum standards of safety set out in the annexure

to Appendix 4 with regards the Project/Project Facilities and Services.

"Scale of Rates" means the scale of rates along with the statement of conditions with respect thereto framed from time to time and notified by TAMP or such other competent authority under the provisions of MPT Act, as applicable.

**"Scheduled Project Completion Date"** means the day following completion of 24 (twenty four) months from the Date of Award of Concession.

"Selectee" has the meaning ascribed to it in Article 15.4(b).

"Special Audit" shall have the meaning assigned to it under Article 9.4.

**"Statutory Auditors"** means a firm of chartered accountants appointed in terms of the Companies Act, 2013 and acting as the statutory auditors of the Concessionaire.

"Substitution Agreement" means the agreement substantially in the form set out at Appendix 3, to be entered into between the Concessioning Authority, the Concessionaire and the Lenders.

"SBI BR" means the base rate of the State Bank of India prevailing as on the date of a payment due from which the computation of interest is required to be made under the Agreement.

"TAMP" means Tariff Authority for Major Ports established under the MPT Act.

"Tariff" means the applicable rate(s) as per Scale of Rates that may be charged by the Concessionaire for and in respect of providing the Project Facilities and Services.

"Tariff Notification" means the Notification/order No. \_\_\_\_\_ published by TAMP, setting out inter alia the Tariff and shall include any revisions thereof.

"Termination Notice" means the termination notice issued pursuant to Article 16.1 hereof.

"**Termination Period**" shall have the meaning as set out under Article 16.1 hereof.

"Tests" shall have the meaning assigned to it under Article 6.7 (a) hereof.

"The Port" means New Mangalore Port.

"Transfer" means to transfer, sell, assign, pledge, hypothecate, create a security

interest in or other encumbrance on, place in trust (voting or otherwise), transfer by operation of law or in any other way dispose of, whether or not voluntarily, the legal or beneficial interest in the equity shares of the Concessionaire.

"Transfer Date" means the date of expiry or termination as the case may be, of the Concession Period in accordance with the terms of this Agreement.

"Transaction Documents" means collectively the Project Contracts and the Financing Documents.

"Upfront Payment" means the payment to be made by the Concessionaire as indicated in Article 9.1.1.

"Water Area" shall have the meaning assigned to it under Appendix 1.

#### 1.2. Other References

In this Agreement:

- "BIS" means Bureau of Indian Standards.
- "BS" means British Standard.
- "CISF" means Central Industrial Security Force.
- "DIN" means German Industrial Standard.
- "FEM" means Federation of Equipment Manufacturers.
- "IS" means Indian Standard.
- "ISO" means International Standards Organization.
- "IEC" means International Electro Technical Commission.
- "IMDG" means International Maritime Dangerous Goods.
- "IMO" means International Maritime Organization.
- "km" means Kilometre, the unit of length.
- "kWh" means Kilowatt-hour, the unit of electrical energy.
- "KVA" means Kilovolt-Ampere, the unit of power.
- "m" means Metre, the unit of length.
- "mm" means Millimetre, the unit of length.
- "MMTPA" means Million Metric Tonnes Per Annum, the unit of weight.
- "MT" means Metric Tonne, the unit of weight.
- "MVA" means Mega Volt Ampere, the unit of power.
- "MSIHC" means Manufacture Storage and Input of Hazardous Chemicals.
- "NMPT" means New Mangalore Port Trust
- "OISD" means Oil Industry Safety Directorate.
- "VAT" means Value Added Tax.

## 1.3. Interpretations

This Agreement constitutes the entire understanding between the Parties regarding the Project and supersedes all previous written and/or oral representations and/or arrangements regarding the Project. If there is any aspect of the Project not covered by any of the provisions of this Agreement, then and only in that event, reference may be made by the Parties to the bid documents, inter alia including the RFP and RFQ documents, issued by the Concessioning Authority and also including addendums, clarifications given in writing in the pre-bid meetings and the submissions of the Concessionaire and the bid submitted by the Concessionaire but not otherwise. In case of any contradictions in the terms of this Agreement and any such other bid documents as referred to above, the terms of this Agreement shall prevail.

In this Agreement unless the context otherwise requires:

- a) any reference to a statutory provision shall include such provision as is from time to time modified or re-enacted or consolidated so far as such modification or reenactment or consolidation applies or is capable of applying to any transactions entered into hereunder;
- b) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organisations or other entities (whether or not having a separate legal entity);
- c) the table of contents and any headings in this Agreement are for ease of reference only and shall not affect the construction or interpretation of this Agreement;
- d) the words "include" and "including" are to be construed without limitation;
- e) references to "construction" include investigation, design, engineering, procurement, delivery, transportation, installation, processing, fabrication, testing, commissioning and other activities incidental to the construction;
- f) any reference to any period of time shall mean a reference to that according to Indian Standard Time;
- g) any reference to day shall mean a reference to a calendar day;
- h) any reference to month shall mean a reference to a calendar month;
- i) "Recital", "Article" and "Appendix" shall refer, except where the context otherwise requires, to Articles of and any Appendix to this Agreement. The Appendices to this Agreement shall form an integral part and parcel of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;

- j) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or novated at the time of such reference;
- k) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Independent Engineer and/or a Statutory Auditor shall be valid and effectual only if it is in writing under the hands of duly authorized representative of such Party or the Independent Engineer and/or Statutory Auditor, as the case may be, in this behalf and not otherwise;
- unless otherwise stated, any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates;
- m) unless otherwise specified, any interest to be calculated and payable under this Agreement shall accrue on a Monthly basis and from the respective due dates as provided for in this Agreement; and
- n) any word or expression used in this Agreement, unless defined or construed in this Agreement, shall be construed as per the definition given in General Clauses Act, 1897 failing which it shall bear the ordinary English meaning.

## 1.4. Measurements and Arithmetic Conventions

All measurements and calculations shall be in metric system and calculations done to 2 decimal places, with the third digit of 5 or above being rounded up and below 5 being rounded down.

## 1.5. Ambiguities and Discrepancies

In case of ambiguities or discrepancies within this Agreement, the following shall apply:

- a) between two Articles of this Agreement, the provisions of specific Articles relevant to the issue under consideration shall prevail over those in other Articles;
- b) between the dimension scaled from the Design and Drawings and its specific written dimension, the latter shall prevail;
- c) between any value written in numerals and that in words, the latter shall prevail; and

| d) | between the provisions of this Agreement and any other documents forming p of this Agreement, the former shall prevail. | art |
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#### **CONCESSION AND PORT ASSETS**

### 2.1. Concession

In consideration of the Concessionaire agreeing to pay to the Concessioning Authority (a) the License Fee for Land Area (b) License Fee for Water Area and (c) Royalty, and performing its obligations as set out in this Agreement, the Concessioning Authority hereby grants to the Concessionaire, subject to the provisions of this Agreement, an exclusive license for designing, engineering, financing, constructing, equipping, operating, maintaining, replacing the Project/ Project Facilities and Services.

### 2.2. Concession Period

The Concession hereby granted is for a period of 30 (thirty) years commencing from Date of Award of Concession during which the Concessionaire is authorized and obliged to implement the Project and to provide Project Facilities and Services in accordance with the provisions hereof.

Provided that: -

- a) in the event of the Concession being extended by the Concessioning Authority beyond the said period of 30 (thirty) years in accordance with the provisions of this Agreement, the Concession Period shall include the period by which the Concession is so extended, and
- b) in the event of an early termination/determination of the Concession/ this Agreement by either Party in accordance with the provisions hereof, the Concession Period shall mean and be limited to the period commencing from the Date of Award of Concession and ending with the date of termination/determination of the Concession/this Agreement.

# 2.3. Acceptance of the Concession

The Concessionaire hereby accepts the Concession and agrees and undertakes to implement the Project and to provide Project Facilities and Services in accordance with the provisions of this Agreement. Subject to and in accordance with the provisions of this Agreement and Applicable Laws and Applicable Permits, the Concessionaire shall at its costs, charges, expenses and risk including but not limited to foreign exchange variation risk if any, conceptualize, design, engineer, finance, construct, equip, operate, maintain and replace the Project/ Project Facilities and Services.

#### 2.4. Port's Assets

- a) In consideration of the Concessionaire agreeing to perform and discharge its obligations as set forth in this Agreement, the Concessioning Authority hereby grants to the Concessionaire, the exclusive right to enter upon, occupy and use the Project Site and Port's Assets for the purpose of implementing the Project and provision of Project Facilities and Services pursuant thereto in accordance with this Agreement.
- b) The Concessionaire shall at its costs, charges and expenses make such development and improvements in the Project Site and Port's Assets as may be necessary or appropriate for implementing the Project and providing Project Facilities and Services, in accordance with the Agreement, Applicable Laws and Applicable Permits.

## 2.5. Use of Port's Assets

The Concessionaire shall not without the prior written consent or approval of the Concessioning Authority use the Project Site and the Port's Assets for any purpose other than for the purposes of the Project/the Project Facilities and Services and purposes incidental thereto as permitted under this Agreement or as may otherwise be approved by the Concessioning Authority.

# 2.6. Information about Project Site and Port's Assets

The information about the Project Site and Port's Assets as set out in Appendix 1 and Appendix 2 respectively is provided by the Concessioning Authority in good faith and with due regard to the matters for which such information is required by the Concessionaire. The Concessioning Authority agrees to provide to the Concessionaire, upon a reasonable request, any further information relating to the Project Site and Port Assets, which the Concessioning Authority may now possess or may hereafter come to possess, as may be relevant to the implementation of the Project. Subject to this, the Concessioning Authority makes no representation and gives no warranty to the Concessionaire in respect of the condition of the Port Assets or the Project Site.

# 2.7. Acceptance of the Port's Assets

The Concessionaire accepts possession of the Port's Assets and Project Site on 'as is where is' basis and confirms having:

- a) inspected the Project Site/ Port's Assets, including the berths and all structures thereat and its surroundings;
- b) satisfied itself as to the nature of the climatic, hydrological and general physical conditions of the Project Site/ Port's Assets, the nature of the ground and subsoil,

the form and nature of the Project Site/ Port's Assets, and the nature of the design, work and materials necessary for the performance of its obligations under this Agreement; and

c) obtained for itself all necessary information as to the risks, contingencies and all other circumstances which may influence or affect the Concessionaire and its rights and obligations under or pursuant to this Agreement.

# 2.8. Peaceful Occupation

The Concessioning Authority warrants that the Concessionaire shall, subject to complying with the terms and conditions of this Agreement, remain in occupation of the Project Site and Port's Assets during the Concession Period. In the event the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Project Site and Port's Assets or any part thereof or in the event of any enforcement action including any attachment, distraint, appointment of receiver or liquidator being initiated by any Person claiming to have charge on the Project Site and Port's Assets or any part thereof pursuant to Section 78 of the MPT Act, the Concessioning Authority shall, if called upon by the Concessionaire, defend such claims and proceedings.

### CONDITIONS PRECEDENT

#### 3.1 Conditions Precedent

The award of the Concession shall be subject to the satisfaction or waiver of the following conditions precedent (the "Conditions Precedent"):

- a) The following Conditions Precedent shall be satisfied by the Concessionaire:
  - i. Furnishing of the Performance Guarantee as stipulated in Article 4.1 hereof;
  - ii. Furnishing of copies (certified as true copies by a director of the Concessionaire) of the constituent documents of the Concessionaire;
  - iii. Furnishing of all resolutions adopted by the Board of Directors of the Concessionaire (certified as true copies by a director of the Concessionaire) authorizing the execution, delivery and performance by the Concessionaire of each of the Transaction Documents;
  - iv. Opening the Escrow Account and executing the Escrow Agreement;
  - v. Furnishing a copy of the Management Contract<sup>5</sup>;
  - vi. Furnishing a certificate from its principal officer/director on the shareholding pattern of the Concessionaire;
  - vii. Furnishing its Financing Plan and Financing Documents for the Project and demonstrating Financial Close. Provided, Financial Close shall be deemed to be achieved if the only conditions pending for achieving Financial Close are those which are required to be fulfilled by the Concessioning Authority under Article 3.1 (b) hereunder;
  - viii. Procuring and furnishing the following confirmations, in original, from the Applicant/members of Consortium:
    - a. it/they shall at all times comply with the provisions of Article 11.2 in respect of their shareholding in the Concessionaire;
    - b. it/they has/have the financial standing and resources to fund /raise finances for undertaking and implementing the Project in accordance with this

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<sup>&</sup>lt;sup>5</sup>To be retained where relevant i.e. where on the strength of the Management Contract the consortium has qualified technically.

## Agreement;

- c. the Applicant is/each of the member of the Consortium is duly organized and validly existing under the laws of the jurisdiction of its incorporation, and has requested the Concessioning Authority to enter into this Agreement with the Concessionaire and has agreed to and unconditionally accepted the terms and conditions set forth in this Agreement;
- ix. Furnishing to the Concessioning Authority a legal opinion from the legal counsel of the Concessionaire with respect to the authority of the Concessionaire to enter into this Agreement and the enforceability hereof; and
- x. Obtaining Applicable Permits as may be required for commencement of Construction Works as set out in Appendix 8.
- b) The following Conditions Precedent shall be satisfied by the Concessioning Authority:
  - (i) procurement of the clearances required for the Project, as set out in Appendix 8; and
  - (ii) Subject to furnishing of Performance Security by the Concessionaire in accordance with Clause 3.1(a)(i) above, handing over physical possession of the Project Site measuring about 24.40 hectares and/or the Port's Assets for the purposes of the Project.
- 3.2 The aforesaid Conditions Precedent shall be complied with within 90 (ninety) days of the date of the Agreement. Each Party shall promptly inform the other Party in writing when the Conditions Precedent for which it is responsible have been satisfied.
- 3.3 Any of the Conditions Precedent set forth in Articles 3.1(a) may be waived fully or partially by the Concessioning Authority at any time in its sole discretion or the Concessioning Authority may grant additional time for compliance with these conditions and the Concessionaire shall be bound to ensure compliance within such additional time as may be specified by the Concessioning Authority. Any of the Conditions Precedent set forth in Articles 3.1 (b) may be waived fully or partially by the Concessionaire at any time in its sole discretion.
- 3.4 If the Concessionaire has fulfilled all the Conditions Precedent under Article 3.1(a) including the furnishing of the Bank Guarantee and has not waived or extended the time under Clause 3.3 above, and if the Concessioning Authority has failed to fulfil the Conditions Precedent to be fulfilled by it under Article 3.1(b) (and which are within the power of the Concessioning Authority), the Concessioning Authority shall be liable to pay liquidated damages in a sum calculated at the rate of 0.1% (zero point

one percent) of the Performance Guarantee for each day's delay until fulfilment of the Conditions Precedent subject to a maximum of 5% (five percent) of the figure mentioned in the Performance Guarantee furnished by the Concessionaire. In such event, having regard to the quantum of damages, the time for the performance shall be deemed to have been extended by the number of days for which the liquidated damages is paid and if, after the extended period the Concessioning Authority is still not in a position to comply with the Conditions Precedent, then the agreement shall be liable to be terminated as provided for in Clause 3.6 below;

- 3.5 If the Concessioning Authority has fulfilled all the Conditions Precedent under Article 3.1(b) and has not waived or extended the time under Clause 3.3 above, and if the Concessionaire has failed to fulfil the Conditions Precedent to be fulfilled by it under Article 3.1(a) (and which are within the power of the Concessionaire), the Concessionaire shall be liable to pay liquidated damages in a sum calculated at the rate of 0.1% (zero point one percent) of the Performance Guarantee for each day's delay until fulfilment of the Conditions Precedent subject to a maximum of 5% (five percent) of the figure mentioned in the Performance Guarantee furnished by the Concessionaire. In such event, having regard to the quantum of damages, the time for the performance shall be deemed to have been extended by the number of days for which the liquidated damages is paid and if, after the extended period the Concessionaire is still not in a position to comply with the Conditions Precedent, then the agreement shall be liable to be terminated as provided for in Clause 3.6 below;
- 3.6 In the event that the Conditions Precedents are not complied with within the time (including the extended time, if any) in terms of the aforesaid Articles 3.2 to 3.5, this Agreement shall be liable to be terminated. If such termination is on account of failure of the Concessionaire to comply with the Conditions Precedent, the Bid Security shall stand forfeited. If such termination is on account of failure of the Concessioning Authority, the Concessioning Authority shall be obliged to return the Bid Security/Performance Guarantee. It is clarified that except for the payment as stipulated in the foregoing Article 3.4 and 3.5 and forfeiture in this Article 3.6, each party hereto shall have no claims against the other for costs, damages, compensation or otherwise.

### PERFORMANCE GUARANTEE

# 4.1 Performance Guarantee

The Concessionaire shall for due performance of its obligations during the Construction Phase provide to Concessioning Authority an unconditional and irrevocable bank guarantee, in favour of the Concessioning Authority encashable and enforceable at Mangalore, Karnataka substantially in the form set forth in Appendix 9 or an irrevocable revolving letter of credit in the form acceptable to the Concessioning Authority (the "Performance Guarantee"). The Performance Guarantee shall be for a sum of Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only). Till such time the Concessionaire provides to Concessioning Authority the Performance Guarantee pursuant hereto, the Bid Security shall remain in full force and effect. The Performance Guarantee, if in the form of a bank guarantee shall be valid for an initial period of 1 (one) year and shall be renewed 30 (thirty) Days prior to expiry of each year, for an additional term of 1 (one) year. It is clarified that the Concessionaire shall be liable to restore the Performance Guarantee to the full amount in case of part encashment of the same by the Concessioning Authority. This shall be done within 30 (thirty) Days of any such part encashment. The Performance Guarantee, if in the form of a letter of credit shall be irrevocable and replenished from time to time such that an amount of Rs. 23,50,00,000/- (Rupees Twenty Three Croes Fifity Lakhs Only) is available in immediate cash to the Concessioning Authority for the entire period of the Construction Phase. The Performance Guarantee furnished under this provision shall be valid until expiry of 6 (six) months from the Date of Commercial Operations. Failure of the Concessionaire to provide a valid Performance Guarantee and/or restore and maintain the Performance Guarantee in accordance with this Article shall entitle the Concessioning Authority to forthwith terminate this Agreement and also if relevant, to forfeit the Bid Security.

4. 2 The provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Security in case of a decision by the Concessioning Authority to forfeit the same without assigning any reason for imposing sanction for violation of the Integrity Pact.

### INDEPENDENT ENGINEER

# 5.1 Independent Engineer

- a) The Independent Engineer shall be selected through a tender process. The Concessioning Authority shall in the procurement documents published by it, set out in reasonable detail the scope of work as indicated in Appendix 7 and shortlist bidders based on their technical capability. The Concessioning Authority shall within 30 (thirty) Days of the date of this Agreement forward to the Concessionaire a list consisting of the names accompanied by their respective profile in brief of Persons so shortlisted. If within 15 (fifteen) Days of forwarding the list, the Concessioning Authority does not receive any objection from the Concessionaire with reasons therefor, the Concessioning Authority shall call for a financial bid from the shortlisted Persons and select the Independent Engineer ordinarily based on the lowest fee quote. Any objection raised by the Concessionaire shall be considered by the Concessioning Authority and Persons against whom such objections are raised will at the discretion of the Concessioning Authority, which discretion shall be used with the highest degree of prudence and fairness, be disqualified prior to seeking a financial bid.
- b) The Independent Engineer selected pursuant to the aforesaid process shall be appointed for a period commencing from the Date of Award of Concession to the date of expiry of 6 (six) months from the Date of Commercial Operations. The scope of work of the Independent Engineer shall be substantially as set out in Appendix 7.
- c) The costs and expenses of the Independent Engineer shall be borne by the Concessioning Authority and Concessionaire, equally.
- d) If the Concessioning Authority either on its own or on a report of the Concessionaire has reason to believe that the Independent Engineer is not discharging its duties in a fair, appropriate and diligent manner, the Concessioning Authority may after giving the Independent Engineer due opportunity of being heard, terminate the appointment of the Independent Engineer and appoint another firm in its place in accordance with the preceding clause (a) above.
- e) If either Party disputes any advice, instruction or decision of the Independent Engineer, the dispute shall be resolved in accordance with the dispute resolution procedure set out in Article 19.

#### PROJECT IMPLEMENTATION

# 6.1 Preparation of Designs and Drawings

The Concessionaire shall at its cost, charges and expenses, prepare the Designs and Drawings in conformity with the Project Requirements.

## 6.2 Review of the Designs and Drawings

- a) The Concessionaire shall submit the Designs and Drawings as set out in Appendix 6 for the review of the Independent Engineer. Simultaneously, the Concessionaire shall also provide the Concessioning Authority with a set of the Designs and Drawings.
- b) The Independent Engineer shall review the Designs and Drawings submitted by the Concessionaire and provide its comments/observations and suggestions on the same (including taking into account the comments/observations of the Concessioning Authority in respect thereof as it may in its sole discretion deem fit) within 21 (twenty one) Days from the date of the receipt of such Designs and Drawings.
- c) In the event that the Independent Engineer has observed that the Designs and Drawings are not in conformity with the Project Requirements, the Concessionaire shall promptly and without any undue delay revise and resubmit the Designs and Drawings or satisfy the Independent Engineer with regards its compliance.
- d) If the Independent Engineer does not make any observation/comments with respect to the Designs and Drawings submitted to it by the Concessionaire within 21 (twenty one) Days of the submission, it shall be deemed that the Independent Engineer has no suggestions to make with respect to the Designs and Drawings and the Concessionaire shall be entitled to proceed with the Project accordingly.
- e) The Concessionaire shall not be entitled to any extension of time for completing construction or any other relief on account of delay caused due to providing any clarification or in resubmitting the Designs and Drawings. Provided however the Concessioning Authority at its sole discretion may suitably extend the Construction Phase or provide other relief to compensate for any such delay not attributable to the Concessionaire.
- f) The Concessionaire shall not change any Designs and Drawings reviewed by the Independent Engineer under this Agreement, without submitting such revised Designs and Drawings for the review of the Independent Engineer.

- g) Notwithstanding the review by the Independent Engineer, the Concessionaire shall be solely responsible for any defect and/or deficiency in the Designs and Drawings relating to the Project or any part thereof and accordingly the Concessionaire shall at all times remain responsible for its obligations under this Agreement.
- h) Any review of the Designs and Drawings conducted by the Concessioning Authority is solely for the Concessioning Authority's own information and that by conducting such review, the Concessioning Authority does not accept any responsibility for the same.
- i) The Concessionaire shall in no way represent to any Person that, as a result of any review by the Independent Engineer, the Concessioning Authority has accepted responsibility for the engineering or soundness of any work relating to the Project/ the Project Facilities and Services or part thereof carried out by the Concessionaire and the Concessionaire shall, in accordance with the provisions of this Agreement, be solely responsible for the technical feasibility, operational capability and reliability of the Project/ the Project Facilities and Services or any part thereof.

### **6.3** Construction Phase

The Concessionaire shall promptly commence and complete the works, including installation of equipment in accordance with the Project Schedule and shall also obtain from the Independent Engineer a certificate as to completion of construction of Project Facilities and Services in accordance with the provisions of this Agreement ("Completion Certificate") not later than 24 (twenty Four) months from the date of commencement of the Concession Period.

## 6.4 Obligations of the Concessionaire

Without prejudice to the generality of Article 6.3 and in addition to any of its other obligations under this Agreement, during the Construction Phase, the Concessionaire shall:

- a) arrange for, in a timely manner all necessary financial and other resources required for construction and installation of the Project Facilities and Services;
- b) engage professionally competent Persons for project management and construction and ensure that all works are carried out in compliance with the Construction Standards;
- c) give written notice to the Concessioning Authority within 7 (seven) Days of any material modification or change to any of the Financing Documents and/or any

Equity Documents and shall simultaneously therewith also furnish copies of such modified/ amended documents to the Concessioning Authority. Provided no such modification/amendment will be made if it in any manner whatsoever has the effect of imposing an additional financial obligation or increasing the financial obligation of the Concessioning Authority in addition to that contemplated under the Financing Documents provided on Financial Close, without the prior written consent of the Concessioning Authority. For avoidance of doubt any such modifications/amendments made without the prior written consent of the Concessioning Authority will not be enforceable against the Concessioning Authority;

- d) obtain Applicable Permits, comply with Applicable Laws and Applicable Permits and give priority to safety in its construction and planning activities in order to protect life, health, property and environment;
- e) provide to the representative(s) of the Concessioning Authority, at reasonable times and upon prior intimation, access to the Project Site to review progress in construction and to ascertain compliance with any of the requirements of this Agreement. Provided that non-inspection by the Concessioning Authority of any works shall not, in relation to such works, (i) amount to any consent or approval by the Concessioning Authority nor shall the same be deemed to be waiver of any of the rights of the Concessioning Authority under this Agreement; and (ii) release or discharge the Concessionaire from its obligations or liabilities under this Agreement in respect of such work;
- f) provide monthly reports on the progress of Construction Works or such other relevant information as may be required by the Independent Engineer;
- g) promptly carry out at its cost such further works as may be necessary to remove any defects or deficiencies observed by the Independent Engineer and ensure timely completion of construction of the Project / the Project Facilities and Services in all respects in accordance with the provisions of this Agreement; and
- h) ensure safe and timely construction and completion of the Project/Project Facilities and Services, the Concessionaire may, at its cost, interrupt and divert/create barriers on the flow of water or on the road or port traffic, adjacent to the Project Site if such interruption and diversion is imperative for the efficient progress of Construction Works and conforms to Good Industry Practice; provided that such interruption and diversion shall be undertaken by the Concessionaire only with the prior written approval of the Independent Engineer which approval shall not be unreasonably withheld. For the avoidance of doubt, it is agreed that the Concessionaire shall at all times be responsible for ensuring safe operation of Construction Works and shall remove the interruption or diversion within the period specified by the Independent Engineer.

## 6.5 Obligations of the Concessioning Authority

In addition to any of its other obligations under this Agreement, during the Construction Phase, the Concessioning Authority shall:

- a) in matters falling within its authority, grant, the Applicable Permits, approvals and consents as may be required by the Concessionaire and on a best efforts basis assist the Concessionaire in obtaining all other Applicable Permits as may be required by the Concessionaire;
- b) make available all records of sub-soil investigations carried out on its behalf in the Port's Assets, if requested by the Concessionaire. It is clarified that the Concessionaire shall be solely responsible for determining the adequacy or otherwise of such investigations and will not in reliance of such records, be entitled to claim any relief under this Agreement;
- c) upon satisfaction as to completion and receipt of Completion Certificate issued by the Independent Engineer promptly obtain approval of the Collector of Customs, publish requisite notifications in the Official Gazette and declare the Project Facilities and Services as ready for operation in accordance with the provisions of Section 37 of the MPT Act;
- d) upon written request from the Concessionaire, assist the Concessionaire, on a best effort basis, in obtaining immigration clearances, employment permits and residential premises for any foreign personnel engaged or employed by the Concessionaire in connection with the implementation of the Project; and
- e) subject to the Concessionaire / Contractor complying with the requirements under the Applicable Laws including but not limited to payment of customs and any other duty, assist the Concessionaire or Contractor, on a best effort basis, to import into India all items of equipment and materials required for the Project.

## 6.6 Suspension of Works

- a) Upon recommendation of the Independent Engineer to this effect, the Concessioning Authority may by notice require the Concessionaire to suspend forthwith the whole or any part of the Construction Works if, in the reasonable opinion of the Concessioning Authority, such work is not in accordance with the Construction Standards / Safety Standards.
- b) The Concessionaire shall, pursuant to the notice under the foregoing provision suspend the Construction Works or any part thereof for such time and in such manner as may be specified by the Concessioning Authority and thereupon

represent to the Concessioning Authority / Independent Engineer, the remedial measures to remedy the defects notified. The Concessionaire may by notice require the Independent Engineer to inspect such remedial measures forthwith and make a report to the Concessioning Authority recommending whether or not the suspension hereunder may be revoked. Any dispute as regards the suspension of works or the remedial measures proposed, if cannot resolved within 30 (thirty) Days of the suspension or proposal of the remedial measures, shall be submitted for dispute resolution in accordance with Article 19 hereof.

# 6.7 Issue of Completion Certificate

- a) At least 60 (sixty) Days prior to the likely completion of the Project, the Concessionaire shall notify the Independent Engineer of the date when it intends to commence commercial operations. The Independent Engineer shall then proceed to inspect the Construction Works with the intention of issuing the Completion Certificate and determine and notify to the Concessionaire the schedule and manner of the tests as are specified in Appendix 7 that it shall carry out to ensure that the Project meets with the Construction Standards ("the Tests"). The date and time of each of the Tests shall be determined by the Independent Engineer in consultation with the Concessionaire, and notified to the Concessioning Authority who may designate its representative to witness the Tests. The Concessionaire shall provide such assistance as the Independent Engineer may reasonably require for conducting the Tests. In the event of the Concessionaire and the Independent Engineer failing to mutually agree on the dates for conducting the Tests, the Concessionaire shall fix the dates by not less than 10 (ten) Days notice to the Independent Engineer;
- b) Upon completion of each Test, the Independent Engineer shall provide to the Concessionaire and the Concessioning Authority copies of all Test data including detailed Test results;
- c) Upon completion of Construction Works and the Independent Engineer determining all the Tests to be successful, it shall forthwith issue to the Concessionaire and the Concessioning Authority a Completion Certificate substantially in the form set forth in Appendix 10;
- d) The Independent Engineer may, at the request of the Concessionaire, issue a provisional certificate of completion substantially in the form set forth in Appendix 10 (the "**Provisional Certificate**") if the Tests are successful and the Project can be safely and reliably placed in commercial operation though certain works or things forming part thereof are outstanding and not yet complete. The Provisional Certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Engineer and the Concessionaire (the "**Punch**"

**List**") to be completed by the Concessionaire within a stipulated time. Provided, notwithstanding the foregoing, no such Provisional Certificate will be issued pending notifications in the Official Gazette by the Collector of Customs, in accordance with the provisions of Section 37 of the MPT Act for the Project Facilities and Services. All items in the Punch List shall be completed by the Concessionaire within 90 (ninety) Days of the date of issue of the Provisional Certificate or such other extended period that the Concessioning Authority may in its sole discretion determine, failing which the Provisional Certificate shall lose its validity and the Concessioning Authority shall be entitled to terminate this Agreement;

e) Without prejudice to the foregoing, if the Concessionaire shall have failed to complete any Construction Works on account of Force Majeure or for reasons solely attributable to the Concessioning Authority, the Concessioning Authority may, in its discretion, reduce the scope of Project and require the Concessionaire to pay 80% (eighty percent) of the sum saved due to such reduction of scope. Upon such payment to the Concessioning Authority, the obligations of the Concessionaire in respect of such works shall be deemed to have been fulfilled.

## 6.8 Change of Scope

- a) The Concessioning Authority may, notwithstanding anything to the contrary contained in this Agreement, require the provision of additional works and services which are not included in the scope of the Project as contemplated by this Agreement ("Change of Scope"). Provided no such Change of Scope shall be made in the Construction Phase if it is in the reasonable judgment of the parties hereto likely to delay the completion of the Project such that the Project cannot be completed on the Scheduled Project Completion Date. Provided further, the cost of implementing a single Change of Scope shall not exceed a sum corresponding to 5% (five percent) of the Estimated Project Cost and during the Concession Period the cumulative cost of implementing orders pertaining to Change of Scope shall not exceed a sum corresponding to 20% (twenty percent) of the Estimated Project Cost;
- b) If the Concessioning Authority determines that a Change of Scope is necessary, it shall issue to the Concessionaire a notice specifying in reasonable detail the works and services contemplated there under (the "Change of Scope Notice");
- c) Upon receipt of a Change of Scope Notice, the Concessionaire shall, provide to the Concessioning Authority, the following:
  - i) the adverse impact, if any, which the Change of Scope is likely to have on the Project; and

- ii) the cost to be incurred by the Concessionaire for and in respect of such Change of Scope;
- d) Upon receipt of the foregoing information, the Concessioning Authority shall, if it decides to proceed with the Change of Scope, convey its agreement or otherwise of the assessment of the Concessionaire. If the Concessionaire does not notify any adverse impact of a Change of Scope notified under the Change of Scope Notice within 30 (thirty) Days of the date thereof and/or the Concessioning Authority does not disagree with the cost assessment of the Concessionaire, the Concessioning Authority shall issue an order requiring the Concessionaire to proceed with the implementation of such Change of Scope. If an adverse impact is notified by the Concessionaire and/or the Concessioning Authority disagrees with the cost assessment, the Parties shall in good faith modify the Change of Scope envisaged so as to remove the adverse impact/agree to the cost implication for carrying out the Change of Scope within a period of 30 (thirty) Days of notification of the adverse impact/cost. In the event that the Parties are unable to mutually agree to a Change of Scope and/or the cost of implementing the same, they may seek intervention of an Expert to resolve the differences and upon the final determination of the desired Change of Scope and its cost implication, the Concessioning Authority may issue an order to implement the Change of Scope;
- e) The provisions of this Agreement, insofar as they relate to Construction Works and Tests, shall apply mutatis mutandis to the works undertaken by the Concessionaire in respect of a Change of Scope;
- f) Within 7 (seven) Days of an order for Change of Scope being issued, the Concessioning Authority shall make an advance payment to the Concessionaire of a sum equal to 20% (twenty per cent) of the cost of Change of Scope as agreed hereunder. The Concessionaire shall, after commencement of work, present to the Concessioning Authority bills for payment in respect of the works in progress or completed works, as the case may be, supported by such documentation as is reasonably sufficient for the Concessioning Authority to determine the accuracy thereof. Within 30 (thirty) Days of receipt of such bills, the Concessioning Authority shall disburse to the Concessionaire such amounts as are certified by the Statutory Auditors as being expended by the Concessionaire for and in respect of implementing Construction Works or procuring equipments following an order for a Change of Scope;
- g) Notwithstanding anything to the contrary contained in this Article 6.8, the Concessioning Authority may, after giving the Change of Scope Notice to the Concessionaire and considering its reply thereto, decide to seek competitive

bids for carrying out the works envisaged in a Change of Scope; provided that the Concessionaire shall have the option of matching the first ranked bid in terms of the selection criteria, subject to payment of 2% (two per cent) of the bid amount to the Concessioning Authority, and thereupon securing the award of such works or services. For the avoidance of doubt, it is agreed that the Concessionaire shall be entitled to exercise such option only if it has participated in the bidding process and its bid does not exceed the first ranked bid by more than 10% (ten percent) thereof; and

h) If during the pendency of the Agreement, the Concessionaire determines at any time that a Change of Scope is necessary for providing safer and improved Project Facilities and Services, it shall by notice in writing request the Concessioning Authority to consider such Change of Scope. The Concessionaire may implement the Project and provide Project Facilities and Services in accordance with the Change of Scope as may be approved in writing by the Concessioning Authority and all the provisions of this Article 6 for the Project Implementation shall mutatis mutandis apply. Provided, it is clarified that the provisions contained in Article 6.8 (f) and (g) shall not apply to a Change of Scope required by the Concessionaire.

# 6.9 Liquidated Damages

Subject to any of the provisions of this Agreement providing for extension of time for performance or excuse from performance, as the case may be, of any of the obligations of the Concessionaire under this Agreement, the Concessionaire shall pay to the Concessioning Authority liquidated damages at the rate of 0.1% (zero point one percent) of the Performance Guarantee for every Day of delay in fulfilling the specified obligations on or before a Milestone Date including a delay in obtaining the Completion Certificate or the Provisional Certificate on or before the Scheduled Project Completion Date. Provided such liquidated damages shall not in aggregate exceed 5% (five percent) of the Estimated Project Cost and unless the delay is in obtaining of the Completion Certificate or the Provisional Certificate, shall not be payable for less than 15 (fifteen) Days of delay from a Milestone Date, in fulfilling a specified obligation. The Parties agree that the liquidated damages as provided are a genuine pre-estimate of the damages the Concessioning Authority is likely to suffer and are not by way of a penalty. In case the aggregate delay exceeds 180 (one hundred and eighty) Days or the aggregate liquidated damages paid and/or payable under this provision exceeds the specified limit of 5% (five percent) of the Estimated Project Cost, the Concessioning Authority shall be entitled to terminate this Agreement and the consequences of termination as laid down in Article 16.5 shall follow. The Concessioning Authority may, at its discretion recover any amounts with respect to liquidated damages from the Performance Guarantee.

#### **OPERATIONS & MAINTENANCE**

# 7.1 (a) Obligations of the Concessionaire

In addition to any of its other obligations under this Agreement, the Concessionaire shall manage, operate, maintain and repair the Project Facilities and Services, entirely at its cost, charges, expenses and risk in accordance with the provisions of this Agreement. The Concessionaire's obligations under this Article 7.1 shall include but shall not be limited to the following:

## (i) Berth and Terminal Operations:

Mechanization of Berth No. 12 for providing equipments for handling bulk cargoes at New Mangalore Port

The Concessionaire shall:

- a) promptly commence operations upon the Project Facilities and Services being declared by the Concessioning Authority as ready for operations;
- b) make efforts to maximise cargo handled so as to achieve optimal utilization of the Project Facilities and Services;
- c) ensure compliance of the Project Facilities and Services at least with the Project Requirements;
- d) ensure compliance of the Project Facilities and Services at least with the Performance Standards;
- e) ensure that the Project Facilities and Services shall adhere to the Operations and Maintenance Standards and Safety Standards and there is safe, smooth and uninterrupted flow of traffic under normal operating conditions;
- f) minimise disruption to traffic in the event of accidents or other incidents affecting the safety and use of the Project Facilities and Services by providing a rapid and effective response and maintaining liaison with emergency services of the Concessioning Authority or other agencies;
- g) make available all necessary financial, technical, technological, managerial and other resources for operation, maintenance, repair and replacement of the Project Facilities and Services in a timely manner;
- h) except for the priority and preferential berthing that may be authorized in terms of

guidelines issued by the Government from time to time, manage and operate the Project Facilities and Services;

- ensure maintenance of proper and accurate record/data/accounts relating to operations of the Project Facilities and Services and the revenue earned there from;
- j) obtain, maintain and comply with Applicable Permits and comply with the Applicable Laws including those relating but not limited to dock side safety, health, environment and labour;
- k) subject to the provisions of this Agreement, perform, undertake or provide, in connection with the Project, all services which the Concessioning Authority is authorized to perform, undertake or provide under the provisions of the MPT Act; and
- 1) prevent, with the assistance of concerned law enforcement agencies, any encroachment or unauthorized use of the Project Facilities and Services.

# (ii) Repairs and Maintenance

The Concessionaire shall at its own cost:

- a) repair as necessary and maintain the Project Facilities and Services or any part thereof in accordance with the Project Requirements and for this purpose carry out routine preventive measures and maintenance of the Project Facilities and Services including resurveying of pavement, repair structures and repair and refurbish equipments; and
- b) maintain the Project Facilities and Services in accordance with the provisions of this Agreement and Good Industry Practice with the objective of providing adequate service standards and ensuring that the Project Facilities and Services to be transferred to the Concessioning Authority upon expiry of the Concession Period are in good condition, normal wear and tear excepted.

## (iii) Replacement of Equipment

The Concessionaire shall at its cost, plan for replacement of the equipment well ahead of the time when the utility thereof is reasonably expected to expire and replace the equipment in accordance with Good Industry Practice so as to ensure that the Project facilities and Services commensurate with the Project Requirements, at all times during the Concession Period.

## (iv) Repairs, Replacement or Restoration

The Concessionaire shall at its own costs, promptly and diligently repair, replace or restore any of the Project Facilities and Services or part thereof which may be lost, damaged, or destroyed for any reason whatsoever.

## (v) Removal / Replacement of Assets

Except as provided/authorized under this Agreement the Concessionaire shall not, without the prior written intimation to the Concessioning Authority, remove or replace any assets comprised in the Project Facilities and Services. Such notice shall contain the exact details of the assets that the Concessionaire intends to remove and/or replace, its reasons for doing so and the likely period for replacement.

## (vi) Payments to the Concessioning Authority

The Concessionaire shall make/ensure payments to the Concessioning Authority as per Article 9.

### (vii) Access for Inspection

The Concessionaire shall be obliged to extend all co-operation to Experts appointed by the Concessioning Authority for purposes of verifying that the Project/the Project Facilities and Services are operated and maintained in compliance with the Performance Standards and adhere to the Operations and Maintenance Standards and Safety Standards. Such verification shall be made annually. Additionally, the Concessionaire shall upon prior intimation by the Concessioning Authority provide the authorized representatives of the Concessioning Authority access to the Port's Assets/the Project Facilities and Services for inspection and review of operations and also to ascertain compliance with any of the requirements under this Agreement. Without prejudice to the generality of this provision, it is agreed by the Concessionaire shall in particular extend all co-operation and information required by the Experts appointed by the Concessioning Authority for conducting a safety audit and verifying that the Project/Project Facilities and Services are in strict compliance with the Safety Standards.

## (viii) Reports

The Concessionaire shall provide to the Concessioning Authority, Monthly reports on cargo traffic, unit gross output/ discharge rates at berth, daily output rated per vessel, transit storage dwell time, turnaround time for receipt/delivery operations, Tariff earned and collected in respect of Project Facilities and Services and effective working time to waiting, within 15 (fifteen) Days following the end of each Month, and any other information relating to operations which the Concessioning Authority may require from time to time. If so desired by the Concessioning Authority, the

Concessionaire shall provide the reports in prescribed formats and in electronic form so as to provide online access to the Concessioning Authority and its representatives.

# (ix) Computer System and Network

The Concessionaire shall install, operate and maintain such computer system and network (such as Electronic Data Interchange and Port Community System) and follow such protocol as the Concessioning Authority may specify from time to time.

## (x) Security Arrangements

The Concessionaire may make his own arrangements for security in the Project Site/Port's Assets and with respect to the Project Site. The Concessionaire shall abide by the security regulations/ procedures prescribed by the Concessioning Authority or a Government Authority from time to time. It shall also conform to and assist the Concessioning Authority or any authority responsible therefor in conforming to the International Ship and Port facility Security Code ("ISPS Code") and such other codes/requirements of International Maritime Organization as may be applicable to India from time to time.

## (xi) Employment of Personnel

The Concessionaire shall employ qualified and skilled personnel required to operate the Project Facilities and Services. The terms of employment may be as deemed fit by the Concessionaire and the Concessionaire shall comply with all Applicable Laws and bear all costs in this regard. Without prejudice to the generality of this provision, all requisite approvals for employment of personnel of foreign origin or nationality shall be obtained by the Concessionaire prior to engaging such personnel. Failure to obtain approval will not amount to a Force Majeure Event. All employees shall always remain the Concessionaire's responsibility.

Further, the Concessionaire shall comply with the requirements of employing the existing personnel/ labour as agreed to and set out in Appendix 11<sup>7</sup>. All labour law compliances shall be that of the Concessionaire alone.

### (xii) Minimum Guaranteed Cargo

The Concessionaire hereby unconditionally guarantees the Concessioning Authority annual cargo handling of the levels set out in Appendix 14 ("Minimum Guaranteed Cargo") and agrees that except as provided in this Agreement, it shall not be entitled to any relaxation of its guarantee in this respect.

<sup>&</sup>lt;sup>9</sup>This provision would be edited depending on whether the bidder is a single applicant or a Consortium.Sub Article (b) will be omitted in case the bidder is a single Applicant.

## (xiii) Indemnity Against Claims for Loss of Goods

Notwithstanding anything contained in the MPT Act or any other law for the time being in force, the Concessionaire shall be responsible for meeting any claim, action, suit or proceeding (the "Action") by any third party alleging the loss, destruction or deterioration of goods of which charge has been taken by the Concessionaire and indemnify, save and hold harmless the Concessioning Authority, its officers, employees, agents and representatives (the "Indemnities") against all claims which may be asserted against or suffered and legal fees and costs incurred and which relate to any such goods, provided that notice of the Action received by the Indemnities(s) shall be forwarded to the Concessionaire expeditiously and in any case within 15 (fifteen) days of the receipt thereof by any of the Indemnities. Provided further that the Indemnities shall have the right but not the obligation, to contest, defend and litigate any Action by any third party alleged or asserted against any of such Indemnities in respect of, resulting from, related to or arising out of any matter for which it is to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Concessionaire. If the Concessionaire acknowledges in writing its obligation to indemnify the Indemnities in respect of loss to the full extent, the Concessionaire shall be entitled, at its option, to assume and control the defence of such Action at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnities and reimburses to them for the reasonable cost and expenses incurred by them prior to the assumption of such defence by the Concessionaire. In such case the Indemnities shall not be entitled to settle or compromise any Action without the prior written consent of the Concessionaire, which consent shall not be unreasonably withheld or delayed. This indemnity shall survive termination of this Agreement.

### (xiv) Special conditions relating to cargo handling

The Concessionaire during the Concessioning Period shall not refuse to handle coal until the Concessioning Authority commissions a competing facility for handling of coal in accordance with Clause 12.2(c) of this Agreement. In the event, the Concessionaire refuses to handle coal before commissioning of competing facility; the Concessionaire shall lose the right to handle other cargo for the remaining Concession Period.

# (b) Rights of Concessionaire

## (i) Preferential and Priority Berthing

The Concessionaire may offer preferential or priority berthing to any one or more shipping lines or vessel owners/operators to optimize the use of the Project Facilities and Services. Such preferential or priority berthing shall be subject to the priority berthing norms as may be mutually determined by the Parties in accordance with Applicable Laws or guidelines issued by the Government from time to time in respect thereof, if any.

# (ii) Unclaimed cargo

The Concessionaire may at its cost:

- (a) after obtaining prior written approval of the Commissioner of Customs or other competent Government Authority and in accordance with the provisions of Applicable Law, destroy or dispose off by way of public auction and/or tender, any unclaimed cargo, the charge of which has been taken by Concessionaire under or pursuant to this Agreement, and always subject to provisions of MPT Act and other laws in this regard.
- (b) institute proceedings for recovery of unrealized charges, if any, in its name and/or defend any claim made in respect of such cargo by consignee/owners. The Concessioning Authority agrees to provide all reasonable assistance necessary in this regard to the Concessionaire.

# (c) Obligations of the Concessioning Authority

In addition to any of its other obligations in this Agreement, the Concessioning Authority shall arrange for and provide the following:

### (i) Marine and Port Services

The Concessioning Authority shall provide/ cause to be provided, to the Concessionaire, the following services:

- (a) scheduling the entry, berthing and sailing of the vessels, pilotage and towage on a non-discriminatory basis subject to priority berthing norms and the sailing schedule as determined by the Deputy Conservator of the Port depending on individual ship characteristics and tidal conditions.
- (b) Maintain the present depth available at the common user approach channel and lagoon of the port for vessels upto draft of 14 m. Except during the months of June to September and during such months make all efforts to maintain a draft of 12.5 m;
- (c) waterside safety and safety of navigation;
- (d) Maintenance of the dredged draft alongside the berth at 14 m except during monsoon months where normal siltation is expected. The maintenance dredging wll be carried out as per the pre scheduled

programme of Port maintenance dredging.

- (e) carry out capital or maintenance dredging operations, if any that may be required to ensure the draft to be provided or maintained at the levels agreed under this Agreement, with minimum inconvenience to or dislocation of the project facilities and services
- (f) provision and maintenance of all general port infrastructure other than those covered under the Concession, necessary for management, operation and maintenance of the Project Facilities and Services;
- (g) assist the Concessionaire in securing the assistance of CISF or the relevant Government Authority as may be necessary to prosecute any persons for any offence committed by them within the Project Site; and
- (h) evolve mutually acceptable mechanism for sharing of common costs by existing and future terminal operators.

### (ii) Approvals

The Concessioning Authority shall promptly grant approvals/ consents sought by the Concessionaire as required under this Agreement subject to the Concessionaire having complied with all Applicable Laws/requirements in this regard.

### 7.2 Utilities and Services

The Concessioning Authority shall during the Concession Period provide access to the Concessionaire to all infrastructure facilities and utilities including water, electricity and telecommunication facilities necessary for the implementation, operations and maintenance of the Project/ Project Facilities and Services in accordance with this Agreement, at rates and on terms no less favourable to the Concessionaire than those generally available to commercial customers availing substantially equivalent facilities and utilities. Provided unless otherwise agreed to by the Concessioning Authority:

- (a) the power made available shall be as received by the Concessioning Authority from Mangalore Electricity Supply Company. The take off point for electricity shall be from the substation at Bykampady and the concessionaire shall make arrangements for take-off of the power from the sub-station at Bykampady.
- (b) The concessionaire shall make water available from Mangalore City Corporation from the nearest available water line and the Concessionaire shall make arrangements for take-off of water from the nearest available water line.

- (c) the Concessionaire shall, at its cost, and to the satisfaction of the Concessioning Authority, install meters to measure the consumption of power and water. The Concessioning Authority does not warranty the reliability, quality and quantity of water and power and shall not be liable in any manner for the shortage in or non-supply of these utilities;
- (d) The Concessionaire may, at its cost, make alternate arrangements for power including but not limited to installation of generators, subject to obtaining Applicable Permits, if any, therefor.

# 7.3 Liability for shortfall in performance

In the event the Concessioning Authority, whether from the review of reports submitted by the Concessionaire in accordance with the provisions of this Agreement or otherwise, observes that the Project/Project Facilities and Services do not comply with the Performance Standards or fall short of the Performance Standards, the Concessioning Authority shall calculate the amount of liquidated damages payable by the Concessionaire in accordance with Appendix 15 of this Agreement and demand the Concessionaire by a notice in writing to pay the same within 30 (thirty) Days and on failure of the Concessionaire to pay the same recover the amount from the Concessionaire. Provided that on receipt of the demand the Concessionaire may make a written representation to the Concessioning Authority which shall be considered by the Concessioning Authority on merits and the Concessioning Authority may waive the liquidated damages in part or full, if it is satisfied that the Concessionaire has been carrying out its obligations diligently and efficiently and the shortfall to be waived was on account of reasons beyond the control of the Concessionaire.

It is clarified that this provision does not prejudice the rights of the Concessioning Authority upon a Concessionaire Event of Default as set out in Article 15 including the Concessioning Authority's right to terminate this Agreement which shall remain unaffected.

#### **TARIFF**

# 8.1 Levy and Recovery of the Tariff

- 8.1.1. The Concessionaire shall be entitled to recover Tariff from the users of the Project Facilities and Services as per the Tariff Notification, an extract of which is set out in Appendix 12. The Tariffs shall be revised in the manner set out in Appendix 12 and duly notified from time to time by the TAMP under Sections 48, 49 and 50 of the MPT Act or such other competent authority under the Applicable Laws. The Tariff Notification prescribes the maximum Tariff that can be levied by the Concessionaire and the Concessionaire may charge lower than the rates prescribed. As of the date hereof, the applicable Tariff guidelines are as set out in Appendix 12. The Concessionaire shall, subject to Article 8.2 hereunder, deposit all Tariff and other receipts in relation to the Project Facilities and Services in the Escrow Account and shall not make any such deposits to any other account either of the Concessionaire or of any other person.
- 8.1.2 The Concessionaire hereby acknowledges and agrees that it is not entitled to any revision of Tariff or other relief from the Concessioning Authority or any Government Instrumentality, except in accordance with the express provisions of Agreement, the Concessionaire further acknowledges and hereby accepts the risk of inadequacy, mistakes or error of facts, assumptions or projections in the Tariff Notification issued by TAMP and agrees that the Concessioning Authority shall not be liable for the same in any manner whatsoever to the Concessionaire.

# 8.2 Collection of Cesses and Charges

The Concessionaire shall collect all cesses and charges including infrastructure cess, if any levied on the users as may be requested by the Concessioning Authority, on behalf of the Concessioning Authority and remit the same to the Concessioning Authority. Provided, the Concessionaire shall be duly authorized by the Concessioning Authority or such other authority as may be competent in this regard, for the purpose of such collection.

#### PAYMENTS TO THE CONCESSIONING AUTHORITY

# 9.1 Payments towards Project Site including Port's Assets

## 9.1.1. Upfront Payment

The Concessionaire shall, simultaneously with the execution of this Agreement, remit a non-refundable Upfront Payment of Rs. 10 Crores (Rupees Ten Crores Only) to the Concessioning Authority, in consideration of the Port's Assets other than the Land and water areas to be handed over to the Concessionaire.

### 9.1.2 License Fee

- a) The Concessionaire shall, as consideration for the use, in its capacity as a bare licensee of the Project Site and the equipment comprised in the Port's Assets, made available in accordance with Article 2.4, pay to the Concessioning Authority;

  - ii. the sum of Rs.............[●] (Rupees [●] Only) (the "License Fee for Water Area") at the rate of 122.34 (Rupees One Hundred and Twenty Two and Thirty Four Paise Only) per sq. metre per year,(surcharge of 10% shall be applicable for the custom notified area) corresponding to the Base Rate of Rs. 960.61 per 100 sq. metre per month as on the base date of 20<sup>th</sup> February 2012, with 2% annual increment (compounded) in the Licence Fee. The base Licence Fee will undergo upward revision every year based on the then existing Scale of Rates.

b) Any delay in payment of the amount in the preceding clause (a) shall entail

payment of interest @ SBI BR plus 2% (two percent) per annum on the amount outstanding.

# 9.2 Payments of Royalty

- a) The Concessionaire shall pay to the Concessioning Authority Royalty per Month equivalent to [●] % ([●] percent) of the Gross Revenue chargeable by the Concessionaire from the Project / Project facilities and Services ("the Royalty"),
- b) Gross Revenue shall be computed on the basis of the maximum Tariffs leviable for and in respect of the Project Facilities and Services provided during the relevant period of computation. It is clarified that discounts and deferments, if any offered by the Concessionaire to the users or amounts if any not collected by the Concessionaire for any reason whatsoever in respect of the Project Facilities and Services, shall be ignored for the purpose of Gross Revenue. Further, in computing the Gross Revenue, income from interest, sale of assets, amounts received by the Concessionaire by way of damages from third parties (excepting damages received from the users on account of demurrage or such other related charges in respect of the Project Facilities and Services), taxes and cesses in respect to the Project Facilities and Services, if any collected and paid to any Government Authority shall also be ignored.
- c) Royalty for each Month shall be paid on or before the seventh Day of the immediately succeeding Month.
- d) The payment of Royalty shall commence from the Month in which the Concessionaire commences to provide any Project Facilities and Services, and shall be irrespective of Date of Commercial Operation.
- e) Royalty amounts remaining unpaid on respective due dates would carry interest @ SBI BR plus 2% (two percent) per annum from the due date till the date of payment or realization thereof.

### 9.3 Utilities or Services

The Concessionaire shall also pay rent or other charges for any premises (other than the Project Site/Project Assets) or additional utilities or services, made available by the Concessioning Authority to the Concessionaire in accordance with the terms, conditions and covenants including on payment of rates specified by the Concessioning Authority. Such rates shall be the Scale of Rates as may be notified by the competent authority in respect thereof from time to time (the present rates applicable in respect of land, utilities and services are set out in Appendix 13.

#### 9.4 Certified Accounts

During the subsistence of this Agreement, the Concessionaire shall maintain all documents and supporting evidences for its financial statements including agreements and documents with respect to all capital and debt raised by the Concessionaire, capital and revenue expenses towards the Project, ship/vessel/user wise information, and, as relevant, the details of cargo handled by category, tariffs charged and the amount of rates received. The Concessionaire shall submit to the Concessioning Authority a financial statement of the Gross Revenue for every 6 (six) monthly period ending 30<sup>th</sup>September and 31<sup>st</sup> March every year, duly certified by its Statutory Auditors. The certificate must be furnished within 30 (thirty) Days of the end of each such period.

The Concessioning Authority shall, at its own cost, have the option to appoint another firm of chartered accountants duly licensed to practice in India (the "Additional Auditor") to conduct a special audit of the Gross Revenue and the financial statements, documents and supporting evidences thereto as may be mandated by the Concessioning Authority and report to the Concessioning Authority such information as may be desired by the Concessioning Authority for any period and the Gross Revenue ("Special Audit").

In the event that the Gross Revenue reported by the Additional Auditor is higher than that reported by the Statutory Auditor, the auditors shall meet to resolve such differences and if they are unable to resolve the same the Concessionaire shall pay Royalty on the Gross Revenue reported by the Additional Auditor. The Concessionaire shall also pay interest @ SBI BR plus 2% (two percent) on the difference between the Royalty paid by the Concessionaire based on the Gross Revenue reported by the Statutory Auditor and that payable by the Concessionaire based on the Gross Revenue reported by the Additional Auditor for the intervening period between the payment of the Royalties as above. Further the Concessionaire shall reimburse all costs, charges and expenses related to the Special Audit. Without prejudice to the aforesaid, if the difference between the Gross Revenue reported by the Additional Auditor and that reported by the Statutory Auditor is higher than 5% (five percent), the Concessioning Authority shall at its sole discretion have the right to require a Special Audit for the entire outstanding tenure of the Concession.

#### 9.5 Escrow Account

The Concessionaire shall maintain an escrow account with a bank approved by the Lenders ("Escrow Account"), during the subsistence of this Agreement and enter into an agreement substantially in the format prescribed in Appendix 16 with such bank to ensure that all proceeds for financing the Project and all revenues and other receipts arising from the Project and under any agreements, including this Agreement received by the Concessionaire are deposited into such Escrow Account. Provided, the

Concessionaire shall not deposit any amounts including the cesses and duties collected by it from the users on behalf of the Concessioning Authority or such other authority in accordance with Article 8.2 hereof or pursuant to any other instructions in respect thereof in the Escrow Account and shall deposit the same in a separate account dedicated for the same and maintained by it in trust for the Concessioning Authority or such other authority.

- a) Withdrawals and appropriations during the Concession Period, at any relevant time, from the Escrow Account shall be in the following order of priority:
  - i. for all taxes due and payable by the Concessionaire;
  - ii. towards payment of License Fee;
  - iii. all construction/implementation expenses relating to the Project/Project Facilities and Services, subject to limits if any set out under the Financing Documents;
  - iv. all expenses relating to operations and management of the Project/Project Facilities and Services, subject to limits if any set out under the Financing Documents:
  - v. towards its debt service obligations under the Financing Documents;
  - vi. towards payment of Royalty and other sums payable to the Concessioning Authority and liquidated damages, if any;
  - vii. towards any reserve requirements in accordance with the Financing Documents:

and the Concessionaire shall be at liberty to withdraw any sums outstanding in the Escrow Account after all the aforesaid payments due in any Quarter have been made and/or adequate reserves have been created in respect thereof for that Quarter. Provided, upon issuance of Termination Notice and/or suspension of the Concessionaire in accordance with the provisions of this Agreement, withdrawal from the Escrow Account shall be made only in accordance with the written instructions of the Concessioning Authority and the Lenders.

- b) All amounts standing to the credit of the Escrow Account at the end of the Concession Period including amounts credited to the Escrow Account towards compensation payable in accordance with Article 17 shall be appropriated in the following order of priority:
  - (i) towards taxes and statutory dues payable by the Concessionaire;
  - (ii) compensation to Lenders in terms of the Financing Documents towards

discharge of the Concessionaire's liability under such Financing Documents;

(iii) all amounts due to the Concessioning Authority and amounts payable towards transfer of the Project Facilities and Services by the Concessionaire in accordance with this Agreement;

and the Concessionaire shall be at liberty to withdraw any sums outstanding in the Escrow Account after all the aforesaid payments due have been made and/or adequate reserves have been created in respect thereof to the satisfaction of the Lenders and the Concessioning Authority.

c) The Provision of this Article 9.5 and the provisions of the Escrow Agreement shall remain in full force and effect until all the obligations of the Concessionaire set for the in this Agreement have been fully discharged.

#### ASSETS: OWNERSHIP AND PERMITTED CHARGE

## 10.1 Ownership of Assets

### a) Land and Water Area

The ownership of the Project Site and Port's Assets shall always remain vested with the Concessioning Authority. The rights of the Concessionaire in the Project Site and Port's Assets shall only be that of a bare licensee of such assets and the Concessionaire shall neither assign, transfer, sublet, create any charge or Encumbrance, nor shall the Concessionaire create or permit creation of any third party rights whatsoever, on whole or any part of the Port's Assets or Project Site. Further, any such rights of the Concessionaire shall always be subject to existing rights of way. It is expressly agreed that the Concessionaire's rights in the Project Site and/or the Port's Assets shall cease without the need for any action to be taken by the Concessioning Authority upon the termination of this Agreement for any reason whatsoever.

### b) Assets created or provided by the Concessionaire

The ownership of all infrastructure assets, buildings, structures, berths, wharfs, equipment and other immovable and movable assets constructed, installed, located, created or provided by the Concessionaire at the Project Site and/or in the Port's Assets pursuant to this Agreement shall, until expiry of this Agreement or transfer to the Concessionaire Authority on Termination in accordance with this Agreement, be with the Concessionaire. However, such ownership of buildings etc. erected by the Concessionaire at the Project Site shall not be construed as and shall not confer any rights in the Project Site or other Port's Assets upon the Concessionaire, save as that of a bare licensee as provided for in this Agreement.

# 10.2 Permitted Charge on Assets

The Concessionaire shall be entitled to create a charge on its rights, title and interest in the assets referred to in Article 10.1(b) in favour of Lenders for securing the Financial Assistance provided or agreed to be provided by them under the Financing Documents. Provided, any such charge shall not be effective before Financial Close and shall not continue for a period exceeding the Concession Period.

Provided further, that such charge shall not be for the Project Site nor encumber the Project Site and/or the Port's Assets.

Provided further, in the event of Termination of this Agreement, the said charge shall

stand extinguished upon payment of compensation by the Concessioning Authority to the Lenders, to the extent they are entitled to receive the same in accordance with the provisions of this Agreement.

#### **SHAREHOLDING**

## 11.1 Ownership Structure

The Applicant/Consortium has caused the Concessionaire to be incorporated as a special purpose company to implement, operate and maintain the Project/Project Facilities and Services in accordance with this Agreement. The shareholding pattern of Concessionaire/each member of the Consortium in the Concessionaire is [•].

## 11.2 Shareholding

The Concessionaire shall ensure that the Applicant/ members of the Consortium maintain Management Control at least until expiry of the Exclusivity Period as also maintain their equity holding in the Concessionaire such that<sup>9</sup>:

- a) The Applicant/members of the Consortium legally and beneficially hold not less than 51% (fifty one percent) of its paid up equity capital until 3 (three) years after Date of Commercial Operations and not less than 26% (twenty six percent) of its paid up equity capital during the balance Concession Period; and
- b) M/s [•] ("**Lead Member**") legally and beneficially holds at any time not less than 50% (fifty percent) of the Consortium's holding in the paid up equity capital of the Concessionaire.

Notwithstanding the aforesaid, any Transfer of shareholding in the Concessionaire and/or direct or indirect change in the Management Control of the Concessionaire, including by way of a restructuring or amalgamation, shall only be with the prior written approval of the Concessioning Authority which consent shall not be withheld except (i) for reasons of national security; or (ii) [if the Person proposed for assuming such Management Control would by virtue of the restrictions imposed under the Applicable Law or the conditions of bidding (including restrictions to avoid anticompetitive and monopolistic practice) and/or public policy be disqualified from undertaking the Project.

Provided, nothing contained in this Article shall preclude or prevent pledge of shares in the Concessionaire in favour of Lenders as security for the Financial Assistance subject to the enforcement and consequent Transfer thereof only with the prior written consent of the Concessioning Authority as stated hereinbefore and in accordance with the Financing Documents.

<sup>&</sup>lt;sup>9</sup>This provision would be edited depending on whether the bidder is a single applicant or a Consortium.Sub Article (b) will be omitted in case the bidder is a single Applicant.

#### 11.3 Constituent Documents

The Concessionaire shall ensure that its articles of association adequately reflect the aforesaid and the relevant commitments, obligations and responsibilities of the Applicant/Consortium.

In particular, the articles of association and the memorandum of association of the Concessionaire shall be amended within 3 (three) months of the Date of Award of Concession to include the terms and conditions regarding the composition of shareholding and management stipulated in this Agreement; and terms and conditions related to changes in the share-holding pattern stipulated in this Agreement. The Concessionaire shall submit the amended articles of association and the memorandum of association to the Concessioning Authority as soon as may be reasonably possible.

Any subsequent change in the articles of association or the memorandum of association which alter the provisions required by this Article shall require the prior approval of the Concessioning Authority and the articles of association and memorandum of association of the Concessionaire shall include a specific provision to this effect.

### GENERAL RIGHTS, DUTIES AND OBLIGATIONS

### 12.1 Of the Concessionaire

## a. Applicable Permits

The Concessionaire shall at all times during the Concession Period maintain and comply with the Applicable Permits.

# b. Taxes & duties

The Concessionaire shall during the Concession Period pay in a timely manner all taxes, duties, levies, VAT, cess and charges including but not limited to income tax, sales tax, excise duty, customs duty, service tax and octroi that may be levied, claimed or demanded from time to time by any Government Authority including any increase therein effected from time to time from any Government Authority, in respect of the Project/ the Project Facilities and Services.

#### c. Insurance

## (i) Insurance Requirement

The Concessionaire shall, at its cost and expense, purchase and maintain insurances as are prudent, including but not limited to the following:

- a) builder's all risk insurance;
- b) loss, damage or destruction of the Project Facilities and Services, at replacement value;
- c) comprehensive third party liability insurance including injury or death to personnel of the Concessioning Authority and others who may enter the Project Site or the Port's Assets;
- d) workmen's compensation insurance;
- e) marine cum storage cum erection insurance; and
- f) any other insurance that may be necessary to protect the Concessionaire, its employees and its assets and the Concessioning Authority, its employees and agents engaged in or connected to the Project and the Project Site and Port Assets (against loss, damage or destruction at

replacement value) including all Force Majeure Events that are insurable and not otherwise covered in items (a) to (e).

## (ii) Insurance Cover & Insurance Companies

The Concessionaire shall insure all insurable assets comprised in the Port's Assets and/or the Project Facilities and Services and all insurable risks associated with the Project to the extent advisable in accordance with Good Industry Practice ("Insurance Cover").

### (iii) Evidence of Insurance Cover

The Concessionaire shall, from time to time, provide to the Concessioning Authority copies of all insurance policies (or appropriate endorsements, certifications or other satisfactory evidence of insurance) obtained by the Concessionaire in accordance with this Agreement.

## (iv)Application of Insurance Proceeds

Subject to the provisions of the Financing Documents, all moneys received under insurance policies shall be promptly applied by the Concessionaire towards repair or renovation or restoration or substitution of the Port Assets and the Project Facilities and Services or any part thereof which may have been damaged or destroyed and in respect of which the claim is lodged. The Concessionaire may designate the Lenders as the loss payees under the insurance policies/assign the insurance policies in their favour as security for the Financial Assistance. The Concessionaire shall carry out such repair or renovation or restoration or substitution to the extent possible in such manner that the Project Facilities and Services or any part thereof, shall, after such repair or renovation or restoration or substitution be as far as possible in the same condition as they were before such damage or destruction, normal wear and tear excepted.

## (v) Validity of the Insurance Cover

The Concessionaire shall pay the premium payable on such insurance policy(ies) so as to keep the policy(ies) in force and valid throughout the Concession Period and furnish copies of the same to the Concessioning Authority. Each insurance policy shall provide that the same shall not be cancelled or terminated unless 10 (ten) Days' clear notice of cancellation is provided to Concessioning Authority in writing. If at any time the Concessionaire fails to purchase and maintain in full force and effect any and all of the insurances required under this Agreement, the Concessioning Authority may at its option purchase and maintain such insurance and all sums incurred by the Concessioning Authority therefor shall be reimbursed with interest @ SBI BR plus 2% (two percent) per annum by the Concessionaire

forthwith on demand, failing which the same shall be recovered by the Concessioning Authority by exercising right of set off or otherwise.

# (vi) Waiver of Subrogation

All insurance policies procured in terms of the provisions hereof shall include a waiver of any right of subrogation of the insurers there under against, interalia, the Concessioning Authority and its assigns and successors and their respective subsidiaries, affiliates, employees and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

### d. Indemnification

The Concessionaire shall during the pendency of this Agreement and thereafter until all claims and demands in respect to the acts and omissions during the period of the Agreement as described hereunder are duly settled, indemnify and keep indemnified and otherwise save harmless, the Concessioning Authority, its agents and employees, from and against all claims, demands made against and/or loss caused and/or damages suffered and/or cost, charges/expenses incurred to and/or penalty levied and/or any claim due to injury to or death of any person and/or loss or damage caused or suffered to property owned or belonging to the Concessioning Authority, its agents and employees or third party as a result of any acts, deeds or thing done or omitted to be done by the Concessionaire or as a result of failure on the part of the Concessionaire to perform any of its obligations under this Agreement or on the Concessionaire committing breach of any of the terms and conditions of this Agreement or on the failure of the Concessionaire to perform any of its duties and/or obligations including statutory duties or as a consequence of any notice, action, suit or proceedings, given, initiated, filed or commenced by consignee or owner of goods or vessel owner/agent or its employees or any third party or Government Authority or as a result of any failure or negligence or default of the Concessionaire or its Contractor(s), subcontractor(s), or employees, servants, agents of such Contractor(s) and/or subcontractor(s) and/or invitees as the case may be, in connection with or arising out of this Agreement and/or arising out of or, in connection with the Concessionaire's use and occupation of the Project Site or Port's Assets and/or construction, operation and maintenance of the Project Facilities and Services.

### e. Assignability

Except as otherwise provided in this Agreement, the Concessionaire shall not assign its rights, title or interest in this Agreement in favour of any Persons without

prior written consent of the Concessioning Authority.

Provided the Concessionaire may assign its rights, interests and benefits under this Agreement to the Lenders as security for the Financial Assistance. Provided further nothing contained in this Article shall:

- i. absolve the Concessionaire from its responsibilities to perform/discharge any of its obligations under and in accordance with the provisions of this Agreement; and
- ii. authorize or be deemed to authorize the Lenders to operate the Project Facilities and Services themselves and any such assignment to operate shall be in terms of the Substitution Agreement.

# f. Engagement of Contractors

The Concessionaire shall engage the Management Contractor and execute the Management Contract, thereby entrusting the Management Contractor with the responsibilities of operating and managing the Project Facilities and Services in the manner envisaged under the Request for Proposal<sup>10</sup>. A copy of the Management Contract shall be provided to the Concessioning Authority and the same shall not be amended, substituted or revoked without the prior written consent of the Concessioning Authority.

The Concessionaire may engage any Person possessing the requisite skill, expertise and capability for designing, engineering, procurement and construction of civil/mechanical/electrical engineering structures/equipment, and/or operation and maintenance of the Project Facilities and Services.

Provided:

- i. the Concessionaire shall at all times be solely responsible for all its obligations under this Agreement notwithstanding any such engagement and anything contained in any Project Contracts or any other agreement, and no default under any Project Contract or agreement shall excuse the Concessionaire from its obligations or liability hereunder and the Concessionaire shall at all times be solely responsible for non-performance or for any defect, deficiency or delay in the construction and erection and/or installation of the structures/equipment or any part thereof and for the operation and maintenance of the Project/the Project Facilities and Services in accordance with the provisions of this Agreement;
- ii. the Concessionaire should have obtained requisite security clearance for the

<sup>10</sup>This may be added in cases where the project has been awarded on the strength of the Management Contractor.

Contractor the Concessionaire intends to engage;

- iii. the Concessionaire shall ensure that the Project Contracts contain provisions that entitle the Concessioning Authority to step into such contract in its sole discretion in substitution of the Concessionaire in the event of termination or suspension of this Agreement; and
- iv. any contract that it enters with an Affiliate in respect of the Project shall be on an arms length basis.

## g. Condition Survey

- The Concessionaire agrees that at least 6 (six) Months prior to the expiry by efflux of time of the Concession Period, it shall, cause to be conducted at its cost by an Expert appointed by the Parties by mutual consent, a condition survey and an inventory of the entire Project Facilities and Services. If, as a result of such survey, the Expert shall observe/notice that the Port's Assets and/or the Project Facilities and Services or any part thereof have/has not been operated and maintained in accordance with the requirements therefor under this Agreement (normal wear and tear excepted) the Concessionaire shall, at its cost and expenses, take all necessary steps to put the same in good working condition well before the Transfer Date. In the event the Concessionaire fails to comply with this provision, the Concessioning Authority may itself cause the condition survey and inventory of the Port's Assets and Project Facilities and Services to be conducted and remove any defect or deficiency. The Concessioning Authority shall be promptly reimbursed by the Concessionaire for the costs incurred in conducting such survey and preparation of inventory as also in putting the Project Facilities and Services in a good working condition.
- ii. The Concessionaire shall as security for performance of its obligation in the preceding sub-article (i), provide/submit to the Concessioning Authority a guarantee issued by a Natonalised bank/ scheduled bank in India for a sum of Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only) at least 2 (two) years prior to the expiry of the Concession Period. In the event of Concessionaire's failure to provide such guarantee, the same shall be deemed to be a Concessionaire Event of Default and the Concessioning Authority shall accordingly be entitled to terminate this Agreement in accordance with Article 15.

### 12.2 Of the Concessioning Authority

## a. Assistance in obtaining Approvals, Permits and Licenses

The Concessioning Authority shall, at the written request of the Concessionaire,

but without guarantees and/or without assuming any responsibility in that behalf, issue recommendatory letters and make best efforts to assist the Concessionaire in obtaining all the Applicable Permits including renewals thereof. Provided that, nothing contained in this Article shall relieve the Concessionaire of its obligations under this Agreement to obtain the Applicable Permits and to keep them in force and effect throughout the Concession Period.

### b. Taxes and Duties

Any levy or levies including increase therein of taxes, duties, cess and the hike, on account of/in respect of Port's Assets payable to the State Government or any statutory authority shall be met and paid by the Concessioning Authority.

### c. Competing Facilities

The Concessioning Authority shall not operationalise any additional facilities within port limits for handling Coal either on its own or through any other person until the earlier of (i) 5(five) years from the Scheduled Project Completion Date; or (ii) the average annual volume of cargo handled at the project facilities and services reaches a level of 75% (seventy five percent) of project capacity for 2 (two) consecutive years (Exclusivity Period). Provided, this restriction shall not apply to the existing captive facilities of M/s. UPCL.

## d. General rights of inspection and verification

The Concessioning Authority may during the pendency of the Agreement itself or by appointment of Experts verify the performance of obligations of the Concessionaire as set out in this Agreement.

### 12.3 Of the Concessioning Authority and the Concessionaire

## (a) Compliance with Laws and Regulations

The Parties shall perform their respective obligations under this Agreement in accordance with the Applicable Laws and Applicable Permits.

## (b) Rights to Documents

# i. Concessioning Authority's Documents

Documents and computer programs or copies thereof, if any, provided by the Concessioning Authority to the Concessionaire, shall always remain the property of the Concessioning Authority. Such documents, computer programs and/or copies shall not be used by the Concessionaire for the purposes other

than for the Project. Such documents, computer programs and/or copies thereof shall, unless otherwise agreed upon by the Concessioning Authority, be returned by the Concessionaire to the Concessioning Authority on the Transfer Date.

## ii. Concessionaire's Documents

Documents and computer programs provided by the Concessionaire, or which are developed (and owned by the Concessionaire) for operation and/or maintenance of the Project /the Project Facilities and Services shall be handed over by the Concessionaire to the Concessioning Authority free of cost on the Transfer Date.

# iii. Confidentiality

All confidential information and documents (whether financial, technical or otherwise) provided by either Party to the other shall not, unless compelled by law or the process of a Government Authority, be disclosed to any Person without the consent of the other Party with the exception of providing such information to legal advisors/auditors of the concerned party on a need-to-know basis. This covenant shall survive the Concession Period.

## iv. Obligation to Cooperate

The Parties shall mutually cooperate with each other in order to achieve the objectives of this Agreement.

# v. Substitution Agreement

The Substitution Agreement envisaged by Appendix 3 hereunder, will/may be executed within 30 (thirty) Days' of notice by the Concessionaire to the Concessioning Authority of the Lenders' readiness to execute the same.

#### **CHANGE IN LAW**

## 13.1 Change in Law

"Change in Law" means any of the following events which has a Material Adverse Effect:

- a) adoption, promulgation, modification, reinterpretation or repeal after the date of this Agreement by any Government Authority of any statute, rule, ordinance, regulation or order, treaty, convention, directive, guideline, policy having force of law; or
- b) the imposition by any Government Authority of any material condition (other than a condition which has been imposed as a consequence of a violation by the Concessionaire of any Applicable Permit) in connection with the issuance, renewal or modification of any Applicable Permits after the date of this Agreement which renders the performance by the Concessionaire of any of the terms of this Agreement impossible or unviable; or
- c) any Applicable Permit previously granted, ceasing to remain in full force and effect for reasons other than breach/violation by or the negligence of the Concessionaire or if granted for a limited period, being renewed on terms different from those previously stipulated.

Provided any (i) imposition of new taxes, duties, cess and the like and/or the increase in taxes, duties, cess and the like effected from time to time by any Government Authority, and/or (ii) imposition of standards and condition of operations, maintenance and safety arising out of a new or revised Environmental Law; and/or (iii) imposition of standards and terms of employment and working conditions of labourers and workmen; and/or (iv) any rules or regulations stipulated by TAMP or other regulatory authority having jurisdiction over the Project in respect of the standards of service shall not constitute a Change in Law.

## 13.2 The Concessionaire's Remedy

a) In the event of Change in Law the Concessionaire may propose to the Concessioning Authority modifications to the relevant terms of this Agreement which are reasonable and intended to mitigate the effect of the Change in Law. Thereupon, the Parties shall, in good faith, negotiate and agree upon suitable changes in the terms of this Agreement including extension of the Concession Period, so as to place the Concessionaire in substantially the same legal and financial position as it were prior to such Change in Law. Provided however, that

if the resultant Material Adverse Effect is such that this Agreement is frustrated or is rendered illegal or impossible of performance, the Change in Law shall be deemed to be a Political Event, where upon the provisions with respect thereto shall apply.

- (b) In the alternative to the aforesaid, subject to the Concessionaire taking necessary measures to mitigate the impact or the likely impact of Change in Law on the Project, if as a direct consequence of a Change in Law, the Concessionaire is obliged to incur Additional Cost in any accounting year, any such Additional Cost above a sum of Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only) may at the option of the Concessioning Authority be borne by the Concessioning Authority. It is clarified that Additional Cost upto Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only) in any accounting year shall be borne by the Concessionaire;
- (c) Upon occurrence of a Change in Law, the Concessionaire shall notify the Concessioning Authority, of the following:
  - i. the particulars, nature and the impact of Change in Law on the Project;
  - ii. in sufficient detail, the estimate of the Additional Cost likely to be incurred by the Concessionaire on account of the Change in Law; and
  - iii.the measures, which the Concessionaire has taken or proposes to take to mitigate the impact of Change in Law, including in particular, minimising the Additional Cost.
- (d) Upon receipt of the notice of Change in Law issued by the Concessionaire pursuant to the preceding sub-article(c), the Concessioning Authority and the Concessionaire shall hold discussions and take all such steps as may be necessary including determination/certification by an Expert, appointed by the Parties by mutual consent, of the Additional Cost and to determine the quantum of the Additional Cost to be incurred.
- e) If it is determined that the only material impact of a Change in Law is Additional Cost and the Concessioning Authority opts to compensate the same in accordance with the preceding sub-article (b), the Concessionaire shall not be entitled to any other remedy nor shall seek any alterations to the Agreement and the Concessioning Authority shall, within 30 (thirty) Days from the date of determination of quantum of Additional Cost to be borne by the Concessioning Authority in accordance with sub-article (b) above, compensate the Concessionaire in either of the following ways:
  - i. by lump-sum reimbursement of such Additional Cost to the Concessionaire;

ii. reimbursement of the such Additional Cost to the Concessionaire, in not exceeding four half yearly installments, subject to payment of interest at SBI BR + 2% (two percent) on the amount the payment of which is deferred.

Notwithstanding the aforesaid, if in terms of Good Industry Practice, the event constituting a Change in Law could be insured, the Concessionaire shall not be entitled to any remedy under this Article 13.2;

If as a result of Change in Law, the Concessionaire incurs a reduction in costs or other financial gain or benefit in connection with its development or operation of the Project, the aggregate financial effect of which exceeds Rs. 23,50,00,000/-(Rupees Twenty Three Crores Fifty Lakhs Only) in any Financial Year, the Concessionaire shall notify the Concessioning Authority and pay to the Concessioning Authority an amount that would put the Concessionaire in the same financial position it would have occupied had there been no such Change in Law resulting in such cost reduction, increase in return or other financial gain or benefit as aforesaid. Without prejudice to the aforesaid, the Concessioning Authority may, by notice in writing require the Concessionaire to pay an amount that would put the Concessionaire in the same financial position it would have occupied had there been no such Change in Law resulting in such cost reduction, increase in return or other gain or benefit.

The Concessionaire shall make payment of such compensation within sixty (60) Days of the said financial benefit. If the Concessionaire shall dispute the quantum of such compensation claim of the Concessioning Authority, the same shall be finally settled in accordance with the dispute resolution mechanism contained in Article 19 herein.

#### FORCE MAJEURE

## 14.1 Force Majeure Event

As used in this Agreement, Force Majeure Event means the occurrence of any of the Non-Political Events, the Political Events or the Other Events in India, set out in Articles 14.2, 14.3 and 14.4 respectively including the impact/consequence thereof which:

- a) is beyond the control of the Party claiming to be affected thereby (the "Affected Party");
- b) prevents the Affected Party from performing or discharging its obligations under this Agreement; and
- c) the Affected Party has been unable to overcome or prevent despite exercise of due care and diligence.

### 14.2Non-Political Events

Any of the following events which prevent the Affected Party from performing any of its obligations for a continuous period of not less than 7 (seven) Days from the date of its occurrence, shall constitute a Non-Political Event:

- a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionizing radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Project Site and by reasons not attributable to the Concessionaire or the Contractor or any of the employees or agents of the Concessionaire or the Contractor);
- b) strikes or boycotts (other than those involving the Concessionaire, Contractors or their respective employees/representatives, or attributable to any act or omission of any of them), and not being an Other Event set forth in Article 14.4, labour disruptions or any other industrial disturbances not arising on account of the acts or omissions of the Concessionaire or the Contractor;
- any failure or delay of a Contractor caused by any of the Non-Political Events, for which no offsetting compensation is payable to the Concessionaire or on behalf of the Contractor;

- d) the discovery of geological conditions, toxic contamination or archeological remains on the Project Site that could not reasonably have been expected to be discovered through a site inspection; or
- e) any event or circumstance of a nature analogous to any of the foregoing.

### 14.3 Political Events

Any of the following events shall constitute Political Event:

- a) Change in Law for which no relief is provided under the provisions of Article 13, resulting in Material Adverse Effect;
- b) action of a Government Authority having Material Adverse Effect including but not limited to (i) acts of expropriation, compulsory acquisition or takeover by any Government Authority of the Project/Project Facilities and Services or any part thereof or of the Concessionaire's or the Contractor's rights under any of the Project Contracts, and (ii) any unlawful, unauthorized or without jurisdiction refusal to issue or to renew or the revocation of any Applicable Permits, in each case, for reasons other than the Concessionaire's or the Contractor's breach or failure in complying with the Project Requirements, Applicable Laws, Applicable Permits, any judgment or order of a Governmental Agency or of any contract by which the Concessionaire or the Contractor as the case may be is bound;
- c) early determination of this Agreement by the Concessioning Authority for reasons of national emergency, national security or the public interest;
- d) any failure or delay of a Contractor caused by any of the aforementioned Political Events, for which no offsetting compensation is payable to the Concessionaire by or on behalf of the Contractor; or
- e) any event or circumstance of a nature analogous to any of the foregoing.

### 14.4 Other Events

Any of the following events which prevents the Affected Party from performing any of its obligations under this Agreement for a continuous period of not less than 7 (seven) Days from the date of its occurrence, shall constitute the Other Event:

- a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- b) industry wide or State wide strikes or industrial action;

- c) any civil commotion, boycott or political agitation which prevents collection of Fee by the Concessionaire;
- d) any judgment or order of a court of competent jurisdiction or statutory authority in India made against the Concessionaire or the Contractor in any proceedings which is non-collusive and duly prosecuted by the Concessionaire; and any judgment or order of a court of competent jurisdiction or statutory authority in India made against the Concessionaire or the Contractor in any proceedings which is non-collusive and duly prosecuted by the Concessionaire other than relating to proceedings (i) pursuant to failure of the Concessionaire to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement or (iv) with respect to exercise of any of its rights under this Agreement by the Concessioning Authority; or
- e) any event or circumstance of a nature analogous to any of the foregoing.

### **14.5**Notice of Force Majeure Event

- a) The Affected Party shall give written notice to the other Party in writing of the occurrence of any of the Force Majeure Event (the "Notice") as soon as the same arises or as soon as reasonably practicable and in any event within 7 (seven) Days after the Affected Party knew, or ought reasonably to have known, of its occurrence and the adverse effect it has or is likely to have on the performance of its obligations under this Agreement.
- b) The Notice shall inter-alia include full particulars of:
  - i. the nature, time of occurrence and extent of the Force Majeure Event with evidence in respect thereof;
  - ii. the duration or estimated duration and the effect or probable effect which such Force Majeure Event has or will have on the Affected Party's ability to perform its obligations or any of them under this Agreement;
  - iii. the measures which the Affected Party has taken or proposes to take, to alleviate the impact of the Force Majeure Event or to mitigate the damage; and
  - iv. any other relevant information.
- c) So long as the Affected Party continues to claim to be affected by a Force Majeure Event, it shall provide the other Party with periodic (fortnightly/monthly) written

reports containing the information called for by Article 14.5(b) and such other information as the other Party may reasonably request.

# 14.6Period of Force Majeure

Period of Force Majeure shall mean the period from the time of occurrence specified in the Notice given by the Affected Party in respect of the Force Majeure Event until the earlier of:

- a) expiry of the period during which the Affected Party is excused from performance of its obligations in accordance with Article 14.7; or
- b) termination of this Agreement pursuant to Article 14.10 hereof.

## 14.7Resumption of Performance

During the period of Force Majeure, the Affected Party shall in consultation with the other Party, make all reasonable efforts to limit or mitigate the effects of the Force Majeure Event on the performance of its obligations under this Agreement. The Affected Party shall also make efforts to resume performance of its obligations under this Agreement as soon as possible and upon resumption shall notify the other Party of the same in writing. The other Party shall afford all reasonable assistance to the Affected Party in this regard.

### 14.8 Performance Excused

The Affected Party, to the extent rendered unable to perform its obligations or part thereof under this Agreement as a consequence of the Force Majeure Event shall be excused from performance of the obligations. Provided that, the excuse from performance shall be of no greater scope and of no longer duration than is reasonably warranted by the Force Majeure Event. Provided further, nothing contained herein shall absolve the Affected Party from any payment obligations accrued prior to the occurrence of the underlying Force Majeure Event.

## 14.9 Costs, Revised Timetable

## a. Costs

Each Party shall bear its costs, if any, incurred as a consequence of the Force Majeure Event.

## b. Extension of time/period

The Affected Party shall be granted by the other Party, extension of time specified

in this Agreement for the performance of any obligation by such period not exceeding the period during which the relative performance was affected by the Force Majeure Event. Such extension may include extension of the Concession Period by the Concessioning Authority in appropriate cases if permissible under Applicable Law.

# 14.10 Termination Due to Force Majeure Event

If the period of Force Majeure continues or is in the reasonable judgment of the Parties likely to continue beyond a period of 120 (one hundred and twenty) Days, the Parties may mutually decide to terminate this Agreement or continue this Agreement on mutually agreed revised terms. If the Parties are unable to reach an agreement in this regard, the Affected Party shall after the expiry of the said period of 120 (one hundred and twenty) Days be entitled to terminate the Agreement in which event, the provisions of Articles 16 and 17 shall, to the extent expressly made applicable, apply.

#### **EVENTS OF DEFAULT**

### 15.1 Events of Default

Event of Default means the Concessionaire Event of Default or the Concessioning Authority Event of Default or both as the context may admit or require.

#### a. The Concessionaire Event of Default

The Concessionaire Event of Default means any of the following events unless such an event has occurred as a consequence of the Concessioning Authority Event of Default or a Force Majeure Event:

- i. the Concessionaire's failure to perform or discharge any of its obligations in accordance with the provisions of this Agreement;
- ii. construction at the Project Site is abandoned for more than 90 (ninety) Days during the Construction Phase;
- iii. a delay of more than 180 (one hundred and eighty) Days from any Milestone Date in achieving any of the performance obligations set forth for the relevant Milestone Date or the Date of Commercial Operations is delayed for more than 180 (one hundred and eighty) Days from the Scheduled Project Completion Date;
- iv. Delay in payment of Royalty for 2 (two) consecutive Months or more than (5) (five) times in the aggregate during the Concession Period;
- v. the Concessionaire's failure to perform or discharge any of its obligations under any other Project Contract, which has or is likely to affect the Project/the Project Facilities and Services, materially;
- vi. A default under the Management Contract, which has or is likely to affect the Project/the Project Facilities and Services, materially;
- vii. the Concessionaire fails to achieve Minimum Guaranteed Cargo for a consecutive period of 3 (three) years. Provided, the Concessionaire shall not be deemed to be in default if such non achievement is due to a substantial change in economic policies including the policy regarding import/export of a particular commodity as a result of which the throughput could not be achieved;

- viii. any representation made or warranties given by the Concessionaire under this Agreement is found to be false or misleading;
- ix. the Concessionaire passing a resolution for voluntary winding up;
- x. appointment of a provisional liquidator, administrator, trustee or receiver of the whole or substantially whole of the undertaking of the Concessionaire by a court of competent jurisdiction in proceedings for winding up or any other legal proceedings;
- xi. occurrence of default under the Financing Documents pursuant to which the Lenders exercise their rights to substitute the Concessionaire in accordance with the provisions of the Substitution Agreement;
- xii. levy of an execution or destraint on the Concessionaire's assets which has or is likely to have Material Adverse Effect and/or affect the Project/Project Facilities and Services, materially and such execution or destraint remaining in force for a period exceeding 90 (ninety) Days;
- xiii. the Performance Guarantee is not maintained in terms of the provisions hereof;
- xiv. the Concessionaire abandons or expresses its intention to revoke/terminate this Agreement without being entitled to do so as is expressly provided in the Agreement;
- xv. a change in shareholding such that the beneficial interest of the Applicant/Consortium in the Concessionaire reduces below the limits set in Article 11.2 and/or Management Control of the Concessionaire has occurred in contravention of the provisions of Article 11 hereof;
- xvi. amalgamation of the Concessionaire with any other company or reconstruction or transfer of the whole or part of the Concessionaire's undertaking other than transfer of assets in the ordinary course of businessin contravention with the provisions of Article 11 hereof; and
- xvii.the Concessionaire engaging or knowingly allowing any of its employees, agents, Contractor or representative to engage in any activity prohibited under this Agreement and/or by law or which constitutes a breach of the Agreement or breach of or an offence under any law, in the course of any activity undertaken pursuant to this Agreement.

## b. The Concessioning Authority Event of Default

- the Concessioning Authority's failure to perform or discharge its obligations in accordance with the provisions of this Agreement unless such failure has occurred as a consequence of any Concessionaire Event of Default or a Force Majeure Event.
- ii. any representation made or warranties given by the Concessioning Authority under this Agreement is found to be false or misleading.
- iii. appointment of a provisional liquidator, administrator or receiver of the whole or part of the Port's Assets in any legal proceedings initiated against the Concessioning Authority (unless such proceedings are initiated as a consequence of any Concessionaire Event of Default).
- iv. levy of an execution or destraint on the Port's Assets in any proceedings against the Concessioning Authority (unless such proceedings are initiated as a consequence of any Concessionaire Event of Default) which has or is likely to have Material Adverse Effect and such execution or destraint remaining in force for a period exceeding 90 (ninety) Days.

## 15.2 Parties Rights

- a) Upon the occurrence of the Concessionaire Event of Default, the Concessioning Authority shall without prejudice to any other rights and remedies available to it under this Agreement be entitled to terminate this Agreement.
- b) Upon the occurrence of the Concessioning Authority Event of Default, the Concessionaire shall without prejudice to any other rights and remedies available to it under this Agreement be entitled to terminate this Agreement.

Provided that before proceeding to terminate this Agreement, the Party entitled to do so shall give due consideration and shall have due regard to the nature of the underlying Event of Default, its implication on the performance of the respective obligations of Parties under this Agreement and the circumstances in which the same has occurred.

## 15.3 Consultation Notice

Either Party exercising its right under Article 15.2, shall issue to the other Party a notice in writing specifying in reasonable detail the underlying Event of Default(s) and proposing consultation amongst the Parties and the Lenders to consider possible measures of curing or otherwise dealing with the underlying Event of Default ("Consultation Notice").

#### 15.4 Remedial Process

Following the issue of Consultation Notice by either Party, within a period not exceeding 90 (ninety) Days or such extended period as the Parties may agree ("Remedial Period") the Parties shall, in consultation with the Lenders, endeavour to arrive at an agreement as to the manner of rectifying or remedying the underlying Event of Default. Without prejudice to this, if the underlying event is a Concessionaire Event of Default, the Concessioning Authority shall in consultation with the Lenders endeavour to arrive at an agreement as to one or more of the following measures and/or such other measures as may be considered appropriate by them in the attendant circumstances:

- a) the change of management or control/ownership of the Concessionaire;
- b) the replacement of the Concessionaire by a new operator ("Selectee") proposed by the Lenders (in terms of the Substitution Agreement), and the specific terms and conditions of such replacement which shall include:
  - i. the criteria for selection of the Selectee;
  - ii. the transfer of rights and obligations of the Concessionaire surviving under this Agreement to the Selectee;
  - iii.handing over/ transfer of the Project Site, the Port's Assets and the Project Facilities and Services to the Selectee;
  - iv.acceptance by the Selectee of the outstanding obligations of the Concessionaire under the Financing Documents and preserving Lenders' charge on the Concessionaire's assets;
  - v. acceptance by the Selectee of any amounts due to the Concessioning Authority from the Concessionaire under this Agreement; and
  - vi.payment of consideration for the Concessionaire's assets comprised in the Project Facilities and Services and the manner of appropriation thereof.

## 15.5 Obligations during Remedial Period

During the Remedial Period, the Parties shall continue to perform their respective obligations under this Agreement which can be performed, failing which the Party in breach shall compensate the other Party for any loss or damage occasioned or suffered on account of the underlying failure/breach.

## 15.6 Revocation of Consultation Notice

If during the Remedial Period the underlying Event of Default is cured or waived or the Parties and the Lenders agree upon any of the measures set out in Article 15.4, the Consultation Notice shall be withdrawn in writing by the Party who has issued the same.

### 15.7 Termination due to Events of Default

If before the expiry of the Remedial Period, the underlying Event of Default is neither cured nor waived nor the Parties and the Lenders have agreed upon any of the measures in accordance with Article 15.4, the Party who has issued the Consultation Notice shall have the right to terminate this Agreement, in which event, the provisions of Article 16 and 17 shall, to the extent expressly made applicable, apply.

# 15.8 Concessioning Authority's Rights of Step-in

Upon a Termination Notice being issued due to a Concessionaire Event of Default, the Concessioning Authority may, at its discretion:

- a) re-enter upon and take possession and control of Project Site/Project Facilities and Services forthwith;
- b) prohibit the Concessionaire and any Person claiming through or under the Concessionaire from entering upon/dealing with the Project Facilities and Services;
- c) step in and succeed upon election by Concessioning Authority without the necessity of any further action by the Concessionaire, to the interests of the Concessionaire under such of the Project Contracts as the Concessioning Authority may in its discretion deem appropriate with effect from the date of communication of such election to the counter party to the relative Project Contracts.

Provided, that in such circumstances, the Concessioning Authority shall assume the obligations of the Concessionaire with respect to the Lenders during such Remedial Period out of the current revenues. Provided further, the Concessionaire acknowledges that any payments made by the Concessioning Authority during the Remedial Period shall be adjusted against compensation payable by the Concessioning Authority to the Concessionaire in terms of the provisions of this Agreement.

### TERMINATION OF THE CONCESSION/AGREEMENT

### **16.1 Termination Procedure**

The Party entitled to terminate this Agreement either on account of a Force Majeure Event or on account of an Event of Default shall do so by issue of a notice in writing ("**Termination Notice**") to the other Party and simultaneously deliver a copy thereof to the Lenders. The Termination Notice shall be of not less than 90 (ninety) Days and not ordinarily be more than 180 (one hundred and eighty) Days, ("**Termination Period**") and at the expiry of the Termination Period, this Agreement shall stand terminated without any further notice.

## 16.2 Obligations during Termination Period

During Termination Period, the Parties shall, subject where applicable to the provisions of this Article 16, continue to perform such of their respective obligations under this Agreement which are capable of being performed with the object, as far as possible, of ensuring continued availability of the Project Facilities and Services to the users, failing which the Party in breach shall compensate the other Party for any loss or damage occasioned or suffered on account of the underlying failure/breach.

# 16.3 Requisition

Except where the Termination Notice is issued prior to Financial Close being achieved by the Concessionaire, when the Concession has not come into effect the Concessionaire has no right hereunder and no compensation is payable by the Concessioning Authority, upon issue or receipt as the case may be of Termination Notice, either as a consequence of a Force Majeure Event or as a consequence of an Event of Default, or otherwise 6 (six) months prior to the expiry of the Concession Period, the Concessioning Authority shall by a notice in writing ("Requisition") call upon the Concessionaire to furnish the following information to enable the Concessioning Authority to estimate the likely compensation payable by the Concessioning Authority to the Concessionaire and/or to finalise the items of Concessionaire's assets comprised in the Project Facilities and Services to be handed over to/taken over by the Concessioning Authority.

- a) except in cases where no Financial Close has been achieved, the particulars of Debt Due supported by Lenders' certificate;
- b) data or records including Test Certificates, Survey Reports, Inspection Reports, Records of Maintenance, Statutory Certificates issued for Operation and Establishment of the Project Facilities and Services and regarding the operation

and maintenance of the Project Facilities and Services;

- c) specifications regarding the Concessionaire's assets comprised in the Project Facilities and Services; and
- d) any other information or records regarding Concessionaire, its business, the Project/Project Facilities and Services, assets and liabilities.

The Concessionaire shall within a period of 30 (thirty) days of receipt of Requisition furnish the particulars called for by the Concessioning Authority.

## **16.4 Condition Survey**

- a) The Concessionaire agrees that on the service of a Termination Notice or at least 6 (six) months prior to the expiry of the Concession Period, as the case may be, it shall conduct or cause to be conducted under the Concessioning Authority's supervision, a condition survey of the Project Facilities and Services including the Project Site and/or the Port's Assets to ascertain the condition thereof, verifying compliance with the Concessionaire's obligations under this Agreement and to prepare an inventory of the assets comprised in the Project Facilities and Services. During this period, the designated key personnel of the Concessioning Authority shall be associated with the operations of the Project Facilities and Services (except when the same is impossible due to a Force Majeure Event) in order to facilitate smooth take over of the same by the Concessioning Authority on the Transfer Date.
- b) If, as a result of the condition survey, the Concessioning Authority shall observe/notice that the Project Site and/or the Port's Assets and/or the Project Facilities and Services or any part thereof have/has not been operated and maintained in accordance with the requirements therefor under this Agreement (normal wear and tear excepted) the Concessionaire shall, at its cost and expenses, take all necessary steps to put the same in good working conditions well before the Transfer Date.
- c) In the event the Concessionaire fails to comply with the provisions of this Agreement, the Concessioning Authority may itself cause the condition survey and inventory of Port's Assets and the Project Facilities and Services to be conducted. The Concessioning Authority shall be compensated by the Concessionaire for any costs incurred in conducting such survey and preparation of inventory as also in putting the Project Facilities and Services in good working condition.

# **16.5** Consequences of Termination

Without prejudice to any other consequences or requirements under this Agreement or under any law:

- a) the Concessionaire shall transfer all the assets and rights upon expiry of the Concession Period by efflux of time or termination of the Agreement due to a Force Majeure Event or on account of an Event of Default in accordance with Article 18;
- b) the Concessioning Authority shall be entitled to encash any subsisting bank guarantee(s) provided by the Concessionaire against any amounts owing to the Concessioning Authority by the Concessionaire.

Notwithstanding anything contained in this Agreement, except for ensuring the deposit of the compensation payable to the Concessionaire in accordance with Article 17 in the Escrow Account, the Concessioning Authority shall not, as a consequence of termination or otherwise, have any obligation whatsoever to any third party including but not limited to obligations as to compensation for loss of employment, continuance or regularization of employment, absorption or reemployment on any ground, in relation to any person in the employment of or engaged by the Concessionaire in connection with the Project, and the handback of the Project Site/Port's Assets/Project Facilities & Services by the Concessionaire to the Concessioning Authority shall be free from any such obligation.

#### COMPENSATION

# 17.1 Compensation

# (a) Termination due to Force Majeure Event

- If the termination is due to a Non Political Event, compensation payable to the Concessionaire shall be the lower of the Book Value or the Debt Due LESS any amount due to the Concessioning Authority by the Concessionaire under this Agreement LESS all insurance claims received or admitted.
- ii. If the termination is due to a Other Event compensation payable to the Concessionaire shall be the higher of the Book Value or the Debt Due LESS any amount due to the Concessioning Authority by the Concessionaire under this Agreement LESS all insurance claims received or admitted. Provided, the Book Value or the Debt Due, as the case may be shall not exceed the Actual Project Cost.
- iii. If termination is due to a Political Event, compensation payable to the Concessionaire shall be the same as that stipulated for termination due to a Concessioning Authority Event of Default under Article 17.1 (c).

Provided, no compensation shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover as contemplated under Article 12 of this Agreement.

## (b) Termination due to Concessionaire Event of Default

If the termination is after the Date of Commercial Operation, due to a Concessionaire Event of Default, the compensation payable by the Concessioning Authority to the Concessionaire shall be the lowest of:

- (i) the Book Value;
- (ii) 90% (ninety percent) of Debt Due;
- (iii) the Actual Project Cost;

Provided, no compensation shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover as contemplated under Article 12 of this Agreement.

## (c) Termination due to Concessioning Authority Event of Default

If the termination is due to a Concessioning Authority Event of Default, the compensation payable by the Concessioning Authority shall be equal to the aggregate of (i) Debt Due plus (ii) 150% (one hundred and fifty percent) Equity.

### 17.2 No Compensation on Expiry of Concession Period

In the event of expiry of Concession by efflux of time (the Concession having run its full course), the Concessionaire shall hand over/ transfer peaceful possession of the Project Site, Port's Assets and the Project Facilities and Services free of cost and Encumbrance.

## 17.3 Transfer Fee and Charges

Transfer costs, stamp duties, notary fees and taxes, if applicable, for the transfer of the Project Facilities and Services consequent to the expiry or termination of this Agreement shall be borne by:

- (a) the Concessionaire in the event of expiry of Concession Period or termination due to a Concessionaire Event of Default:
- (b)the Concessioning Authority in the event of termination due to an Concessioning Authority Event of Default or Political Event; and
- (c) by both parties equally in case of termination due to Change in Law or Non Political Event or Other Event.

# 17.4 Payment of Compensation to Lenders

The Concessionaire hereby irrevocably authorises the Concessioning Authority to pay to the Lenders or at their instruction to any designated bank account in India the compensation payable to the Concessionaire. The Concessionaire confirms that upon such payment being made, the Concessioning Authority shall stand duly discharged of its obligations regarding payment of compensation under this Agreement and the charge created by the Concessionaire in favour of the Lenders on any of its assets taken over by the Concessioning Authority shall stand satisfied and all such assets shall on and from the Transfer Date be free from such charge. The Concessionaire further confirms that payment of compensation by Concessioning Authority in accordance with this Article 17.4 shall be a valid discharge to the Concessioning Authority in respect of Concessioning Authority's obligation regarding payment of compensation to the Concessionaire under this Agreement.

Provided notwithstanding anything inconsistent contained in this Agreement, the Concessionaire/the Lenders as the case may be shall be entitled to remove at its/ their

cost all such moveables which are not taken over by the Concessioning Authority and to deal with the same in accordance with their respective rights under law.

Provided further, if there are no amounts outstanding under the Financing Documents and a certificate to that effect issued by the Lenders is furnished by the Concessionaire to the Concessioning Authority, the compensation shall be paid by the Concessioning Authority to the Concessionaire directly.

## 17.5 Delayed Payment of Compensation

If for any reasons, other than those attributable to the Concessionaire, the Concessioning Authority fails to pay the compensation on the Transfer Date, the Concessioning Authority shall be liable to pay interest@ SBI BR plus 2% (two percent) per annum thereon from the Transfer Date till payment thereof. Provided, nothing contained in this Article shall be deemed to authorise any delay in payment of compensation in accordance with this Agreement.

## 17.6 Delayed Transfer of Assets

If for any reasons other than those attributable to the Concessioning Authority the Concessionaire fails to transfer assets, rights and contracts on the Transfer Date in accordance with Article 16.5 read with Article 18, there shall be no suspension of the operation and maintenance of the Project Facilities and Services and the Concessionaire shall, as a trustee of the Concessioning Authority, (a) continue to operate and maintain the Project Facilities and Services or such of them, as directed by Concessioning Authority until completion of the relative transfer formalities and (b) account for and pay to the Concessioning Authority the Gross Revenue minus operating costs and statutory dues, from such operations. In the event of failure to do so, the Concessionaire shall be liable to pay to the Concessioning Authority, for every Day of delay, liquidated damages computed at the rate of the average daily profits earned during the 3 (three) years immediately preceding the Transfer Date. Parties confirm that this is a true and correct estimate of damages and not in the nature of a penalty. Provided nothing contained in this Article 17.6 shall be deemed or construed to authorise delay in completion of formalities of transfer of assets, rights and contracts by the Concessionaire to the Concessioning Authority in accordance with the requirements thereof under this Agreement.

In case the transfer of assets by the Concessionaire to the Concessioning Authority is delayed for reasons attributable to the Concessioning Authority, the Concessionaire shall nonetheless continue to operate the Project Facilities and Services but as agent of the Concessioning Authority. Provided however, the Concessionaire shall be liable to pay Royalty in accordance with Article 9.2.

#### 17.7 Remedies Cumulative

The exercise of right by either Party to terminate this Agreement, as provided herein, shall not preclude, such Party from availing any other rights or remedies that may be available to it under law. All remedies available to the Parties shall be cumulative and the exercise or failure thereof of one or more remedies by any Party shall not limit or preclude the exercise of or constitute a waiver of any other remedies by such Party.

#### TRANSFER ON EXPIRY OF THE CONCESSION PERIOD

## 18.1 General Scope of Transfer/Payment

The Parties shall perform/discharge their respective obligations to be performed or discharged under the provisions of this Agreement on the Transfer Date in entirety. Without prejudice to the generality of this provision and the provisions of Article 16, the transactions to be consummated and the formalities to be completed by the Parties on the Transfer Date shall be as set out in Articles 18.2 and 18.3.

### 18.2 Concessionaire's Obligations

The Concessionaire shall;

- (a) hand over peaceful possession of the Project Site, Port's Assets, the Project and the Project Facilities and Services free of Encumbrance;
- (b) transfer all its rights, titles and interests in the assets comprised in the Project Facilities and Services which are required to be transferred to the Concessioning Authority in accordance with this Agreement and execute such deeds and documents as may be necessary for the purpose and complete all legal or other formalities required in this regard;
- (c) hand over to the Concessioning Authority all documents including as built drawings, manuals and records relating to operation and maintenance of the Project Facilities and Services;
- (d) transfer technology and up-to-date know-how relating to operation and maintenance of the Port's Assets and/or the Project Facilities and Services;
- (e) transfer or cause to be transferred to the Concessioning Authority any Project Contracts which are (i) valid and subsisting; (ii) capable of being transferred to the Concessioning Authority; and (iii) those the Concessioning Authority has chosen to take over, and cancel or cause to be cancelled such Project Contracts not transferred to the Concessioning Authority. For this purpose, the Concessionaire shall ensure that all Project Contracts are assignable in favor of the Concessioning Authority without any further action on part of the respective counterparties. The Concessionaire shall entirely at its cost, terminate all such Project Contracts which are not transferred/assigned and/or are not required to be transferred/assigned to the Concessioning Authority;
- (f) at its cost, transfer to the Concessioning Authority all such Applicable Permits which the Concessioning Authority may require and which can be legally

transferred. Provided if the termination is on account of Concessioning Authority Event of Default the cost of such transfer shall be borne/ reimbursed by the Concessioning Authority;

(g) at its cost, remove within 90 (ninety) days from expiry of the Concession Period, from the Project Site/Port's Assets, any moveable assets that are not taken over by or not to be transferred to the Concessioning Authority in terms of the provisions of this Agreement.

## 18.3 Concessioning Authority's Obligations

Except in the event of expiry of the Concession by efflux of time, the Concessioning Authority shall pay compensation payable to the Concessionaire in accordance with Article 17.1 of this Agreement, to the Lenders, or deposit the same in the Escrow Account or on the written instructions of the Lenders to any designated bank account in India, or to the Concessionaire, as the case may be. The Concessionaire confirms that upon such payment being made, the Concessioning Authority shall stand duly discharged of its obligations regarding payment of compensation under this Agreement and the charge created by the Concessionaire in favour of the Lenders on any of the assets shall stand satisfied and all such assets shall on and from the Transfer Date be free from such charge.

The Concessionaire further confirms that payment of compensation by Concessioning Authority in accordance with this Article 18.3 shall be a valid discharge to the Concessioning Authority in respect of Concessioning Authority's obligation regarding payment of compensation to the Concessionaire under this Agreement.

### **18.4 Risk**

Until transfer in accordance with this Article 18, the Port's Assets and the Project Facilities and Services shall remain at the sole risk of the Concessionaire except for any loss or damage caused to or suffered by the Concessionaire due to any act or omission or negligence on the part of the Concessioning Authority under this Agreement.

#### **DISPUTE RESOLUTION**

### 19.1 Amicable Settlement

If any dispute or difference or claims of any kind arises between the Concessioning Authority and the Concessionaire in connection with construction, interpretation or application of any terms and conditions or any matter or thing in any way connected with or in connection with or arising out of this Agreement, or the rights, duties or liabilities of any Party under this Agreement, whether before or after the termination of this Agreement, then the Parties shall meet together promptly, at the request of any Party, in an effort to resolve such dispute, difference or claim by discussion between them.

# 19.2 Assistance of Expert

The Parties may, in appropriate cases agree to refer the matter to an Expert appointed by them with mutual consent. The cost of obtaining the service of the Expert shall be shared equally.

### 19.3 Arbitration

### a) Arbitrators

Failing amicable settlement and/or settlement with the assistance of Expert appointed by the Parties by mutual consent, the dispute or differences or claims as the case may be, shall be finally settled by binding arbitration under the Arbitration and Conciliation Act, 1996. Unless the Parties mutually agree otherwise, within 30 (thirty) Days of invocation of the arbitration as mentioned below, the rules of arbitration prescribed by the International Centre for Alternative Dispute Resolution, New Delhi shall apply to the arbitration. The arbitration shall be by a panel of three Arbitrators, one to be appointed by each Party and the third, who shall act as presiding arbitrator, to be appointed by the two arbitrators appointed by the Parties. The arbitration shall be invoked by one party issuing to the other a notice in writing invoking the arbitration and appointing an Arbitrator. Upon receipt of the notice, the other Party shall appoint the second Arbitrator. The two Arbitrators so appointed shall appoint the third Arbitrator who shall act as the 'Presiding Arbitrator'. If the other Party fails to appoint a second Arbitrator within 30 (thirty) Days from the receipt of the request to do so, then the Arbitrator so appointed by the first party shall adjudicate the disputes as 'Sole Arbitrator'.

### b) Place of Arbitration

The place of arbitration shall be the headquarters of the Concessioning Authority in India.

## c) English Language

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and rulings shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

### d) Procedure

The procedure to be followed within the arbitration, including appointment of arbitrator/arbitral tribunal, the rules of evidence which are to apply shall be in accordance with the Arbitration and Conciliation Act, 1996.

## e) Enforcement of Award

Any decision or award resulting from arbitration shall be final and binding upon the Parties. The Parties hereto agree that the arbitral award may be enforced against the Parties to the arbitration proceeding or their assets wherever they may be found and that a judgment upon the arbitral award may be entered in any court having jurisdiction thereof.

## f) Fees and Expenses

The fees and expenses of the arbitrators and all other expenses of the arbitration shall be initially borne and paid equally by respective Parties subject to determination by the arbitrators. The arbitrators may provide in the arbitral award for the reimbursement to the successful party of its costs and expenses in bringing or defending the arbitration claim, including legal fees and expenses incurred by the Party.

# g) Performance during Arbitration

Pending the submission of and/or decision on a dispute, difference or claim or until the arbitral award is published, the Parties shall continue to perform all of their obligations under this Agreement without prejudice to a final adjustment in accordance with such award.

#### REPRESENTATIONS AND WARRANTIES

## 20.1 Representations and Warranties of the Concessionaire

The Concessionaire represents and warrants to the Concessioning Authority that:

- a. it is duly organised, validly existing and in good standing under the laws of India and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- b. it has full power and authority to execute, deliver and perform its obligations under this Agreement;
- c. it has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- d. this Agreement constitutes the legal, valid and binding obligation of the Concessionaire, enforceable against it in accordance with the terms hereof;
- e. there are no actions, suits or proceedings pending or to its best knowledge, threatened against or affecting it before any court, administrative body or arbitral tribunal which might materially and adversely affect its ability to meet or perform any of its obligations under this Agreement;
- f. it has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;
- g. the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum of association and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- h. it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Authority which may result in any Material Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

- i. it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect on its ability to perform its obligations under this Agreement;
- j. all its rights and interests in the Project/Project Facilities and Services shall pass to and vest in the Concessioning Authority on the Transfer Date free and clear of all liens, claims and Encumbrances, without any further act or deed on its part or that of the Concessioning Authority, and that none of the Project Assets shall be acquired by it, subject to any agreement under which a security interest or other lien or Encumbrance is retained by any person, save and except as expressly provided in this Agreement;
- k. no representation or warranty by it contained herein or in any other document furnished by it to the Concessioning Authority including the Bid or to any Government Authority in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;
- no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Concession or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Concessioning Authority in connection therewith;
- m. agrees that the execution, delivery and performance by it of this Agreement and all other agreements, contracts, documents and writings relating to this Agreement constitute private and commercial acts and not public or governmental acts; and
- n. consents generally in respect of the enforcement of any judgement against it in any proceedings in any jurisdiction to the giving of any relief or the issue of any process in connection with such proceedings.

## 20.2 Representations and Warranties of the Concessioning Authority

The Concessioning Authority represents and warrants to the Concessionaire that:

- a) it is duly organised, validly existing and in good standing under the laws of India;
- b) it has full power and authority to execute, deliver and perform its obligations under this Agreement;

- c) it has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- d) this Agreement constitutes the legal, valid and binding obligation of the Concessioning Authority, enforceable against it in accordance with the terms hereof; and
- e) there are no actions, suits or proceedings pending or to its best knowledge, threatened against or affecting it before any court, administrative body or arbitral tribunal which might materially and adversely affect its ability to meet or perform any of its obligations under this Agreement.

### 20.3 Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

#### **ARTICLE 21**

#### MISCELLANEOUS PROVISIONS

#### **21.1 Datum**

The datum to which all levels shall be referred for the purpose of the Project is the Chart Datum (0.000) which is -0.95m below mean sea level.

## 21.2 Survival of Obligations

Any cause of action which may have occurred in favour of either Party or any right which is vested in either Party under any of the provisions of this Agreement during the Concession Period as the case may be as a result of any act, omission, deed, matter or thing done or omitted to be done by either Party before the expiry of the Concession Period by efflux of time or otherwise in accordance with the provisions of this Agreement shall survive the expiry of the Concession Period/ termination of this Agreement.

#### 21.3 Articles to survive Termination

The provisions of Articles 16 to 21 shall, to the fullest extent necessary to give effect thereto, survive the Concession Period/the termination of this Agreement and the obligations of Parties to be performed/discharged following the termination/early determination of this Agreement shall accordingly be performed/discharged by the Parties.

## 21.4 Joint Responsibility

In the event that any damage is caused partly due to the negligence or default or omission on the part of the Concessioning Authority and partly due to the negligence or default or omission on the part of the Concessionaire, each Party shall be liable to the other Party only in the proportion to its respective degree of negligence or default or omission, as the case may be.

## 21.5 Several Obligations

Nothing contained in this Agreement shall be construed to create an association, trust, partnership, agency or joint venture among the Parties and Parties shall be liable to perform their respective duties and discharge their respective liabilities or obligations in accordance with the provisions of this Agreement.

## 21.6 Severability

If for any reason whatsoever any provision or any part(s) of this Agreement is held or shall be declared to be void or illegal or invalid under present or future laws or regulations effective and applicable during the Concession Period, by any competent arbitral tribunal or court, and if such provisions shall be fully separable and this Concession shall be constructed as if such provision or such part(s) of this Agreement never comprised part of this Agreement and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by such void or illegal or invalid provision or by its severance from this Agreement.

#### 21.7 Notices

Unless otherwise stated, notices to be given under this Agreement including but not limited to a notice of waiver of any term or related or breach of any term of this Agreement shall be in writing and shall be given by hand delivery, recognized international courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses set forth below:

The Concessioning Authority:

CHAIRMAN New Mangalore Port Trust Mangalore, Karnataka –

Fax No: +91-824-2408390 Email: chairman@nmpt.in

| The Concessionaire: |   |
|---------------------|---|
| Fax No              | _ |
| Email:              |   |

or such other address, telex number, or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered (i) in the case of any communication made by letter, when delivered by hand, by recognized international courier or by mail (registered, return receipt requested) at that address and (ii) in the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

#### 21.8 Waiver

No waiver of any term or condition or of the breach thereof by any Party shall be valid unless expressed in writing and signed by such Party and communicated by such Party to the other Party in accordance with the provisions of Article 21.7 of this Agreement. A waiver by any Party of any term or condition or breach thereof in a given case shall

not be deemed or construed as a general waiver of such term or condition or the breach in the future or waiver of any other terms or conditions or breach of this Agreement.

## 21.9 Amendments, Modifications or Alterations.

No amendments, modifications or alterations of or any additions to the terms and conditions of this Agreement shall be valid unless the same be in writing and agreed to by the Parties.

## 21.10 Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Republic of India and courts having territorial jurisdiction over the Project shall have jurisdiction over all matters relating to or arising out of this Agreement.

## 21.11 Entire Agreement

This Agreement and the Appendices together constitute a complete and exclusive statement of the terms of the agreement between the Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement unless specifically retained in this Agreement and the Appendices, by reference or otherwise, are abrogated and withdrawn.

| IN WITNESS   | WHEREOF, the Parties,    | , intending to be l | legally bound, | have caused this |
|--------------|--------------------------|---------------------|----------------|------------------|
| Agreement on | the dates indicated next | to their signature  | es below:      |                  |

| Common Seal of the Concessioning        |
|---|
| Authority is affixed pursuant to its    |
| resolution datedof the Board in the     |
| presence of Mrwho has                   |
| signed this Agreement in token thereof. |
|   |
|   |
|   |
|   |
|   |
| Signed and Delivered by the             |
| Concessionaire by the hand of its       |
| authorized representative Mr.           |
| pursuant to Resolution                  |
| datedof its Board of Directors.         |

#### **APPENDIX 1**

#### PROJECT SITE

- 1. The Port of New Mangalore, one of the modern Ports of India commissioned in 1975 and one among the twelve major ports in India.
- 2. It is situated in Karnataka state, and lies between the major ports of Cochin and Mormugao Port.
- 3. It is located at Panambur, Mangalore at latitude 12° 55' North and Longitude 74° 48' East and at a distance of about 191 nautical miles north of Cochin Port and 170 nautical miles south of Mormugao Port.
- 4. The Port has entrance channel of 7.5 km in length and 245 meter wide and the channel is dredged to a depth of 15.4 meters. The tidal variation at Mangalore is around 1.7 meters.
- 5. The proposed Project Site for "Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP" is located within the harbour basin on west of the Western Dock arm. The storage area and railway marshalling yard are located on the Western side and northern side of the berth No.12 respectively. The Layout Plan of the Port is marked as Drawing No.1 attached to Appendix 1.
- 6. The salient features of the Berth have been furnished here for selection of mobile ship loaders/ unloaders or cranes. The berth structure is not licensed under the subject project. The salient feature of Berth No.12 are as follows:
  - a) Length of the Berth 325 Metres
  - b) Designed Dredged depth 15.1 Metres
  - c) Design Ship size 80,000-100,000 DWT
  - d) Width of R.C.C. Deck- 25 Metres
  - e) The Berth is provided with provisions for rails, 20 M c/c, for Coal mobile ship loaders / unloaders or cranes
- 7. The project storage area is located behind the Berth No. 12 Parallel to the berth face towards west. The total area ("Land Area") available is to the extent of 24.50 Hectares as marked in Drawing No. 2 attached to Appendix 1. Out of which, 19.60 and 1.80 hectare has been earmarked for Coal and Other Cargo respectively; 0.25 Hectare is made available for providing the conveyor system and the remaining 2.85 Hectares is provided for mechanized railway loading including railway track.
- 8. The Loading facilities at railway yard is in the existing Panambur Marshalling Yard located at northern side of Berth No. 12 at a distance of 2 kms approximately. The

area available for loading facility at marshalling yard is 28,500 sqm. The Port has a railway network in the Marshalling Yard. The project requirement envisages yard planning of the subject Project within the area available. The inward and outward entry of train can be connected to existing Port railway tracks at specified locations on southern or northern end of the marshalling yard. The drawing showing the availability of area in the Marshalling Yard and the existing rail tracks is shown in Drawing No. 3 attached to Appendix 1.

9. The area proposed to be made available for setting up the facilities:-

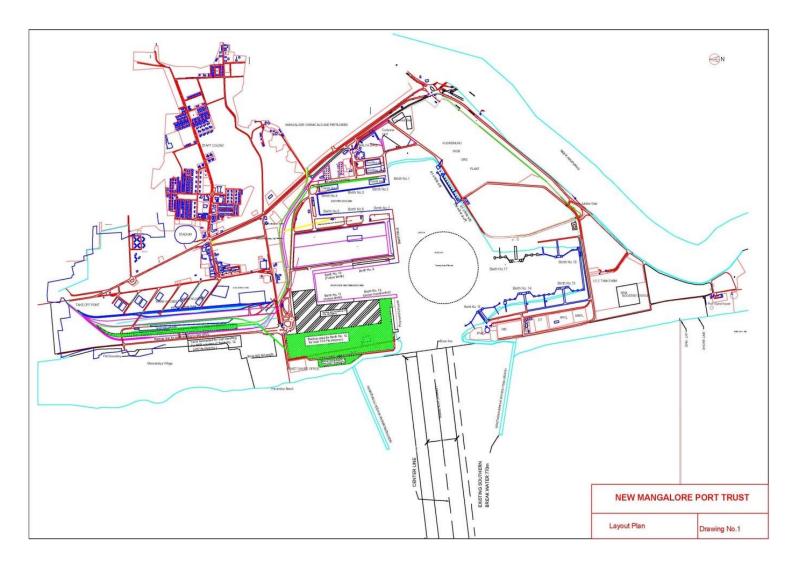
| Location               | Area (in Sqm) | Description                                 |
|------------------------|---------------|---|
| Panambur Marshalling   | 28,500        | Total area of 2.85 Ha (approximate)         |
| Yard                   |               | as shown in Drawing No 3                    |
| Backup area of Berth   | 1,96,000      | An area of 19.60 Ha (approximate)           |
| No. 12 for Coal cargo  |               | as shown in Drawing No 2                    |
| Backup area of Berth   | 18,000        | An area of 1.80 Ha (approximate)            |
| No. 12 for Other Cargo |               | as shown in Drawing No 2                    |
| Right of way for       | 2,500         | Right of Way (RoW) from Marshalling Yard to |
| conveying system       |               | Berth                                       |
| (500m x 5m)            |               | as shown in Drawing No 2.                   |
|                        |               | Generally 5 M width & wherever junction     |
|                        |               | tower exists, extra width will be allotted  |
| Total Area             | 2,45,000      |   |

- 10. Water area adjoining the berth no. 12 extending upto a distance of 50 m from the proposed berthing line admeasuring about 16250 sq mt. ("Water Area")
- 11. The marshalling yard and the storage yard can be connected by conveyor system. The area allotted will be based on right of way. The alignment of the conveyor shall be as per the existing site conditions.
- 12. The connectivity of roads to the marshalling yard is directly from the Port internal roads and the road on the western side parallel to the marshalling yard. The road connectivity to the storage yard (within custom notified area) behind berth No. 12 will be from KK Gate, Silver Jubilee Gate or U.S. Mallya Gate from the Port internal roads as shown in the Layout Plan of the Port (Drawing No. 1).
- 13. The outlets of drains within the proposed yard shall be connected to the existing cross drains in the railway marshalling yard. The drain outlets from the proposed storage yard shall be connected to the existing drains adjacent to the Concessionaire's area.
- 14. The Work Shop Godown, Railway Platforms & Railway Lines within the project site will be handed over to the concessionaire immediately, while the Signal station

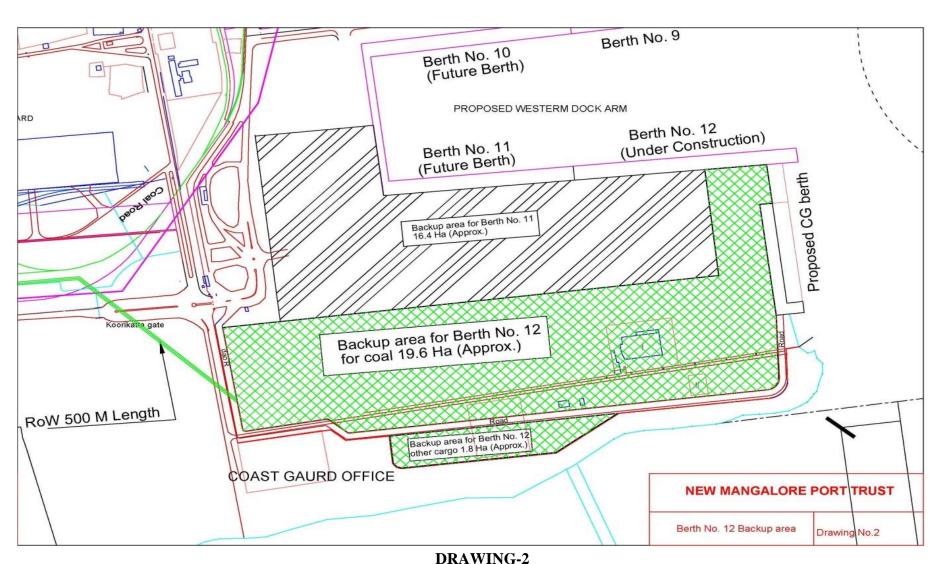
(Vessel Traffic Management Solution (VTMS)) and the STP would be handed over to the concessionaire in the Second Phase, with reference to Appendix II of this document.

- 15. The Port Railway Marshalling Yard has 6 BG lines of 60 wagons capacity each. This railway line is connected to Konkan Railway and Southern Railway which includes the Bangalore Hassan Mangalore Railway network. The Licensee has to provide a conveyor system, BG track with Wagon Tippler and engine escape line. Land for accommodating above is available in the Marshalling Yard next to the UPCL railway lines.
- 16. The power made available shall be as received by the Concessioning Authority from Mangalore Electricity Supply Company. The take off point for electricity shall be from the substation at Bykampady and the concessionaire shall make arrangements for take-off of the power from the sub-station at Bykampady;

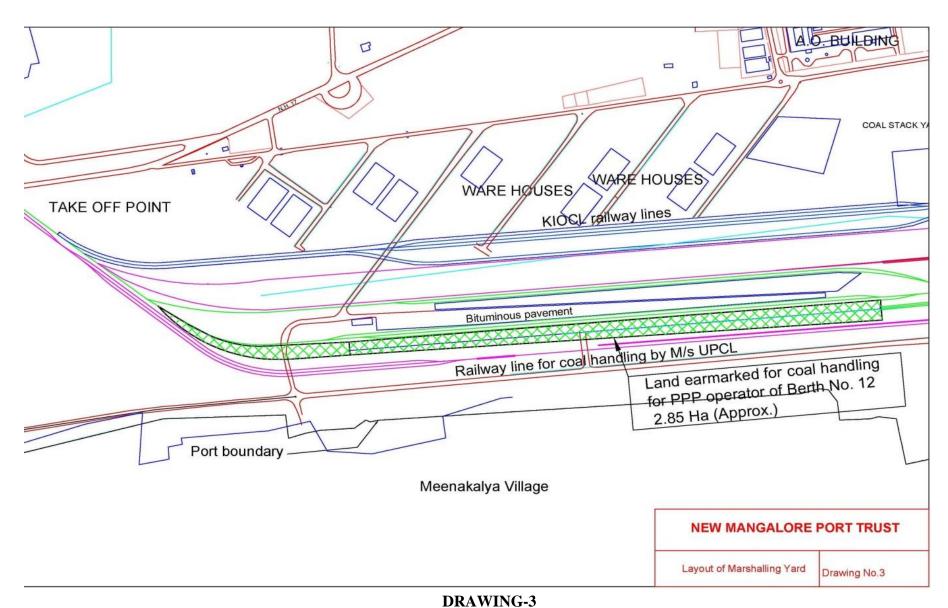
**Enclosures:- Drawing No. 1, 2 & 3** 



**DRAWING -1** 



**DRAWING-2** 



#### **APPENDIX 2**

#### **PORT'S ASSETS**

#### **PREMISES** (on as is where is basis)

## A) Deep Draft Berth. (Only Operational area to be Used)

The Port is constructing the Berth No. 12, which is under progress. The salient features of the Berth are as follows:

a) Length of the Berth: 325 Metres.

b) Designed Dredged depth: 15.1 Metres

c) Design Ship size:: 80,000-100,0000DWT

d) Width of R.C.C Deck- 25 Metres.

e) The Berth have provision for rails at 20 M c/c, for ship loaders/ unloaders or crane.

## B) Areas Proposed to be made available for setting up the Facilities

The following port assets will be handed over to the Concessionaire for the Concession Period of (30) Thirty Years.

| Location               | Area (in Sqm) | Description                                 |
|------------------------|---------------|---|
| Panambur Marshalling   | 28,500        | Total area of 2.85 Ha (approximate)         |
| Yard                   |               | as shown in Drawing No 3                    |
| Backup area of Berth   | 1,96,000      | An area of 19.60 Ha (approximate)           |
| No. 12 for Coal cargo  |               | as shown in Drawing No 2                    |
| Backup area of Berth   | 18,000        | An area of 1.80 Ha (approximate)            |
| No. 12 for Other Cargo |               | as shown in Drawing No 2                    |
| Right of way for       | 2,500         | Right of Way (RoW) from Marshalling Yard to |
| conveying system       |               | Berth                                       |
| (500m x 5m)            |               | as shown in Drawing No 2.                   |
|                        |               | Generally 5 M width & wherever junction     |
|                        |               | tower exists, extra width will be allotted  |
| Total Area             | 2,45,000      |   |

1. The project storage area is located behind the Berth No. 12 Parallel to the berth face towards west. The total area available is to the extent of 24.50 Hectares as marked in Drawing No. 2 attached to Appendix 1. Out of which, 19.60 and 1.80 hectare has been earmarked for Coal and Other Cargo respectively; 0.25 Hectare is made available for providing the conveyor system and the remaining 2.85 Hectares is provided for mechanized railway loading including railway track.

- 2. The Berth is provided with provisions for rails, 20 M c/c, for Coal mobile ship loaders/ unloaders or cranes. The Project Requirements includes installing crane rails to the required span of the project requirements. The drawing indicating the area availability behind Berth No. 12 is enclosed as Drawing No. 2 to Appendix 1.
- 3. The Loading facilities at railway yard is in the existing Panambur Marshalling Yard located at northern side of berth No.12 at a distance of 2 kms approximately. The area available for loading facility at marshalling yard is 28,500 sqm. The Port has a railway network in the Marshalling Yard. The project requirement envisages yard planning of the subject Project within the area available. The inward and outward entry of train can be connected to existing Port railway tracks at specified locations on southern or northern end of the marshalling yard. The drawing showing the availability of area in the Marshalling Yard and the existing rail tracks is shown in Drawing No. 3 attached to Appendix 1.

## C) Other Port Assets

The various structures falling in the back-up area for the Project are listed below which concessionaire may use for their operation or dismantle/alter as per their operational requirements.

- 1. Signal station (Vessel Traffic Management Solution (VTMS))\*
- 2. STP\*
- 3. Work Shop Godown
- 4. Railway line No. 5
- 5. Railway line No. 6
- 6. Railway Platform No. 6
- 7. Railway Platform No. 5

**Encl: As per Appendix-1** 

<sup>\*</sup>The equipment's are the assets of the Port, only Civil structures will be handed over to the concessionaire in the Second Phase.

## **APPENDIX 3**

## SUBSTITUTION AGREEMENT

| THIS SUBSTITUTION AGREEMENT is entered into on this the day of  |
|---|
| (Month) (Year) at   |
| AMONGST,  |
| THE NEW MANGALORE PORT TRUST, a body corporate constituted under the provisions of the Major Port Trusts Act, 1963 and having its Administrative Office at PANAMBUR, MANGALORE - 575 010 (hereinafter referred to as "the Concessioning Authority") which expression shall, unless repugnant to the context or meaning thereof include its administrators, successors or assigns.                       |
| AND   |
| M/s. XXXX Limited, a company incorporated under the provisions of the Companies Act, 1956/2013 and having its Registered Office at  |
| AND   |
| YYYY (Financial Institution/ Bank) having its Registered Office/Head Office at  |
| OR  |
| ZZZZ (Financial Institution/Bank) having its Registered Office/Head Office at   |
| WHEREAS,  |
| a) The Concessioning Authority for implementing a Project envisaging Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP on DBFOT basis (hereinafter referred to as "the Project"), has by the Concession Agreement dated entered into between the Concessioning Authority and the Concessionaire (hereinafter referred to as "the Concession Agreement")granted to |

the Concessionaire the Concession to implement the Project in terms of the provisions

With a view to facilitate financing of the Project by the Concessionaire, the

set out thereunder;

b)

Concessioning Authority and the Concessionaire have agreed to enter into Substitution Agreement being these presents with the Lender/s/Lenders' Representative.

## NOW, THEREFORE, THIS AGREEMENT WITNESSETH AS FOLLOWS:

## **ARTICLE 1**

#### 1 DEFINITIONS AND INTERPRETATION

#### 1.1 Definitions

In this Agreement the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereafter respectively assigned to them.

"Agreement" means this agreement and includes any amendment or modification made to this agreement in accordance with the provisions hereof.

"Financial Assistance" means the financial assistance set forth in Schedule A hereto, agreed to be provided by the Lender(s) to the Concessionaire for financing the Project.

"Financial Default" means occurrence of a material breach of the terms and conditions of the Financing Documents or a continuous default in servicing debt thereunder by the Concessionaire for a minimum period of 3 (three) months.

"Lender(s)" means the financial institutions/banks whose name(s) and addresses are set out in Schedule A hereto and shall include the financial institutions/banks who may replace the same by way of a refinance/subrogation, as may be notified by the Lenders' Representative to the Concessionaire, from time to time.

"Residual Concession Period" means the period which shall be the remainder of the Concession Period computed from the date of issuance of Termination Notice in terms of Article 16.1 of the Concession Agreement.

"Selectee" means a Person proposed by the Lender/Lender's Representative pursuant to this Agreement and approved by the Concessioning Authority for substituting the Concessionaire for the residual Concession Period, in accordance with the provisions of this Agreement.

"Suspension Period" means the Termination Period as defined in Article 16 of the Concession Agreement at the end of which all formalities connected with substitution of the Concessionaire by the Selectee including handing over of Project Site/Project Facilities and Services, in accordance with this Agreement are completed and the substitution has become effective.

Capitalized terms used in this Agreement but not defined shall have the meaning assigned to them respectively in the Concession Agreement.

#### **ARTICLE 2**

#### 2 ASSIGNMENT

## 2.1 Assignment of rights and title

The Concessionaire hereby agrees to assign its rights, title and interest in the Concession to, and in favour of, the Lenders pursuant to and in accordance with the provisions of this Agreement and the Concession Agreement by way of security in respect of financing by the Lenders under the Financing Documents.

#### **ARTICLE 3**

#### 3 SUBSTITUTION OF THE CONCESSIONAIRE

## 3.1 Rights of substitution

- 3.1.1 Pursuant to the rights, title and interest assigned under Clause 2.1, the Lenders shall be entitled to substitute the Concessionaire by a Selectee under and in accordance with the provisions of this Agreement and the Concession Agreement.
- 3.1.2 The Concessioning Authority hereby agrees to substitute the Concessionaire by endorsement on the Concession Agreement in favour of the Selectee selected by the Lenders in accordance with this Agreement (For the avoidance of doubt, the Lenders shall not be entitled to operate and maintain the Project/Project Facilities and Services).

## 3.2 Substitution upon occurrence of Financial Default

- 3.2.1 Upon occurrence of a Financial Default, the Lenders/Lenders' Representative may issue a notice to the Concessionaire (the "Notice of Financial Default") along with particulars thereof, and send a copy to the Concessioning Authority for its information and record. A Notice of Financial Default under this Clause 3 shall be conclusive evidence of such Financial Default and it shall be final and binding upon the Concessionaire for the purposes of this Agreement.
- 3.2.2 Upon issue of a Notice of Financial Default hereunder, the Lenders/Lenders' Representative may, without prejudice to any of its rights or remedies under this Agreement or the Financing Documents, substitute the Concessionaire by a Selectee in accordance with the provisions of this Agreement.

3.2.3 At any time after the Lenders/Lenders' Representative has issued a Notice of Financial Default, it may by notice require the Concessioning Authority to suspend all the rights of the Concessionaire and undertake the operation and maintenance of the Project/Project Facilities and Services, and upon receipt of such notice, the Concessioning Authority shall suspend the rights of the Concessionaire. Provided, such suspension shall be revoked upon substitution of the Concessionaire by a Selectee, and in the event such substitution is not completed within 180 (one hundred and eighty) Days from the date of such suspension, the Concessioning Authority may terminate the Concession Agreement forthwith by issuing a Termination Notice in accordance with the provisions of the Concession Agreement; provided that upon written request from the Lenders/Lenders' Representative and the Concessionaire, the Concessioning Authority may extend the aforesaid period of 180 (one hundred and eighty) Days by a period not exceeding 90 (ninety) Days.

## 3.3 Substitution upon occurrence of Concessionaire Default

- 3.3.1 Upon occurrence of a Concessionaire Default, the Concessioning Authority shall by a notice inform the Lenders/Lenders' Representative of its intention to issue a Termination Notice and grant 15 (fifteen) Days time to the Lenders/Lenders' Representative to make a representation, stating the intention to substitute the Concessionaire by a Selectee.
- 3.3.2 In the event that the Lenders/Lenders' Representative makes a representation to the Concessioning Authority within the period of 15 (fifteen) Days specified in Clause 3.3.1, stating that it intends to substitute the Concessionaire by a Selectee, the Lenders/Lenders' Representative shall be entitled to undertake and complete the substitution of the Concessionaire by a Selectee in accordance with the provisions of this Agreement within a period of 180 (one hundred and eighty) Days from the date of such representation, and the Concessioning Authority shall either withhold termination and/or suspend the rights of the Concessionaire for the aforesaid period of 180 (one hundred and eighty) Days; provided that upon written request from the Lenders/Lenders' Representative and the Concessionaire, the Concessioning Authority shall extend the aforesaid period of 180 (one hundred and eighty) Days by a period not exceeding 90 (ninety) Days.

## 3.4 Procedure for substitution

3.4.1 The Concessioning Authority and the Concessionaire hereby agree that on or after the date of Notice of Financial Default or the date of representation to the Concessioning Authority under Clause 3.3.2, as the case may be, the Lenders/Lenders' Representative may, without prejudice to any of the other rights or remedies of the Lenders, invite, negotiate and procure offers, either by private negotiations or public

auction or tenders from potential Selectees for substituting the Concessionaire and taking on the rights and obligations under the Concession Agreement.

- 3.4.2 To be eligible for substitution in place of the Concessionaire, the Selectee shall be required to fulfil the eligibility criteria that were laid down by the Concessioning Authority for shortlisting the bidders for award of the Concession; provided that the Lenders/Lenders' Representative may represent to the Concessioning Authority that all or any of such criteria may be waived in the interest of the Project, and if the Concessioning Authority determines that such waiver shall not have any material adverse effect on the Project, it may waive all or any of such eligibility criteria.
- 3.4.3 Upon selection of a Selectee, the Lenders/Lenders' Representative shall request the Concessioning Authority to:
  - a) accede to transfer to the Selectee the rights and obligations of the Concessionaire under the Concession Agreement; and
  - b) novate the Concession Agreement to the Selectee such that the Selectee replaces the Concessionaire and becomes entitled/obligated to all the rights and obligations of the Concessionaire, for the residual Concession Period.
- 3.4.4 If the Concessioning Authority has any objection to the transfer of Concession in favour of the Selectee in accordance with this Agreement, it shall within 7 (seven) Days from the date of proposal made by the Lenders/Lenders' Representative, give a reasoned order after hearing the Lenders/Lenders' Representative. If no such objection is raised by the Concessioning Authority, the Selectee shall be deemed to have been accepted. The Concessioning Authority thereupon shall novate the Concession Agreement within 7 (seven) Days of its acceptance/deemed acceptance of the Selectee; provided that in the event of such objection by the Concessioning Authority, the Lenders' Representative may propose another Selectee whereupon the procedure set forth in this Clause 3.4 shall be followed for substitution of such Selectee in place of the Concessionaire.

#### 3.5 Selection to be binding

The decision of the Lenders/Lenders' Representative and the Concessioning Authority in selection of the Nominated Company shall be final and binding on the Concessionaire. The Concessionaire irrevocably agrees and waives any right to challenge the actions of the Lenders' Representative or the Lenders or the Concessioning Authority taken pursuant to this Agreement including the transfer/novation of the Concession Agreement in favour of the Selectee. The Concessionaire agrees and confirms that it shall not have any right to seek revaluation of assets comprised in the Project or the Concessionaire's shares. It is hereby acknowledged by the Parties that the rights of the Lenders/Lenders' Representative are

irrevocable and shall not be contested in any proceedings before any court or Concessioning Authority and the Concessionaire shall have no right or remedy to prevent, obstruct or restrain the Concessioning Authority or the Lenders/Lenders' Representative from effecting or causing the transfer by substitution and endorsement of the Concession as requested by the Lenders/Lenders' Representative.

#### **ARTICLE 4**

#### 4 TRANSACTION DOCUMENTS

#### 4.1 Substitution of Selectee in Transaction Documents

The Concessionaire shall ensure and procure that each Transaction Documents contains provisions that entitle the Selectee to step into such Transaction Documents, in its discretion, in place and substitution of the Concessionaire in the event of such Selectee assumption of the liabilities and obligations of the Concessionaire under the Concession Agreement.

#### **ARTICLE 5**

#### 5 TERMINATION OF CONCESSION AGREEMENT

## 5.1 Termination upon occurrence of Financial Default

At any time after issue of a Notice of Financial Default, the Lenders/Lenders' Representative may by a notice in writing require the Concessioning Authority to terminate the Concession Agreement forthwith, and upon receipt of such notice, the Concessioning Authority shall terminate the Concession in accordance with the Concession Agreement.

## 5.2 Termination when no Selectee is selected

In the event that no Selectee acceptable to the Concessioning Authority is selected and recommended by the Lenders/Lenders' Representative within the period of 180 (one hundred and eighty) Days or any extension thereof as set forth in Clause 3.3.2, the Concessioning Authority may terminate the Concession Agreement forthwith in accordance with the provisions thereof.

#### **5.3** Realisation of Debt Due

The Concessioning Authority and the Concessionaire hereby acknowledge and agree that, without prejudice to their any other right or remedy, the Lenders are entitled to receive from the Concessionaire, without any further reference to or consent of the Concessionaire, the Debt Due upon termination of the Concession Agreement.

#### **ARTICLE 6**

## 6 DURATION OF THE AGREEMENT

## **6.1** Duration of the Agreement

- 6.1.1 This Agreement shall come into force from the date hereof and shall expire at the earliest to occur of the following events:
  - a) Termination of the Agreement; or
  - b) no sum remains to be advanced, or is outstanding to the Lenders, under the Financing Documents.

#### **ARTICLE 7**

#### 7 INDEMNITY

## 7.1 General indemnity

- 7.1.1 The Concessionaire will indemnify, defend and hold the Concessioning Authority and the Lenders/Lenders' Representative harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense of whatever kind and nature arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.
- 7.1.2 The Concessioning Authority will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Concessioning Authority to fulfil any of its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of its lawful functions by the Concessioning Authority.
- 7.1.3 The Lenders/Lenders' Representative will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Lenders/Lenders' Representative to fulfil its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Lenders/Lenders' Representative.

#### 7.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 7.1 or in respect of which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying Party") within 15 (fifteen) Days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same.

The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

#### **ARTICLE 8**

#### 8 GENERAL

#### 8.1 General

- i. The Parties hereto expressly represent and warrant that they are duly empowered to sign and execute this Agreement.
- ii. Notices under this Agreement shall be sent to the Addresses first hereinabove mentioned. Any change in the address of any Party shall be duly notified by registered post acknowledgement due and delivered to the other parties.
- iii. The expressions "Concessioning Authority", the "Concessionaire", the "Lender" and the "Lenders' Representative", "Selectee" herein used shall unless there be anything repugnant to the subject or context include the respective successors and assigns.
- iv. This Agreement shall not be affected by reorganisation of any Lender, the Concessionaire or Concessioning Authority, "Selectee" and the successor in interest of the Lender or Concessioning Authority shall have the benefit of this Agreement.
- v. Failing amicable settlement and/or settlement with the assistance of Expert, the dispute or differences or claims as the case may be, shall be finally settled by binding arbitration under the Arbitration and Conciliation Act, 1996. The arbitration shall be by a panel of three Arbitrators, one each to be appointed by the Concessioning Authority and the Lenders/Lender's Representative and the

third to be appointed by the two arbitrators. If any Party entitled to do so, fails to appoint a second Arbitrator within 30 (thirty) Days of from the receipt of the request for such appointment, then the single Arbitrator appointed in accordance with this provision shall adjudicate the disputes as Sole Arbitrator.

- vi. This Agreement and rights and obligations of the Parties hereunder shall remain in full force and effect pending the Award in any arbitration proceeding hereunder. The courts having territorial jurisdiction over the Project alone shall have jurisdiction over all matters arising out of or relating to the arbitration agreement contained herein or proceedings arising out of or relating to the arbitration proceedings thereunder.
- vii. The consultation, recommendation or approval of the Lenders' Representative under this Agreement shall always be deemed as consultation, recommendation or approval of every concerned Lender and each such Lender shall be bound by the same.
- viii. This Agreement shall be in addition to and shall not be in derogation of the terms of the Financing Documents.
- ix. The Concessionaire agrees and acknowledges that it shall not be necessary for the Lender(s) or the Lenders' Representative to enforce or exhaust any other remedy available to them before invoking the provisions of this Agreement.
- x. No amendment, variation or modification to this Agreement shall be valid and effectual unless made in writing and executed by the duly authorized representatives of all the Parties hereto.
- xi. All stamp duties or other imposts and charges as are applicable on this Agreement or on amendment of the Concession Agreement or execution of fresh Concession Agreement for the purpose of substitution as aforesaid, irrespective of the Lenders making such payment for the time being, shall be borne by and be to the account of the Concessionaire.
- xii. The Parties hereby expressly agree that for the purpose of giving full and proper effect to this Agreement, the Concession Agreement and this Agreement shall be read together and construed harmoniously. The terms of this Agreement shall prevail in the event of any inconsistency with the Concession Agreement.

## **SCHEDULE** A

## PARTICULARS OF FINANCIAL ASSISTANCE.

| Name and Address of the       | Nature and Amount of Financing  |
|-------------------------------|---------------------------------|
| Lender                        | Assistance                      |
|                               |                                 |
|                               |                                 |
|                               |                                 |
|                               |                                 |
| IN WITNESS WHEREOF THE DARTH  | ES HERETO HAVE SET THEIR HANDS  |
|                               | AND YEAR HEREINABOVE MENTIONED. |
| HEREUNIO ON THE DAT, MONTH    | AND TEAR HEREINADOVE MENTIONED. |
| SIGNED AND DELIVERED ON BEHA  | ALF OF                          |
| NEW MANGALORE PORT TRUST,     |                                 |
| THE CONCESSIONING AUTHORITY   | , BY ITS AUTHORISED SIGNATORY   |
|                               |                                 |
| Name:                         |                                 |
| Title:                        |                                 |
| SIGNED AND DELIVERED ON BEHA  | ALF OF M/S                      |
| THE CONCESSIONAIRE, BY ITS AU | THORISED SIGNATORY-             |
| BY:                           |                                 |
| Name:                         |                                 |
| Title:                        |                                 |
| SIGNED AND DELIVERED ON BEHA  | ALF OF THE LENDER/              |
| LENDERS' REPRESENTATIVE REPR  | RESENTING THE LENDERS, BY ITS   |
| AUTHORISED SIGNATOTY          |                                 |
| Name                          |                                 |
| Title                         |                                 |

#### APPENDIX 4

## PROJECT REQUIREMENTS

Project Facilities and Services to be undertaken by Concessionaire are as follows:

- (1) The Project facility will broadly include "Provide Handling Equipment at Berth No. 12 for Handling Bulk Cargo at NMP" on Design, Build, Finance, Operate and Transfer basis for a project capacity of 6.73 Million Metric Tonnes Per Annum from the project, out of which the capacity for Coal is 6.24 MMTPA and that for Other Cargo (Fertilizer, Limestone, Gypsum, Dolomite) is 0.49 MMTPA.
- (2) Designing and installing suitable size cranes on the existing berth No. 12. The design parameters of existing berth No. 12 is given in Appendix 1.
- (3) Developing a suitable stackyard behind Berth No. 12 is shown in Drawing No. 2 attached to Appendix-1.
- (4) Designing and Provide Handling Equipment at Berth No. 12 for Handling Bulk Cargo of required capacity.
- (5) Laying of necessary railway tracks and installation of suitable facilities of required capacity for loading of coal by rail.
- (6) The area is subjected to four months of heavy monsoon and all the equipment and design should specifically take this aspect into consideration.
- (7) The drainage in the storage yard shall be designed to receive the rainwater and the sprinkled water from the storage yard shall be connected to existing drain through settling tanks. The road connectivity in the marshalling yard and storage yard will be through Port internal roads.
- (8) The plant will be designed to the highest environmental standards, using latest dust suppression technologies.
- (9) The facility should provide Electronic Data transfer facility and should have interface with port ERP system wherever required.
- (10) The scope of work will broadly include planning, engineering, designing, installation, operation and maintenance of the mechanical facilities for handling of coal and other bulk cargoes based on the traffic demand. The major components of works are indicated below:

#### i. Civil & Structural Works

- Railway track
- •
- Storage Yard
- Conveyor Galleries & Transfer Towers
- Building, Roads, Drainage, etc.
- Works Related to the Pollution Control & Environmental Aspects
- Other Miscellaneous Works.

## ii. Mechanical Works

- Wagon Unloading Station (One Unit)
  - Side Arm Charger
  - Apron Feeders
- Belt Conveyors
- Stackers (4 nos.)
- Reclaimers (3 nos.)
- Grab unloader (2 Nos.)
- Dust Suppression System & Ventillation
- Miscellaneous Items
  - o Sampling Plant (Optional)
  - o Belt Weighers
  - o Magnets
  - o Fire Fighting System
- Payloader and workshop equipments

## iii. Electrical Works

- HT & LT Switchgears
- Transformers
- Cables
- Lighting
- Control System
- Miscellaneous works
- **iv.** Development of back up area, water supply area, illumination, firefighting, railway and road facilities required including development of the land.
- **v.** Development of utilities and services such as communication, office accommodation, etc. required for operation of the berth.

**vi.** Compliance with environmental laws during implementation i.e. construction, operation and maintenance.

## vii. Other provisions:

Planning, design, engineering, installation, operation and maintenance of all developmental works shall comply to the relevant Indian Standards and in the absence of Indian standards, relevant International Standards shall be complied with. The required construction, operation, maintenance and safety standards are annexed to this Appendix. In the absence of both, the Bidder should follow good industry practice. Safety precautions, as per statutory requirements, shall also be complied with. The Concessionaire shall ensure compliance to Quality, Environmental, Occupational Health and Safety and ISPS Codes. The performance standards shall generally comply as set out in Appendix 14.

#### viii. Others

The personnel and other related facilities should be capable of handling coal in accordance with the Performance Standards set out in Appendix 14.

# CONSTRUCTION STANDARDS, OPERATIONS AND MAINTENANCE STANDARDS AND SAFETY STANDARDS

#### A. General

The Concessionaire shall execute the project by completing civil works as per the Project Requirements and provide appropriate equipment for cargo handling and other support facilities for proper and efficient functioning.

The Concessionaire shall carry out Construction Works, etc. duly complying with the provisions of all relevant latest Indian Standards and in case certain item of works not covered by the Indian Standards, provisions of ISO/IEC/OISD standards, etc. shall be complied.

The construction of civil works, facilities, erection & commissioning of lifting appliances, equipment and machinery and their layout shall ensure that during cargo operations these facilities meet the required provisions of the Dock Workers Safety Health & Welfare Act, 1986 and the relevant Regulations 1990.

The Concessionaire shall meet the requirements of Management Quality System (IS/ISO-9001:2008) and environment management system (ISO 14001:2004) and shall also obtain accreditation for operations at the terminal. In addition, the Concessionaire shall comply with all relevant statutory regulations, codes, practices and guidelines.

It is not intended to specify herein all the relevant standards required to complete the Project. Such of those standards considered more pertinent are listed in this Annexure.

#### **B.** Civil Construction Work

#### B.1 Dry Bulk

The civil construction work may comprise variety of works such as development of back-up area for storage of cargo approach roads, railways sidings, operational buildings/offices, maintenance workshop, drainage, water supply, environmental protection works and other amenities. The Concessionaire is required to undertake all tests required as per IS/ ISO/IEC standards to ensure that the construction work carried out by him meets not only the functional requirements of the project but also conforms to the required quality as per the standards. In addition, the Concessionaire shall also comply with the provisions of specifications published by the Indian Road Congress, RDSO of Ministry of Railways and provisions of Shore Protection Manual (CERC) of US Army Corps of Engineers, as may be pertinent to the Project. In respect of implementing the Project, the Concessionaire shall refer to and as relevant comply with the design and construction standards specified in the following

paragraphs.

## Indian Standards for Construction of Ports and Harbours

| IS 4651 – Part – 1 – 1974 | Code of practice for planning and design of ports and    |
|---------------------------|--|
|                           | harbours: Part 1 Site investigation                      |
| IS 4651–Part 2–1989       | Code of practice for planning and design of ports and    |
|                           | harbours Part 2 Earth pressure                           |
| IS 4651-Part III-1974     | Code of practice for planning and design of ports and    |
|                           | harbours: Part III: Loading                              |
| IS 4651- Part 4 -1989     | Code of practice for planning and design of ports and    |
|                           | harbours: Part 4: General Design consideration.          |
| IS 4651-Part 5-1980:      | Code of practice for planning and design of ports and    |
|                           | harbours Part:5 Layout and functional requirements       |
| IS7314: 1974              | Glossary of terms relating to port and harbour           |
|                           | engineering  |
| IS 9527: Part 1: 1981     | Code of practice for design and construction of port and |
|                           | harbour structures: Part 1 Concrete monoliths            |
| IS 9527: Part 3:: 1983    | Code of practice for design and construction of port and |
|                           | harbour structure: Part 3 Sheet pile walls               |
| IS 9527: Part 4: 1980     | Code of practice for design and construction of port and |
|                           | harbour structure: Part 4 Cellular Sheet pile structures |
| IS 9527: Part 6: 1989     | Code of practice for design and construction of port and |
|                           | harbour structures: Part 6 Block work                    |
| IS 10020: Part 4: 1981    | Recommendations for design and construction of port      |
|                           | and harbour components Part 4 Slipways.                  |
| IS 9556: 1980             | Code of Practice for design and construction of          |
|                           | diaphragm walls  |

## Indian Standards for Foundation Work

- IS 2911: Part 1:Sec 1:1979 Code of practice for design and construction of pile foundations Part 1 Concrete piles, Section 1, Driven cast in-situ concrete piles
- IS 2911: Part 1: Sec 2:1979Code of practice for design and construction of pile foundations: Part 1 Concrete piles, Section 2 Bored cast in-situ piles
- IS 2911: Part 1:Sec 3:1979 Code of practice for design and construction of pile foundations: Part 1 Concrete piles, Section 3 Driven precast concrete piles
- IS 2911: Part1: Sec 4:1984 Code of practice for design and construction of pile foundations. Part 1 Concrete piles, Section 4 Bored precast concrete piles
- IS 2911: Part 2: 1980 Code of practice for design and construction of pile

|                       | foundations: Part 2 Timber piles   |
|-----------------------|--|
| IS 2911: Part 3: 1980 | Code of practice for design and construction of pile foundations: Part 3 Under reamed piles. |
| IS 2911: Part 4: 1985 | Code of practice for design and construction of pile   |
| 15 2911. Fait 4. 1965 | foundations: Part 4 Load test on piles   |
| IS 2950: Part 1: 1981 | Code of practice for design and construction of raft   |
|                       | foundations – Part I: Design   |
| IS 2974: Part 1: 1982 | Code of practice for design and construction of Machine                                      |
|                       | Foundations- Part 1: Foundation for Reciprocating Type                                       |
|                       | Machines.  |
| IS 2974: Part 2: 1980 | Code of practice for design and construction of machine                                      |
|                       | foundations. Para 2 Foundations for impact type machine                                      |
|                       | (hammer foundations)   |
| IS 2974: Para 3: 1992 | Code of practice for design and construction of machine                                      |
|                       | foundations for rotary type machines (medium and high  |
|                       | frequency)   |
| IS 2974:: 1979:       | Code of practice for design and construction of machine                                      |
|                       | foundations: Part 4 Foundations for rotary type machines                                     |
|                       | of low frequency.  |
| IS 2974: Part 5: 1987 | Code of practice for design and construction of machine                                      |
|                       | foundations Part 5 Foundations for impact machines   |
|                       | other than hammers (forging and stamping press, pig  |
|                       | breaker drop crusher and jolter)   |
| IS 1080: 1985         | Code of Practice for design and construction of shallow                                      |
|                       | foundations on soils (other than raft, ring and shell).                                      |
| IS 13094: 1992        | Guidelines for Selection of ground improvement   |
|                       | techniques for foundation in weak soils.   |
|                       |  |

## Indian Standards for Structural Design

| IS 875(Part I to V): 1987 | Code of Practice for design loads (other than earth          |
|---------------------------|--|
|                           | quake) for buildings - dead loads, imposed loads, wind       |
|                           | loads, snow loads, special loads and load combinations.      |
| IS 456: 2000              | Code of Practice for plain and reinforced concrete.          |
| IS: 800: 1984             | Code of practice for general construction in steel           |
| IS: 801: 1975             | Code of practice for use of cold formed light gauge steel    |
|                           | structural members in general building construction.         |
| IS: 803: 1976             | Code of practice for Design fabrication and Erection of      |
|                           | vertical mild steel cylindrical welded oil storage tanks.    |
| IS 1893: Part 1: 2002     | Criteria for Earthquake Resistant Design of Structures       |
|                           | Part I – General Provision and Buildings                     |
| IS 1893: Part 4: 2005     | Criteria for earth quake resistant design of structures Part |
|                           | 4 - Industrial Structures including Stack-like Structures.   |
| IS 4326: 1993             | Code of Practice for Earth Quake Resistant design and        |

## construction of buildings.

## C. Cargo Handling Equipment

## C-1 General

The concessionaire in accordance with relevant standards shall provide the type and capacity of equipment required for handling the specified cargo/containers. The equipment shall generally conform to the following standards and code of practices.

## C-2 Electric Cranes, Wharf and Gantry Cranes

The crane and its mechanisms shall be designed and constructed in compliance with the latest editions and amendments of the following standards and codes of practice. Standards equivalent or higher in BS, JIS, FEM, DIN, ISO, IEC are also acceptable.

#### Structures and Mechanism

| IS 807: 2006   | Design, erection and testing (Structural Portion) of     |
|----------------|--|
|                | Cranes and Hoists – Code of Practice. BS 5400 – Part 10  |
|                | Steel concrete and composite bridges - Code of practice  |
|                | for fatigue  |
| IS 4137 - 1985 | Specification for heavy duty electric overhead traveling |
|                | and special cranes for use in steel works                |

## Material

| IS 800: 1984  | Code of Practice for general construction in steel      |
|---------------|---|
| IS 2062: 2006 | Hot rolled low medium and high tensile Structural Steel |
| IS 2644: 1994 | High tensile steel castings                             |
| IS 2266: 2002 | Steel Wire Ropes for General Engineering Purposes-      |
|               | specification   |
| IS 3177: 1999 | Code of Practice for Electric Overhead Traveling Cranes |
|               | and Gantry Cranes other than Steel Work Cranes          |

#### **Electricals**

IEC standards

IEE – regulations for the electrical equipment of buildings BS 4999 / FEM 3rd edition Booklet 4 - Motors BS 171, BS 3941, BS 3938 - Transformers BS 99 - Fuses

## Welding

IS 7307: Part 1: 1974 Approval test for welding procedures Part 1 Fusion

welding of steel.

IS 7310: Part 1: 1974 Approval test for Welders working to approved welding

procedures – Part 1: Fusion welding of Steel.

**Painting** 

BS 5493 Code of practice for protective coating of iron and steel

structures against corrosion

Swedish Standard Sa 2,5 or SIS ST3, SIS 055900 surface preparation

#### General

IS 13367:Part 1: 1992 Safe use of Cranes - Code of Practice Part 1 General

## Classification of Crane

#### Structures

Class of utilization: U8 (4 Million loading cycles)

State of loading: Q3
Group classification: A8
Impact factor: 1.4
Duty factor: 0.9

Nominal load spectrum: 0.8 of rated capacity factor

#### Mechanism

Class of Utilization State of Loading Group Classification

| Hoist      | T8 | L3 | M8 |
|------------|----|----|----|
| Traverse   | T8 | L3 | M8 |
| Travel     | T5 | L2 | M5 |
| Boom hoist | T3 | L3 | M4 |

The wharf cranes shall be designed for Stability as per BS 2573 Part I & II.

## **C-3** Mobile Equipment

| IS 4357: 2004 | Methods for Stability Testing of Fork Lift Trucks |
|---------------|---|
| IS 4573: 1982 | Specification for Power Driven Mobile Cranes      |

IS 13473: Part 2:1992/ Cranes - Vocabulary Part 2 Mobile cranes ISO 4306-

1985

IS 13558: Part 2:1995/ Cranes - Controls - Layout and Characteristics - Part

ISO 7752 -2- 1986 Mobile Cranes Cranes - Classification: Part 2 Mobile cranes ISO 4301 -IS 13834 : Part 2: 1993/ 2:1985 IS 13870: Part 2: 1993/ Cranes and Lifting Appliances - Selection of Wire ISO 4308: 1988 Ropes - Part 2: Mobile Cranes - Coefficient of utilization IS 14469: 1997/ Mobile Cranes - Determination of Stability ISO 4305 -1991 IS 14474: Part 1: 1997/ Mobile Cranes - Experimental Determination of Crane ISO 11662-1: 1995 Performance - Part 1: Tipping Loads and Radii IS 3173: 1965 Specification for High pressure connections for fuel injection equipment for diesel engines

## C-4 Conveyors for Bulk Handling

## **Conveyors**

| IS 4776:Part I: 1977 | Specification for Troughed Belt Conveyors- Part I       |  |
|----------------------|---|--|
|                      | Troughed Belt Conveyors for Surface Installation        |  |
| IS 8597 – 1977       | Flat Belt Conveyors                                     |  |
| IS 11592 – 2000      | Code of practice for selection and design of Belt       |  |
|                      | Conveyors   |  |
| IS 7465 – 1974       | Portable and Mobile troughed Belt Conveyor              |  |
| IS 7155:Part 1: 1986 | Code of recommended practice for conveyor safety: Part  |  |
|                      | 1 General Information                                   |  |
| IS 7155:Part 2: 1986 | Code of recommended practice for conveyor safety: Pa    |  |
|                      | 2 General Safety requirement                            |  |
| IS 7155:Part 3: 1986 | Code of recommended practice for conveyor safety : Part |  |
|                      | 3 Belt Conveyors and feeders                            |  |
| IS 7155:Part 4: 1990 | Code of recommended practice for conveyor safety: Part  |  |
|                      | 4 Vibrating Conveyor/feeder                             |  |
| IS 7155:Part 5: 1990 | Code of recommended practice for conveyor safety : Part |  |
|                      | 5 Apron Conveyor/Apron Feeder                           |  |
| IS 7155:Part 6: 1990 | Code of recommended practice for conveyor safety : Part |  |
|                      | 6 Selection, Training and Supervision of Operators      |  |
| IS 7155:Part 7: 1990 | Code of recommended practice for conveyor safety : Part |  |
|                      | 7 Inspection and Maintenance                            |  |
| IS 7155:Part 8: 1994 | Code of recommended practice for conveyor safety : Part |  |
|                      | 8 Flight Conveyors (scraper conveyors)                  |  |

## Idlers and Pulleys

IS 8598 – 1987 Idlers and Idlers Sets

IS 8531 – 1986 Pulleys for Conveyors IS 11507 – 1985 Synchronous Drive Pulleys

## Conveyor Belts

IS 1891(Part I & II)-1978 Rubber Conveyor Belting
IS 1891 – 1988 Amendment to above conveyor
IS 22131 Part I 1980 Steel Cord Conveyor Belting

## D. Electrical

| IS 325: 1996                | Three-phase induction motors                                |
|-----------------------------|---|
| IS 900: 1992                | Code of practice for installation and maintenance of        |
| 13 900. 1992                | induction motors  |
| IS 1231: 1974               | Dimensions of Three-phase Foot-mounted Induction            |
|                             | Motors  |
| IS 2223: 1983               | Dimensions of flange mounted ac induction motors            |
| IS 3682: 1966               | Flame-proof ac motors for use in mines                      |
| IS 3842: Part 2: 1966       | Application guide for electrical relays for ac systems: -   |
|                             | Part 2 Over current relays for generators and motors        |
| IS 4029: 1967               | Guide for testing three-phase induction motors              |
| IS 8151: 1976               | Single-speed three-phase induction motors for               |
|                             | driving lifts   |
| IS 8789: 1996               | Values of performance characteristics for three- phase      |
|                             | induction motors  |
| IS 9628: 1980               | Three-phase induction motors with type of protection 'n'    |
| IS 10242: Part 3 : Sec 1:19 | P83 Electrical installations in ships: Part 3 Equipment,    |
|                             | Sec 1 Generators and motors                                 |
| IS 12615: 2004              | Energy Efficient Induction Motors - Three Phase             |
|                             | Squirrel Cage   |
| IS 13529: 1992              | Guide on Effects of Unbalanced Voltages on the              |
|                             | Performance of Three-Phase Cage Induction Motors            |
| IS 13555: 1993              | Guide for Selection and Application of 3-Phase A. C.        |
|                             | Induction Motors for Different Types of Driven              |
|                             | Equipment   |
| IS 14122: 1994              | Built in thermal protection for electric motors rated up to |
|                             | 660 V ac  |
| IS 14377: 1996              | Specification for Three-phase Induction Motors for Fans     |
|                             | Used in Air-conditioning and Ventilation                    |
| IS 15429: 2004              | Storage, Installation and Maintenance of DC Motors -        |
|                             | Code of Practice  |
| IS 3043: 1987               | Code of practice for earthing                               |
| IS 3151: 1982               | Earthing transformers                                       |
| IS 5553(Part 6) 1991        | Reactor Parts – Earthing of Transformers                    |
|                             |   |

| IS 9921: Part 1: 1981    | Specification for Alternating Current Disconnections (Isolators) and Earthing Switches for  |
|--------------------------|---|
| IS 9921: Part 2: 1982    | Voltages above 1 000 V - Part I: General and Definitions<br>Alternating current disconnections (isolators) and<br>earthing switches for voltages above 1000 V: Part 2<br>Rating       |
| IS 9921: Part III : 1982 | Specification for Alternating Current Disconnections (Isolators) and Earthing Switches for Voltages above 1000 V - Part III: Design and Construction                                  |
| IS 9921: Part 4: 1985    | Specification for Alternating Current Disconnections (isolators) and Earthing Switches for Voltages Above 1000 V - Part 4: Type Tests and Routine Tests                               |
| IS 9921: Part 5: 1985    | Specification for Alternating Current Disconnections (Isolators) and Earthing Switches for Voltages Above 1000 v - Part 5: Information to be given with Tenders, Enquiries and Orders |
| IS 12776: 2002           | Galvanized Strand for Earthing – Specification  |
| IS 14981: 2001           | Live Working - Earthing or Earthing and Short-Circuiting Equipment Using Lances as a Short-Circuiting Device-Lance Earthing   |
| IS 13947: Part 2 : 1993  | Specification for Low-voltage Switchgear and Control gear - Part 2 : Circuit Breakers   |
| IS 14658: 1999           | High Voltage Alternating Current Circuit Breakers - Guide for Short-circuit and Switching Test Procedures for Metal-enclosed and Dead Tank Circuit Breakers                           |
| IS 8828: 1996            | Electrical Accessories - Circuit Breakers for Over<br>Current Protection for Household and Similar<br>Installations   |
| IS 2309: 1989            | Code of Practice for Protection of allied structure against lightning   |
| IS 732                   | IS 732: 1989 Code of Practice for Electric wiring installation  |
| IS 694: 1990             | PVC insulated Cables for working voltages upto and including 1100V  |
| IS 1554 (Part 1):1988    | PVC insulated (Heavy Duty) electric cables: Part 1 for working voltages upto and including 1100 V   |
| IS 1554 (Part 2): 1988   | PVC insulated (Heavy Duty) electric cables: Part 2 for working voltages from 3.3 kV upto and including 11 kV  |
| IS 7098 (Part 1): 1988   | Cross linked Polyethelene insulated PVC sheathed cables Part 1 for working voltages upto and including  |

| IS 7098 (Part 2): 1985  | Cross linked Polyethelene insulated PVC sheathed cables Part 2 for working voltages from 3.3 kV upto and |
|-------------------------|--|
|                         | including 33 kV  |
| IS 7098 (Part 3): 1988  | Cross linked Polyethelene insulated PVC sheathed   |
|                         | cables Part 3 for working voltages from 66 kV upto and including 220 kV                                  |
| TO 10110 (To 1) 1000    |  |
| IS 10118 (Part 1): 1982 | Code of Practice for selection, installation &   |
|                         | maintenance of switchgears and Control gears : Part 1  |
|                         | General  |
| IS 10118 (Part 2): 1982 | Code of Practice for selection, installation &   |
|                         | maintenance of switchgears and Control gears: Part 2   |
|                         | Selection  |
| IS 10118 (Part 3): 1982 | Code of Practice for selection, installation &   |
|                         | maintenance of switchgears and Control gears: Part 3   |
|                         | Installation   |
| IS 10118 (Part 4): 1982 | Code of Practice for selection, installation &   |
|                         | maintenance of switchgears and Control gears: Part 4   |
|                         | Maintenance  |
|                         | 1,1dilitellaries   |

For all other equipment not covered in the above standards, equivalent or higher standards in BS, JIS, FEM, DIN, ISO, IEC, are acceptable.

## **E.** Operations & Maintenance Standards:

#### Repairs, Maintenance and Replacement

The Concessionaire at its own cost promptly and diligently maintain, replace or restore any of the project facilities or part thereof which may be lost, damaged, destroyed or worn out.

While carrying out the repairing, maintaining and replacing the project facilities, the Concessionaire acknowledges and accepts that it is holding and maintaining the concession or assets, project facilities in trust for eventual transfer to the Concessioning Authority on termination of the agreement and therefore, will not do any act as a result of which the value of Port Assets and Project Facilities and Services is diminished.

The Concessionaire shall, at all times during the Concession Period, at its own risk, cost, charges and expenses, performance and pay for maintenance repairs, renewals and replacement of various type of assets and equipment in the concessionaire premises and /or the project or any parts thereof, whether due to use and operations or due to deterioration of materials and/or parts, so that on the expiry or termination of Concession, the same shall except normal wear and tear be in good working condition as it were at the time of commencement of the Concession.

While carrying out the repair, maintenance and replacement of the project facilities, the Concessionaire shall carry out the work in accordance with the manufacturer's recommendations and the relevant latest Indian Standards or in its absence ISO/OISD Standards. In the event that the concessionaire, by necessity or otherwise need to follow any other country standard and it shall be equal or superior to the standard specified above.

The repairs and maintenance shall generally conform to the following specifications.

Maintenance of lifting appliances

## **E.1** Maintenance Standards

ISO 4308-1-2003

|            | ISO 4309-2004          | Cranes wire rope care, maintenance and discard  |
|------------|------------------------|---|
|            | IS 13367: Part 1: 1992 | Safe use of cranes – Code of Practice Part 1 General  |
|            | BS 7121-2-2003         | Code of Practice for safe use of cranes, inspection,  |
|            |                        | testing & examination   |
|            | BS 7121-4-1997         | Code of Practice for safe use of cranes (Lorry Loaders)   |
|            | BS 7121-5-2006         | Code of Practice for safe use of cranes (Tower Cranes)  |
| <b>E.2</b> | Painting               |   |
|            | IS 144: 1950           | Ready mixed paint, brushing, petrol resisting, air-<br>drying, for interior painting of tanks and container, red<br>oxide (colour unspecified)          |
|            | IS 145: 1950           | Ready mixed paint, slushing, petrol resisting, air-drying<br>for interior painting of tanks and containers, red oxide<br>(colour unspecified)           |
|            | IS 146: 1950           | Specification for ready mixed paint, brushing, petrol resisting, stoving, for interior painting of tanks and containers, red oxide (colour unspecified) |
|            | IS 147: 1950           | Specification for ready mixed paint, slushing, petrol resisting, stoving, for interior painting of tanks and containers, red oxide (colour unspecified) |
|            | IS 164: 1981           | Specification for Ready mixed paint for road marking (first revision)   |
|            | IS 1419: 1989          | Antifouling paint, brushing for ship's bottom and hulls-<br>Specification (second revision)   |
|            | IS 6714: 1989          | Ready mixed paint, finishing, non-slip, deck – Specification (first revision)   |
|            | IS 6948: 1973          | Specification for Ready mixed paint, undercoat, synthetic for ships   |
|            | IS 6951: 1973          | Specification for Ready mixed paint, finishing, exterior for ships  |

IS 1477: Part I: 1971 Code of Practice for Painting of Ferrous Metals in

Buildings - Part I: Pretreatment

IS 1477: Part 2: 1971 Code of practice for painting of ferrous metals in

buildings: Part2 Painting

IS 9954: 1981 Pictorial Surface Preparation Standards for Painting of

**Steel Surfaces** 

## F. Safety Standards

The Concessionaire shall ensure compliance of applicable standards with the safety standards set out under Applicable Law/international conventions, as relevant, from time to time including those required under the following:

- 1. Dock Workers (Safety, Health and Welfare) Act, 1986 & Regulations framed thereunder of 1990.
- 2. The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- 3. The Petroleum Act, 1934 along with the Petroleum Rules, 2002.
- 4. OISD Guidelines 156 (Oil Industry Safety Directorate): Fire Protection, Facilities for Port Oil Terminals.
- 5. The Explosives Act, 1884 alongwith The Explosive Substance Act, 1983 & The Explosive Rules, 1983
- 6. Guidelines by Fire Advisor, CCE & DG FASLI, Government of India
- 7. National Fire Codes (National Fire Protection Association USA)
- 8. Drill Manual for the Fire Services of India.
- 9. International Safety Guide for Oil Tankers & Terminals.
- 10. ISPS (International Ship & Port Facility Security) Code (2003 Edition)
- 11. MARPOL CONVENTION
- 12. International Maritime Dangerous Goods Code

# PROJECT SCHEDULE

| Milestone Date                            | Activities/level of completion of Project |
|---|---|
| Civil Works                               |   |
| Fifteen (15) Months from Date of Award of | Railway track and Platform                |
| Concession                                | Silo                                      |
|   |   |
|   | Storage Yard                              |
|   | Foundation for stackers and reclaimers    |
|   | Crane tracks in storage yard              |
|   | Conveyor Galleries                        |
|   | Transfer Tower                            |
|   | Building and approach roads               |
|   | Boundary wall                             |
|   | Drainage                                  |
| Mechanical Equipment                      |   |
| Within Eighteen (18) Months from Date of  | Grab unloader                             |
| Award of Concession                       | Procurement of Stacker & reclaimer        |
|   | Jetty, yard Conveyor and belt conveyor    |
|   | Rapid rail loading system                 |
|   | Procurement of Rail cum road shelter      |
|   | Pay loaders etc.                          |
| <b>Electrical Works</b>                   |   |
| Within Twenty (20) Months from Date of    | Laying of cables                          |
| Award of Concession                       |   |
| Completion of work and commencement of    |   |
| commercial operation                      |   |
| Within Twenty Four (24) Months from       | Testing and Trial runs                    |
| Date of Award of Concession               | Commercial operations                     |

#### **DESIGNS AND DRAWINGS**

The Concessionaire shall conduct geo-technical investigations, hydraulic and vessel manoeuvring studies, and prepare and submit a report before the detailed layout and designs are prepared/ carried out.

The design and construction of the various components in the proposed Project shall be in accordance with the recognised engineering practice and shall conform to the relevant Indian Standards. In the absence of Indian Standards, relevant International Standards shall be followed. In the absence of both, Good Industry Practice shall be followed.

The Concessionaire shall supply the Designs and Drawings including calculations, in 2 (two) sets to the Independent Engineer for approval and 2 (two) sets to the Concessioning Authority for review. The Designs and Drawings shall be sent in batches in chronological order of execution of work to facilitate scrutiny. The Designs and drawings, which shall be in metric/ SI unit, shall be bold and clear. References shall be given in general wherever required, for all Designs and Drawings.

The Concessionaire shall supply to the Concessioning Authority 2 (two) sets of the finalised Designs and Drawings within 15 (fifteen) Days of the approval by the Independent Engineer thereof. The Concessionaire shall also supply to the Concessioning Authority 1 (one) set of the 'As Built' Drawings within 30 (thirty) Days from the date of completion of the Date of Commercial Operation of the Project Facilities along with a soft copy.

The Coal handling facility shall be designed for an annual throughput of not less than 6.73 million tonnes. The facility shall consist of unloading, stacking, reclaiming and shiploading systems.

The stackyard will be provided adequate numbers of stockpiles and will be equipped with 4 stackers and 3 reclaimers with rated capacity of 4000 TPH respectively. The stackyard will also be equipped with pay loader which for onwards evacuation of coal by trucks.

The area available for stackyard behind the berth is 21.40 Ha. This area will include area for stacker reclaimer rail, utility lines, conveyor galleries, Workshops, Administration buildings, etc.

Scope includes Design, Engineering, Manufacture, Supply, Erection and Commissioning/ Test Run of the following Systems, which will be complete in terms of the required electrical and control systems together with interlock provisions to ensure safe operation

| Sl.<br>No | Item                      | Location        | Brief description  |
|-----------|---------------------------|-----------------|--|
| 1         | Grab<br>Unloader<br>2Nos. | On the<br>Berth | A fully mechanised coal unloading system has been planned for the coal berth 12. The berth will have 2 numbers of mechanical rail mounted grab type ship unloaders connected with conveyor system of required capacity for stacking and subsequent evacuation by rail or road. The unloading rate considered for discharge of Panamax size dry bulk vessels has been considered at 35000 TPD. The unloading pattern for a grab unloader gives an average unloading rate of 70 % of the peak unloading capacity. The density of Coking Coal/Thermal Coal is around 0.9 T/cum for volume calculation.  |
| 2         | Stacker (4 nos.)          | Stock<br>Yard   | Four stackers with adequate capacity (rated capacity of 4000 TPH) and outreach of 40 m will be required for stacking of coal. The stackers should have adequate slew angle and luffing angle for the purpose of forming uniform stacks of 10 m height. Stackers will be rail mounted having rail gauge of 8 m covering the entire length of the stockyard.   |
| 3         | Reclaimer 3Nos.           | Stock Yard      | Three bucket wheel type reclaimers of adequate capacity (rated reclaiming capacity of 4000 TPH will be required at the stockyard. The reclaimer will reclaim the coal and feed the conveyor system for onwards evacuation through RRLS. The capacity of the reclaimer has been estimated considering 100% evacuation of coal through RRLS.   |
| 4         | Jetty<br>Conveyor         | Berth No.12     | The coal berth will be provided with a stream of jetty conveyor with rated capacity of 4000 TPH running parallel on the full length of the jetty. The rated capacity of 4000 TPH will ensure that conveyor capacity will be sufficient to evacuate discharge vessels and evacuate coal from stockyard seamlessly. The conveyor system on jetty will be receiving coal discharged from the vessels and feed the yard conveyor system for stacking operation using stacker or to direct loading of coal from the jetty conveyor to the Rapid Rail Loading System (RRLS). Jetty Conveyor and associated connecting conveyors up to feeding point on to Yard Conveyors have been envisaged Double line, (1 working & 1 standby) thus ensuring 100% redundancy in the Ship Evacuation System. |

| 5 | Yard       | Stock Yard  | The stockyard will be provided with a stream of trough    |
|---|------------|-------------|---|
|   | Conveyor   |             | belt yard conveyor with peak capacity of the conveyor     |
|   |            |             | 4000 TPH. The conveyor system at stockyard will be        |
|   |            |             | receiving coal from the jetty conveyor and for stacking   |
|   |            |             | at the stock pile using stacker.                          |
| 6 | Belt       |             | The rated and design capacity of all belt conveyors       |
|   | Conveyors  |             | would be 4000 and 4400 TPH. All conveyors would be        |
|   |            |             | provided with Nylon-Nylon belting with fire retardant     |
|   |            |             | (FR) grade covers of minimum 5 mm thickness at top        |
|   |            |             | and 3 mm thickness at bottom. The belt width has been     |
|   |            |             | envisaged as 2000 mm with a troughing angle of 350.       |
|   |            |             | The belt speed would be 3.65 m/sec.                       |
| 7 | Rapid Rail | Marshalling | It is proposed to provide a RRLS system with average      |
|   | Loading    | Yard        | wagon loading capacity of 4000 TPH for faster loading     |
|   | System     |             | of coal in to wagons and evacuation by rail.              |
|   | (RRLS)     |             | Hence the loading capacity of the RRLS system to be       |
|   |            |             | provided will be in the range of 4000 TPH with a          |
|   |            |             | loading accuracy for each wagon ± 350 kg. The system      |
|   |            |             | will have to be designed to operate satisfactorily both   |
|   |            |             | for lump and fines interchangeable.                       |
|   |            |             | The RRLS will be fed from the reclaimer through           |
|   |            |             | connected conveyors. The wagon loading silos will be      |
|   |            |             | provided at the existing rail yard at NMPT. A separate    |
|   |            |             | conveyor line will be provided for direct loading of coal |
|   |            |             | from the jetty conveyor to the Rapid Rail Loading         |
|   |            |             | System (RRLS).  |

Power supply shall be designed to receive the power at number of points as required near the systems at 6.6 KV & 415V from the nearest Switchgear Room

# Scope of the system shall generally as follows:

# **Grab Unloader System:**

- 1. Coordination /follow up for RDSO Approval.
- 2. General Arrangement Drawing (including lighting arrangement)
- 3. Supervision as required during Construction of Grab Unloader System
- 4. Foundation drawings for SAC Rail Track and rack (General Arrangement) with Load Data
- 5. Supervision as required during foundation work for SAC Rail Track
- 6. Design / drawing for Counterweight
- 7. General Arrangement Drawing of Grab Unloader Control Room
- 8. Grab Unloader Speed Retarders or suitable arrangement

- 9. First fill lubricants up to commissioning & test runs
- 10. Supervision as required during the Rail Track fixing work
- 11. Special Tools for maintenance if any

# **Stacker Systems:**

- 1. Load data /drawings for civil design of the Rail foundation.
- 2. Design / Drawing for counterweights
- 3. Supervision as required during foundation work of the Rail Track
- 4. First fill lubricants up to commissioning & test runs
- 5. Special Tools for maintenance if any

# **Reclaimer Systems:**

- 1. Load data/ drawings for civil design of the Rail foundation
- 2. Design/ Drawing for counterweights
- 3. First fill lubricants up to commissioning & test runs
- 4. Special Tools for maintenance if any

# **Stacking System**

#### Stacker

The system shall be complete with the equipment mounted on bogie assembly which in turn is mounted on rails and shall include the following:

- i. Transfer chutes liners, idlers, safety accessories, belt cleaners, pulleys etc.
- ii. Tripper car for Stacker mounted on the trolley.
- iii. Trolley drives, gears, wheels guide rolls.
- iv. Travel drives electrical controls.
- v. Slewing gears, drives and safety and controls.
- vi. Luffing mechanism complete with drives and accessories
- vii. Dust Suppression Unit.
- viii. Complete on board Illumination, Fire Extinguishing, Air-conditioning of working enclosures and Instrument Rooms
- ix. Operator's Cabin
- x. Complete electrical, trailing cables with all-weather enclosures and cable reel drives and controls and drives for motors power supply and conditioning, MCC Mimic Panel, communication to Control Room and UPS power for critical function alarms, annunciation fault indicators, PLCs, wind wane Anemometer etc.
- xi. Lubrication system grouped for the applications
- xii. Structural items / Fabricated trolley counter arm with ballast boom, walkways, platforms, tripper bogie, main platform portal bogie, end stops, carriage and supporting structures, compensating arrangement.

- xiii. Rails and rail fixtures for the required track length
- xiv. Special tools and tackles, instruments, jigs, torque wrenches etc.
- xv. First fill of lubricants, cleaning/flushing oils and solutions.
- xvi. Commissioning Spares.

#### **Reclaimers**

The system shall be complete with the equipment mounted on bogie assembly which in turn is mounted on rails and shall include the following:

- i. Transfer chutes liners, idlers, safety accessories, belt cleaners, pulleys etc.
- ii. Hopper for the Reclaimer
- iii. Trolley drives, gears, wheels guide rolls,
- iv. Travel drives electrical controls.
- v. Slewing gears, drives and safety and controls.
- vi. Luffing mechanism complete with drives and accessories
- vii. Bucket Wheel with drives and electrical
- viii. Suitable Dust Suppression Unit for all transfer points.
- ix. Complete on board Illumination, Fire Extinguishing, Air-conditioning of working enclosures and Instrument Rooms.
- x. Operator's Cabin
- xi. Complete electrical, trailing cables with all-weather enclosures and cable reel drives and controls and drives for motors power supply and conditioning, MCC Mimic Panel, communication to Control Room and UPS power for critical function alarms, annunciation fault indicators, PLCs, wind wane Anemometer etc.
- xii. Lubrication system grouped for the applications
- xiii. Structural items / Fabricated trolley counter arm with ballast boom, walkways, platforms, main platform portal bogie, end stops, carriage and supporting structures, compensating arrangement.
- xiv. Special tools and tackles, special instruments, jigs, torque wrenches etc.
- xv. First fill of lubricants, cleaning/flushing oils and solutions.
- xvi. Commissioning Spares.

# **Conveyors**

The system comprises the following components for each of the above conveyors as applicable.

- Motors
- Conveyor Frames
- Stools for Supporting Conveyor Frames
- Idlers Carrying, Return, Impact, Self-aligning and Transition
- Idler Frames
- Gear Boxes

- Couplings
- Drums / Pulleys
- Bearings & Plummer Blocks
- Bed Frames
- Skirt Plates
- Decking Plates

# **Belt Cleaning Devices**

- Hold Back Devices
- Electro-magnetic Brakes
- Pull Cord Switches
- Belt Sway Switches
- Zero Speed Switch
- Guards
- Belting
- Take up Devices
- Chutes & Liners

#### **Design Considerations for conveyors**

Each of the Conveyors has to work in most adverse working conditions like heavy dust, open to sun-light, high surface temperatures up to 50°C, heavy rains, relative humidity up to 100% etc. The Conveyor shall be able to start in full load conditions. The minimum tail end height shall be 1200 mm and head end height shall be as per system requirement. In case of dual drive system for the conveyors, if one drive fails then the other drive shall be able to take minimum 50% load. There shall be a minimum clearance of 0.5M between ground and the return belt throughout the length of the conveyor.

Belt Conveyor components and accessories are selected based on relevant Indian Standards IS8730 for Idler, IS11592 for Conveyor Belt Power, IS 4776 (Part 1), IS1891 & IS8531 for Pulley Selection, and IS 8598 for Pulley. Proper care is taken in the selection of individual components considering the environmental conditions on site and the expected life of all components and their respective duties.

There shall be two streams of conveyors transporting reclaimed ore from the reclaimers to the shiploaders; one stream for each reclaimer and shiploader. The capacity of the conveyor shall be designed for achieving a throughput of not less than 75,000 tonnes/ day. The Concessionaire shall give the detailed design indicating belt width, belt speed and belt tension. The drives shall be through fluid couplings and gear boxes. Belt Conveyors, their components shall be designed as per relevant IS codes given in Annexure to Appendix-4 (C-4). The conveyor belt should conform to relevant IS given in Annexure to Appendix-4.

All the electrical equipment shall be designed as per the relevant IS/BS codes given in

Annexure (d) to Appendix-4.

# Scope for the conveyor system shall include the following;

- 1. All drive motors as necessary and cabling up to the respective LCSS
- 2. Field devices installation includes wiring up to the respective drive houses.
- 3. Illumination along the Conveying Gallery, all Transfer Houses and the Underground Tunnel.
- 4. Pressurized mechanical ventilation for tunnels.
- 5. Mimic Diagram Panel

# Civil / Structural System

- 1. Dispersion of loads arising from Railway, dozer surcharge or any other load through soil and coal shall be considered dispersed 1 vertical to 1 horizontal. For design of R.C.C structures, bulk density and angle of repose for coal shall be considered, wherever applicable.
- 2. Steel structure shall be designed as per IS-800. Deflection limits of the structure shall be as per –IS11592 (code of practice for selection and design of belt conveyor). All transfer houses shall be of structural steel framed building consisting of steel columns and beams with GI sheet cladding. Thereof shall be Galvoleum sheeting and floors shall be of chequerred plate / gratings supported on steel beams and R.C.C. slab underneath the conveyor drive.
- 3. Coal yard shall have a peripheral drainage channel to conduct surface water run-off to the coal pile run-off pond. The coal run-off pond shall be a R.C.C. multi-cell concrete settlement tank below ground level. The tank shall collect drainage run-off water from the coal yard. Coal stockyard shall have impervious layer lining.

# Railway system

The Project site earmarked for railway loading facility have existing two railway lines call as railway track no. 5 & 6 approximate length of 2.0 KM. the concessionaire may plan the railway facility accordingly.

Railway line from unloading area at the Panambur Marshalling Yard shall be provided along with all signalling / telecommunication equipments to ensure safe and reliable operation of the entire system Control and Instrumentation.

The control system shall be implemented in a microprocessor based PLC system having 100% hot redundant hardware, which provides fail safe and reliable automatic control and continuous monitoring of various equipment. CRT based operator station and Control desk complete with video display unit (VDU) shall be provided in the Control Room or

alternatively the state of art facility shall also be provided.

# Fire protection system

Hydrant system as per TAC guidelines shall be provided in the stackyard area. Necessary detection and protection for the ship unloaders, conveyors, stacker cum reclaimer, stacker and in the building shall be provided, which shall mainly include:

- Hydrant system for all the conveyor galleries. Spacing of the hydrant in the stockpile location shall be about 40 m in general. Pressure at each hydrant point shall be 3.5 kg/sq.cm (g) pressure break-down orifice, as necessary to restrict pressure of all hydrant point at said value.
- ii. All transfer towers and wagon unloading area shall be provided with hydrant system and portable dry type fire extinguisher.
- iii. Control room and electric substation shall be provided with alarm and dry type fire extinguishers.
- iv. Coal stockyard shall be provided with hydrant system.
- v. Or alternatively the state of art fire fighting facility shall also be provided.

All electrical components shall meet the requirements as per Indian Standards, Indian Electricity Rules/ Acts and other statutory agencies/ bodies/ departments including CEEIG. Where no Indian Standard is available, relevant IEC Specification / British Standard shall be adopted. Approval, as necessary, shall be obtained for the installations by the statutory electrical inspection authority.

- 1. Pull cord switch cable for each conveyor
- 2. Belt sway switch cable for each conveyor
- 3. Zero speed switch cable for each conveyor
- 4. GI Cable tray for pull cord, Belt Sway, Zero Speed switch in each conveyor
- 5. Power Cable for HT/LT motors for each conveyor up to LCS
- 6. Control/ Auxiliary power cable from LCS Room to motor / conveyor.
- 7. Hooter for each conveyor
- 8. Local push button station for motors
- 9. Main Junction Box & Sub JB for pull cord, Belt Sway for each Conveyor.
- 10. Earthing System for each Conveyor, Motors & Earth Pits
- 11. Lighting System for Conveyor & Junction Towers
- 12. Light fittings / accessories
- 13. MLDB/ SLDB for each conveyor normal/emergency
- 14. All Motors
- 15. Maintenance facility (welding socket) for each conveyor
- 16. Junction Boxes for conveyor to link with DCS/ PLC System

#### TERMS OF REFERENCE FOR INDEPENDENT ENGINEER

# 1. Role and functions of the Independent Engineer

The Independent Engineer is expected to play a positive and independent role in discharging its functions, thereby facilitating the smooth implementation of the Project. The role and functions of the Independent Engineer shall include the following:

- i. review of the Designs and Drawings;
- ii. review, inspection and monitoring of Construction Works;
- iii. conducting Tests on completion of construction and issuing Completion/ Provisional Certificate;
- iv. determining, as required under the Agreement, the costs of any works or services and/or their reasonableness;
- v. determining, as required under the Agreement, the period or any extension thereof, for performing any duty or obligation;
- vi. assisting the Parties in resolution of disputes as regards the Designs & Drawings and all technical matters related to the Concession Agreement; and
- vii. undertaking all other duties and functions as envisaged under the Agreement.

# 2. Review Designs and Drawings

- i. The Independent Engineer shall undertake a detailed review of the Designs & Drawings to be furnished by the Concessionaire along with supporting data, including, if relevant the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and traffic surveys. The Independent Engineer shall complete such review and send its comments in accordance with the Agreement. In particular, such comments shall specify the conformity or otherwise of such Designs & Drawings with the Project Requirements, Construction Standards and Safety Standards.
- ii. The Independent Engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments. The Independent Engineer shall take into account comments and suggestions of the Concessioning Authority, if any while furnishing the comments.
- iii. The Independent Engineer shall review the monthly progress reports as regards the Construction Works.

- iv. The Independent Engineer shall inspect the Construction Works once every month, preferably after receipt of the monthly progress report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out a report of such inspection (the "Inspection Report") setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Construction Standards and Safety Standards. In a separate section of the Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the Construction Works.
- v. The Independent Engineer may inspect the Construction Works more than once in a month if any lapses, defects or deficiencies require such inspections.
- vi. For determining that the Construction Works conform to Construction Standards, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a sample basis, to be specified by the Independent Engineer in accordance with Good Industry Practice for quality assurance. The Independent Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof.
- vii. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice.
- viii. In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Construction Standards.
- ix. In the event that the Concessionaire fails to adhere to the Project Schedule and complete the Construction Works on the specified Milestone Dates, the Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) Days the steps proposed to be taken to expedite progress, and the period within which the Project shall be completed. Upon receipt of a report from the Concessionaire, the Independent Engineer shall review the same and send its comments to the Concessioning Authority and the Concessionaire forthwith.
- x. If at any time during the Construction Period, the Independent Engineer

determines that it is not safe to carry on Construction Works for any reason whatsoever including if the Concessionaire has not made adequate arrangements for the safety of workers or other third parties or that any work is being carried out in a manner that threatens such safety, it shall make a recommendation to the Concessioning Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.

- xi. Upon remedial measures being taken by the Concessionaire for securing the safety of suspended works, the Independent Engineer shall inspect the safety measures for adequacy and recommend whether or not such suspension may be revoked by the Concessioning Authority.
- xii. If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Engineer shall determine the extension of time for completion, to which the Concessionaire is reasonably entitled, and shall notify the Concessioning Authority and the Concessionaire of the same.
- xiii. The Independent Engineer shall carry out, or cause to be carried out, all the Tests specified in the Annexure hereto and issue a Completion Certificate or Provisional Certificate, as the case may be, in accordance with the provisions of the Agreement.

# Annexure to Appendix 7

#### **Tests**

- All materials to be used, all methods to be adopted and all works performed shall be strictly in accordance with the relevant IS specification for the project requirement. The relevant specification for the safety and navigational aspects shall be referred for the type of tests and frequency of tests. For this purpose, the responsibility of the Concessionaire and its contractors will be as per the relevant provisions of this Agreement.
- The Concessionaire shall carry out quality control tests on the material and works at the frequency stipulated in the respective IS codes. The tests on equipments and machinery shall be ensured while its manufacturing and subsequent installation at site. In case of absence of clear indication of the frequency and type of tests the best industrial practice shall be used for testing with the approval of the Independent Engineer.
- 3) The Concessionaire shall carry out all necessary tests on materials and works independently and keep their records for reference. The Concessionaire shall prepare a quality audit manual in consultation with the Independent Engineer to ensure better quality of work.
- 4) The provisions of type and frequency of test in relevant IS codes are minimum. The Concessionaire shall conduct all possible tests to ensure quality construction and installation of equipments and machinery.
- 5) The Independent Engineer at his discretion and consistent with the sound engineering practices shall carry out any non-destructive test on completed works, structures, equipments and machinery and any other component to ascertain the soundness of the work.
- 6) Schedule of test.
  - (i) the Concessionaire shall submit a detailed inventory and particulars of all works and equipment and machinery forming part of the Agreement
  - (ii) The Concessionaire shall notify the Independent Engineer for its readiness for tests to be conducted
- 7) Tests.
  - (i) **Visual and physical test**: The Independent Engineer shall conduct a visual and physical check of the Port requirements to determine that all works and equipment forming part thereof conform to the provisions of the Agreement.
  - (ii) **Test drive**: The Independent Engineer shall arrange for test drives of the movable equipment for the quality of service as per the relevant provisions of

- the IS codes for manufacture and testing of equipments and machinery
- (iii) **Structural test**: All the equipment and machinery and structures shall be subjected to load test as the case may be for ascertaining safe working loads.
- (iv) **Environmental Audit**: The Independent Engineer shall carry out a check to determine conformity of the project requirements with the environment requirement set forth in Applicable Laws and Applicable Permits.
- (v) **Safety Review**: Safety Audit of the project requirements shall have to be undertaken with the assistance of the relevant statutory authorities to determine conformity of the project requirements with the provisions of the Agreement.
- (vi) **The procedures for tests**: The procedures as stipulated in the relevant IS specifications shall be adhered and the equipments for testing shall be arranged through the Concessionaire.
- 8) The Independent Engineer shall obtain a copy of operational and maintenance manual of the project requirements from the Concessionaire and verify the contents of the manual in order to meet the following requirements. The operation and maintenance manual shall essentially comprise of general requirement of O&M, O&M plans, replacement of maintenance parts, schedule of routine maintenance, schedule of preventive maintenance and periodic maintenance. The manual will also cover the minimum maintenance requirement to adhere to the performance standards as per the provisions of this Agreement. The manual shall generally cover the expected failures and time taken for repairs and maintenance.
- 9) The test procedure shall be followed as per ASTM, BIS, IS
- 10) The tests shall also satisfy the appropriate Authority and Certification, such as:
  - (i) Dock safety Directorate
  - (ii) Environmental Authority
  - (iii) Director of Explosives
  - (iv) Fire Authority
  - (v) Ground Water Authority
  - (vi) Customs

# PERMITS AND CLEARANCES PROCURED BY THE CONCESSIONAIRE/CONCESSIONING AUTHORITY

**A.** Applicable permits to be obtained by the concessinare before commencement of construction work.

| Permits /Clearance         | GRANTING AUTHORITY   |
|----------------------------|--|
| Plot Plan approval         | Dock safety Inspector / OISD guidelines                        |
| Electrical Installations   | Department of Electrical Inspectorate, Government of Karnataka |
| Fire Fighting Installation | Chief Fire Officer, Bangalore OISD guidelines or Applicable    |
|                            | international codes / practices                                |
| Railway Infrastructure     | Southern Railways  |
| Customs notification       | Commissioner of Customs  |

Apart from the above mentioned clearances and permits, the Concessionaire shall also be responsible to obtain all other necessary permits and clearances required for implementation of the Project and which are not explicitly required to be obtained by the Authority under this Agreement. In this regard, the Concessionaire will have to ascertain independently the applicable permits/ clearances/approvals apart from what is provided above, that are required for implementation of the Project during the Concession Period.

**B.** The following list of the permits available with Concessioning Authority.

| ACTIVITY                                 | AUTHORITY                                 |  |  |  |
|--|---|--|--|--|
| Port limit notification                  | Ministry of Shipping, Government of India |  |  |  |
| Custom notification for part of the area | Commissioner of Customs                   |  |  |  |
| proposed to be leased                    |   |  |  |  |
| Fire safety concerns                     | Port Fire Office for hot work Permits     |  |  |  |

The Environmental Clearance for the project will be obtained by the Concessioning Authority. However, in case the Concessionaire decides to go for additional dredging and strengthening of berths to cater to deeper drafted vessels, the responsibility for obtaining the required approvals and clearances including Environmental Clearance from MoE&F shall be that of the Concessionaire.

The Concessionaire shall ensure that all the conditions subject to which the Applicable Permits including Environmental Clearance are granted are complied with.

# PERFORMANCE GUARANTEE

# $(PROFORMA\ OF\ BANK\ GUARANTEE)^{11}$

| TE               | IIS DEED OF GUARANTEE executed on this the day of at by   |
|------------------|---|
|                  | (Name of the Bank) having its Head/Registered office at   |
|                  | hereinafter referred to as "the Guarantor" which  |
| -                | pression shall unless it be repugnant to the subject or context thereof include its successors d assigns;   |
| In               | favour of   |
| of<br>ref<br>unl | TE NEW MANGALORE PORT TRUST, a body corporate constituted under the provisions the Major Port Trusts Act, 1963 and having its Administrative Office at (hereinafter erred to as "the Board" or "the Concessioning Authority") which expression shall, ess repugnant to the context or meaning thereof include its administrators, successors or igns. |
| <b>W</b> ]       | HEREAS  |
| a)               | The Board, vide its Request for Proposal dated [●] ("the RFP") invited duly short listed bidders to implement a project envisaging "Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP"(more particularly described in Appendix 1 and hereinafter referred to as "the Project");                                 |
| b)               | After evaluation of the bids received in response to the RFP, the Board accepted the bid of the consortium comprising of, and("the Consortium") OR the Board accepted the bid of Ltd. ("the Applicant") and   |
|                  | issued the Letter of Intent Nodated ("LOI") to the  |
|                  | Consortium/Applicant requiring, inter alia, the execution of the Concession Agreement, ("the Concession Agreement") the draft whereof was provided in the RFP;  |
| c)               | Pursuant to the LOI the Applicant/ Consortium has promoted and incorporated a special purpose company ("the Concessionaire"), to enter into the Concession Agreement for undertaking, inter alia, the work with respect to the Project referred to in Recital (a) above and to perform and discharge all its obligations thereunder.                  |
| d)               | In terms of the LOI and the Concession Agreement, the Concessionaire is required to   |
| <sup>11</sup> To | be issued by a Scheduled Bank in India.   |

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furnish to the Board, a Performance Guarantee being an unconditional and irrevocable Bank Guarantee from a Scheduled Bank for a sum of Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only) as security for due and punctual performance/discharge of its obligations under the Concession Agreement during the Construction Phase,

e) At the request of the Concessionaire, and for valid consideration the Guarantor has agreed to provide guarantee, being these presents guaranteeing the due and punctual performance/discharge by the Concessionaire of its obligations under the Concession Agreement during the Construction Phase.

# NOW THEREFORE THIS DEED WITNESSETH AS FOLLOWS:

- 1. Capitalized terms used herein but not defined shall have the meaning assigned to them respectively in the Concession Agreement.
- 2. The Guarantor hereby irrevocably and unconditionally guarantees the due execution and punctual performance by M/s. \_\_\_\_\_ ("the Concessionaire") of all its obligations under the Concession Agreement during the Construction Phase.
- 3. The Guarantor shall, without demur or protest, pay to the Board sums not exceeding in aggregate Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only) within five (5) calendar Days of receipt of a written demand therefor from the Board stating that the Concessionaire has failed to meet its performance obligations under the Concession Agreement during the Construction Phase. The Guarantor shall not go into the veracity of any breach or failure on the part of the Concessionaire or validity of demand so made by the Board and shall pay the amount specified in the demand notwithstanding any direction to the contrary given or any dispute whatsoever raised by the Concessionaire or any other Person before any court, tribunal, expert, arbitrator or similar proceedings. The Guarantor's obligations hereunder shall subsist until all such demands of the Board are duly met and discharged in accordance with the provisions hereof. Any such demand made on the Guarantor by the Board shall be conclusive, absolute and unequivocal as regards the amount due and payable by the Guarantor under this Agreement. The Concessioning Authority shall at all times at its sole discretion have the absolute and unconditional right to call upon the Guarantor to pay the amount under the Guarantee.
- 4. In order to give effect to this Guarantee, the Board shall be entitled to treat the Guarantor as the principal debtor. The obligations of the Guarantor shall not be affected by any variations in the terms and conditions of the Concession Agreement or other documents or by the extension of time for performance granted by the Board or postponement/ non-exercise/ delayed exercise of any of its rights by the Board or any indulgence shown by the Board to the Concessionaire and the Guarantor shall not be relieved from its obligations under this Guarantee on account of any such variation, extension, postponement, non-exercise or delayed exercise by the Board of any of the Board's rights or any indulgence shown by the Board; provided nothing contained herein shall enlarge

the Guarantor's obligation hereunder.

- 5. This Guarantee shall be unconditional and irrevocable and shall remain in full force and effect until Scheduled Project Completion Date and for a period of twelve months thereafter unless discharged/ released earlier by the Board in accordance with the provisions of the Concession Agreement. The Guarantor's liability in aggregate shall be limited to a sum of Rs. 23,50,00,000/- (Rupees Twenty Three Crores Fifty Lakhs Only)
- 6. This Guarantee shall not be affected by any change in the constitution or winding up, insolvency, bankruptcy, dissolution or liquidation of the Concessionaire/the Guarantor or any absorption, merger or amalgamation of the Concessionaire/the Guarantor with any other Person.
- 7. Any payment made hereunder shall be made free and clear of, and without deduction for or on account of taxes, levies, imposts, duties, charges, fees, deductions, or withholding of any nature whatsoever.
- 8. The Guarantor hereby irrevocably and unconditionally undertakes, agrees and acknowledges that its obligations as a Guarantor hereunder:
  - a. shall not be affected by the existence of or release or variation of any other guarantee or security for any of the obligations of the Concessionaire under the Concession Agreement;
  - b. shall not be affected by any failure by the Concessioning Authority to perform any of its obligations under the Agreement;
  - c. shall not be affected by any failure or delay in payment of any fee or other amount payable to the Guarantor in respect hereof;
  - d. shall not be affected by any exercise or non-exercise of any right, remedy, power or privilege of any person under or in respect of any payment obligations of the Concessionaire under the Concession Agreement;
  - e. shall not be affected by any failure, omission or delay on the Concessioning Authority's part to enforce, assert or to exercise any right, power or remedy conferred on the Concessioning Authority in this Guarantee;
  - f. shall not be affected by any act, omission, matter or thing which, but for this clause would reduce, release or prejudice the Guarantor from any of the obligations under this Guarantee or prejudice or diminish the obligations in whole or in part.
- 9. The obligations, covenants, agreements and duties herein shall not be subject to any counterclaims, cross claims, set offs, deductions, withholdings, diminutions, abatements,

recoupments, suspensions, deferments, reductions or defence for any reason whatsoever and the Guarantor, shall have no right to terminate this Guarantee or to be released, relieved or discharged from any of its obligations, covenants, agreements and duties hereunder for any reason whatsoever.

| 10. | The   | Guarantor    | has    | power   | to   | issue  | this   | guara | ntee | and    | disc | charge  | the    | obligation | ons |
|-----|-------|--------------|--------|---------|------|--------|--------|-------|------|--------|------|---------|--------|------------|-----|
|     | conte | emplated he  | erein, | and the | ur   | dersig | ned is | duly  | auth | orized | to   | execute | e this | Guaran     | tee |
|     | pursi | ant to the p | ower   | granted | l un | der    |        |       | ·    |        |      |         |        |            |     |

11. This Guarantee shall be governed by and construed in accordance with the laws of India. The Guarantor hereby irrevocably submits to the exclusive jurisdiction of the Court of Mangalore for the purposes of any suit, action, or other proceeding arising out of this Guarantee, or the subject matter hereof, brought by the Concessioning Authority or its successors or assigns. To the extent permitted by Applicable Law, the Guarantor or its successors or assigns hereby waive, and shall not assert, by way of motion, as defence, or otherwise, in any such suit, action, or proceeding any claim that such suit, action, or proceedings is brought in an inconvenient forum, or that the value of such suit, action, or proceeding is improper, or that the subject matter hereof may not be enforced in or by such court.

|                          | GUARANTOR HAS SET ITS HANDS HEREUNTO |
|--------------------------|--------------------------------------|
| ON THE DAY, MONTH AND YE | AR FIRST HEREINABOVE WRITTEN.        |
| SIGNED AND DELIVERED by  | Bank by the hand of Shri             |
| its                      | and authorized official.             |

#### **CERTIFICATES**

#### **COMPLETION CERTIFICATE**

- I, [●] (Name of the Independent Engineer), acting as Independent Engineer, under and in accordance with the Agreement dated [●], for the Project for "Mechanization of Berth No. 12 for providing equipments for handling Bulk Cargoes at NMP" on Design, Build, Finance, Operate and Transfer (DBFOT) basis, through [(Name of Concessionaire)], hereby certify that the Tests specified in Article [●] and Schedule-[●] of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in commercial service of the users thereof.
- 2. It is certified that, in terms of the aforesaid Agreement, all works forming part of the Project have been completed, and the Project is hereby declared fit for entry into commercial operation on this the [●] day of [●] 20[●].

SIGNED, SEALED AND DELIVERED
For and on behalf of the
INDEPENDENT ENGINEER by:
(Signature)
(Name)
(Designation)
(Address)

#### PROVISIONAL CERTIFICATE

- 1. I, [[●] (Name of the Independent Engineer)], acting as Independent Engineer, under and in accordance with the Agreement dated [●], for the Project on Design, Build, Finance, Operate and Transfer (DBFOT) basis through [● (Name of Concessionaire)], hereby certify that the Tests specified in Article 6.7 and Annexure to Appendix-7 and Schedule-[●] of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.
- 2. Construction Works that were found to be incomplete and/or deficient have been specified in the Punch List appended to the Provisional Certificate, and the Concessionaire has agreed and accepted that it shall complete and/or rectify all such works in the time and manner set forth in the Agreement. [Some of the incomplete works have been delayed as a result of reasons attributable to the Concessioning Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account. Though the remaining incomplete works have been delayed as a result of reasons attributable to the Concessionaire,] I am satisfied that having regard to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project, pending completion thereof.
- 3. In view of the foregoing, I am satisfied that the Project can be safely and reliably placed in commercial service of the users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into commercial operation on this the  $[\bullet]$  day of  $[\bullet]$  20 $[\bullet]$ .

| ACCEPTED,    | SIGN     | ED, | SEA | LED  | AND   | SIGN   | ED,    | SEALED     | AND  | DELIVERED For |
|--------------|----------|-----|-----|------|-------|--------|--------|------------|------|---------------|
| DELIVERED    | For      | and | on  | beha | lf of | and    | on     | behalf     | of   | INDEPENDENT   |
| CONCESSION   | NAIRE    | by: |     |      |       | ENG    | INEE   | ER by:     |      |               |
|              |          |     |     |      |       |        |        |            |      |               |
| (Signature)  |          |     |     |      |       | (Signa | ıture) |            |      |               |
|              |          |     |     |      |       |        |        |            |      |               |
| (Name and De | signatio | on) |     |      |       | (Nam   | e and  | l Designat | ion) |               |
|              |          |     |     |      |       |        |        |            |      |               |
| (Address)    |          |     |     |      |       | (Addı  | ress)  |            |      |               |

# PERSONNEL AND LABOUR REQUIREMENTS

The concessionaire shall comply all the personnel and labour requirements as per the Ministry of Labour circulars and orders.

#### **TARIFFS**

# REFERANCE TARIFF SCHEDULE FOR HANDLING COAL AND OTHER CARGO AT BERTH NO.12 AT NEW MANGALORE PORT TRUST

# **CHAPTER 1 – DEFINITIONS & GENERAL TERMS & CONDITIONS**

#### 1.1. Definitions – General

In this Scale of Rates, unless context otherwise requires, the following definitions shall apply:

- (i). "Coastal Vessel" shall mean any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the competent authority / Director General of Shipping.
- (ii). "Foreign going vessel" shall mean any vessel other than coastal vessel.
- (iii). "Per Day" shall mean per calendar day unless otherwise stated.

#### 1.2. General Terms and Conditions:

- (i). The status of a vessel as borne out by its certification by the Customs or the Director General of Shipping, shall be the deciding factor for its classification as 'coastal' or 'foreign-going' for the purpose of levy of vessel related charges; and, the nature of cargo or its origin will not be of any relevance for this purpose.
- (ii). (a). The cargo related charges for all coastal cargo other than thermal coal, POL including crude, iron ore and iron ore pellets should not exceed 60% of the normal cargo related charges.
  - (b). In case of cargo related charges, the concessional rates should be levied on all the relevant handling charges for ship-shore transfer and transfer from/ to quay to/ from storage yard including wharfage.

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<sup>&</sup>lt;sup>12</sup> The Tariff mentioned in this Appendix has been approved by TAMP, but is yet to be notified.

- (c). Cargo from a foreign port, which reaches an Indian Port 'A' for subsequent transhipment to Indian Port 'B' will be, levied the concessional charges relevant for its coastal voyage. In other words, cargo from / to Indian ports carried by vessel permitted to undertake coastal voyage will qualify for the concession.
- (iii). Interest on delayed payments/ refunds.
  - (a). The user shall pay interest at the rate of 2% above the Prime Lending Rate of State Bank of India (SBI), on the delayed payments of any charge under the Scale of Rates.
  - (b). Likewise, the Port Trust shall pay penal interest at the rate of 2% above the Prime Lending Rate of State Bank of India (SBI), on delayed refunds.
  - (c). The delay in refunds will be counted beyond twenty days from the date of completion of services or on production of all the documents required from the User whichever is later.
  - (d). Delay in payments by user will be counted only 10 days after the date of raising the bills by Terminal Operator. This provision will, however, not apply to the cases where payment is to be made before availing the services where payment of charges in advance is prescribed as a condition in the Scale of Rates.
- (iv). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.
- (v). (a). The rates prescribed in the Scale of Rates are ceiling levels, likewise, rebates and discounts are floor levels. The operator may, if they so desire, charge lower rates and/or allow higher rebates and discounts.
  - (b). The operator may also, if he so desire, rationalize the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalization gives relief to the users in the rate per unit and the unit rates prescribed in the Scale of Rates does not exceed the ceiling level.
  - (c). The operator should notify the public such lower rates and/ or rationalization of the conditionalities governing the application of such rates and continue to notify the public any further charges in such lower rates and/or in the conditionalities governing the application of

such rates provided the new rates fixed shall not exceed the rate notified by the Authority.

- (vi). Users will not be required to pay charges for delays beyond reasonable level attributable to the operator.
- (vii). No claim for refund shall be entertained unless the amount refundable is `100/- or more. Likewise, terminal operator shall not raise any supplementary or under charge bills, if the amount due to the operator is less than `100/-.

# 2. Cargo Handling Charges

| Sr.    | Particulars                         | Rate in Rs. per | Rate in Rs. per metric tonne |  |  |  |  |
|--------|-------------------------------------|-----------------|------------------------------|--|--|--|--|
| No.    | raruculars                          | Foreign         | Coastal                      |  |  |  |  |
| (i).   | Thermal Coal                        | 284.50          | 284.50                       |  |  |  |  |
| (ii).  | Other Coal                          | 284.50          | 170.70                       |  |  |  |  |
| (;;;)  | Other Cargo (Fertilizer, Limestone, | 72.64           | 43.58                        |  |  |  |  |
| (iii). | Gypsum, Dolomite)                   | /2.04           | 43.36                        |  |  |  |  |

- (i). The handling charges for coal (thermal and other coal) prescribed above is a composite charge for unloading of the cargo from the vessel and transfer of the same up to the point of storage, storage at the stackyard upto a free period of 25 days, reclaiming from stackyard and loading onto trucks/ railway wagon, sweeping of cargo on the wharf, dust suppression services and all other miscellaneous services not specifically included in SOR.
- (ii). The handling charges for other cargo (Limestone, Gypsum, Dolomite) prescribed above is a composite charge for unloading of the cargo from the vessel and transfer of the same up to the point of storage, storage at the stackyard upto a free period of 5 days, reclaiming from stackyard and loading onto trucks, sweeping of cargo on the wharf, dust suppression services and all other miscellaneous services not specifically included in SOR.
- (iii). The handling charges for other cargo (Fertilizer) prescribed above is a charge only for unloading of the cargo from the vessel and transfer of the same up to the Port storage sheds. The handling charges also cover other miscellaneous services not specifically included in SOR. Storage of Fertilizer is not envisaged in this project and handling charges shall not include the charges against storage.

# 3. Storage Charges

The storage charge for the coal and other cargo (Limestone, Gypsum, Dolomite)

stored in the yard beyond a free period (25 days for coal and 5 days for other cargo) after complete discharge of vessel's cargo, shall be as below:

| Sr.    |   | Rate in Rs, per MT per Day or part thereof |  |  |  |  |
|--------|---|--|--|--|--|--|
| No.    | Description                                     | For Coal<br>Import                         | For Other Cargo Import (Limestone, Gypsum, Dolomite) |  |  |  |
| (i).   | Free period                                     | 25 Days                                    | 5 Days   |  |  |  |
| (ii).  | First five days after expiry of free period     | 1.07                                       | 0.78   |  |  |  |
| (iii). | 6th day to 10th day after expiry of free period | 1.61                                       | 1.17   |  |  |  |
| (iii). | From 11 <sup>th</sup> day onwards               | 2.14                                       | 1.56   |  |  |  |

#### **Notes:**

- (i). (a) For the purpose of calculation of free period, Customs notified holidays and Terminal's non-working days shall be excluded.
  - (b) Free period shall be calculated from the day following the date of complete discharge of goods from the vessel on to the berth.
- (ii). Storage charges on cargo shall not accrue for the period when the Terminal Operator is not in a position to deliver the cargo when requested by the User due to reasons attributable to the Terminal operator.
- (iii). Storage charges shall be payable for all days including Terminal's non- working days and Customs notified holidays for stay of cargo beyond the prescribed free days.

#### 4. GENERAL NOTES:

- (i). The tariff caps will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January 2015 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year.
- (ii). From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire licence period.

However, the Licensee would be free to propose a tariff along with Performance Standards (the "Performance Linked Tariff") from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (and this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.

- (iii). The proposal shall be submitted to TAMP along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standards in the previous 12 months as incorporated in the Licence Agreement or for the actual number of months of operation in the first year of operation as the case may be.
- (iv). On receipt of the proposal, TAMP will seek the views of the Major Port Trust on the achievement of Performance Standards as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.
- (v). In the event of Licensee not achieving the Performance Standards as incorporated in the Licence Agreement in previous 12 months, TAMP will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Licensee shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.
- (vi). After considering the views of the Major Port Trust, if TAMP is satisfied that the Performance Standards as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.
- (vii). While considering the proposal for Performance Linked Tariff, TAMP will look into the Performance Standards and its adherence by the Licensee. TAMP will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the Licensee. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.
- (viii). From the third year of operation, the Performance Linked Tariff proposal from the Licensee shall be automatically notified by TAMP subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The Licensee, for the Performance Linked Tariff from the third year onwards, will submit the Performance

Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and TAMP shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

# RATES APPLICABLE IN RESPECT OF LAND, UTILITIES AND SERVICES

(Scale of Rates)

The Current Scale of Rates as published by New Mangalore Port Trust is attached separately. As and when the Scale of Rates are revised by TAMP or such other competent authority under the Applicable Laws, the same shall be applicable.

#### **NEW MANGALORE PORT TRUST**

# SCALE OF RATES Gazette No. 38, Dated 21.02.2012 CHAPTER - I

#### **Definitions and General Terms and Conditions**

#### 1.1 . Definitions – General

In this Scale of Rates unless the context otherwise requires, the following definitions shall apply:

- (i). "Coastal Vessel" shall mean any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the competent authority.
- (ii). "Foreign going vessel" shall mean any vessel other than coastal vessel.

#### 1.2. General Terms & Conditions

- (i). The status of a vessel as borne out by its certification by the Customs or the Director General of Shipping, shall be the deciding factor for its classification as 'coastal' or 'foreign-going' for the purpose of levy of vessel related charges; and, the nature of cargo or its origin will not be of any relevance for this purpose.
- (ii). (a). Vessel related charges shall be levied on ship owners/steamer agents. Wherever rates have been denominated in US dollar terms the charges shall be recovered in Indian Rupees after conversion of US currency to its equivalent Indian Rupees at the Market Buying Rate notified by the Reserve Bank of India, State Bank of India or its associates or any other Public Sector Banks as may be specified from time to time. The date of entry of the vessel into the Port Limits shall be reckoned with as the day for such conversion.
  - (b). Container related charges denominated in US dollar terms shall be collected in equivalent Indian Rupees. For this purpose, the Market Buying Rate prevalent on the date of entry of the vessel in case of import containers and on the date of arrival of containers in the Port premises in the case of export containers shall be reckoned as the day for such conversion of dollar denominated charges.
- (iii). A regular review of exchange rate shall be made once in thirty days from the date of arrival of the vessel in cases of vessels staying in the Port for more than thirty days. In such cases, the basis of billing shall change prospectively with reference to the appropriate exchange rate prevailing at the time of the review.
- (iv). (a). A foreign going vessel of India flag having a General Trading Licence can convert to coastal run on the basis of a Customs Conversion Order.
  - (b). A foreign going vessel of Foreign flag can convert to coastal run on the basis of a Coastal Voyage Licence issued by the Director General of Shipping.
  - (c). In cases of such conversion, coastal rate shall be chargeable by the load port from the time the vessel starts loading coastal goods.
  - (d). In cases of such conversion, coastal rate shall be chargeable only till the vessel completes coastal cargo discharging operations; immediately thereafter, foreign going rates shall be chargeable by the discharge Ports.
  - (e). For dedicated Indian Coastal vessels having a Coastal Licence from Director General of Shipping, no other documents will be required to be entitled to coastal rates.

- (v). (a). The vessel related charges for all Coastal vessels should not exceed 60% of the corresponding charges for other vessels.
  - (b). The cargo/container related charges for all coastal cargo/containers, other than thermal coal, POL including Crude Oil, iron ore and iron pellets, should not exceed 60% of the normal cargo/container related charges.
  - (c). In case of cargo related charges, the concessional rates should be levied on all the relevant handling charges for ship-shore transfer and transfer from/to quay to/from storage yard including wharfage.
  - (d). In case of container related charges, the concession will be applicable on all the relevant charges for ship-shore transfer and transfer from/to quay to/from storage yard as well as wharfage on cargo and containers.
  - (e). Cargo/container from a foreign port which reaches an Indian Port "A" for subsequent transhipment to India Port "B" will be levied the concession charges relevant for its coastal voyage. In other words, cargo/containers from/to Indian ports carried by vessels permitted to undertake coastal voyage will qualify for the concession.
  - (f). The charges for coastal cargo/containers/vessels shall be denominated and collected in Indian Rupee.
- (vi). Interest on delayed payments/refunds:
  - (a). The User shall pay interest at the rate of 16.75% per annum, on the delayed payments of any charge under the Scale of Rates.
  - (b). Likewise, the Port Trust shall pay penal interest at the rate of 16.75% per annum on delayed refunds.
  - (c). The delay in refunds will be counted beyond twenty days from the date of completion of services or on production of all the documents required from the User whichever is later.
  - (d). Delay in payments by user will be counted only 10 days after the date of raising the bills by NMPT. This provision will, however, not apply to the cases where payment is to be made before availing the services/use of port properties as stipulated in the MPT Act 1963 and/or where payment of charges in advance is prescribed as a condition in the Scale of Rates.
- (vii). No refund shall be made unless the amount refundable is ₹100/- or less. Likewise, NMPT will not raise any supplementary or under charge bills, if the amount due to Port is ₹100/- or less.
- (viii). All charges worked out shall be rounded off to the next higher rupees in each category.
- (ix). (a). The rates prescribed in the Scale of Rates are ceiling levels; likewise, rebates and discounts are floor levels. The NMPT may, if they so desire, charge lower rates and/or allow higher rebates and discounts.
  - (b). The Port may also, if they so desire rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation gives relief to the Users in rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling level.
  - (c). The Ports should notify the public such lower rates and/or rationalisation of the conditionalities governing the application of such rates and continue to notify the public any further changes in such lower rates and/or in the conditionalities

governing the application of such rates provided the new rates fixed shall not exceed the rates notified by the TAMP.

(x). Users shall not be required to pay charges for delays beyond a reasonable level attributable to the NMPT.

#### **CHAPTER - II**

#### **VESSEL RELATED CHARGES**

#### 2.1. PORT DUES

| Vessels chargeable                              | Rate per G                            | RT                           | Frequency of payment in respect of the same vessel |                              |  |
|---|---------------------------------------|------------------------------|--|------------------------------|--|
| (Sea going vessels of 15 tonnes and above)      | Foreign-going<br>Vessels<br>(in US\$) | Coastal<br>vessels<br>(in ₹) | Foreign-going<br>vessels<br>(in US \$)             | Coastal<br>vessels<br>(in ₹) |  |
| Ships/Steamers                                  | 0.143                                 | 2.32                         | Each entry   | Each entry                   |  |
| Tugs, Launches, Barges, etc. not included above | 0.040                                 | 1.07                         | Each entry   | Each entry                   |  |

#### Notes:

- 1. 'Ship" means a vessel propelled solely by wind power and 'Steamer" means any vessel other than a ship. In respect of sailing vessels fitted with auxiliary engines charges shall be levied at the rate applicable to ships.
- 2. A vessel entering the port in ballast and not carrying passengers shall be charged with only 75% of the port dues with which she would otherwise be chargeable.
- 3. A vessel entering the port but not discharging or taking in any cargo or passenger (with the exception of such un-shipment and reshipment as may be necessary for the purpose of repairs) shall be charged with only 50% of the port dues with which she would otherwise be chargeable.
- 4. A LASH vessel making a 'second call' to pick up empty and/or laden fleeting LASH barges shall be treated as a vessel entering the Port but not discharging or taking any cargo or passengers therein, as described in Section 50B of the Major Port Trusts Act, and shall not be charged any Port Dues.
- 5. No Port dues shall be levied in respect of:
  - (i). any pleasure yatch; or,
  - (ii). any vessel which having left the port is compelled to re-enter it by stress of weather = or in consequence of having sustained any damage.
- 6. For oil tankers with segregated ballast, the reduced gross tonnage that is indicated in the remarks column of its International Tonnage Certificate will be taken to be its gross tonnage for the purpose of levying port dues.

#### 2.2 . PILOTAGE

| Classification of the vessels | Rate per GRT |
|-------------------------------|--------------|
|                               |              |

|  | Foreign-going vessels<br>(in US \$)                 | Coastal vessels<br>(in ₹)                    |
|--|---|--|
| (i). For Pilotage both inward and outward  |   |  |
| (a). Upto 30,000 GRT   | 0.320<br>subject to a minimum of<br>US\$ 960        | 8.55<br>subject to minimum of<br>₹25,661.00  |
| (b). 30,001 to 60,000 GRT  | US \$ 9600 + US \$ 0.256 per<br>GRT over 30,000 GRT | ₹2,56,608 + ₹6.84 per<br>GRT over 30,000 GRT |
| (c). 60,001 GRT and above  | US \$ 17280 + 0.224 per GRT<br>over 60,000 GRT      | ₹4,61,894 + ₹5.99 per<br>GRT over 60,000 GRT |
|  | Rate per ve   | ssel   |
| (ii). (a). Barges, Tugs, Launches, etc., not specified above and sailing vessels [with/without auxiliary engines] and fishing vessels upto GRT 199 | US \$ 71.34 per vessel                              | ₹1907.00 per vessel                          |
| (b). 200 GRT and above   | US \$ 107.00 per vessel                             | ₹2860.00 per vessel                          |

#### Notes:

- 1. Plilotage-cum-towage fee will be composite fee and shall include one inward and one outward movement with services of Port's Pilot for to and fro pilotage and towage with required number of tugs/launches of adequate capacity and shifting/s of vessels for 'Port convenience' and supply of mooring boats.
- 2. No charges for shifting shall be levied for shifting of a vessel for Port convenience.
  - (i). "Port convenience" is defined to mean the following:
    - (a). If a working cargo vessel at berth or any vessel at mooring is shifted/ unberthed for undertaking dredging work/ hydrographic survey work or for allotting a berth for the dredger or for attending to repairs to berths, maintenance and such other similar works whereby shifting/pilotage is necessitated, such shifting/pilotage shall be considered as "SHIFTING FOR PORT CONVENIENCE". The shifting/ pilotage made to reposition such shifted vessel shall also be considered as "SHIFTING FOR PORT CONVENIENCE"
    - (b). For shifting/pilotage of any vessel for the convenience of/benefit of another vessel, the vessel benefited is liable to pay the shifting/pilotage charges for shifting and re-positioning of the vessel shifted.
- 3. (i). Shifting at the request of the vessels will attract separate shifting charges as prescribed below:

#### **Shifting charges:**

|                                   | Rate per GRT                      |                                     |  |
|-----------------------------------|-----------------------------------|-------------------------------------|--|
| Classification of vessels         | Foreign going vessel (in US \$)   | Coastal vessel<br>(in ₹)            |  |
| (i). (a). Upto 30,000 GRT         | 0.08                              | 2.14                                |  |
|                                   | subject to a minimum of US \$ 240 | subject to a minimum of<br>₹6415.20 |  |
| (b). 30,001 to 60,000             | US \$ 2400 + US \$ 0.064          | ₹64152 + ₹1.71 per GRT              |  |
| GRT                               | per GRT over 30,000 GRT           | over 30,000 GRT                     |  |
| (c). 60,001 GRT and               | US \$ 4320 + 0.056 per            | ₹115474 + ₹1.50 per GRT             |  |
| above                             | GRT over 60,000 GRT               | over 60,000 GRT                     |  |
|                                   | Rate pe                           | er vessel                           |  |
| (ii).(a). Barges, Tugs, Launches, | US \$ 17.84 per vessel            | ₹477.00 per vessel                  |  |
| etc., not specified above and     |                                   |                                     |  |

| sailing vessels [with/without  |                        |                    |
|--------------------------------|------------------------|--------------------|
| auxiliary engines] and fishing |                        |                    |
| vessels upto GRT 199           |                        |                    |
| (b). 200 GRT and above         | US \$ 26.75 per vessel | ₹715.00 per vessel |

- (ii). When tugs are not used for shifting, 50% concession shall be given on shifting charges.
- 4. The shifting charges prescribed above are for the movement of vessels within the dock basin movement from/to anchorage outside the dock basin qualifies for a second set of pilotage fee.
- 5. If the status of the vessel is changed during its stay in the Port, from foreign run to coastal run or vice versa, then the consolidated pilotage should be divided into two equal halves (i.e. one for inward and other for outward pilotage) which should be charged according to the status of the vessel prevailing at the time of taking place of relevant movement.
- 6. Where a movement of a vessel is aborted or had to be changed due to reasons like tug failure, insufficiency of length, lack of proper fenders, etc. for which the vessel is not at fault, no charge shall be levied for the unsuccessful operation involved till she occupies allotted berth.
- 7. For piloting a vessel on COLD MOVE as certified by the Master of the vessel namely without the power of the engine of the vessel partly or fully in any operation, a surcharge of 20% shall be levied over the rates payable as per the Schedule of pilotage charges prescribed above.
- 8. During the course of hot movements, if a vessel fails to offer its full power for a duration not exceeding five minutes, it shall not be considered as cold move.
- 9. In the event of the vessel carrying a Pilot outside the Port limits for unavoidable reasons, the Master shall be bound to leave the pilot at the next nearest port and Master, Owner or his representatives shall be responsible for the repatriation and all connected formalities thereof and also be liable to pay all expenses incurred in the matter of boarding, lodging, other reasonable expenses and repatriation of the Pilot thus over carried. In addition, compensation at the rate of ₹76.00 for coastal vessels or US\$ 2.84 for foreign going vessel per hour shall be payable by the Master of the vessel till the Pilot reports back to duty at the Port.

2.3 . Detention charges of the vessels:

| SI.<br>No. | Description  | Foreign<br>going vessel<br>(in US \$) | Coastal<br>vessel<br>(in ₹) |
|------------|--|---------------------------------------|-----------------------------|
| (i).       | For cancellation of a requisition for the services of<br>a Pilot with less than 2 hours notice for pilotage<br>between 0600 hours to 1800 hours or with less |                                       |                             |
|            | than 6 hours notice for pilotage between 1800 hours and 0600 hours   | 75.00                                 | 2005.00                     |
| (ii).      | For detention of Pilot by a Steamer for more than 30 minutes beyond the time or which the requisition was made   |                                       |                             |
|            | <ul><li>(a). For 1st hour or part thereof</li><li>(b). For every subsequent hour or part thereof.</li></ul>  | 37.50<br>31.25                        | 1002.00<br>835.00           |

#### Note:

In case where a Pilot boards a Steamer but has to return on being informed that this services are not required, cancellation charges specified in sub-item (i) above shall be levied. If a Pilot is made to wait for more than 30 minutes after boarding the vessel before being informed that his services are not required, charges specified in sub-item (ii) above shall be levied in addition to cancellation charges.

#### 2.4 . Berth Hire charges:

#### 2.4.1. Berth Hire charges for occupation of berths where wharf cranes are not installed

|                                 | Rate per hour or part thereof per GRT |                          |  |
|---------------------------------|---------------------------------------|--------------------------|--|
| Classification of the Vessel    | Foreign going vessel (in US \$/cents) | Coastal Vessel<br>(in ₹) |  |
| Vessel other than oil tanker    |                                       |                          |  |
| All vessels irrespective of GRT | 0.17 cents                            | 0.045                    |  |
|                                 | subject to a minimum of               | subject to a minimum of  |  |
|                                 | US \$ 6                               | ₹160.40                  |  |

#### 2.4.2. Oil Tankers and Other vessels

|                                     | Rate per hour or part thereof per GRT         |                           |  |
|-------------------------------------|---|---------------------------|--|
| Classification of the Vessel        | Foreign going vessel                          | Coastal Vessel            |  |
|                                     | (in US \$/cents)                              | (in ₹)                    |  |
| (i). Tankers / Oil tankers          | 0.25 cents                                    | 0.067                     |  |
|                                     | subject to a minimum of                       | subject to a minimum of   |  |
|                                     | US \$ 4.95                                    | ₹132.30                   |  |
| (ii). Sailing vessels, Barges, Tugs | US \$ 3.096                                   | 82.75                     |  |
| (Vessels other than steamer and     | Per vessel / hour                             | Per vessel/hour           |  |
| Tankers)                            |   |                           |  |
| (iii). Fishing vessels/ trawlers    | US \$ 0.495                                   | 13.25                     |  |
|                                     | Per vessel / hour                             | Per vessel / hour         |  |
| (iv). Wooden rowing boat with or    | US \$ 0.24                                    | 6.50                      |  |
| without auxiliary engines           | Per vessel / hour                             | Per vessel / hour         |  |
| (v). Double banking                 | Whenever a vessel is double banked with other |                           |  |
|                                     | vessel occupying a berth,                     | it will be charged 50% of |  |
|                                     | the berth hire specified ab                   | ove.                      |  |

#### (vi). Mother Ships:

- (a). If the mother ships are berthed alongside a Wharf, all the charges as applicable to other Merchant vessels shall be recoverable.
- (b). If anchored at outer anchorage, there will be no pilotage fees, berth hire, mooring charges and tug hire charges
- (c). If anchored at inner anchorage, all applicable vessel related charges excluding berth hire shall be recovered.

#### (vii). Lash Barges:

- (a). The berth hire charges shall be levied at the rate of ₹12.05 per barge per hour or part thereof for coastal vessel or US \$ 0.45 per barge per hour or part thereof for foreign going during the process of loading and unloading of cargo.
- (b). When the barges wait at the safe fleeting area, they shall be charged at ₹4.00 per barge per hour or part thereof for coastal vessel or US \$ 0.15 per barge per hour or part thereof for a foreign going vessel.
- (c). The charges for towing of barge shall be according to the rate prescribed for tugs or launches, as the case may be.

#### Notes:

- 1. Berth hire shall be levied per hour from the time of completion of mooring of a vessel in a berth or when its anchoring is completed, which ever is later.
- 2. (i). Berth hire shall stop 4 hours after the time of the vessel signaling its readiness to sail. A penal berth hire equal to berth hire charges for one day's berth hire charge (i.e. 24 hours) shall be levied for a false signal.

"False signal" would be when a ship signals readiness and asks for a pilot in anticipation even when she is not ready for un-berthing due to engine not being ready or cargo operation not completed or such other reasons attributable to the vessel. This excludes the signaling readiness when a ship is not able to sail due to unfavourable tide, lack of night navigation or adverse weather conditions."

- (ii). The time limit prescribed for cessation of berth hire shall exclude the ship's waiting time for want of favourable tidal conditions or on account of inclement weather or due to absence of night navigation facilities.
- 3. A vessel which owing to an impending cyclone, elects to say in the Port after being duly warned by the Port authorities, shall be charged at the specified rates for the period covered by warning and commencing in the case of a vessel which has not completed its loading or unloading at the time of warning, from the day after the loading or unloading has been completed.
- 4. The vessel for whose convenience an adjacent berth(s) is (are) kept vacant due to the nature of cargo to be handled at that particular berth shall be charged berth hire charges applicable to the berths kept vacant in addition to berth hire charge for the berth occupied by the vessel.
- 5. Penal charges for unauthorised occupation of berths; without prejudice to any other course of action in accordance with the relevant provisions of law, rules and regulations, berth hire charges for the unauthorised occupation of a berth in the Port shall be levied at the following rates after giving 8 hours advance intimation or notice in writing to the agents / owner of the vessels concerned:

| (i).   | Upto 3 days or part thereof | : | At three times the rate of berth hire charges |
|--------|-----------------------------|---|---|
| (ii).  | Above 3 and upto 6 days     | : | At four times the rate of berth hire charges  |
| (iii). | Above 6 and upto 9 days     | : | At five times the rate of berth hire charges  |
| (iv).  | Above 9 days and so on for  | : | At six times the rates of berth hire charges  |
|        | subsequent days             |   | and so on                                     |

6. No berth hire shall be levied for the period when the vessels idle at its berths due to break down of Port equipments or power failure or any other reasons attributable to the Port.

#### 7. Priority Berthing or Ousting priority

- (i). For providing priority berthing to any vessel, a fee equivalent to berth hire charges for single day (24 hours) or 75% of the berth hire charges calculated for a total period of actual stay of the vessel at the berth, whichever is higher, shall be charged.
- (ii). For providing ousting priority berthing to any vessel, a fee equivalent to berth hire charges for single day (24 hours) or 100% of the berth hire charges calculated for a total period of actual stay of the vessel at the berth, whichever is higher, shall be charged.
- (iii). The fee for according 'priority' /ousting as indicated above shall be charged from all vessels, except the following categories:
  - (a). Vessels carrying cargo on account of the Ministry of Defence
  - (b). Defence vessels coming on goodwill visits
  - (c). Vessels hired for the purpose of Antartica expedition by the Department of Ocean Development
  - (d). Any other vessel for which special exemption has been granted by the Ministry of Shipping

#### 8. Berth Reservation

- (i). A Shipping line requiring advance reservation for a container ship should give its scheduled arrival of ships at least 3 months in advance. In the case of other vessels, a minimum notice of 1 month should be given. The shipping line should also intimate the expected stay of the ship at the berth at the time of asking for berth reservation.
- (ii). A berth reservation equal to berth hire charges for single day (24 hours) or 25% of the berth hire for the expected stay of the ship at the berth, whichever is higher, will be charged.
- (iii). If the shipping line does not bring the ship at the pre-reserved time, then the berth reservation fee paid in advance will be forfeited.
- (iv). Liner ships should arrive within 6 hours of the commencement of the time reserved for the berths and non-liner ships should arrive within 24 hours of the time indicated for arrival of the ship.

### **CHAPTER - III**

### SCHEDULE OF WHARFAGE CHARGES

The rates to be paid for the use of wharves, jetties and landing places (hereinafter referred to as Wharfage dues) on goods landed at or shipped from the Port of New Mangalore shall be as specified below:-

## 3.1 . Break-Bulk Cargo:

| SI. | Description of Cargo   | Advalor         | em Rate         |
|-----|--|-----------------|-----------------|
| No. | Break Bulk Cargo   | Foreign<br>Rate | Coastal<br>Rate |
| 1.  | Spices (cardamom, ginger, turmeric, coriander seed, pepper, chillies etc.  | 0.015%          | 0.009%          |
| 2.  | Fish dried, fresh, salted preserved or frozen prawns, frog legs and lobsters preserved or frozen   | 0.059%          | 0.036%          |
| 3.  | Yarn, cotton and wool raw, waste or manufactured staple fibrre   | 0.059%          | 0.036%          |
| 4.  | Arecanuts, beedi leaves and beedies, coffee instant coffee essence or powder, mangnasite illuminates monazite bauxite rutile sand, sandal wood logs, and product, Tea, Coffee/ Coffee husk, tobacco. | 0.074%          | 0.044%          |
| 5.  | Asphalt, Bitumen   | 0.237%          | 0.142%          |
| 6.  | Any other non-bulk items   | 0.296%          | 0.178%          |

# Note:

Advalorem rates shall be based on FOB value for exports, CIF value for imports and the value as given in coastal bill of lading for coastal cargo.

### 3.2 . Bulk Cargo:

| SI.<br>No. | Cargo                                       | Unit | Foreign<br>(in ₹) | Coastal<br>(in ₹) |
|------------|---|------|-------------------|-------------------|
| 1.         | (a). Finished Fertilizers                   |      |                   |                   |
|            | MOP, Urea, DAP, NPK, CAN Ammonia            | MT   | 25.90             | 15.54             |
|            | Sulphate and any other Finished fertilizer  |      |                   |                   |
|            | (b). Fertilizer Raw Materials               |      |                   |                   |
|            | Sulphate/ Rock phosphate                    | MT   | 29.60             | 17.76             |
| 2.         | Food Grains and Food Products               |      |                   |                   |
|            | (a). Rice, Wheat, Maize, Pulses (bags/bulk) | MT   | 29.60             | 17.76             |
|            | (b). Sugar, Sugarcandy or Cube              | MT   | 29.60             | 17.76             |
| 3.         | P.O.L.                                      |      |                   |                   |
|            | (a). Motor spirit                           | MT   | 51.80             | 51.80             |

| SI.<br>No. | Cargo  | Unit  | Foreign<br>(in ₹) | Coastal<br>(in ₹) |
|------------|--|-------|-------------------|-------------------|
|            | (b). Superior Kerosene Oil   | MT    | 51.80             | 51.80             |
|            | (c). Diesel Oil  | MT    | 51.80             | 51.80             |
|            | (d). Crude Oil   | MT    | 51.80             | 51.80             |
|            | (e). Naphtha   | MT    | 51.80             | 51.80             |
|            | (f). Furnace Oil   | MT    | 51.80             | 51.80             |
|            | (g). Grease  |       | 48.10             | 48.10             |
|            | (h). Asphalt/ coaltar/ bitumen   |       | 48.10             | 48.10             |
|            | (i). Others  | MT    | 51.80             | 51.80             |
| 4.         | Other Chemicals  |       |                   |                   |
|            | (a). Ammonia Liquid or Gas   | MT    | 51.80             | 31.08             |
|            | (b). Phosphoric Acid and Styrene Monomer   | MT    | 44.40             | 26.64             |
|            | (c). Sulphuric Acid  | MT    | 44.40             | 26.64             |
|            | (d). Orthoxylence  | MT    | 44.40             | 26.64             |
|            | (e). Ethylene Dichloride (E.D.C.)  | MT    | 44.40             | 26.64             |
|            | (f). Cyclohexanone   | MT    | 44.40             | 26.64             |
|            | (g). Cumene  | MT    | 44.40             | 26.64             |
|            | (h). Methanol  | MT    | 44.40             | 26.64             |
|            | (i). Phenol  | MT    | 44.40             | 26.64             |
|            | (j). Caustic Soda Dye  | MT    | 44.40             | 26.64             |
|            | (k). Acids/ Chemicals of all kinds in crystals   | MT    | 44.40             | 26.64             |
|            | liquids not specified above  |       |                   |                   |
| 5.         | Edible Oil & Other Liquids   |       |                   |                   |
|            | (a). Palm oil, vegetable oil etc.  | MT    | 37.00             | 22.20             |
|            | (b). Oil seeds   | MT    | 37.00             | 22.20             |
|            | (c). Molasses  | MT    | 37.00             | 22.20             |
| 6.         | Iron & Steel Materials   |       |                   | _                 |
|            | (a). Iron and Steel Plates, Pipes, tubes, steel  |       |                   |                   |
|            | wire coils (irrespective of the weight of  | MT    | 37.00             | 22.20             |
|            | individual piece)  |       |                   |                   |
|            | (b). Iron and steel scraps and drops   | MT    | 29.60             | 17.76             |
|            | (c). Pig iron/ Sponge iron   | MT    | 37.00             | 22.20             |
|            | (d). Plant and Machinery   | MT    | 96.20             | 57.72             |
| 7.         | Granite in any form  | MT    | 33.30             | 19.98             |
| 8.         | Ores/ Metals   |       |                   |                   |
|            | (a). Manganese ore   | MT    | 22.20             | 13.32             |
|            | (b). Perlite ore   | MT    | 22.20             | 13.32             |
|            | (c). Chromate ore  | MT    | 22.20             | 13.32             |
|            | (d). Bentonate & ballclay sand/ clay of any Class  | MT    | 14.80             | 8.88              |
|            | (e). Rock sand   | MT    | 20.00             | 12.00             |
|            | (f). Zinc concentrate  | MT    | 77.70             | 46.62             |
|            | (g). Copper concentrate  | MT    | 29.60             | 17.76             |
|            | (h). Copper cathode  | MT    | 92.50             | 55.50             |
|            | (i). Copper wire, rods, cables, bars blocks  | MT    | 74.00             | 44.40             |
|            | (j). Limestone   | MT    | 25.90             | 15.54             |
|            | (k). Aluminium and Tin   | MT    | 81.40             | 48.84             |
|            | (I). Iron ore other than KIOCL   | MT    | 25.90             | 25.90             |
|            | (m). Any other ore in bulk   | MT    | 25.90             | 15.54             |
|            | (n). Slag  | MT    | 25.00             | 15.00             |
| 9.         | Gas  | 1911  | _0.00             | 10.00             |
| ٠.         | LPG/LNG or any gas in any other form   | MT    | 133.20            | 79.92             |
| 10.        | Timber & Allied Products   | .,,,, | . 55.25           | . 0.02            |
|            | (a). Timber of all kinds of logs including plywood   | СВМ   | 37.00             | 22.20             |
|            |  | MT    | 29.60             | 17.76             |
|            | (h) Wood bulb and wood chine   | IVII  | 29.00             | 17.70             |
|            | (b). Wood pulp and wood chips (c). Papers of all kinds including waste papers                        | MT    | 37.00             | 22.20             |
| 11.        | (c). Wood pulp and wood chips (c). Papers of all kinds including waste papers  Coal and Coke in bulk |       | 37.00             | 22.20             |

| SI.<br>No. | Cargo  | Unit | Foreign<br>(in ₹) | Coastal<br>(in ₹) |
|------------|--|------|-------------------|-------------------|
|            | (b). Coal (other than Thermal Coal) and coke   | MT   | 18.50             | 11.10             |
| 12.        | Cement   |      |                   |                   |
|            | (a). upto 3.00 lakh tones per annum  | MT   | 44.40             | 26.64             |
|            | (b). Above 3.00 lakhs tones and upto 4.00  |      | 37.00             | 22.20             |
|            | lakhs Tones per annum  |      |                   |                   |
|            | (c). Above 4.00 lakh tones per annum   | MT   | 29.60             | 17.76             |
| 13.        | Gypsum/ Clinker  | MT   | 22.20             | 13.32             |
| 14.        | Others   |      |                   |                   |
|            | (a). Raw cashew nuts   | MT   | 25.90             | 15.54             |
|            | (b). Cashew kernels  | MT   | 40.70             | 24.42             |
|            | (c). Cashew shell liquid   | MT   | 29.60             | 17.76             |
|            | (d). Coir and coir products  | MT   | 40.70             | 24.42             |
|            | (e). Ferro silicon   |      | 29.60             | 17.76             |
|            | (f). Defence stores equipments   | MT   | 96.20             | 57.72             |
|            | (g). Oil cakes and fodder of all kinds   |      | 22.20             | 13.32             |
|            | (h). Unaccompanied personal effects  | MT   | 74.00             | 44.40             |
|            | (i). Baggages accompanying passengers or Seamen free and personnel baggages, Horses and carriages/ accompanying Military personnel moving on duty Embarking from vessels and the Animal meats for providing food for them. |      | Free              | Free              |
|            | (j). Mill Scale  | MT   | 35.00             | 21.00             |
| 15.        | Salt   | MT   | 22.20             | 13.32             |
| 16.        | Rice Bran  | MT   | 22.20             | 13.32             |
| 17.        | Tapioca chips, flour starch, waste & tamarind Seed powder in bags  | MT   | 37.00             | 22.20             |
| 18.        | Onion  | MT   | 22.20             | 13.32             |
| 19.        | Unenumerated goods other than the above specified  | MT   | 48.10             | 28.86             |

M.T = Metric Tonne

CBM = Cubic metre

# Notes:

- 1. No export cargo shall be admitted into the Port premises without the permission in writing of the authorized official of the Port. Normally export cargo for a vessel shall be admitted only after the vessel is opened for export.
- 2. Wharfage shall be in addition to any charges towards rent for storage of goods in the quays, warehouses, transit sheds or landing places of the Port of New Mangalore.
- 3. Request for amendment in import / export applications or documents shall be accompanied by a fee of ₹10/- which shall not be refunded.
- 4. The cargo/container related charges for all coastal cargo/containers, other than thermal coal, POL including crude oil, iron ore and iron ore pellets, should not exceed 60% of the corresponding charges for normal cargo/container related charges.

# 5. **Method of calculating wharfage:**

- (i). All goods intended for shipment shall be assessed on export application and wharfage shall be paid before the goods are shipped.
- (ii). All goods landed within the limits of the Port of New Mangalore shall be assessed on import application and the wharfage shall be paid before the goods are delivered.
- (iii). The wharfage dues shall be calculated on the manifested tonnage of the vessel's cargo in the case of imports, iron and steel scrap, ores and other goods in bulk.

- (iv). In the case of cargo other than that mentioned in sub-rule (iii), the wharfage shall be calculated in accordance with the unit specified against each item of the goods in the Schedule of Wharfage given above.
- (v). The wharfage dues shall be calculated on the total tonnage of each item of goods. For this purpose, the gross and not the net tonnage of each package as specified in the relative invoice or other shipping document shall be taken, subject to fresh check by the Port if the circumstances so require. In the absence of these documents or in the absence of the specification of gross tonnage therein the tonnage arrived at by actual test-check shall be taken as gross tonnage.
- (vi). For the purpose of calculating the dues in the Scale of Rates
  - (a). One unit by weight means 1 tonne (1000 kilograms)
  - (b). One unit by measurement means 1 cubic meter
  - (c). One unit by liquid measurement (capacity) means 1000 liters
- (vii). In calculating the gross weight or measurement by volume or capacity of an individual item, fractions upto and including 0.50 shall be reckoned as 0.50 and fractions over 0.50 shall be reckoned as one unit.
- (viii). Assessment on packages containing articles of a miscellaneous character shall be levied based on the rate applicable for individual cargo items.
- (ix). Where marks are indistinguishable and the cargo is landed in bulk or under such conditions that the tonnage is not readily ascertainable in that case;
  - (a). if the cargo is landed at the Wharf, the tonnage shall be ascertained by taking the actual measurement and converting it at one cubic meter to a tonne,
  - (b). if the cargo is conveyed by craft from a vessel at the outer roads, the licenced carrying capacity of the craft shall be taken as the tonnage.
- (x). Before classifying any cargo as 'unenumerated goods' the relevant Customs classification shall be referred to find out whether the cargo can be classified under any of the specific categories mentioned in the Schedule given above.

### 6. **Refund**:

No refund of dues shall be made in respect of goods lost over board or jetties within the limits of the Port. However, in the case of goods thrown over board or jettisoned but not salvaged, refund of wharfage will be considered on production of a certificate from the authorized official of the Port Trust, justifying the circumstances under which the goods were jettisoned or thrown over board. In case the goods are salvaged and landed within the port limits, the wharfage dues would be charged on a pro-rata basis.

### 7. Porterage (Handling of Cargo) at wharf or jetties

- (i). The Port shall not assume custody of any export cargo and handle the same at the wharf or jetties.
- (ii). The Port may assume custody at shore and convey to transit space and sort for delivery all import general cargo and other cargo for which overside delivery direct from ships is permitted in special case by the Port and the Customs except the bulk cargo and for this service in addition to wharfage, the following charges shall be levied namely.
  - (a). Actual labour charges incurred by the Port plus 20% overhead
  - (b). Crane hire charges as per rates prescribed in the Scale of Rates, if Crane is provided by the Port

- (c). Fork lift hire charges as per rates prescribed in the Scale of Rates, if Forklift is provided by the Port
- (d). Overtime allowance admissible
- (iii). In case of ship to shore transfer and transfer from quay/ to storage yard operations in respect of coastal cargo eligible for concessional tariff, 60% of the rates prescribed in the above schedule will be levied.

# 8. Tranship Goods

- (i). Cargo landed on and shipped from the wharf, except as otherwise provided shall be charged full wharfage. The transhipment charges in respect of coastal cargo / vessel shall be at the concessional rate as prescribed for coastal cargo.
- (ii). Though cargo originally manifested at Port of shipment for transhipment landed on the Wharf and cargo manifested for local and subsequently amended at the Port of New Mangalore for transhipment shall be charged 85% of the applicable wharfage.
- (iii). Cargo discharged overside or shipped overside (ship to ship) shall be charged 50% of the applicable wharfage rate except in respect of food grains manifested for Indian Ports and transhipped to smaller vessels from cargo tankers or bulk carriers within the Port limits.
- (iv). Wharfage shall be levied at Re.1/- per tonne on food grains manifested for Indian Ports and transhipped into a smaller vessel from tanker or bulk carrier at the Port. This charge shall not be levied in respect of transhipped quantity landed at this Port.
- (v). In case cargo from foreign Port lands at NMPT for subsequent transhipment to an Indian Port on coastal voyages, 50% of the transhipment rate prescribed for foreign going and 50% of that prescribed for coastal leg shall be levied.

# 9. Goods exempted from wharfage

The following categories of goods shall be exempted from the wharfage charges:

- (i). Bonafide consumable/non consumable ship stores.
- (ii). Passenger and seaman's bonafide baggage and personal effects accompanying them.
- (iii). Empty gunnies and twines sent to ship to facilitate landing or loading of cargoes in bulk or for replacing wet or torn bags.
- (iv). Goods consigned to or by the New Mangalore Port Trust
- (v). Postal Mail bags.

### CHAPTER - IV

### **CONTAINER CHARGES**

## 4.1. Wharfage charges

|     |                        |         | Rate per | container |         |
|-----|------------------------|---------|----------|-----------|---------|
| SI. | Container Size         | Empty   |          | Loa       | ded     |
| No. | Container Size         | Foreign | Coastal  | Foreign   | Coastal |
|     |                        | (in ₹)  | (in ₹)   | (in ₹)    | (in ₹)  |
| 1.  | Upto 20'               | 44.40   | 26.64    | 222.00    | 133.20  |
| 2.  | Above 20' and upto 40' | 66.60   | 39.96    | 333.00    | 199.80  |
| 3.  | Above 40'              | 88.80   | 53.28    | 444.00    | 266.40  |

## 4.2 . Storage charges

| SI. | Container Size         | Rate per container per day or part thereof |                |  |
|-----|------------------------|--|----------------|--|
| No. |                        | Foreign(in US \$)                          | Coastal (in ₹) |  |
| 1.  | Upto 20'               | 0.214                                      | 9.53           |  |
| 2.  | Above 20' and upto 40' | 0.321                                      | 14.30          |  |
| 3.  | Above 40'              | 0.428                                      | 19.07          |  |

### Notes:

- 1 day free period shall be allowed on containers whether landed/shipped either empty or stuffed
- 2. Free period prescribed above excludes Customs notified holidays and port's non-working days.
- 3. The storage charges on abandoned FCL containers/shipper owned containers shall be levied upto the date of receipt of intimation of abandonment in writing or 75 days from the date of landing of container, whichever is earlier subject to the following conditions:
  - (i). The consignee can issue a letter of abandonment at any time
  - (ii). If the consignee chooses not to issue such letter of abandonment, the container Agent/MLO can also issue abandonment letter subject to the condition that,
    - (a). the line shall resume custody of container alongwith cargo and either take back it or remove it from the Port premises; and
    - (b). the line shall pay all port charges accrued on the cargo and container before resuming custody of the container.
  - (iii). The container Agent/MLO shall observe the necessary formalities and bear the cost of transportation and destuffing. In case of their failure to take such action within the stipulated period, the storage charge on container shall be continued to be levied till such time all necessary actions are taken by the shipping lines for destuffing the cargo.
  - (iv). Where the container is seized/confiscated by the Custom Authorities and the same cannot be destuffed within the prescribed time limit of 75 days, the storage charges will cease to apply from the date the Custom orders for release of the cargo subject to lines observing the necessary formalities and bearing the cost of transportation and destuffing. Otherwise, seized/confiscated containers should be removed by the line/consignee from the Port premises to the Customs bonded area and in that case the storage charge shall cease to apply from the date of such removal.
- 4. Storage charge on container shall not accrue for the period when the N.M.P.T is not in a position to deliver/ship container when requested by the user

5. If operational area is licensed on rental terms to users, storage charge on containers/demurrage on cargo stored thereat shall not be levied again.

### 4.3 . Re-Stow charges:

Container manifested for other destination, unloaded and reloaded in the same vessel in the same voyage, the following rates will be levied:

|     |                        |         | Rate per d | er container |         |
|-----|------------------------|---------|------------|--------------|---------|
| SI. | Container Size         | Em      | pty        | Loa          | aded    |
| No. | Container Size         | Foreign | Coastal    | Foreign      | Coastal |
|     |                        | (in ₹)  | (in ₹)     | (in ₹)       | (in ₹)  |
| 1.  | Upto 20'               | 22.20   | 13.32      | 37.00        | 22.20   |
| 2.  | Above 20' and upto 40' | 33.30   | 19.98      | 55.50        | 33.30   |
| 3.  | Above 40'              | 44.40   | 26.64      | 74.00        | 44.40   |

### **General Notes:**

- 1. Wharfage on containers is collected irrespective of the contents of the containers.
- 2. The stuffed cargo removed from the container and cargo meant for stuffing in the container stacked in transit area other than the space allotted on lease for that purpose will be liable for demurrage as applicable to the cargo specified in Chapter V Demurrage.

# (i). Containerised import cargo

For levy of demurrage, the free days for import cargo destuffed from the container shall count from the date following the date of destuffing.

### (ii). Containerised Export cargo

For levy of demurrage, the free days for export cargo shall be reckoned from the date on which cargo is admitted in the transit area and demurrage leviable, if any shall be computed from the day following the completion of free days till the cargo has been stuffed into containers.

3. The applicant shall accept all risks and responsibilities for goods stored at the rental space allotted and shall make his own arrangement for security of the goods stored in such spaces. Hire charges for port equipment whenever utilised by the shipper will be charged separately according to the Scale of rates in force from time to time.

### 4.4 . Hire charges of Spreaders for Container Handling:

| SI. No | . Description | Rate per hour or part thereof |
|--------|---------------|-------------------------------|
| 1.     | 20' Spreader  | 111.00                        |
| 2.     | 40' Spreader  | 166.50                        |

## 4.5 . Container Handling charges

|     |                        | Rate per container |          |         |           |
|-----|------------------------|--------------------|----------|---------|-----------|
| SI. | Container Size         | Empty C            | ontainer | Loaded  | Container |
| No. | Container Size         | Foreign            | Coastal  | Foreign | Coastal   |
|     |                        | (in ₹)             | (in ₹)   | (in ₹)  | (in ₹)    |
| 1.  | Upto 20'               | 90.28              | 54.17    | 189.44  | 113.66    |
| 2.  | Above 20' and upto 40' | 135.42             | 81.25    | 284.16  | 170.50    |
| 3.  | Above 40'              | 180.56             | 108.34   | 378.88  | 227.33    |

### 4.6. Electricity and monitoring charges for Reefer container

| SI.<br>No. | Container Size                    | Rate per 4 hours or part thereof per container |
|------------|-----------------------------------|--|
| 1.         | Upto 20' containers               | ₹117.00  |
| 2.         | Above 20' and upto 40' containers | ₹142.00  |
| 3.         | Above 40'containers               | ₹167.00  |

### Notes:

- No private equipment shall be permitted into the port premises without prior permission of the NMPT.
- 2. The hire charges shall commence from the time the equipment is made available for use.
- 3. If the equipment is detained without use, detention charges shall be leviable at the rate of ₹100 per hour or part thereof.
- 4. A charge of ₹300 per equipment will be recovered if a requisition is cancelled in writing before the commencement of the period of hire, provided no such charges shall be recovered if the notice of cancellation was received before action was taken by the NMPT to comply with the requisition. In case where no written notice of cancellation is received before the commencement of the period of hire or where the equipment is used only for a portion of the period applied for, charges payable for the full period of requisition shall be recovered. If the NMPT is unable to supply the equipment to suit their convenience either for the entire period of requisition or for a part thereof, no charge shall be recovered for the period of non-supply of the equipment.
- 5. (i). The hirer shall not put on the equipment hired or cause to be put on them by his agents or employees or other persons working under such hirer, any load heavier than the lifting capacities of the said equipment.
  - (ii). The hirer shall be liable to pay a penalty of ₹500 per every breach of the above condition whenever he is found guilty of such breach by the NMPT.
  - (iii). The cost of damage, if any, caused to the equipment by its being used in contravention of the above condition, shall, in addition to the penalty referred to above, be recovered from the hirer and shall include even the replacement value of the equipment if the damage caused makes such a recovery necessary. On admittance of the claim of damages of the equipment from the Insurance Company, the same shall be refunded to the hirer from whom the cost of the damage was collected.
- 6. The NMPT shall not be responsible to the hirer or any person for any loss or damage or injury to the life of the person arising directly or indirectly from the use of the equipment during the period of its supply for hire. The hirer shall indemnify the NMPT against all loss or damage or injury to life arising directly or indirectly from the use of the equipment during the period of the supply on hire to any property belonging to the Port including the equipment, or to any other person or property. The liability of the hirer shall not be affected by the fact that such loss or damage or injury to life may have arisen due to any act or default of any employee of the Port. The hirer shall also indemnify the NMPT for all liabilities under the Workmen's Compensation Act, 1923.
- 7. When equipment are requisitioned for a specified number of hours but are made available not continuously but at different times to suit the convenience of the Port, charges shall be calculated as if the hire was for a continuous period by totaling up the broken periods of work instead of rounding off each spell of work separately.
- 8. In case of breakdown of equipment due to mechanical defects, the period taken to repair shall be deducted in calculating the hire charges.
- 9. Wherever separate rate for coastal container handling are not prescribed, the admissibility and the extent of concession will be governed by clause (v) of Schedule 1.2-General Terms & conditions.

### CHAPTER - V

### **DEMURRAGE**

### 5.1.1 Imports

Demurrage charges at the following rates shall be levied in respect of all goods left in the port's Transit sheds or open space after the expiry of the free days and free periods till their delivery is effected.

| S | ( lassification  | Unit                      | Rate  |
|---|--|---------------------------|---|
| 1 | Goods lying in the Transit sheds or in the open transit space except on which the rate of wharfage dues is fixed for each or by number | Per wharfage unit per day | (a). 1 <sup>st</sup> week ₹3.00<br>(b). 2 <sup>nd</sup> week ₹5.00<br>(c). Succeeding period<br>₹7.00 |
| 2 | Goods lying in the transit shed on which wharfage is charged on advalorem basis  | Per CBM per day           | (a). 1 <sup>st</sup> week ₹3.00<br>(b). 2 <sup>nd</sup> week ₹5.00<br>(c). Succeeding period<br>₹7.00 |

## Notes:

### 1. Free days

- Free days prescribed below shall exclude customs holidays and Port's non working days.
- (ii). Seven working days (excluding customs holidays and Port's non-working days) following the date of the complete discharge of the goods from the vessel on to jetties, quays or wharves shall be allowed as free period.

When goods are landed from the vessel into lighters, barges or other floating craft, the seven working days shall be calculated from the date of complete discharge of goods from the lighters, barges or other floating craft on the jetties, quays or wharves.

(iii). In the case of salvaged goods, the free days shall be reckoned from the day following the date of notification of salvage by the Receiver or wrecks in the Official Gazette of Karnataka State.

# 2. Free period:

The following free periods shall be allowed in addition to the free days prescribed above:

- (i). Periods during which the goods are detained by the Collector of Customs for examination under sub-section (3) and (4) of section 144 of the Customs Act 1962 (152 of 1962), other than the ordinary process of appraisement and certified by the Collector of Customs to be not attributable to any fault or negligence on the part of importers, plus one working day. The Customs holidays shall also be treated as free periods in addition.
- (ii). Periods during which the goods are detained by any public Health Authority whether cleared or destroyed.

# 3. Survey of Goods

If the goods are detained for survey, then a period not exceeding seven days excluding Customs holidays and Port's non-working days, from the date of completion of discharge from the vessel may be excluded while calculating the demurrage charges provided the goods are removed within twenty four hours after the completion of the survey.

## 4. Empty or partially empty packages.

Demurrage charges shall be payable on packages landed empty or partially empty.

## 5. Demurrage charges on Sundays and Port Holidays

Once demurrage charges begin to accrue, no allowance shall be made for Sundays and port holidays

# 6. **Delivery of goods**

Goods shall not be delivered to owners or consignees unless all dues leviable thereon, including demurrage charges are paid.

# 7. Congestion of goods

If at any time the Port apprehends a serious congestion in the transit area which may affect rapid transit of goods through the Port, it may direct the owners or consignees of any specified goods to remove such goods from the port premises within a specified period.

8. If the goods are not removed within a specified period, the Port may cause them to be removed and restacked in any other place within the Port premises at the expense and the sole risk of the owner or consignees. Goods so removed shall be charged demurrage charges at the rates prescribed in the Schedule of Demurrage (Imports) at (c) in SI.No.1 or 2 whichever is applicable.

### 5.1.2. Exports

Demurrage at the rate of ₹3.00 per wharfage unit and or at ₹3.00 per CBM per day for all cargo charged at Advalorem rate, shall be levied after the expiry of the free days.

### Notes:

# 1. Free days

- (i). Free days shall exclude the Customs holidays and port non-working days
- (ii). All cargo except salvaged goods (a) Twenty one days free days(excluding Customs holidays and Port's non-working days) from the actual date of the receipt of goods in the transit area. (b) From the date the vessel is berthed for working cargo to the date of the vessel completes loading.
- (iii). For salvaged goods, three free days (excluding Customs holiday and port's non-working days) from the date on which the goods were actually salvaged.

# 2. Shut out cargo

- (i). In the case of goods shut out from shipment and if removed outside, in addition to the free days mentioned in Note 1, the working day next to the date of completion of taking in of the exports by the vessel will also be allowed as a free day.
- (ii). In the case of goods shut out by one vessel and subsequently shipped by another vessel the free days shall count from the date of the first shut out, upto ten days excluding Customs holidays and port's non-working days. The total free period, however, shall not be more than 21 days as specified in Note 1.
- (iii). Cargo intended for export but not actually shipped will be allowed free days up to only seven days excluding Customs holidays and port's non-working days from the actual date of receipt of the goods in the transit area.

## 3. Free periods

In addition to the free days prescribed above, the period during which goods are detained by the Collector of Customs for examinations under Sub section (3) and (4) of Section 17 and for chemical test under Section 144 of the Customs Act, 1962, other than the ordinary processes or appraisement and certified by the Collector of Customs to be not attributable to any fault or negligence on the part of the exporters, plus one working day shall also be allowed as free period. The Customs holidays shall also be treated as free periods in addition.

# 4. Congestion of goods

If at any time the Port apprehends a serious congestion in the transit sheds or other spaces allotted for the goods in transit to the detriment of the rapid transit of goods through the Port, it may direct the owner or consignor or Agents of any specified goods to remove such goods from the Port premises within a specified period. If the goods are not removed within such period, Port may cause them to be removed and restacked in any other place within the Port premises at the expense and the sole risk of the owner or shipper/agents. Demurrage charges shall be levied on such goods in accordance with the rate specified for demurrage on export cargo.

### 5. Transhipment of Goods

The free period shall be allowed for the transhipment cargo up to 28 days excluding Customs holiday and port's non-working days from the date of receipt of the goods.

### **General Notes:**

- 1. Demurrage charge on both import and export cargo shall not accrue for the period when the NMPT is not in a position to deliver/ship cargo when requested by the user
- 2. If operational area is licensed on rental terms to users, demurrage charge on cargo stored there-at shall not be levied again.

# **CHAPTER - VI**

### **OTHER CHARGES**

# 6.1. Charges for supply of water

| Description   | Rate per K.L./Tonne Foreign-going vessels (in US \$) Coastal vessels (in ₹) |       |  |  |
|---------------|---|-------|--|--|
| Description   |   |       |  |  |
| Water Charges | 3.50  | 93.55 |  |  |

### 6.2. Charges for use of bunkering facility alongside berths

|   | SI. No. | Description  | Rate per M.T. (in ₹) |
|---|---------|--|----------------------|
| I | 1.      | For providing bunkers alongside berth(s) through     | 27.00                |
|   |         | fixed pipelines or loading arms or flexible hoses of |                      |
| Į |         | users or through mobile trucks/trainers              |                      |

### 6.3. Marshalling yard usage charges

| SI. No. | Description   | Rate per M.T. (in ₹) |
|---------|---|----------------------|
| 1.      | Use of Marshalling yard only                                      | 8.00                 |
| 2.      | Use of Marshalling yard including private siding inside the wharf | 10.00                |

# 6.4. Fees for issue of Licence to C&F Agency

| SI. No. | Description   | Rate (in ₹)            |
|---------|---|------------------------|
| 1.      | New Licence   | 5000.00                |
|         |   | for two calendar years |
| 2.      | Renewal within the period of licence for a further  | 1000.00                |
|         | period of two calendar years                        | per licence            |
| 3.      | For issue of duplicate licence when the original is | 200.00                 |
|         | lost or defaced                                     | per licence            |
| 4.      | For temporary licence for a period not exceeding    | 1000.00 for one        |
|         | one year  | calendar year          |

### Note:

Renewal of licence shall be effected only if the licence was utilised and transacted activities at the port during the pervious licence period. Failure to renew the licence within the specified period entails cancellation of the licence.

# 6.5. Fees for issue of licence to Steamer Agency

| SI. No. | Description  | Rate (in ₹)     |  |
|---------|--|-----------------|--|
| 1.      | New Licence  | 5000.00         |  |
|         |  | per licence     |  |
| 2.      | Renewal within the period of licence for a further       | 1000.00         |  |
|         | period of two calendar years                             | per licence     |  |
| 3.      | For issue of duplicate licence when the original is lost | 200.00          |  |
|         | or defaced   | per licence     |  |
| 4.      | For temporary licence for a period not exceeding one     | 1000.00 for one |  |
|         | year   | calendar year   |  |

### Note:

Renewal of licence shall be effected only if the licence was utilized and transacted activities at the port during the pervious licence period. Failure to renew the licence within the specified period entails cancellation of the licence.

# 6.6. Charges for hire of launches and tugs within the limits of the Port

I. Tugs

|         |                    | Rate per hour o                  | r part thereof         |
|---------|--------------------|----------------------------------|------------------------|
| SI. No. | Name of the vessel | Foreign-going vessels (in US \$) | Coastal vessels (in ₹) |
| 1.      | 22.50 T.B.P.       | 612.75                           | 16,379.00              |
| 2.      | 32.50 T.B.P.       | 1,187.20                         | 31,734.00              |
| 3.      | 50.00 T.B.P.       | 1,761.64                         | 47,089.00              |

### Note:

For use of the above tugs by Indian Navy and Coast Guard only 60% of the rate prescribed above shall be levied.

### II. Launches

| SI.  |                                    | Rate per hour or part thereof       |                           |  |
|------|------------------------------------|-------------------------------------|---------------------------|--|
| No.  | Name of the vessel                 | Foreign-going vessels<br>(in US \$) | Coastal<br>vessels (in ₹) |  |
| (a). | Multi purpose vessel: M.V. Mallya. | 1148.90                             | 30,710.00                 |  |
| (b). | Mooring Launches                   | 114.89                              | 3,071.00                  |  |
| (c). | Pilot Launches                     | 291.05                              | 7,780.00                  |  |
| (d). | Survey Launch                      | 230.82                              | 6,170.00                  |  |

## 6.7. Hire charges for cargo handling equipment

| SI.<br>No. | Equipment   | Rate per hour or part thereof<br>(in ₹) |                                  |  |
|------------|---|---|----------------------------------|--|
| 1.         | Coles Husky 680S of 75 MT capacity                  | 2,10                                    | 00.00                            |  |
| 2.         | TIL – GROVE 75 MT capacity<br>Mobile Crane (RT 880) | 3,61                                    | 3,619.00                         |  |
| 3.         | 10 MT capacity Fork Lift Truck                      | 530                                     | 0.00                             |  |
|            |   | subject to a mini                       | mum of ₹2120.00                  |  |
| 4.         | Tata Truck Model LPT 909/36                         | 417                                     | 417.00                           |  |
|            |   | subject to a mini                       | subject to a minimum of ₹3336.00 |  |
| 5.         | Escorts Model 8100, 10 MT capacity                  | 650                                     | 0.00                             |  |
|            | Hydraulic crane                                     | subject to a mini                       | mum of ₹1300.00                  |  |
|            |   | Foreign-going                           | Coastal                          |  |
|            |   | (in ₹)                                  | (in ₹)                           |  |
| 6.         | Hindustan 2021 Pay loader                           | 780.00                                  | 468.00                           |  |
| 7.         | 3 Ton Forklift Trucks                               | 90.00 subject to a                      | 54.00 subject to a               |  |
|            |   | minimum of ₹180.00                      | minimum of ₹108.00               |  |

#### Notes:

- No private equipment shall be permitted into the port premises without prior permission of the NMPT.
- 2. The hire charges shall commence from the time the equipment is made available for use.
- 3. If the equipment is detained without use, detention charges shall be leviable at the rate of ₹100 per hour or part thereof.
- 4. A charge of ₹300 per equipment will be recovered if a requisition is cancelled in writing before the commencement of the period of hire, provided no such charges shall be recovered if the notice of cancellation was received before action was taken by the NMPT to comply with the requisition. In case where no written notice of cancellation is received before the commencement of the period of hire or where the equipment is used only for a portion of the period applied for, charges payable for the full period of requisition shall be recovered. If the NMPT are unable to supply the equipment to suit their convenience either for the entire period of requisition or for a part thereof, no charge shall be recovered for the period of non-supply of the equipment.
- 5. (i). The hirer shall not put on the equipment hired or cause to be put on them by his agents or employees or other persons working under such hirer, any load heavier than the lifting capacities of the said equipment.
  - (ii). The hirer shall be liable to pay a penalty of ₹500 per every breach of the above condition whenever he is found guilty of such breach by the NMPT.
  - (iii). The cost of damage, if any, caused to the equipment by its being used in contravention of the above condition, shall, in addition to the penalty referred to above, be recovered from the hirer and shall include even the replacement value of the equipment if the damage caused makes such a recovery necessary. On the recovery of the claim of damages of the equipment from the Insurance Company, the amount admitted by the Insurance Company shall be refunded to the hirer.
- 6. The NMPT shall not be responsible to the hirer or any person for any loss or damage or injury to the life of the person arising directly or indirectly from the use of the equipment during the period of its supply for hire. The hirer shall indemnify the NMPT against all loss or damage or injury to life arising directly or indirectly from the use of the equipment during the period of the supply on hire to any property belonging to the Port including the equipment, or to any other person or property. The liability of the hirer shall not be affected by the fact that such loss or damage or injury to life may have arisen due to any act or default of any employee of the Port. The hirer shall also indemnify the NMPT for all liabilities under the Workmen's Compensation Act, 1923.

- 7. When equipment are requisitioned for a specified number of hours but are made available not continuously but at different times to suit the convenience of the Port, charges shall be calculated as if the hire was for a continuous period by totaling up the broken periods of work instead of rounding off each spell of work separately.
- 8. In case of breakdown of equipment due to mechanical defects, the period taken to repair shall be deducted in calculating the hire charges.
- 9. Wherever coastal rates are not prescribed for cargo/container handling, the admissibility and extent of concession will be governed by clause (v) of Schedule 1.2 General Terms and conditions.

### 6.8. Charges for use of Harbour Mobile Cranes installed by the private operators:

### (I). For Dry Bulk Cargo

| Average daily crane performance | Ceiling rate per tonne (in ₹) |         |
|---------------------------------|-------------------------------|---------|
| (in Metric Tonne)               | Foreign                       | Coastal |
| 9500-10499                      | 28.31                         | 16.98   |
| 10500-11499                     | 29.98                         | 17.98   |
| 11500-12499                     | 31.64                         | 18.98   |
| 12500                           | 33.31                         | 19.99   |
| 12501-13500                     | 34.97                         | 20.98   |
| 13501-14500                     | 36.64                         | 21.98   |
| 14501 – 15500                   | 38.34                         | 23.00   |

**Note**: To calculate the incremental ceiling rates as shown above, the base rate was enhanced to 105% for first thousand tonnes and for the 2<sup>nd</sup> thousand tonnes the rate was enhanced to 110% of the base rate. The rate for third thousand tonnes was arrived by enhancing the base rate by 115%. The same methodology shall also be adopted to calculate the rate beyond 15500 tonnes. Likewise, ceiling rates for performance below 9500 tonnes shall be calculated by reducing the base rate accordingly.

### (II). For Break-bulk cargo:

### (A). Steel and Bagged Cargo

| •               | laily crane   | Ceiling rate | per tonne (in ₹) |
|-----------------|---------------|--------------|------------------|
| performance (in | Metric tonne) | Foreign      | Coastal          |
| 5000            | -5999         | 65.95        | 39.57            |
| 60              | 000           | 69.43        | 41.66            |
| 6001            | -7000         | 72.90        | 43.74            |

Note: To calculate the incremental ceiling rates as shown above, the base rate was enhanced to 105% for first thousand tonnes. The same methodology shall also be adopted to calculate the rate beyond 7000 tonnes. Likewise, ceiling rates for performance below 5000 tonnes shall be calculated by reducing the base rate accordingly.

### (B). Others

| Average daily crane           | Ceiling rate | Ceiling rate per tonne (in ₹) |  |
|-------------------------------|--------------|-------------------------------|--|
| performance (in Metric tonne) | Foreign      | Coastal                       |  |
| 2750-3749                     | 105.59       | 63.35                         |  |
| 3750                          | 111.15       | 66.70                         |  |
| 3751-4750                     | 116.70       | 70.02                         |  |

**Note**: To calculate the incremental ceiling rates as shown above, the base rate was enhanced to 105% for first thousand tonnes. The same methodology shall also be adopted to calculate the rate

beyond 4750 tonnes. Likewise, ceiling rates for performance below 2750 tonnes shall be calculated by reducing the base rate accordingly.

### Notes:

(i). The formula for calculation of average berth-day out put is as follows:

Total Quantity loaded / unloaded by the MHC ..... X 24 hours Total time taken from vessel commencement to completion

- (ii). According to the average berth-day output for the vessel from commencement to completion of loading / discharge of cargo, the appropriate rate of crane hire charge will be chosen for recovery from port users for the full quantity of cargo loaded / discharged.
- (iii). If one MHC works with another MHC or ELL crane/s, the Berth-day output for the crane will be ascertained on the basis of the quantity as recorded by the MHC's load meter.
- (iv). In case of breakdown of the crane for more than one hour till the vessel leaves the berth, the quantity handled by MHC will be determined taking into account cargo loaded / discharged prior to break-down divided by crane working hours and multiplied by 24.
- (v). In case of stoppages of operation of MHC for more than two hours at a stretch for reasons not attributable to the MHC, appropriate allowance will be allowed to the crane while calculating the total time of crane operation in the vessel. Stoppages of MHC for less than 2 hours will not be taken into consideration for the above purpose. No allowance will be allowed for stoppages attributable to the MHC. All stoppages in loading / unloading operations during working of MHC are required to be certified by the Stevedore of the vessel in the daily vessel performance report.
- (vi). In case shifting of a vessel becomes necessary due to breakdown / non-performance of MHC, the shifting charges of the vessel from berth to anchorage will be recovered from the crane operator in addition to a penalty of Rs.1,00,000/- (Rupees one lakh only). The shifting charges so recovered will be refunded to the vessel's agent while the penalty will be retained by the port.
- (vii). In case of dispute on the average output, the decision of the port trust will be final and binding.

### 6.9. Miscellaneous Charges

I. Charges for taking photographs or shooting films in the harbour premises:

| SI.<br>No. | Classification  | Rate (in ₹)             |
|------------|---|-------------------------|
| 1.         | For shooting of films by film making company or private | 10,000                  |
|            | parties   | per day or part thereof |
| 2.         | For still photographs of export/import cargoes          | 400                     |
|            |   | per day or part thereof |
| 3.         | For taking photographs of the parties or of the crew on | 50.00                   |
|            | Board the ships and in case not covered in clauses (1)  | per each time for each  |
|            | & (2) above   | party                   |

## Notes:

- 1. The permission shall be issued by the NMPT or any official authorised by it.
- 2. Still photographs taken and shooting film by the State and Central Govt. for education and scientific purposes and in connection with Govt. Publicity and shipping activities are exempted from paying charges.

- 3. Any other cases of taking still photographs and shooting of films within the perimeter wall or in the Port premises shall be at the discretion of the NMPT on merit of each case.
- 4. The charges shall be paid in advance and no refund of such payments shall be allowed for any failure/cancellation of the programme.
- 5. If the cancellation of programme is at the instance of the Port or under extraordinary circumstances the charges paid shall be refunded subject to the claim in time.
- 6. The hire charges for any craft and or appliance of the Port if any, that are supplied and used by the film making company or by those taking photographs shall be levied as per the respective provisions of the Scales of Rates in addition to charges payable under this scale.

# II. Fees of issue of passes/licence for entry into the wharf:

| SI. No. | Classification  | Rate    |
|---------|---|---------|
|         |   | (in ₹)  |
| 1.      | For issue of temporary pass for admission into the Harbour (per     | 2.00    |
|         | head, per day)  |         |
| 2.      | Temporary pass for bus, authorized trucks carrying passengers       | 50.00   |
|         | (per vehicle per day)   |         |
| 3.      | Temporary pass for trucks/trailers/tippers (per day)                | 10.00   |
| 4.      | Temporary pass for Car/Jeep/Van (per day)                           | 6.00    |
| 5.      | For private cargo handling equipments (per day)                     | 75.00   |
| 6.      | Issue/renewal of permanent photo pass (per head)                    | 100.00  |
| 7.      | Issue of duplicate photo pass (per head)                            | 250.00  |
| 8. (a). | Permanent vehicle pass for trucks/trailers/tippers                  |         |
|         | For six months  | 500.00  |
|         | For one year  | 800.00  |
|         | For duplicate   | 250.00  |
| (b).    | Permanent vehicle pass for car/jeep/van                             |         |
|         | For six months  | 380.00  |
|         | For one year  | 600.00  |
|         | For duplicate   | 250.00  |
| 9.      | Permanent pass for private cargo handling equipments                |         |
|         | For six months  | 2500.00 |
|         | For one year  | 4000.00 |
| 10.     | Entry fees for cargo trucks entering the Bounded area of the Port - | 10.00   |
|         | payable by C&F Agent per entry                                      |         |

# Notes:

- 1. The licence shall be issued by the NMPT or any official authorized by it.
- 2. The payment of the charge will not automatically entitle a person to get a pass.
- 3. The temporary pass shall be valid for a day for which it is obtained from zero to zero hours.
- 4. The NMPT may issue temporary passes free of charge to the distinguished guests to the Port, visiting staff of other Major Ports and other Govt. Officers/officials connected with the Port Trust and visiting the Wharf on official duty. No charges shall also be collected from the employees of the Port holding valid identity cards and other shipping interests holding valid photo passes issued by the NMPT.
- 5. Only persons who have harbour entry passes will be issued with temporary vehicles licence on payment of the above prescribed fee and it is not transferable.
- 6. No refund will be allowed for the charges once paid for temporary vehicle licences issued by the Port.

- 7. Drivers of vehicles (with permanent licence) are exempted from the payment for entry into the Wharf.
- 8. No refund will be allowed for the charges once paid for the licences issued for the vehicles covered by item above for unexpired period of licence.
- 9. Failure to apply for the renewal of the annual or half yearly licence within 15 days, before the day of expiry thereof may entail cancellation of the licence or levy of penalty of ₹30/per vehicle in addition to the renewal fee.
- 10. A fee of ₹30/- shall be charged for transfer of each annual or half yearly licence due to change of ownership of the carriers.
- 11. A sum of ₹30/- shall be charged for the issue of a duplicate annual or half yearly licence when the original is defaced or illegible or is lost.
- 12. Vehicles i.e. carriers of goods belonging to the New Mangalore Port Trust and other Major Port Trusts alone shall be exempted from holding a licence.
- 13. Any other vehicles not covered by above may be exempted from charge under the scale of Rates at the discretion of the NMPT.
- 14. No refund is permissible for the unexpired period of licence.
- 15. Whenever damage to the NMPT property is caused by any vehicle plying within the NMPT foreshore premises, the owner of the vehicle shall accept liability thereof and pay the damages resulting therefrom.

# III. Fees for the hire of weighing scale and for the issue of certificates of weights:

| (1) | For hire of weighing scales       | ₹1.00 per tonne part thereof                  |
|-----|-----------------------------------|---|
| (2) | For issue of certificate of total | ₹3.00 per tonne or part thereof for weighment |
|     | tonnage of cargo                  | of consignment (i.e. for goods covered by     |
|     |                                   | one application) subject to a minimum of      |
|     |                                   | ₹15/- per certificate                         |

### Notes:

- 1. The attendant labour shall be supplied by the parties concerned in all cases.
- 2. Charges shall be levied in accordance with the above scale when it is necessary for the Port to weigh goods, e.g. for the purpose of assessing the amount of wharfage payable in respect of the goods.
- 3. No refund of hire charges shall be allowed in case a notice of cancellation of requisition is not sent to the authorised officer of the NMPT in writing so as to reach him at least 2 hours prior to the commencement of the period of hire.
- A fee of ₹10/- each shall be levied for a duplicate certificate of payment issued by the port authorities.

### IV. Charges for the use of weigh bridges:

|   | (1). | Weighment of cargo on the Port    | : | ₹15 per truck both ways                |  |  |
|---|------|-----------------------------------|---|--|--|--|
|   |      | Lorry weigh bridge                |   |  |  |  |
| Ī | (2). | For issue of weighing Certificate | : | ₹25 per Certificate in addition to the |  |  |
|   |      |                                   |   | charge prescribed at (1) above.        |  |  |

### Notes:

1. The weighbridge shall be used only for weighing lorries or carts etc, with or without loads.

- 2. The fee under item (1) above shall cover hire charges of passing the cart or lorry etc, both empty and loaded over the weighing platform. The fee under item (2) above shall be payable in addition for the issue of certificate showing both the tare and loaded weight of the vehicle.
- 3. If any empty lorry after recording the tare weight on the ports weigh bridge within the wharf area is not brought to the ports weigh bridge during the same day with a load for recording the gross weight, a fee of ₹5.00 per lorry shall be payable by the party on whose behalf the tare weight is asked to be recorded.
- 4. The weigh bridge shall be manned by the NMPT
- The NMPT shall not be responsible to the hirer or any person for any loss or damage or injury to life arising directly or indirectly from the use of the weigh bridge during the period of its hire. The hirer shall indemnify the NMPT against all loss or damage or injury to life arising directly or indirectly from the use of the weigh bridge to any other person or property. The liability of the hirer shall not be affected by the fact that such loss or damage or injury to life may have arisen due to any act or default of any employee of the port. The hirer shall also indemnify the NMPT for all liabilities under the Workmen's Compensation Act, 1923.

## V. Charges for issue of Entry & Clearance Certificate:

| Charges   | for     | issue     | of  | entry      | and     | clearance     | certificate   | to   |                 |
|-----------|---------|-----------|-----|------------|---------|---------------|---------------|------|-----------------|
| Master/O  | wner/   | Agent of  | ves | sel whic   | h calls | at the Port f | or crew chai  | nge  | ₹1000.00        |
| and ancho | or witl | hin or be | yon | d port lii | nits wi | thout discha  | rging or load | ling | per Certificate |
| any cargo | or pa   | assenge   | r.  |            |         |               |               |      |                 |

### **CHAPTER - VII**

# Levy for supply of cargo handling worker from Registered Cargo Handling Labour Wing for cargo handling operations

The charges for obtaining services of cargo handling worker from New Mangalore Port Trust Registered Cargo Handling Workers' Administrative Wing shall be as follows:

| SI.<br>No. | Commodity         | Foreign Cargo<br>(₹ per tonne) | Coastal<br>Cargo<br>(₹ per tonne) | Benchmark<br>productivity per<br>Gang per shift<br>(in tonnes) |
|------------|-------------------|--------------------------------|-----------------------------------|--|
| 1.         | Iron Ore          | 25                             | 25.00                             | 1644   |
| 2.         | Coal              | 25                             | 15.00                             | 1352   |
| 3.         | Lime stone        | 25                             | 15.00                             | 1268   |
| 4.         | Coke              | 35                             | 21.00                             | 792  |
| 5.         | Granite           | 35                             | 21.00                             | 794  |
| 6.         | MOP               | 40                             | 24.00                             | 972  |
| 7.         | Maize             | 45                             | 27.00                             | 637  |
| 8.         | Pig Iron          | 45                             | 27.00                             | 440  |
| 9.         | DAP               | 50                             | 30.00                             | 958  |
| 10.        | Rock Phosphate    | 50                             | 30.00                             | 944  |
| 11.        | Urea              | 50                             | 30.00                             | 733  |
| 12.        | Clay              | 30                             | 18.00                             | 220  |
| 13.        | Machinery         | 100                            | 60.00                             | 316  |
| 14.        | Timber            | 100                            | 60.00                             | 193  |
| 15.        | Wood pulp         | 50                             | 30.00                             | 99   |
| 16.        | Wheat             | 35                             | 21.00                             | 814  |
| 17.        | Sulphur           | 40                             | 24.00                             | 594  |
| 18.        | M. Logs           | 100                            | 60.00                             | 94   |
| 19.        | Bentonite         | 45                             | 27.00                             | 840  |
| 20.        | Yellow Peas       | 25                             | 15.00                             | 1034   |
| 21.        | Container per TEU | 450                            | 270                               | 82 TEU   |

| 22. | Other foodgrains and cereals    | 35    | 21.00 | 814  |
|-----|---------------------------------|-------|-------|------|
| 23. | Other Bulk Cargo not classified | 45    | 27.00 | 275  |
|     | above                           |       |       |      |
| 24. | Iron ore by HMC                 | 4.83  | 4.83  | 4993 |
| 25. | Coal (mechanical by HMC)        | 4.75  | 2.85  | 4028 |
| 26. | Coke (mechanical by HMC)        | 6.93  | 4.16  | 2787 |
| 27. | Lime stone (mechanical by       | 5.38  | 3.23  | 3772 |
|     | HMC)                            |       |       |      |
| 28. | Urea (mechanical by HMC)        | 12.48 | 7.49  | 1163 |
| 29. | MOP (Mechanical by HMC)         | 4.85  | 2.91  | 5422 |

# Notes:

- (i). The rate indicated above is in addition to the actual incentives calculated as per the respective clauses of prevailing settlement / scheme and payable to the NMPT by the licensed stevedores.
- (ii). Following penalty / incentive in the rate prescribed will apply for performance below / higher than the benchmark level of productivity per gang/ shift prescribed in the schedule :

| On achieving productivity higher than the benchmark level of productivity per gang/shift prescribed in the schedule | Rebate on the rate prescribed in the above schedule if the productivity achieved is higher than the benchmark productivity per gang/shift (in %) | On achieving productivity lower than the benchmark level of productivity per gang/shift prescribed in the schedule if productivity is lower than the schedule if productivity is lower than the productivity per gang/shift (in %)  Upto 10% lower than the productivity |     |  |
|---|--|--|-----|--|
| Upto 10% higher than the productivity prescribed  | 10%  |  | 10% |  |
| Above 10% to 20%  | 20%  | Below 10% to 20%   | 20% |  |
| Above 20% to 30%  | 30%  | Below 20% to 30%   | 30% |  |

\*\*\*\*\*

# **APPENDIX 14**

# MINIMUM GUARANTEED CARGO

| Year   | Minimum Guaranteed Cargo (in Metric Tonnes Per Annum) |
|--|---|
| 1 <sup>st</sup> year of operation                          | 2020000   |
| 2 <sup>nd</sup> year of operation                          | 2360000   |
| 3 <sup>rd</sup> year of operation                          | 2700000   |
| 4 <sup>th</sup> year of operation                          | 3030000   |
| 5 <sup>th</sup> year to 28 <sup>th</sup> year of operation | 3370000   |

### **APPENDIX 15**

### PERFORMANCE STANDARDS

- 1.1. The PPP operator would be allowed to charge tariff as determined in this proposal in the first year of operation. However, the operator would be free to propose a tariff along with Performance Standards (the "Performance Linked Tariff") from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.
- 1.2. The proposal for Performance Linked Tariff shall be submitted to TAMP along with a certificate from the independent engineer appointed for the Project indicating the achievement of Performance Standards in the previous 12 months (or for the actual number of months of operation in the first year of operation as the case may be).
- 1.3. The Performance Standards that would be applicable for determining the Performance Linked Tariff are provided in the table below.

# **Performance Standards**

# A. Gross Berth Output

The parameter deals with the productivity of the terminal (Gross Berth Output) for Coal. In case of dry and break-bulk cargo, the capability of the terminal (mechanization, method of handling) and parcel size will determine the Gross Berth Output. Higher terminal capability and greater parcel size will lead to high productivity.

The Gross Berth Output shall be calculated as the total cargo handled from the ship during a month divided by the time spent by the ship at the terminal expressed in number of working days of ships in that month at that terminal. While determining the number of working days from the ship hours, the berth allowance of 5 (five) hours shall be subtracted from the total hours.

The norms for Gross Berth Output for different categories of cargo are as follows:

| Cargo Category | Norme13             |
|----------------|---------------------|
| Cargo Category | Norms <sup>13</sup> |

<sup>&</sup>lt;sup>13</sup> The above norms are adopted from the Detailed Project Report where the daily handling output has been arrived at the average of 35,000 TPD.

| Thermal Coal  | 35,000 T/day |
|---|--------------|
| Other Coal  | 35,000 T/day |
| Other Cargo (Fertilizer, Limestone, Gypsum, Dolomite) | 8,000 T/day  |

Weightage in case of a shortfall in meeting the prescribed performance standard - 70%

# **B.** Turnaround Time for receipt/delivery operation:

The Turnaround Time for receipt/delivery operation shall be the sum of time taken for loading/ unloading of cargo divided by the number of trucks/trailers/rakes deployed, as the case may be, in a month. Further, in case the truck/trailer/rake does both unloading and loading operations on a single entry into the terminal, the time allocated shall be doubled for those trucks/ trailers/ rakes.

| a) | (i)  | Truck (Single operation) | 10 minutes |
|----|------|--------------------------|------------|
|    | (ii) | Truck (Double operation) | 20 minutes |
| b) | (i)  | Rake (single operation)  | 4hrs       |
|    | (ii) | Rake (double operation)  | 8 hrs      |

Weightage in case of a shortfall in meeting the prescribed performance standard - 10%

# Performance Evaluation and calculation of liquidated damages:

Performance evaluation shall be made on a quarterly review of the reports furnished by the Concessionaire and/or the records of the Concessionaire and/or by an enquiry by the Concessioning Authority. The Concessionaire shall be liable to pay liquidated damages determined at the rate of 1% (one per cent) of the Gross Revenue of the respective quarter for every shortfall of 10% (ten per cent) in the average performance which shall be assessed in the following manner.

Each Performance Standard is calculated as an average in the manner indicated above. The actual average performance vis-à-vis a standard will be evaluated against the prescribed standard. The shortfall will be computed as a percentage of the prescribed standard. The shortfall in respect of each performance standard will have a weightage assigned to it. The overall shortfall in average performance shall be assessed as the aggregate of the weighted shortfalls in respect of each of the performance standards. For example, if there is a shortfall in Gross Berth Output by x%, Turn round time for receipt/delivery operations of Trucks by y% and Turn round time for receipt/delivery operations of Rake by z% and the weightage assigned to such shortfalls is 0.7, 0.15 and 0.15 respectively, then the overall shortfall in average performance will be (0.7 x + 0.15 y + 0.15 z) %.

### **APPENDIX 16**

### ESCROW AGREEMENT

**THIS ESCROW AGREEMENT** is entered into on this the  $[\bullet]$  day of  $[\bullet]$  20 $[\bullet]$ .

### **AMONGST**

- 1. [● LIMITED], a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at [●] (hereinafter referred to as the "Concessionaire" which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes);
- 2. [● (name and particulars of Lenders' Representative)] and having its registered office at [●] acting for and on behalf of the Lenders as their duly authorised agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the "Lenders' Representative" which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes);
- 3. [● (name and particulars of the Escrow Bank)] and having its registered office at [●] (hereinafter referred to as the "Escrow Bank" which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes); and
- 4. BOARD OF TRUSTEES for NEW MANGALORE PORT, a body corporate constituted under the provisions of the Major Port Trusts Act, 1963 and having its Administrative Office at Panambur, Mangalore, Karnataka 575 010., hereinafter referred to as "the Concessioning Authority" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns);

## **WHEREAS:**

- (A) The Concessioning Authority has entered into a Concession Agreement dated [●] with the Concessionaire (the "Concession Agreement") for undertaking the Project (as defined in the Concession Agreement) on build, operate and transfer (BOT) basis. The Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Documents.
- (B) The Concession Agreement requires the Concessionaire to establish an Escrow Account, inter alia, on the terms and conditions stated therein.

# NOW IT IS HEREBY AGREED as follows:

# 1 DEFINITIONS AND INTERPRETATION

### 1.1 **Definitions**

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Agreement" means this Escrow Agreement and any amendment thereto made in accordance with the provisions contained herein;

**"Budget"** means the budget for construction/implementation expenses relating to the Project/Project Facilities and Services and O&M Expenses submitted by the Concessionaire in accordance with the provisions contained herein;

"Concession Agreement" means the Concession Agreement referred to in Recital (A) above and shall include any amendments made thereto in accordance with the provisions contained in this behalf therein;

**"Escrow Account"** means an escrow account established in terms of and under this Agreement, and shall include any sub accounts thereof;

"Escrow Default" shall have the meaning ascribed thereto in Clause 6.1;

"Lenders' Representative" means the person referred to as the Lenders' Representative in the foregoing Recitals;

"Parties" means the parties to this Agreement collectively and "Party" shall mean any of the Parties to this Agreement individually;

"Payment Date" means, in relation to any payment specified in Clause 4.1, the date(s) specified for such payment; and

"Quarter" means, any three month period from 1<sup>st</sup> April to 30<sup>th</sup> June, 1<sup>st</sup> July to 30<sup>th</sup> September, 1<sup>st</sup> October to 31<sup>st</sup> December or 1<sup>st</sup> January to 31<sup>st</sup> March.

# 1.2 Interpretation

- 1.2.1 References to Lenders' Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders' Representative, acting for and on behalf of Lenders.
- 1.2.2 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the

Concession Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Concession Agreement.

- 1.2.3 References to Articles are, unless stated otherwise, references to Articles of this Agreement.
- 1.2.4 The rules of interpretation stated in Articles 1.3, 1.4 and 1.5 of the Concession Agreement shall apply, mutatis mutandis, to this Agreement.

# 2 ESCROW ACCOUNT

# 2.1 Escrow Bank to act as trustee

- 2.1.1 The Concessionaire hereby settles in trust with the Escrow Bank a sum of Rs. 100 (Rupees Hundred Only) appoints the Escrow Bank to act as trustee for the Concessionaire Authority, the Lenders, the Lenders' Representative and the Concessionaire in connection herewith and authorises the Escrow Bank to exercise such rights, powers, authorities and discretion as are specifically delegated to the Escrow Bank by the terms hereof together with all such rights, powers, authorities and discretion as are reasonably incidental hereto, and the Escrow Bank accepts such appointment pursuant to the terms hereof.
- 2.1.2 The Concessionaire hereby declares that all rights, title and interest in and to the Escrow Account shall be vested in the Escrow Bank and held in trust for the Concessioning Authority, the Lenders, the Lenders' Representative and the Concessionaire, and applied in accordance with the terms of this Agreement. No person other than the Concessioning Authority, the Lenders/Lenders' Representative and the Concessionaire shall have any rights hereunder as the beneficiaries of, or as third party beneficiaries under this Agreement.

# 2.2 Acceptance of Escrow Bank

The Escrow Bank hereby agrees to act as such and to accept all payments and other amounts to be delivered to and held by the Escrow Bank pursuant to the provisions of this Agreement. The Escrow Bank shall hold and safeguard the Escrow Account during the term of this Agreement and shall treat the amount in the Escrow Account as monies deposited by the Concessionaire, Lenders or the Concessioning Authority with the Escrow Bank. In performing its functions and duties under this Agreement, the Escrow Bank shall act in trust for the benefit of, and as agent for, the Concessioning Authority, the Lenders' Representative and the Concessionaire or their nominees, successors or assigns, in accordance with the provisions of this Agreement.

# 2.3 Establishment and operation of Escrow Account

- 2.3.1 Within 30 (thirty) Days from the date of this Agreement, and in any case prior to the Date of Award of Concession, the Concessionaire shall open and establish the Escrow Account with the [(name of Branch)] Branch of the Escrow Bank. The Escrow Account shall be denominated in Rupees.
- 2.3.2 The Escrow Bank shall maintain the Escrow Account in accordance with the terms of this Agreement and its usual practices and applicable regulations, and pay the maximum rate of interest payable to similar customers on the balance in the said account from time to time.
- 2.3.3 The Concessionaire shall submit to the Escrow Bank a Budget within 7 (seven) Days of the commencement of each Financial Year. Till the pendency of the financing Documents, such Budget shall be approved by the Lenders/Lenders Representative and thereafter by the Concessioning Authority.
- 2.3.4 The Escrow Bank and the Concessionaire shall, after consultation with the Lenders' Representative, agree on the detailed mandates, terms and conditions, and operating procedures for the Escrow Account, but in the event of any conflict or inconsistency between this Agreement and such mandates, terms and conditions, or procedures, this Agreement shall prevail.

# 2.4 Escrow Bank's fee

The Escrow Bank shall be entitled to receive its fee and expenses in an amount, and at such times, as may be agreed between the Escrow Bank and the Concessionaire. For the avoidance of doubt, such fee and expenses shall form part of the operating and maintaining expenses and shall be appropriated from the Escrow Account in accordance with Article 4.1.1 (c).

# 2.5 Rights of the parties

The rights of the Concessioning Authority, the Lenders (through the Lenders' Representative) and the Concessionaire in the monies held in the Escrow Account are set forth in their entirety in this Agreement and the Concessioning Authority, the Lenders' and the Concessionaire shall have no other rights against or to the monies in the Escrow Account.

# 2.6 Substitution of the Concessionaire

The Parties hereto acknowledge and agree that upon substitution of the Concessionaire with the Selectee, pursuant to the Substitution Agreement, it shall be deemed for the purposes of this Agreement that the Selectee is a Party hereto and the Selectee shall accordingly be deemed to have succeeded to the rights and obligations of the Concessionaire under this Agreement on and with effect from the date of

substitution of the Concessionaire with the Selectee.

# 3 DEPOSITS INTO ESCROW ACCOUNT

# 3.1 Deposits by the Concessionaire

The Concessionaire agrees and undertakes that it shall deposit into and/or credit the Escrow Account with:

- 1. all monies received in relation to the Project from any source, including the Lenders;
- 2. all funds received by the Concessionaire from its share-holders, in any manner or form;
- 3. all Fee levied and collected by the Concessionaire;
- 4. any other revenues from or in respect of the Project/Project Facilities and Services accruing to the Concessionaire including termination payments; and
- 5. all proceeds received pursuant to any insurance claims.

For avoidance of doubt, all amounts received by the Concessionaire in respect of the Project/Project Facilities and Services excepting any amounts in respect of cesses and duties collected by it from the users on behalf of the Concessioning Authority or such other authority in accordance with the Concession Agreement or pursuant to any other instructions in respect thereof shall be deposited in the Escrow Account.

# 4 WITHDRAWALS FROM ESCROW ACCOUNT

# 4.1 Withdrawals during Concession Period

- 4.1.1 At the beginning of every month, or at such shorter intervals as the Lenders' Representative and the Concessionaire may by written instructions determine, the Escrow Bank shall withdraw amounts from the Escrow Account and appropriate them in the following order by depositing such amounts in the relevant Sub-Accounts for making due payments in a month:
  - a) all taxes due and payable by the Concessionaire;
  - b) towards License Fee for Land and Water Area;
  - c) all construction/implementation expenses relating to the Project/Project Facilities and Services, in accordance with the Budget and subject to limits if any set out

under the Financing Documents;

- d) all expenses relating to operations and management of the Project/Project Facilities and Services, in accordance with the Budget and subject to limits if any set out under the Financing Documents;
- e) towards its debt service obligations under the Financing Documents;
- f) towards Royalty and other sums payable to the Concessioning Authority and liquidated damages, if any;
- g) towards any reserve requirements in accordance with the Financing Documents;

and the Concessionaire shall be at liberty to withdraw any sums outstanding in the escrow account after all the aforesaid payments due in any Quarter have been made and/or adequate reserves have been created in respect thereof for that Quarter.

4.1.2 Not later than 60 (sixty) Days prior to the commencement of each Accounting Year, the Concessionaire shall provide to the Escrow Bank, with prior written approval of the Lenders' Representative, details of the amounts likely to be required for each of the payment obligations set forth in this Article 4.1; provided that such amounts may be subsequently modified, with prior written approval of the Lenders' Representative, if fresh information received during the course of the year makes such modification necessary.

# 4.2 Withdrawals upon end of Concession Period

All amounts standing to the credit of the Escrow Account at the end of the Concession Period including amounts credited to the Escrow Account towards compensation payable in accordance with Article 17 of the Concession Agreement shall be appropriated in the following order of priority:

- i. towards taxes and statutory dues payable by the Concessionaire;
- ii. compensation to Lenders in terms of the Financing Documents towards discharge of the Concessionaire's liability under such Financing Documents;
- iii. all amounts due to the Concessioning Authority and amounts payable towards transfer of the Project Facilities and Services by the Concessionaire in accordance with this Agreement;

and the Concessionaire shall be at liberty to withdraw any sums outstanding in the Escrow Account after all the aforesaid payments due have been made and/or adequate reserves have been created in respect thereof to the satisfaction of the Lenders and the Concessioning Authority and the Escrow Agent has received a confirmation of final settlement by the Lenders and/or Concessioning Authority.

# 4.3 Application of insurance proceeds

Notwithstanding anything in this Agreement, the proceeds from all insurance claims, except life and injury, shall be deposited into and/or credited to the Escrow Account and utilised for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project/Project facilities and Services, and the balance remaining, if any, shall be applied in accordance with the provisions contained in this behalf in the Financing Documents.

# 4.4 Withdrawals during Suspension

Notwithstanding anything to the contrary contained in this Agreement, in case the Escrow Bank receives a notice in writing from the Concession Authority that the rights of the Concessionaire are suspended in accordance with the Concession Agreement or a Termination Notice is issued, the Escrow Bank shall until such notice is withdrawn, act only on the instructions of the Concessioning Authority.

# 5 OBLIGATIONS OF THE ESCROW BANK

# 5.1 Segregation of funds

Monies and other property received by the Escrow Bank under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Escrow Bank in trust for the purposes for which they were received, and shall be segregated from other funds and property of the Escrow Bank.

# **5.2** Notification of balances

7 (seven) business Days prior to each Payment Date (and for this purpose the Escrow Bank shall be entitled to rely on an affirmation by the Concessionaire and/or the Lenders' Representative as to the relevant Payment Dates), the Escrow Bank shall notify the Lenders' Representative of the balances in the Escrow Account as at the close of business on the immediately preceding business day.

### **5.3** Communications and notices

In discharge of its duties and obligations hereunder, the Escrow Bank:

a) may, in the absence of bad faith or gross negligence on its part, rely as to any matters of fact which might reasonably be expected to be within the knowledge of

the Concessionaire upon a certificate signed by or on behalf of the Concessionaire;

- b) may, in the absence of bad faith or gross negligence on its part, rely upon the authenticity of any communication or document believed by it to be authentic;
- c) shall, within 5 (five) business Days after receipt, deliver a copy to the Lenders' Representative of any notice or document received by it in its capacity as the Escrow Bank from the Concessionaire or any other person hereunder or in connection herewith; and
- d) shall, within 5 (five) business Days after receipt, deliver a copy to the Concessionaire of any notice or document received by it from the Lenders' Representative in connection herewith.

### 5.4 No set off

The Escrow Bank agrees not to claim or exercise any right of set off, banker's lien or other right or remedy with respect to amounts standing to the credit of the Escrow Account. For the avoidance of doubt, it is hereby acknowledged and agreed by the Escrow Bank that the monies and properties held by the Escrow Bank in the Escrow Account shall not be considered as part of the assets of the Escrow Bank and being trust property, shall in the case of bankruptcy or liquidation of the Escrow Bank, be wholly excluded from the assets of the Escrow Bank in such bankruptcy or liquidation.

# 5.5 Regulatory approvals

The Escrow Bank shall use its best efforts to procure, and thereafter maintain and comply with, all regulatory approvals required for it to establish and operate the Escrow Account. The Escrow Bank represents and warrants that it is not aware of any reason why such regulatory approvals will not ordinarily be granted to the Escrow Bank.

# 6 ESCROW DEFAULT

# **6.1** Escrow Default

- 6.1.1 Following events shall constitute an event of default by the Concessionaire (an "Escrow Default") unless such event of default has occurred as a result of Force Majeure or any act or omission of the Concessioning Authority or the Lenders' Representative:
  - a) the Concessionaire commits breach of this Agreement by failing to deposit /cause the deposit of any receipts into the Escrow Account;

- b) the Concessionaire causes the Escrow Bank to transfer funds to any account of the Concessionaire in breach of the terms of this Agreement; or
- c) the Concessionaire commits or causes any other breach of the provisions of this Agreement.
- 6.1.2 Upon occurrence of an Escrow Default, the consequences thereof shall be dealt with under and in accordance with the provisions of the Concession Agreement.

# 7 TERMINATION OF ESCROW AGREEMENT

# 7.1 Duration of the Escrow Agreement

This Agreement shall remain in full force and effect so long as any sum remains to be advanced or is outstanding from the Concessionaire in respect of the debt, guarantee or financial assistance received by it from the Lenders, or any of its obligations to the Concessioning Authority remain to be discharged, unless terminated earlier by consent of all the Parties or otherwise in accordance with the provisions of this Agreement.

### 7.2 Substitution of Escrow Bank

The Concessionaire may, by not less than 45 (forty five) Days prior notice to the Escrow Bank, the Concessioning Authority and the Lenders' Representative, terminate this Agreement and appoint a new Escrow Bank, provided that the new Escrow Bank is acceptable to the Lenders' Representative and arrangements are made satisfactory to the Lenders' Representative for transfer of amounts deposited in the Escrow Account to a new Escrow Account established with the successor Escrow Bank. The termination of this Agreement shall take effect only upon coming into force of an Escrow Agreement with the substitute Escrow Bank.

## 7.3 Closure of Escrow Account

The Escrow Bank shall, at the request of the Concessionaire and the Lenders' Representative made on or after the payment by the Concessionaire of all outstanding amounts under the Concession Agreement and the Financing Documents including the payments specified in Article 4.2, and upon confirmation' of receipt of such payments, close the Escrow Account and pay any amount standing to the credit thereof to the Concessionaire. Upon closure of the Escrow Account hereunder, the Escrow Agreement shall be deemed to be terminated.

# 8 SUPPLEMENTARY ESCROW AGREEMENT

# 8.1 Supplementary escrow agreement

The Lenders' Representative and the Concessionaire shall be entitled to enter into a

supplementary escrow agreement with the Escrow Bank providing, inter alia, for detailed procedures and documentation for withdrawals from Escrow Account, creation of sub-accounts pursuant to Clause 4.1.1 and for matters not covered under this Agreement such as the rights and obligations of Lenders, investment of surplus funds, restrictions on withdrawals by the Concessionaire in the event of breach of Financing Documents, procedures relating to operation of the Escrow Account and withdrawal therefrom, reporting requirements and any matters incidental thereto; provided that such supplementary escrow agreement shall not contain any provision which is inconsistent with this Agreement and in the event of any conflict or inconsistency between provisions of this Agreement and such supplementary escrow agreement, the provisions of this Agreement shall prevail.

# 9 INDEMNITY

# 9.1 General indemnity

- 9.1.1 The Concessionaire will indemnify, defend and hold the Concessioning Authority, Escrow Bank and the Lenders, acting through the Lenders' Representative, harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.
- 9.1.2 The Concessioning Authority will indemnify, defend and hold the, Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Concessioning Authority to fulfil any of its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement other than any loss, damage, cost and expense arising out of acts done in discharge of their lawful functions by the Concessioning Authority, its officers, servants and agents.
- 9.1.3 The Escrow Bank will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Escrow Bank to fulfil its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Escrow Bank, its officers, servants and agents.

# 9.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 9.1 or in respect of

which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying Party") within 15 (fifteen) Days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

# 10 MISCELLANEOUS PROVISIONS

# 10.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at New Mangalore shall have jurisdiction over all matters arising out of or relating to this Agreement.

# **10.2** Waiver of sovereign immunity

The Concessioning Authority unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Concessioning Authority with respect to its assets
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

# 10.3 Priority of agreements

In the event of any conflict between the Concession Agreement and this Agreement, the provisions contained in the Concession Agreement shall prevail over this Agreement.

# 10.4 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorised representatives of the Parties.

### 10.5 Waiver

- 10.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:
  - (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
  - (b) shall not affect the validity or enforceability of this Agreement in any manner.
- 10.5.2 Neither the failure by any Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by any Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

# 10.6 No third party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

### 10.7 Survival

# **10.7.1** Termination of this Agreement:

- (a) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly

limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or

caused by, acts or omissions of such Party prior to the effectiveness of such

termination or arising out of such termination.

10.7.2 All obligations surviving the cancellation, expiration or termination this

Agreement shall only survive for a period of 3 (three) years following the date of such

termination or expiry of this Agreement.

10.8 Severability

If for any reason whatever any provision of this Agreement is or becomes invalid,

illegal or unenforceable or is declared by any court of competent jurisdiction or any

other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the

Parties will negotiate in good faith with a view to agreeing to one or more provisions

which may be substituted for such invalid, unenforceable or illegal provisions, as

nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to

agree upon any such provisions shall not be subject to dispute resolution under Clause

10.1 of this Agreement or otherwise.

10.9 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and

their respective successors and permitted assigns.

**10.10 Notices** 

Unless otherwise stated, notices to be given under this Agreement including but not

limited to a notice of waiver of any term or related or breach of any term of this Agreement shall be in writing and shall be given by hand delivery, recognized

international courier, mail, telex or facsimile transmission and delivered or transmitted

to the Parties at their respective addresses set forth below:

The Concessioning Authority:

Chairman,

New Mangalore Port Trust,

Panambur,

Mangalore-575 010

Fax No: 0824 2408390

Email: chairman@nmpt.in

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| The Concessionaire:                 |      |       |
|-------------------------------------|------|-------|
| The MANAGING DIRECTOR               |      |       |
|                                     | -Ltd |       |
|                                     |      | _     |
|                                     |      | _     |
|                                     |      |       |
| Fax No                              |      |       |
| Email:                              |      |       |
|                                     |      |       |
| The Lenders/Lenders representative: |      |       |
|                                     |      |       |
|                                     |      |       |
| Fax No                              |      |       |
| Email:                              |      |       |
|                                     |      |       |
| The Escrow Bank:                    |      |       |
|                                     |      | _L td |
|                                     |      | _     |
|                                     |      |       |
| Fax No                              |      |       |
| Email:                              |      |       |

or such other address, telex number, or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered (i) in the case of any communication made by letter, when delivered by hand, by recognized international courier or by mail (registered, return receipt requested) at that address and (ii) in the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

# 10.11 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

# 10.12 Authorised representatives

Each of the Parties shall, by notice in writing, designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorised representative by similar notice.

# **10.13 Original Document**

This Agreement may be executed in four counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

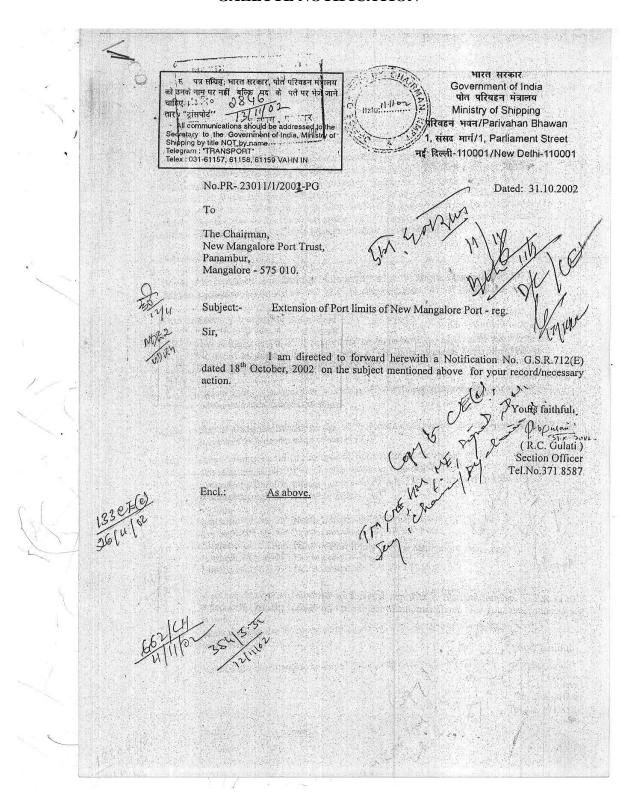
## IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

#### For and on behalf of CONCESSIONAIRE by: (Signature) (Name) (Designation) (Address) (Fax No.) SIGNED, SEALED AND DELIVERED For and on behalf of LENDERS by the Lenders' Representative: (Signature) (Name) (Designation) (Address) (Fax No.) SIGNED, SEALED AND DELIVERED For and on behalf of ESCROW BANK by: (Signature) (Name) (Designation) (Address) (Fax No.) SIGNED, SEALED AND DELIVERED For and on behalf of Concessioning Authority by: (Signature) (Name) (Designation) (Address) (Fax No.)

SIGNED, SEALED AND DELIVERED

#### **APPENDIX 17**

#### **GAZETTE NOTIFICATION**



## MINISTRY OF SHIPPING (Ports Wing) NOTIFICATION

New Delhi, the 18th October, 2002

G.S.R. 712(E).— exercise of the powers conferred by section 5 of the Indian Ports Act, 1908 (15 of 1908) and clause (q) of Section 2 of the Major Port Trusts Act, 1963 (38 of 1963), and in supersession of the notification of the Government of India in the then Ministry of Surface Transport GSR No. 736(E) published in the Gazette of India Extraordinary Part. II Section 3 (i) dated 7.12.1993, except as respects things done or omitted to be done before such supersession, the Central Government hereby declares that the limits of the Port of New Mangalore shall be as follows:-

On the Morth

A line due East from a position in latitude 13° 00' 12.6" North, longitude 74° 34' 57.2" East to a position in latitude 13° 00' 12.6" North, longitude 74° 47' 16.1" East.

On the East:

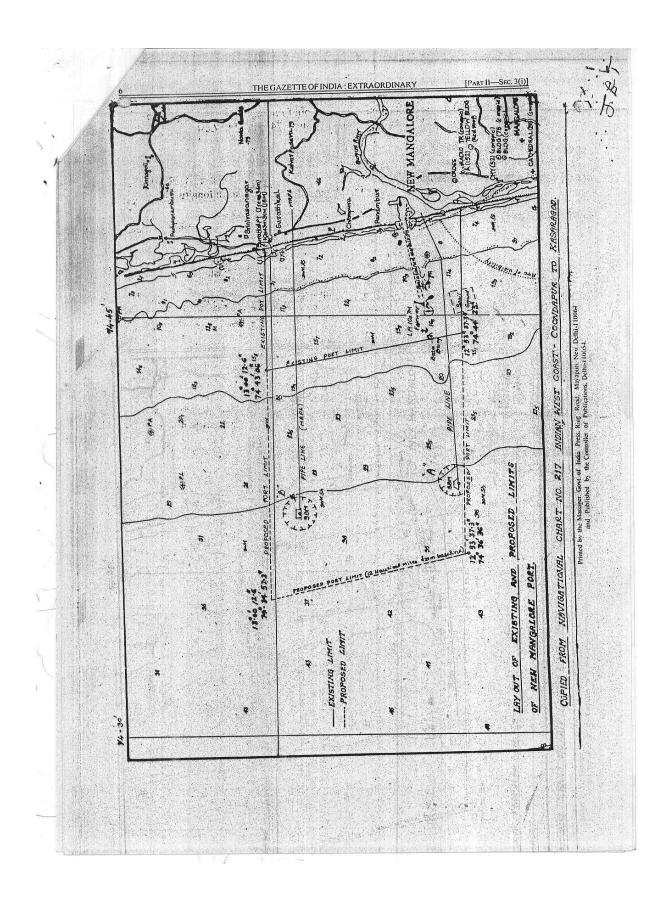
(d)

- thence along a line 45.72 metres on the shore from the high water mark upto the Northern acquisition boundary pillar of the harbour estate in position, Latitude 12° 56′ 10″ North, Longitude 74° 48′ 20.5″ East.
- (b) thence along the western boundary of the railway Marshalling Yard to the Northern Flood Bank-cum-Road.
- (c) thence along the Southern edge of the Northern Flood Bank-cum-Road to where it meets the Western edge of the N.H 17.
  - thence along the north Eastern and South Eastern Boundary of the Port land East of the national Highway 17 (starting from a point on the Northern side having a Latitude 12° 57' 05" North, Longitude 74° 48' 39" East on the National Highway passing through the following points.

Latitude 12° 56' 59" North Longitude 74° 48' 58" East. Latitude 12° 56' 56" North Longitude 74° 49' 09" East. Latitude 12° 56' 45" North Longitude 74° 49' 47" East. Latitude 12° 56' 27" North Longitude 74° 49' 51" East. Latitude 12° 56' 10" North Longitude 74° 49' 15" East.

And terminating on the National Highway on the Southern side having a latitude '12° 56' 06" North, Longitude 74° 49' 15" East.

- (e) thence along the Western edge of the N.H. 17 to the Northern edge of the river bank road.
- (f) thence along the Northern edge of the river bank road to the shore.



# "MECHANIZATION OF BERTH NO. 12 FOR PROVIDING EQUIPMENTS FOR HANDLING BULK CARGOES AT NMP"

**REQUEST FOR PROPOSAL** 

VOLUME III - DETAILED PROJECT REPORT

#### DETAILED PROJECT REPORT TO PROVIDE HANDLING EQUIPMENT AT BERTH NO.12 FOR HANDLING BULK CARGO AT NEW MANGALORE PORT







FINAL DETAILED PROJECT REPORT

**JULY 2015** 



#### TATA CONSULTING ENGINEERS LIMITED

TCE.7798A-CV-272-BS-08

## DPR TO PROVIDE HANDLING EQUIPMENT AT BERTH NO.12 FOR HANDLING BULK CARGO AT NMP

SECTION: TITLE SHEET i of ii

#### **NEW MANGALORE PORT TRUST**

#### **FINAL DETAILED PROJECT REPORT**

**JULY 2015** 

FILE NAME: TCE 7798A-CV-272-BS-08

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| REV NO.DATE      | PREPARED<br>BY   | CHECKED<br>BY |  | CLEARE | D BY |  | APPROVED<br>BY |

#### TATA CONSULTING ENGINEERS LIMITED

TCE.7798A-CV-272-BS-08

#### FINAL DPR TO PROVIDE HANDLING EQUIPMENT AT BERTH NO.12 FOR HANDLING BULK CARGO AT NMP

SECTION: Note Page ii of ii

#### **REVISION STATUS SHEET**

| Doc No      | TCE.7798A-CV-272-BS-08  |                    |
|-------------|-------------------------|--------------------|
| REVISION NO | MONTH AND YEAR OF ISSUE | DETAIL OF REVISION |
| R0          | June, 2015              | For Submission     |
| R1          | July, 2015              | For Submission     |
|             |                         |                    |
|             |                         |                    |
|             |                         |                    |
|             |                         |                    |

ISSUE R1



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#### 1 EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

The Port of New Mangalore (NMP), a gateway port for the vast hinterland of the State of Karnataka, is the 9th Major Port and a lagoon type harbour located on the west coast of India (12°55'N; 74°48'E). The port is located at 170 nautical miles South of Mormugao & 191 nautical miles North of Cochin Port.

Presently there are 15 existing berths and one single point mooring at NMPT. New Mangalore port handles liquid and dry bulk cargo and container cargo at present. Important dry bulk commodities handled at the port that are being imported are: Coal, Iron ore fines, Limestone and Timber. Important dry bulk materials exported out of NMPT are: Iron Ore Pellets and Granite Stone. Iron ore fines used to be the major export item at the port but after ban on mining in Karnataka its export has gone down to zero. NMPT intends to develop Berth No 12 for handling specifically coal. The berth structure is already under construction by NMPT and TCE was appointed to prepare a DPR for berth no.12 to provide handling equipments at Berth 12 for handling Dry bulk cargo.

#### 1.2 TRAFFIC ANALYSIS

Traffic for the port has been projected for next 30 years i.e. FY46 keeping in view long term investment in port infrastructure. It emerged that coal will be one of the major traffic drivers at NMPT and therefore berth 12 has been proposed to be dedicated to handling (non captive) coal cargo import at NMPT. Two scenario - Base Case and Optimistic Case have been considered in the Traffic Forecast

| Forecast of Coal Traffic (Million MT) |      |       |       |       |       |       |       |
|---------------------------------------|------|-------|-------|-------|-------|-------|-------|
| Coal Traffic forecast                 | FY16 | FY21  | FY26  | FY31  | FY36  | FY41  | FY46  |
| For NMPT - Base Case                  | 9.50 | 10.80 | 12.50 | 18.70 | 20.80 | 23.50 | 26.50 |
| For NMPT - Optimistic Case            | 9.50 | 12.50 | 21.00 | 25.10 | 30.10 | 36.10 | 42.90 |
| For Existing Berth 9                  | 4.00 | 4.00  | 4.00  | 8.4   | 8.4   | 8.4   | 8.4   |
| For proposed berths –<br>Base Case    | 5.50 | 6.82  | 8.54  | 10.25 | 12.44 | 15.06 | 18.07 |
| For proposed berths - Optimistic Case | 5.50 | 8.55  | 17.04 | 16.73 | 21.73 | 27.69 | 34.49 |

Base case forecast is prepared by considering the present infrastructure conditions and present challenges faced by the port users. Optimistic case forecast has been carried out considering that few of the challenges like road conditions in the Western ghat and train connectivity issue faced by the users will be solved even if not all.

#### Percentage of vessel call and unloading rate at jetty

| Parameters | Dry Bulk Vessel Sizes (DWT) |
|------------|-----------------------------|
|------------|-----------------------------|



|                           | 50000 | 60000 | 70000 | 80000 |
|---------------------------|-------|-------|-------|-------|
| Parcel Size, DWT          | 45000 | 54000 | 63000 | 72000 |
| Percentage of vessel call | 20%   | 30%   | 30%   | 20%   |
| Avg. Unloading rate - TPD | 35000 | 35000 | 35000 | 35000 |

#### 1.3 BERTH DIMENSION

The construction of berth 12 in the western dock arm is already underway by NMPT. The dimensions of the berth are as given below:

Length of the berth 12 : 325 m Width of the berth : 25 m

Deck level : (+) 4.66 m CD

The present depth at NMPT approach channel and lagoon is maintained at (-) 15.4 m CD and (-) 15.1 m CD. It is expected to encounter rock in the lagoon area at (-) 15.4 m CD. Hence the depth in the lagoon and docks will be restricted to (-) 15.1 m CD i.e. the present maintained depth in the turning circle area.

Given the depth constraints in the inner harbour, vessel sizes up to and including 80,000 DWT have been considered for the purpose of berth occupancy and capacity calculations

#### 1.4 CAPACITY OF THE TERMINAL

The quay capacity and optimal yard capacity worked out has been summarized as below:

| Quay Capacity         | 8.94 MTPA |
|-----------------------|-----------|
| Optimal Yard Capacity | 6.25 MTPA |

The area available for the storage is around 15.0 Ha.

Optimal yard capacity is calculate as shown below:

| Description                       | Value     | Unit |
|-----------------------------------|-----------|------|
| Area available for coal stackyard | 15.01     | На   |
| Stockpile (4 nos.)                | 330*50*10 | M3   |
| Stockpile (2 nos.)                | 330*40*10 | M3   |
| Turn around ratio                 | 15        |      |
| Capacity                          | 6.25      | MTPA |

The optimal terminal capacity is the lower value of the optimal quay capacity and optimal stack yard capacity. Hence the Optimal capacity of the terminal is found to be 6.25 MTPA.



#### 1.5 MECHANICAL HANDLING FACILITIES

#### 1.5.1 Grab unloaders

A fully mechanised coal unloading system has been planned for berth 12.

| Description  | Rate  | Unit             |
|--|-------|------------------|
| Coal unloading rate at berth 12                                    | 35000 | TPD              |
| Working hour per day   | 20    | Hrs              |
| Average unloading rate per hour                                    | 1750  | TPH              |
| Numbers of crane to be provided                                    | 2     | Nos.             |
| Average unloading rate per crane                                   | 875   | TPH              |
| Considering accidental break down of crane Unloading rate required | 1750  | TPH Per Unloader |
| Rated capacity provided  | 2000  | TPH Per Unloader |

| <u>Description</u>        | Conveying capacity |  |
|---------------------------|--------------------|--|
| Grab unloaders(2 nos.)    | 2000 TPH each      |  |
| Jetty conveyor            | 4000 TPH           |  |
| Stacker (4 nos.)          | 4000 TPH           |  |
| Yard Conveyor             | 4000 TPH           |  |
| Belt conveyor             | 4000 TPH           |  |
| Reclaimer (3 nos.)        | 4000 TPH           |  |
| Rapid Rail Loading System | 4000 TPH           |  |

#### 1.6 **DREDGING**

Upon completion of berth 12 construction, the soil in front of the berth has to be dredged up to (-) 15.1 m CD to accommodate vessels up to 80000 DWT. The estimated dredging quantity is as given below. This is being carried out by NMPT presently.

| Western Dock Dredging for berth 12 | Dredging volume in front of berth 12 i.e. in berth pocket |
|------------------------------------|---|
| 80000 DWT                          | 874000 cum  |

#### 1.7 **EVACUATION**

The evacuation shall be mainly through rail. For faster evacuation of coal, a Rapid rail loading system (RRLS) with peak capacity of 4000 TPH is proposed adjacent to the existing UPCL RLS. It is estimated that 6-7 nos. of rake movement from the rail yard will



be required. As per evacuation requirement, occasionally coal may be transported through trucks for which a Truck Loading System may be provided if required.

#### 1.8 UTILITIES

The total indicative Power requirement (maximum demand) for the mechanical coal handling system has been envisaged to be around 11.65 MW.

The potable water will be required for people working at jetty and facilities on landside. It is presumed that tapping for drinking water is available near the facility on land and piping and pumping and minor storage will suffice the requirement.

Hence water supply system, storm water drainage, fire fighting system, dust suppression system, effluent treatment plant shall be provided.

#### 1.9 COST ESTIMATION

| Sr.<br>No | Description   | Nos/RM                 | Cost per<br>unit | Block Cost<br>Rs. | Block<br>Cost Rs.<br>(In Crore) |
|-----------|---|------------------------|------------------|-------------------|---------------------------------|
|           | Civil & Structural Works  |                        |                  |                   |                                 |
| 1         | Civil Works for JHs (16 nos), DH (4 no.) and RRLS ( 2 nos.)               |                        |                  | 24200000          | 2.74                            |
| 2         | Structural Works - JH (16 nos.), DH (4 no.) and RLS (2 nos.) etc.         |                        |                  | 169500000         | 21.03                           |
| 3         | Civil & structural cost of Conveyor                                       | Total length 5250 mtrs |                  | 770850000         | 77.08                           |
| 4         | Control Room/ Substation (2 no. considered)                               | 2 no.<br>considered    |                  | 33000000          | 3.30                            |
| 5         | Additional Rail siding at existing railway yard for wagon loading (1850m) | 1850                   | 45000            | 83250000          | 8.33                            |
| 6         | Stockyard Boundary Wall   |                        |                  | 30000000          | 3.00                            |
| 7         | Road pavement   |                        |                  | 185194000         | 18.5                            |
|           | TOTAL CIVIL & STRUCTURAL COST FOR CONVEYING SYSTEM                        |                        |                  | 1339994000        | 134.00                          |
|           | Mechanical Works  |                        |                  |                   |                                 |
| 1         | Grab Unloaders – 2000 TPH – 2 Nos   | 2                      | 450000000        | 900000000         | 90.00                           |
| 2         | Jetty Conveyor (4000 TPH)   | 810                    | 150000           | 121500000         | 12.15                           |
| 3         | In between conveyors upto RLS   | 2530                   | 150000           | 379500000         | 37.95                           |
| 4         | Conveyor for Stockyard (4000 TPH)   | 2720                   | 150000           | 408000000         | 40.80                           |
| 5         | Stacker Equipment (4 nos.)  | 4                      | 120000000        | 480000000         | 48.00                           |
| 6         | Reclaimer Equipment (3 nos.)  | 3                      | 130000000        | 390000000         | 39.00                           |
| 7         | Rapid Loading system (RLS   | 2                      | 150000000        | 30000000          | 30.00                           |



|    | (4000TPH) (2 nos.)  |   |          |            |        |
|----|---|---|----------|------------|--------|
| 8  | Truck loading system (1 nos.)   | 1 | 35000000 | 35000000   | 3.50   |
| 9  | Pay loaders - 4.5 cum – 1 nos   | 1 | 4000000  | 4000000    | 0.40   |
| 10 | Utilities   |   |          | 95000000   | 9.50   |
|    | TOTAL MECHANICAL, ELECTRICAL AND I&C COST FOR CONVEYING SYSTEM            |   |          | 3113000000 | 311.30 |
|    | Total Cost excluding contingency  |   |          |            | 445.30 |
|    | Total Contingency of 5% and lease rental cost during construction         |   |          |            | 29.36  |
|    | Total Cost (including Contingency of 5% +Lease rental during contingency) |   |          |            | 474.7  |

#### 1.10 FINANCIAL ANALYSIS

As per the recommended project structuring alternative, the concessionaire has to incur Rs. 474.7 Cr. whereas NMPT will be incurring Rs. 118.1 Cr.

| Description of Facilities   | BOT<br>Rs. Cr. | NMPT<br>Rs. Cr |  |
|---|----------------|----------------|--|
| Civil Works/ Buildings  |                |                |  |
| Jetty Construction  | -              | 96.2           |  |
| Capital dredging  | -              | 21.9           |  |
| Civil Works for JHs (16 nos), and RRLS ( 2 nos.)                          | 2.7            | -              |  |
| Structural Works - JH (16 nos.), DH 4 nos.) and RLS (2 nos.) etc.         | 21.0           | -              |  |
| Civil and Structural Cost of Conveyor                                     | 77.1           |                |  |
| Control Room/Substation / Buildings                                       | 3.3            | -              |  |
| Stockyard Boundary  | 3.0            | -              |  |
| Additional Rail Siding at existing rail yard for wagon loading (1850 m)   | 8.3            | -              |  |
| Road pavement   | 18.5           | -              |  |
| Plant and Machinery   |                |                |  |
| Unloaders, stacker cum reclaimer equipment, payloader                     | 177.4          | -              |  |
| Yard conveyor for stacker, yard conveyor for reclaimer                    | 40.8           | -              |  |
| Jetty Conveyor  | 12.2           | -              |  |
| Conveyor for RLS  | 38.0           | -              |  |
| RRLS, Lorry Loading System  | 33.5           | -              |  |
| Utilities - Water supply, dust suppression, fire fighting, compressed air | 9.5            | -              |  |
| Contingency Cost @ 5% + Lease Rental During                               | 29.4           | -              |  |



| Construction |               |       |       |
|--------------|---------------|-------|-------|
| Total C      | cost (Rs. Cr) | 474.7 | 118.1 |

#### 1.10.1 Project Implementation Schedule

| Project Specific Assumptions   | Value     | Unit  |
|--------------------------------|-----------|-------|
| Civil Estimate Date            | 1-Apr-15  | Date  |
| Construction Period            | 2.00      | Years |
| Construction Period Start Date | 1-Apr-16  | Date  |
| Construction Period End Date   | 31-Mar-18 | Date  |
| Operations Start Date          | 1-Apr-18  | Date  |
| Operations Period              | 28.00     | Years |
| Operations End Date            | 31-Mar-46 | Date  |
| Concession Period Start Date   | 1-Apr-16  | Date  |
| Concession Period              | 30.00     | Years |
| Concession Period End Date     | 31-Mar-46 | Date  |
| Location                       | Mangalore |       |

#### 1.10.2 Financial Return Parameters

The financial returns parameters for the project are as follows: -

| Particulars               |       |
|---------------------------|-------|
| Project IRR (Basic)       | 22.0% |
| Project IRR (Post Tax)    | 21.2% |
| Equity IRR (BOT Operator) | 22.0% |

#### 1.11 ALTERNATIVE TO HANDLE ADDITIONAL CARGO

In order to provide support in viability to prospective bidder during initial project phases of coal cargo realization and in order to utilize available spare quay capacity of berth 12; NMPT directed TCE to assess the feasibility of handling following dry bulk cargo at Berth 12 over and above the handling of coal cargo. NMPT proposed to handle this cargo at a separate storage area (identified by the port between existing STP and VTMS building), and hence its handling will not interfere with the storage of coal cargo. The commodities assessed include: -

- Fertilizers
- Limestone
- Gypsum



#### - Dolomite

It is to be noted that Berth 12 remains primarily a mechanized coal handling berth and priority will be given to coal carrying vessels at all times. The above arrangement above mentioned arrangement is only for the purpose of providing a stop gap arrangement for the BOT operator in the initial years in the event of a slowdown in realization of coal cargo.

Since this will be a temporary operation for the first five years, it was proposed to handle the additional cargo using equipments mainly on lease. Considering the nominal CAPEX and OPEX for the additional cargo handling, the tariff worked out to Rs 81 per ton. The limiting coal throughput achievable at berth 12 reduced to 5.4 MTPA on account of handling other cargo at lower discharge of the order of 8000 TPD as compared to 35000 TPD for coal and limiting berth occupancy to 60% to ensure priority berthing and minimal waiting time for coal vessels.

| Description of Facilities   | Capex                  | NMPT<br>Rs. Cr |  |  |  |
|---|------------------------|----------------|--|--|--|
| Civil Works/ Buildings  | Civil Works/ Buildings |                |  |  |  |
| Jetty Construction  | -                      | 96.2           |  |  |  |
| Capital dredging  | -                      | 21.9           |  |  |  |
| Civil Works for JHs (16 nos), and RRLS ( 2 nos.)                          | 2.7                    | -              |  |  |  |
| Structural Works - JH (16 nos.), DH 4 nos.) and RLS (2 nos.) etc.         | 21.0                   | -              |  |  |  |
| Civil and Structural Cost of Conveyor                                     | 77.1                   |                |  |  |  |
| Control Room/Substation / Buildings                                       | 3.3                    | -              |  |  |  |
| Stockyard Boundary  | 3.0                    | -              |  |  |  |
| Additional Rail Siding at existing rail yard for wagon loading (1850 m)   | 8.3                    | -              |  |  |  |
| Road pavement   | 18.5                   | -              |  |  |  |
| Plant and Machinery   |                        |                |  |  |  |
| Unloaders, stacker cum reclaimer equipment, payloader                     | 179.3                  | -              |  |  |  |
| Yard conveyor for stacker, yard conveyor for reclaimer                    | 40.8                   | -              |  |  |  |
| Jetty Conveyor  | 12.2                   | -              |  |  |  |
| Conveyor for RLS  | 38.0                   | -              |  |  |  |
| RRLS, Lorry Loading System  | 33.5                   | -              |  |  |  |
| Utilities - Water supply, dust suppression, fire fighting, compressed air | 9.5                    | -              |  |  |  |
| Contingency Cost @ 5% + Lease Rental During Construction                  | 29.4                   | -              |  |  |  |
| Total Cost (Rs. Cr)   | 476.7                  | 118.1          |  |  |  |

Addirional capex for alternative handling of additional cargo at berth is given as below:



| Sr.<br>No | Description   | CAPEX For coal<br>(In Crore) | Additional CAPEX for additional cargo (In Crore) |
|-----------|---|------------------------------|--|
|           | Civil & Structural Works  |                              |  |
| 1         | Civil Works for JHs (16 nos), DH (4 no.) and RRLS ( 2 nos.)               | 2.74                         |  |
| 2         | Structural Works - JH (16 nos.), DH (4 no.) and RLS (2 nos.) etc.         | 21.03                        |  |
| 3         | Civil & structural cost of Conveyor                                       | 77.08                        |  |
| 4         | Control Room/ Substation (2 no. considered)                               | 3.30                         |  |
| 5         | Additional Rail siding at existing railway yard for wagon loading (1850m) | 8.33                         |  |
| 6         | Stockyard Boundary Wall   | 3.00                         |  |
| 7         | Road pavement   | 18.5                         |  |
|           | TOTAL CIVIL & STRUCTURAL COST FOR CONVEYING SYSTEM                        | 134.00                       |  |
|           | Mechanical Works  |                              |  |
| 1         | Grab Unloaders – 2000 TPH – 2 Nos   | 90.00                        |  |
| 2         | Jetty Conveyor (4000 TPH)   | 12.15                        |  |
| 3         | In between conveyors upto RLS   | 37.95                        |  |
| 4         | Conveyor for Stockyard (4000 TPH)   | 40.80                        |  |
| 5         | Stacker Equipment (4 nos.)  | 48.00                        |  |
| 6         | Reclaimer Equipment (3 nos.)  | 39.00                        |  |
| 7         | Rapid Loading system (RLS (4000TPH) (2 nos.)                              | 30.00                        |  |
| 8         | Truck loading system (1 nos.)   | 3.50                         |  |
| 9         | Pay loaders - 4.5 cum –   | 0.40                         | 0.40   |
| 10        | Mobile hopper   | 0                            | 1.50   |
| 11        | Utilities   | 9.50                         |  |
|           | TOTAL MECHANICAL, ELECTRICAL AND I&C COST FOR CONVEYING SYSTEM            | 311.30                       |  |
|           | Total Cost excluding contingency  | 445.30                       |  |
|           | Total Contingency of 5% and lease rental cost during construction         | 29.36                        | 0.10   |
|           | Total Cost (including Contingency of 5% +Lease rental during contingency) | 474.7                        | 2.00   |



| Particulars               |       |
|---------------------------|-------|
| Project IRR (Basic)       | 19.7% |
| Project IRR (Post Tax)    | 18.9% |
| Equity IRR (BOT Operator) | 16.1% |

In this case, the project IRR Basic and Post tax worked out to **19.7**% & **18.9**% respectively. The Equity IRR for the PPP Operator post tax worked out to **16.1**% (considering 20% of revenue share and 12% Debt cost). The project financials still remain attractive even in the event of coal volumes being realized at the reduced levels of 5.4 MTPA for the first five years and other cargo volumes realized at 0.5 MTPA. This is mainly on account of difference in tariff for coal and other cargo (coal – Rs 278 per ton, other cargo – Rs 81 per ton) as well as reduction in total throughput (6.25 MTPA vs 5.9 MTPA).



#### 2 INTRODUCTION

#### 2.1 BACKGROUND

#### **LOCATION**

The Port of New Mangalore (NMP), a gateway port for the vast hinterland of the State of Karnataka, is the 9th Major Port and a lagoon type harbour located on the west coast of India (12°55'N; 74°48'E). The port is located at 170 nautical miles South of Mormugao & 191 nautical miles North of Cochin Port.

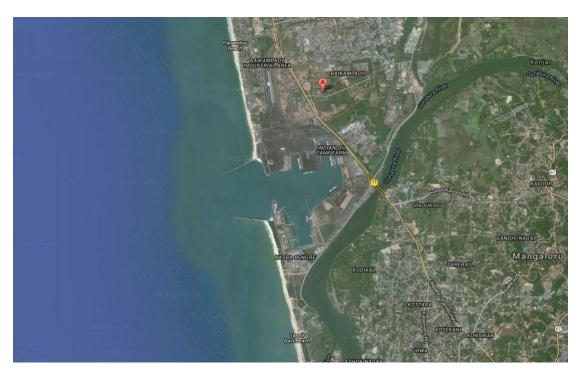


Figure 2-1 Satellite View of New Mangalore Port

The Port has been functioning as a catalyst for the economic development of this region and caters the needs of the hinterland. Over the years the Port has grown from the level of handling less than a lakh tonnes of traffic during its inception to 36.56 Million tonnes handled during 2014 - 15.

#### **MAJOR COMMODITIES**

The major commodities exported through the Port are Iron Ore Concentrates & Pellets, Iron Ore Fines, POL Products, Granite Stones, Containerized Cargo, etc. The major imports of the Port are Crude and POL products, LPG, **Coal**, Limestone, Timber logs, Finished Fertilizers, Liquid Ammonia, Phosphoric Acid, Other Liquid Chemicals, Containerized cargo, etc.

#### **MAJOR USERS**

The major users of NMP are KIOCL - Kudremukh Iron Ore Company Limited (for iron ore export) and MRPL - Mangalore Refineries and Petro-chemicals Limited (for crude import and their product load out).



#### **TRAFFIC**

The total traffic handled during 2014-15 at this port was 36.56 million tonnes comprising of Crude including petroleum products, Iron Ore and pellets and general cargo and others. Due to improved hinterland connectivity and industrial developments, the bulk cargo as well as the container traffic is increasing. NMPT anticipates handling 50 MMT by the year 2018, 84.14 MT by 2025-26 and 120 MMT by 2038. Considering the immediate demand and future prospects highlighted from the above studies, NMP has proposed to enhance the cargo handling facilities at Berth No. 12 and to develop the western arm of port having 4 berths. The southern side will be developed with berth no. 19 to handle additional load on clean cargo/containers.

#### **EXISTING FACILITIES**

The Port has a 7.5 Km long, 245 m wide and dredged depth of (-) 15.4 m CD of entrance channel where vessels with 14 m draft can ply. The tidal variation at Mangalore is around 1.5 m. The Port has a total area of 2352 Acres (951.04 Ha) i.e. land area of 2030 Acres (822 Ha) and a water area of 320 Acres (129 Ha). On the operational front the Port has 15 berths, consisting of 1 dedicated berth of KIOCL for export of their own pellets and concentrates, 1 captive berth for handling thermal coal by M/s UPCL, 5 berths for POL and chemicals and 7 berths for general cargo and 1 SPM for handling crude.

#### **CONNECTIVITY - RAIL**

The port provides a railway siding to Mangalore. The Port is served by a Broad Gauge Railway line and is well connected with Southern portion of country through Mangalore, Kerala State and Chennai besides the hinterland. The rail network extends to major industrial cities like Chennai, Bangalore Coimbatore and Mumbai in addition to numerous other commercially important cities.

The Port hinterland is connected with three main railway lines i.e. Konkan Railway, Mangalore - Hassan Railway and Southern Railway. Once the direct route from Hassan to Bangalore via Shravanabelagola is completed, the movement of cargo will be faster. The Hassan - Mangalore line has been converted into a broad gauge capable of carrying more tonnage of cargo by rail and now the Port is fully accessible to its hinterland. This broad gauge line made to connect Bangalore from Mangalore and Chennai via Bangalore route is shortened. The Konkan Railway has given a great fillip to the port / rail interface and thereby to industrial development in the adjoining regions and direct connection to Goa and Mumbai.

The present railway lines available with the Port are, at marshalling yard – 6 lines (Port), 3 lines - UPCL, 4 lines - KIOCL and 1 line - Inside the wharf (Port). The Port has initiated action to further improve the road and rail connectivity and initiated preparing Port Development Plans in association with National Highway Authority of India (NHAI)/ Indian Railways.

#### **CONNECTIVITY - ROAD**

The Port is well connected with 3 National Highways i.e. NH-66, NH-75 & NH-169. NH-66 stretches from Kochi to Mumbai linking many important cities and towns in its route. The NH 75 connects directly Mangalore to Bangalore and NH 169 runs from Mangalore to Solapur. In addition to the above, four laning of Surathkal to B.C road is completed.



#### 2.2 MAJOR ON-GOING DEVELOPMENT PROJECTS

The major ongoing developmental and port expansion projects in NMPT are as listed below:-

#### **DEEPENING OF CHANNEL AND LAGOON AT NEW PORT**

The vessel operators are requesting to provide facilities to handle capesize ships in the Port with larger draft. Further to facilitate handling of larger vessels at the Port in accordance with the Government Policy for providing deeper depth in major ports, New Mangalore Port already initiated action for deepening the turning basin and approach channel up to (-) 18.0 m. The deepened channel will cater to the future bigger size vessels to be called at NMPT.

#### **DEVELOP WESTERN DOCK ARM CONSISTING OF 4 BERTHS**

Considering the immediate demand and future prospects, the Port has proposed to construct/develop western dock arm consisting of 4 berths in which, according to port, berth 9 has been already developed for handling coal on BOT basis by UPCL. Berth 12 is under construction by NMPT and it is likely to be completed by December 2015. Though NMPT has initially envisaged to handle general cargo and containers at the proposed berth 12, it is now intended to handle dry bulk cargo i.e. coal. Port has proposed to develop 2 more berths for handling dry bulk cargo in the western dock arm with a dredged depth of (-) 15.1 m CD.

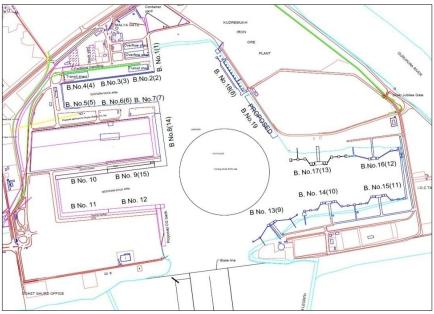


Figure 2-2 Nomenclature of Berths at NMP - New No. (Old No.)

The civil construction work for berth 12 and the capital dredging in front of the berth (inside western dock) will be made available by the port, whereas topside material handling facilities along with land side associated yard handling equipments will be put up by the BOT operator.

**DEVELOPMENT OF CONTAINER TERMINAL & HANDLING FACILITIES** 



NMPT anticipates that with the full commissioning of the Hassan Bangalore railway line, a fully developed container terminal in the port will very well flourish to serve the port's immediate hinterland. Hence the port has intended to develop a container terminal & handling facilities on priority with 14 m draft container berth which will enhance the competitiveness of NMP to handle containerized cargo.

#### 2.3 CURRENT PROJECT

#### WESTERN DOCK ARM DEVELOPMENT

Berth 12 is under construction by NMPT and it is likely to be completed by 2016. Though NMPT has initially envisaged to handle general cargo and containers at the proposed berth 12, it is now intended to handle dry bulk cargo i.e. coal. The location of the berth is accessible from railway yard as well as good connectivity of National Highway No. 66,75 & 169. The evacuation of bulk cargo would be possible through road connectivity from NH 66 and rail connectivity from HMRDC, KRCL and Southern Railway which in fact provide connectivity to western, eastern and southern region of India.

As envisaged by port the developmental work for berth 12 e.g. providing mechanical handling equipments at berth and stackyard and other facilities will be undertaken in BOT basis as per the privatization guidelines issued by Ministry, Public Private Participation model and any other model based on draft guidelines to be followed by Major Ports for PPP issued by Ministry time to time.

#### 2.4 STUDY OBJECTIVE

The objective of this assignment is to prepare a Detailed Project Report for providing material handling system at Berth 12 for handling bulk cargo.

#### 2.5 SCOPE OF THE ASSIGNMENT

The broad scope of work for the subject assignment to meet the above mentioned objective is as follows:

- Plan of the Project facility
- Demand assessment and traffic forecast
- Preliminary designs of the Project facility and services,
- ► Traffic and revenue forecasting for 10 (ten), 20 (twenty), 30 (thirty) years.
- Installation of new structures together with preliminary design
- Indicative BOQ
- Preliminary Cost Estimate for construction of Project Facility
- Financial Analysis
- Implementation schedule



#### 3 ASSESSMENT OF EXISTING FACILITIES

#### 3.1 SITE VISIT

TCE project team visited the site, during 19<sup>th</sup> ~ 21<sup>st</sup> February, 2014. Discussions were held with NMPT officials and users over existing scenario, growth constraints / bottlenecks and perspective plan. TCE has also collected the following data from NMP: -

- Administration Reports (2010-2011, 2011-2012, 2012-2013, 2013-2014)
- Feasibility Study for LNG Receiving Terminal at Mangalore, Karnataka, India (Rev. 1, 2013)
- LNG import terminal at Mangalore Pre-Feasibility Study Report (Final Report, October 2013)
- ▶ Baseline Data on Marine water Quality in NMP Region (April 2008)
- Feasibility Study on the Land Improvement (August 1990)
- CWPRS Technical Report No. 4298 (January 2006)
- CWPRS Technical Report No. 4557 (May 2008)
- CWPRS Technical Report No. 4736 (April 2010)
- CWPRS Technical Report NO. 4574 (Aug 2008)
- Development of Business Plan For NMPT (March 2007)
- NMPT Master Plan Updated to 2021-22 (Vol. I, II, III and IV)
- Sub- soil investigation for development of western dock arm at NMP (June 2006)
- Final Land Use Plan (August 2014)
- NMPT berth pile & D wall Dwgs for 150000 DWT(cad)
- ► AS-BUILT Berth No.17 (13)(cad)
- Berth No. 18 borehole drawings
- Construction dwg berth no. 12 (18) (pdf)
- UPCL b.No 9(15) dwg (cad)
  - ► NEW DUMPING GROUND-140805-Model(pdf)

The data collected from NMP has been reviewed and briefed in the next chapter.

#### 3.2 EXISTING BERTHING AND NAVIGATION INFRASTRUCTURE

Existing land and water area available at NMP are as follows:

**Table 3.1 Land and Water Spread** 

| Area    | Water Area | Land Area | Total Area |
|---------|------------|-----------|------------|
| In Acre | 320        | 2032      | 2352       |
| In Ha   | 130        | 822       | 952        |

Source: NMPT

Existing berthing facilities available at NMPT including details of berth type, draft, vessel size and capacity are as follows:



**Table 3.2 Berthing Facilities at NMP** 

| SI.<br>No. | New Berth No.<br>(Old Berth No.)       | Type of Cargo<br>Handled                 | Draft<br>(m) | Quay<br>Length<br>(m) | DWT<br>(t) | Capacity MT<br>as on<br>31-03-2014 |  |
|------------|--|--|--------------|-----------------------|------------|------------------------------------|--|
| 1          | Berth No.1 (1)                         | Gen. Cargo                               | 7            | 125                   | 4000       |                                    |  |
| 2          | Berth No.2 (2)                         | Gen. Cargo                               | 10.5         | 198                   | 30000      |                                    |  |
| 3          | Berth No.3 (3)                         | Gen. Cargo                               | 10.3         | 198                   | 30000      |                                    |  |
| 4          | Berth No.4 (4)                         | Gen. Cargo/Liq.<br>Ammonia/Phos.<br>Acid | 9.5          | 198                   | 30000      | 15.7                               |  |
| 5          | Berth No.5 (5)                         | Gen. Cargo/Bulk<br>Cement/Edible Oil     | 9.5          | 198                   | 30000      |                                    |  |
| 6          | Berth No.6 (6)                         | Gen. Cargo                               | 9.5          | 198                   | 30000      |                                    |  |
| 7          | Berth No.7 (7)                         | Gen. Cargo                               | 9.5          | 198                   | 30000      |                                    |  |
| 8          | Berth No.8 (14) (Deep<br>Draft Berth)  | Gen. Cargo 14 350 90                     |              | 90000                 |            |                                    |  |
| 9          | Berth No.9 (15)                        | Coal(UPCL)                               | 14           | 300                   | 90000      | 5.4                                |  |
| 10         | Berth No.18 (8)                        | Iron ore (Mech.)                         | 12.5         | 300                   | 60000      | 7.5                                |  |
| 11         | Berth No.13 (9)                        | LPG/POL                                  | 10.5         | 330                   | 45000      |                                    |  |
| 12         | Berth No.14 (10)                       | Crude Oil                                | 14           | 320                   | 85000      |                                    |  |
| 13         | Berth No.15 (11)                       | 5 (11) Crude Oil/POL<br>Products         |              | 320                   | 85000      |                                    |  |
| 14         | Berth No.16 (12) (Multi<br>User Jetty) | POL/Chemicals                            | 12.5         | 320                   | 50000      | 49.17                              |  |
| 15         | Berth No.17 (13)                       | Crude Oil/POL<br>Products                |              | 350                   | 85000      |                                    |  |
| 16         | Single Point Mooring                   | Crude Oil                                | 30           | -                     | 300000     |                                    |  |
| Total      |  |  |              |                       |            | 77.77                              |  |

Source: NMPT Administration Report 2013-2014

NMPT is a lagoon type harbour with 7.5 km of outer approach channel maintained at (-) 15.4 m CD depth. Existing navigational channel and turning circle parameters at NMP are as follows:

**Table 3.3 Outer Approach Channel and Turning Circle - NMP** 

| Outer Approach Channel |               | Turning Circle |                           |  |
|------------------------|---------------|----------------|---------------------------|--|
| Length                 | 7.5 km        | Diameter       | 570m                      |  |
| Width                  | 245 m         | Dredged Depth  | (-) 15.1 m CD             |  |
| Dredged Depth          | (-) 15.4 m CD | Side Slopes    | Natural restricted to 1:6 |  |

Source: NMPT



Details of existing port crafts available with NMPT including capacity and number of crafts are as follows:

**Table 3.4 Port Crafts available with NMP** 

| SI. | SI.<br>No. Description                                    |   | Owned by Port     |   |   |  |
|-----|---|---|-------------------|---|---|--|
| No. |   |   | Capacity          |   |   |  |
| 1   | Tugo  |   | 32 T. B.P.        |   |   |  |
|     | Tugs  | 1 | 50 T. B.P.        |   |   |  |
| 2   | Dilet Leurehee  |   | 2x600 H.P.        |   |   |  |
|     | 2 Pilot Launches  | 2 | 2X325 H.P.        |   |   |  |
| 3   | Launch (survey)   |   | 2x490 H.P.        |   |   |  |
|     | Others  | 2 | 108 H.P.          |   |   |  |
| 4   | Mooring Launches  |   | 140 H.P.          |   |   |  |
|     | Widoming Laundries  | 1 | 122.5 H.P.        |   |   |  |
|     | Multi-purpose vessel (Oil Skimmer-cum-Buoy Laying vessel) |   | 2x470 H.P. Engine |   |   |  |
| 5   |   |   |                   | 1 | 60Cu.M/Hr.Skimming rate. Crane capacity:14 M.T. |  |

Source: NMPT

#### 3.3 BERTH OCCUPANCY

#### 3.3.1 Recommended Berth Occupancy

The berth occupancies standards for planning of Port facilities as per UNCTAD guidelines and those recommended for NMPT by MoSRTH are tabulated below:-

Table 3.5 Recommended Berth Occupancy by MoSRTH & IPA

|                  | Maximum Recommended Berth Occupancy (%) for NMP |        |    |      |    |           |  |
|------------------|---|--------|----|------|----|-----------|--|
| No. of<br>Berths | UNCTAD  | MoSRTH |    | IPA  |    |           |  |
|                  | UNCTAD  | Bulk   | GC | Bulk | GC | Container |  |
| 1                | 40  | 60     | 70 | 60   | 70 | 45        |  |
| 2                | 50  | 70     | 70 | 60   | 70 | 50        |  |
| 3                | 55  | 70     | 70 | 70   | 70 | 55        |  |
| 4                | 60  | 70     | 75 | 75   | 75 | 55        |  |

#### 3.3.2 Actual Berth Occupancy

The actual berth occupancies data at NMPT has been analysed and are as tabulated in Table 3.5 Recommended Berth Occupancy by MoSRTH & IPA. There are 15 operational



berths in New Mangalore Port. The average berth occupancy for the entire port is found out to be in the range of 46 % to 48 % from the financial year 2011 to 2014. Whereas it can also be observed that the recommended berth occupancy as per UNCTAD and IPA is around 60 % to 70 %. The actual berth occupancies at NMPT are as tabulated below:-

Table 3.6 Actual Berth occupancy at NMP (2009-10 to 2013-14)

| New Berth No.                          | Berth Type                            | Percentage Berth Occupancy |         |         |         |
|--|---------------------------------------|----------------------------|---------|---------|---------|
| (Old Berth No.)                        | Dertii Type                           | 2010-11                    | 2011-12 | 2012-13 | 2013-14 |
| Berth No.1(1)                          | Gen. Cargo                            | 11                         | 5       | 8       | 0       |
| Berth No.2 (2)                         | Gen. Cargo                            | 53                         | 44      | 40      | 28      |
| Berth No.3 (3)                         | Gen. Cargo                            | 41                         | 46      | 39      | 42      |
| Berth No.4 (4)                         | Gen. Cargo/Liq.<br>Ammonia/Phos. Acid | 22                         | 24      | 23      | 12      |
| Berth No.5 (5)                         | Gen. Cargo/Bulk<br>Cement/Edible Oil  | 36                         | 44      | 42      | 33      |
| Berth No.6 (6)                         | Gen. Cargo                            | 30                         | 53      | 39      | 56      |
| Berth No.7 (7)                         | Gen. Cargo                            | 35                         | 50      | 37      | 51      |
| Berth No.18 (8)                        | Iron ore (Mech.)                      | 32                         | 35      | 39      | 44      |
| Berth No.13 (9)                        | LPG/POL                               | 89                         | 81      | 76      | 85      |
| Berth No.14 (10)                       | Crude Oil                             | 63                         | 68      | 83      | 65      |
| Berth No.15 (11)                       | Crude Oil/POL<br>Products             | 74                         | 70      | 80      | 71      |
| Berth No.16 (12)<br>(Multi User Jetty) | POL/Chemicals                         | 59                         | 64      | 64      | 48      |
| Berth No.17 (13)                       | Crude Oil/POL<br>Products             |                            |         |         |         |
| Berth No. 8 (14)<br>(Deep Draft Berth) | Gen. Cargo                            | 57                         | 59      | 56      | 77      |
| Berth No. 9 (15)                       | Coal(UPCL)                            |                            | 16      | 30      | 29      |
| Single Point Mooring                   | Crude Oil                             |                            |         |         | 36      |
| тс                                     | TOTAL                                 |                            | 48      | 47      | 48      |

#### 3.4 PORT PERFORMANCE INDICATOR

The actual port performance indicator (Cargo wise) data are presented below:-



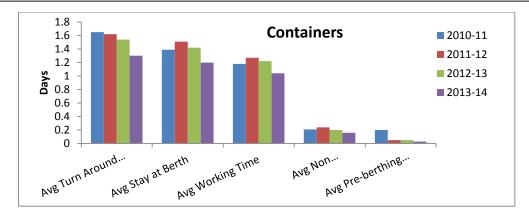


Figure 3-1 Performance Indicators at New Mangalore Port - Container

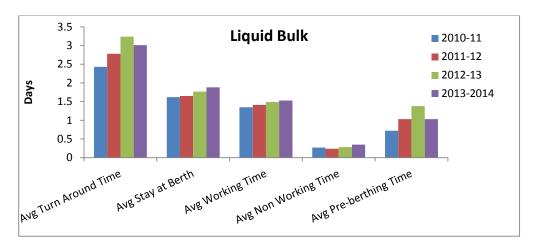
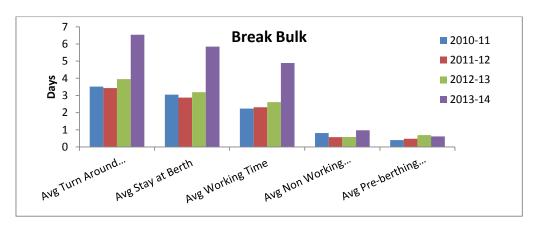


Figure 3-2 Performance Indicators at New Mangalore Port - Liquid Bulk





4.5 Dry Bulk (Conv.) **2010-11** 4 **2011-12** 3.5 **2012-13** 3 ■ 2013-14 2.5 **pay** 2 1.5 1 0.5 0 AVE Stay at Berth Ang Turn... ANE Morking... ENB NOU ... Weble...

Figure 3-3 Performance Indicators at New Mangalore Port – Break Bulk

Figure 3-4 Performance Indicators at New Mangalore Port – Dry Bulk (Conventional)

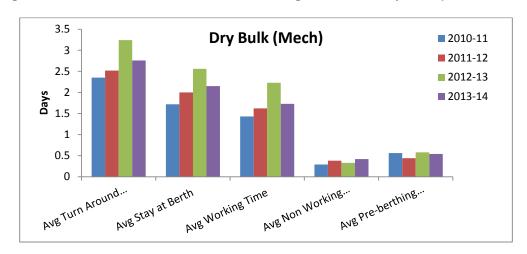


Figure 3-5 Performance Indicators at New Mangalore Port – Dry Bulk (Mechanical)

The data on actual traffic handled at NMP were collected and analysed by TCE. The commodity wise yearly traffic handled at NMPT has been as presented below:-

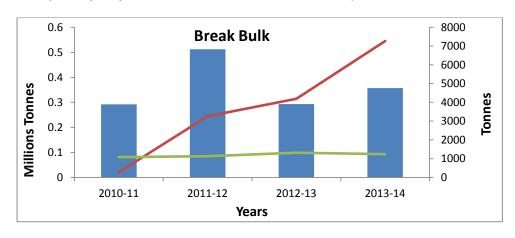




Figure 3-6 Break Bulk Traffic Handled at NMP (2011 – 2014)

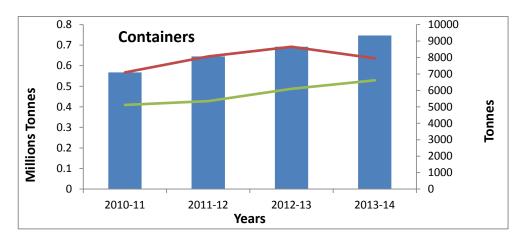


Figure 3-7 Container Traffic Handled at NMP (2011 - 2014)

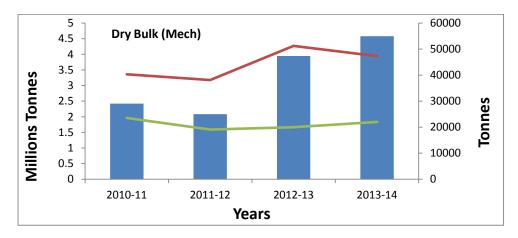
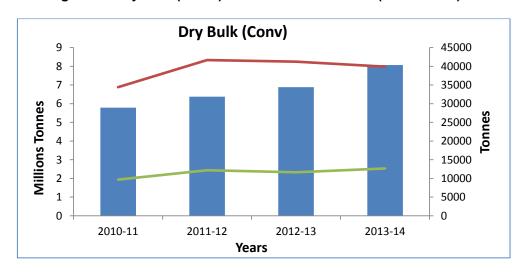


Figure 3-8 Dry Bulk (Mech.) Traffic Handled at NMP (2011 - 2014)





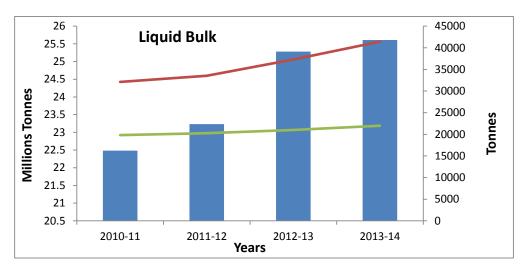


Figure 3-9 Dry Bulk (Conv.) Traffic Handled at NMP (2011 – 2014)

Figure 3-10 Liquid Bulk Traffic Handled at NMP (2011 - 2014)



Average Parcel Size
Average Output per Ship Berth Day

(Source: NMPT Administration Report 2010-2014)

The percentage variation of actual traffic handled as compared to the previous year at NMP is as tabulated below:-

Table 3.7 Percentage (%) Variation of traffic at NMP against Previous Year

In '000 Tonnes

| Year | April to March<br>Traffic | % Variation against Previous Year Traffic |
|------|---------------------------|---|
| 2009 | 36691                     | -   |
| 2010 | 35528                     | -3.17                                     |
| 2011 | 31550                     | -11.2                                     |
| 2012 | 32941                     | 4.41                                      |
| 2013 | 37036                     | 12.43                                     |
| 2014 | 39365                     | 6.29                                      |
| 2015 | 36566                     | -7.11                                     |

Source: IPA

Over the years commodity composition of the traffic handled at this port has undergone changes. Below table gives commodity wise details of traffic at NMP since 2009-10. The below figure shows the commodity wise percentage distribution of traffic handled at NMPT since 2010.



Table 3-8- Commodity wise cargo handled at NMP (2010 - 2014)

In '000 Tonnes

| ,               | Commodity           | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|-----------------|---------------------|---------|---------|---------|---------|---------|---------|
| P.O.L           |                     | 21339   | 21551   | 22245   | 24301   | 24647   | 22973   |
| Iron Ore        |                     | 7062    | 3744    | 3036    | 2616    | 3123    | 1474    |
| Fertilizer      | Finished Fertilizer | 820     | 784     | 804     | 519     | 649     | 649     |
| reitilizei      | Raw Fertilizer      | 13      | 4       | 21      | 17      | 82      | 82      |
| Coal            | Thermal Coal        |         |         |         | 2553    | 2726    | 2726    |
| Coai            | Cooking Coal        | 2810    | 2856    | 4022    | 4358    | 5452    | 5452    |
| Container       | Container (Tonnage) | 475     | 568     | 645     | 692     | 921     | 921     |
|                 | Container (TEUs)    | 32      | 40      | 45      | 48      | 63      | 63      |
| Other Cargo     |                     | 3009    | 2043    | 2168    | 1980    | 1996    | 2289    |
| Total traffic h | Handled (Tonnes)    | 35528   | 31550   | 32941   | 37036   | 39365   | 36566   |
| % Variance f    | rom previous FY     | -3.17   | -11.20  | 4.41    | 12.43   | 6.29    | -7.11   |

Source: IPA

The percentage share of each commodities handled at NMPT is as shown below-



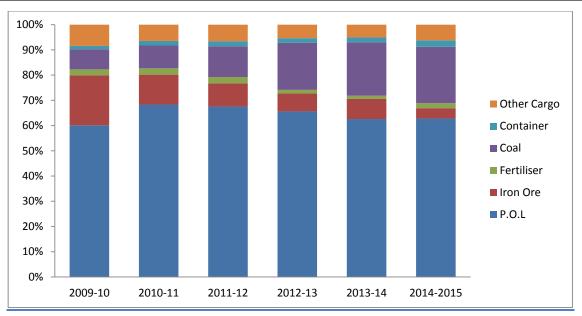


Figure 3-11 Commodity wise % Distribution of traffic at NMP (2010 – 2014)

# 3.5 **SHIP CALLS**

Table **3-9** gives the vessels (covering different cargo types) calling at NMP from 2010-11 to 2013-14.

Table 3-9- Number and size of ships called at NMP

| CATEGORY OF SHIPS            | Particular | Year    |         |         |          |  |  |  |
|------------------------------|------------|---------|---------|---------|----------|--|--|--|
| CATEGORY OF SHIPS            | Particular | 2010-11 | 2011-12 | 2012-13 | 2013-14  |  |  |  |
| A. SHIPS FOR CARGO OPERATION |            |         |         |         |          |  |  |  |
| CONTAINER                    | Number     | 80      | 80      | 80      | 94       |  |  |  |
| Cellular                     | Size(DWT)  | 1271113 | 1355139 | 1468507 | 1848155  |  |  |  |
| Combination                  | Number     | -       | -       | -       | -        |  |  |  |
| BREAK BULK                   | Number     | 89      | 157     | 70      | 50       |  |  |  |
|                              | Size(DWT)  | 1135977 | 1667788 | 1322421 | 1150047  |  |  |  |
| DRY BULK                     |            |         |         |         |          |  |  |  |
| Conventional                 | Number     | 168     | 153     | 167     | 202      |  |  |  |
| Conventional                 | Size(DWT)  | 7821401 | 8188337 | 9197922 | 11802696 |  |  |  |
| Mechanical                   | Number     | 60      | 53      | 77      | 97       |  |  |  |
| - IVI <del>C</del> CHAHICAI  | Size(DWT)  | 2618018 | 2300110 | 4348940 | 5239846  |  |  |  |
| LIQUID BULK                  |            |         |         |         |          |  |  |  |
| Crude                        | Number     | 153     | 158     | 172     | 162      |  |  |  |



| CATEGORY OF SHIPS | Particular | Year     |          |          |          |  |  |
|-------------------|------------|----------|----------|----------|----------|--|--|
| CATEGORY OF SHIPS | Faiticulai | 2010-11  | 2011-12  | 2012-13  | 2013-14  |  |  |
|                   | Size(DWT)  | 14185430 | 15440057 | 18038401 | 18716395 |  |  |
| Product           | Number     | 249      | 208      | 224      | 205      |  |  |
| Troduct           | Size(DWT)  | 10854421 | 10778923 | 12727851 | 12371827 |  |  |
| L.P.G.            | Number     | 149      | 165      | 138      | 126      |  |  |
| L.F.G.            | Size(DWT)  | 3318865  | 4203429  | 3433463  | 3046496  |  |  |
| Edible Oil        | Number     | 73       | 81       | 68       | 63       |  |  |
| Luible Oil        | Size(DWT)  | 1236834  | 1406705  | 1445470  | 1181227  |  |  |
| Chemicals         | Number     | 76       | 81       | 76       | 63       |  |  |
| Chemicais         | Size(DWT)  | 1675285  | 1606961  | 1488513  | 1482219  |  |  |
| LASH              |            | -        | -        | -        | -        |  |  |
| RO-RO             | Number     | -        | -        | -        | -        |  |  |
|                   | Size(DWT)  | -        | -        | -        | -        |  |  |
| B. CRUISES        |            |          |          |          |          |  |  |
| CRUISES           | Number     | 14       | 17       | 15       | 11       |  |  |
|                   | Size(DWT)  | 71456    | 68324    | 64771    | 79111    |  |  |
| C. OTHERS         |            |          |          |          |          |  |  |
| OTHERS            | Number     | 10       | 2        | 9        | 2        |  |  |
|                   | Size(DWT)  | 148515   | 37906    | 204817   | 20222    |  |  |
| TOTAL (A.P.C)     | Number     | 1121     | 1155     | 1096     | 1075     |  |  |
| TOTAL (A+B+C)     | Size(DWT)  | 44337315 | 47053679 | 53741076 | 56938241 |  |  |

Source: NMP Administrative Report



# 4 REVIEW OF DATA

# 4.1 SITE CONDITIONS

# 4.1.1 Project Location

The Port of New Mangalore is situated at latitude 12° 55' North and longitude 74° 48' East on the SW coast of India and is a major artificial Harbour. The present layout of NMP indicating the location is as shown below:-

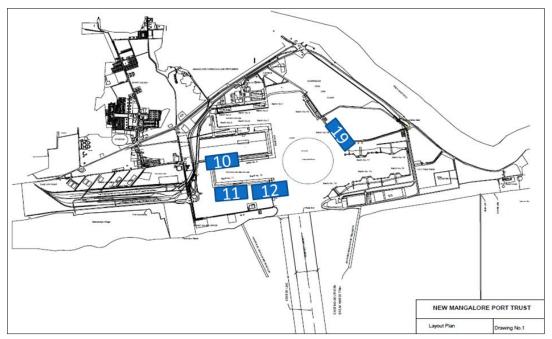


Figure 4-1 Location of proposed Berth No. 12 at NMP

NMPT has an artificial harbour protected by two breakwaters, with an approach channel of 7.5 km long, 245 m width and (-) 15.4 m depth. The turning circle inside the harbour is of 570 m diameter and (-) 15.1 m depth. The port is equipped with well maintained deep draft berths up to (-) 15.1 m CD.

#### 4.1.2 Geo-Technical Investigation

Subsoil investigation in the Western Dock Area was carried out by NMP, through M/s. Fugro Geotech Ltd, during March to June 2006. Total of 37 boreholes (32 nos. on in the land and 5 numbers of marine borehole were drilled up to sound rock penetration. The soil profile on the Western side of the dock arm, near to the line of B-15 indicates variation of hard rock from –12.5m (BH – 28) to –27.6m. The shallow level of rock observed in Bore No.28 may cause some concern. The rock appears to be in a pinnacle shape. Founding of diaphragm wall and piles has to be taken deeper into the rock as per design requirements. As the final dredged level of the channel is proposed at –18.50m, some rock dredging will be involved. Even to provide a dredged depth of –15.1m initially, removal of rock pinnacle will be involved. The rock levels in boreholes Nos 30, 36 and 37 are –16.5m to -17.5 m respectively. The borehole taken in the middle of the Western Dock arm show rock



varying from -23m to -26m. In general soil profile of area consists of top layer of loose to medium dense sand, followed by dense to very dense sand, weathered rock before finally reaching the hard rock structure.

## 4.1.3 <u>Meteorological Parameters</u>

The following are the observations on the climate at NMPT Harbour:-

#### 4.1.3.1 Climate

The climate of Mangalore has seasonal variation on account of the alternating SW and NE. The different seasons are characterised as:

- ► The cool season (December to March), during which winds blow from NE and the weather is dry and little cold.
- ► The hot season (April to May). During this season winds are light and variable with sea breezes. Tropical cyclonic storms (cyclones) may cross the Arabian Sea during this season.
- ➤ SW monsoon or rainy season (June to September), when the wind over the sea blows is between SW and W, but mainly W to NW near coast.
- ▶ The interim period (October and November) is marked by light winds with land and sea breezes alternating. Occasional tropical cyclones occur in the Arabian Sea in this period.

#### 4.1.3.2 **Temperature**

The air temperature in Mangalore is generally on the high side throughout the year. The mean temperature in the hottest month, which generally occurs just before the onset of the SW monsoon, varies between 33°C to 37°C and lowest temperature recorded in a year has been 16.7°C.

#### 4.1.3.3 **Humidity**

Humidity is fairly high here during all seasons. There is a large variation as well - from damp conditions in early mornings in the wet season to the drier conditions in the afternoon in the dry season. Daily variation is least during the SW monsoon. The maximum relative humidity observed during monsoon period is 92% (August). The minimum relative humidity recorded during non-monsoon period is 60% (December and January).

#### 4.1.3.4 Visibility

Sometimes mist develops on the coast, after a calm and clear night, but it soon disperses after sunrise. In Mangalore, during the SW monsoon (from June to September) thick haze develops. The maximum number of foggy days in a year is only 3.

#### 4.1.3.5 **Wind**

The wind in the monsoon months (June, July and August) are predominantly from SW to W, with a maximum intensity of 20 to 61 kmph. The winds in the remaining months of the year are predominantly from NW with a maximum intensity of 20 to 61 kmph.

There is minor seasonal variation of the wind speed. Around Mangalore, 92% of all winds have speeds less than 19 kmph, and the average wind speed is 8.4 kmph.



#### 4.1.3.6 **Rainfall**

The average annual rainfall recorded here is 3467mm. The rainfall is concentrated during the SW monsoon (June, July, August and September), when is as much as 84% of the total annual rainfall precipitates. The rainfall is maximum in July (1103 mm); February is the driest month (with rainfall of about 2 mm).

The maximum rainfall recorded in a day (24 hour period) has been 270mm. The average number of rainy days in a year is 123.

#### *4.1.3.7* **Cyclones**

While the average frequency of cyclonic storms in the Arabian Sea is about one per year, there have been years when two or three such storms have occurred. There have also been years without any such storms. The maximum wind speed so far recorded in a cyclonic storm generally does not exceed 62 kmph (16.9m/s.), except once during 1965 when the maximum speed recorded was 97 kmph (26.9m/s.)

### 4.1.4 Oceanographic Data

#### 4.1.4.1 Tide

Table 4-1 shows the tidal levels recorded tidal levels with reference to Chart Datum. Chart Datum is taken to be the level of lowest astronomical tide.

Table 4-1 Recorded tidal levels at NMP with reference to CD

| Description               | Level wrt CD  |
|---------------------------|---------------|
| Highest High Water Spring | (+) 1.68 m CD |
| Mean higher High water    | (+) 1.48 m CD |
| Mean Lower High Water     | (+) 1.26 m CD |
| Mean Sea Level            | (+) 0.95 m CD |
| Mean Lower low water      | (+) 0.26 m CD |
| Lowest low water Spring   | (+) 0.03 m CD |

The Chart Datum at New Mangalore Port is 0.97 m below Mean Sea Level.

#### 4.1.4.2 Wave

The predominant direction of waves at open sea in the vicinity of Mangalore Port during the monsoon months of June, July and August is West and South-West whereas the predominant direction during the fair months is north-west and north. Analysis of the data collected from ships in and around Mangalore revealed that 0.4% of the waves have a height of 4.9 meters above. The wave heights in the non monsoon months are much less. Inside the harbour, generally clam conditions prevail throughout the year as is well protected from outside waves by Long Breakwater on either side of the Outer Approach Channel. The wave characteristics extracted from the National Data Buoy Programme by NIOT is as summarized below:-



Table 4-2 Wave Characteristics in Mangalore recorded by NIOT

| Period                 | Peak<br>Wave<br>Height (m) | Wave<br>Height<br>Range (m) | Mean<br>Period<br>(Sec) | Range | Direction |
|------------------------|----------------------------|-----------------------------|-------------------------|-------|-----------|
| Jan 2004 – May<br>2004 | 1.1                        | 0.5 – 1.0                   | 6.5                     | 3 – 6 | 240       |
| Oct – Dec 2004         | 1.05                       | 0.25 - 0.40                 | 8.5                     | 4 – 8 | 270       |
| Jan 2006               | 1.36                       | 0.4 – 0.8                   | 7.5                     | 3 – 6 | 240       |
| Jan 2007               | 0.94                       | 0.3 – 0.6                   | 6.6.                    | 4 – 6 | 260 - 300 |
| End May 2007           | 1.39                       | 0.6 – 1.2                   | 6.1                     | 4 – 6 | 210 – 250 |
| June 2007              | 4.84                       | 2 – 4                       | 8.53                    | 6 – 8 | 240 – 280 |
| July 2007              | 3.21                       | 1 – 3                       | 7.7                     | 5 – 7 | 240 – 280 |
| Aug 2007               | 2.98                       | 1 – 3                       | 7.82                    | 6 - 8 | 250 - 270 |

#### 4.1.4.3 Offshore Wave

The deep eater wave and wind data have been extracted from the NCEP (National Centre for Environmental Prediction), NOAA. The wave data recorded at 13.0° N and 74.0° E off NMP at approximately water depth of 110 m during Jan 2006 to Dec 2011 are as summarized below:-

- ▶ The dominant wave directions are west and south-westerly.
- ► H<sub>s</sub> of 5.0 m are also recorded.

### 4.1.4.4 Current

According to CWPRS report, the currents along the coast during south-west monsoon (from February to September) are in general towards south (from 160° to 200° bearing) with a velocity ranging from 0.11 m/s to 0.4 m/s. During the North-East monsoon (from November to January) the currents in general are towards north (from 0° to 40° and 320° to 360° bearing) with a velocity ranging from 0.11 m/s to 0.3 m/s. In the approach channel region covered by breakwater, the current direction lags 6° to 8° behind the coastal currents. The current in the lagoon area further lags behind the approach channel current by another 6°. The subsurface current on an average leads the surface current by 10° to 15°. The magnitude of the current outside the lagoon area during the monsoon season is about 1 to 1.5 knots has been experienced by pilots.

## 4.1.5 Existing Stackyard Allocation To Various Berths

The nos. in parenthesis is old berth numbers. E.g. the berth no. are represented as: New berth no. (Old berth no.)

**Berth No 1(1):** Berth No 1(1) is shallow having only 7 m draught and no extra stackyard is needed for this berth.



**Berth No 2(2):** General cargo is handled in Berth No 2(2) is having 10.5 m draught. As existing transit shed near this berth is capable of handling cargo, no extra stackyard is required.

**Berth No 3(3):** General cargo is handled in Berth No 3(3). The open area between two transit sheds near Berth No 2(2) & Berth No 4(4) of about 25000 m2 (about 6 acre) can be utilized as stackyard of berth no 3 to handle general cargo.

**Berth No 4(4):** General cargo, phosphoric acid and liquid ammonia is handled in Berth No 4(4). Existing transit shed near this berth is dedicated for this berth. Hence, no extra stackyard is required.

**Berth** No **5(5)**, **6(6)** & **7(7)**: Berth no 5(5) handles general cargo, palm oil, edible oil, cement where as Berth no 6(6) & 7(7) handles bulk cargo. As cargo directly goes to the designated back up area for these cargoes, no extra stackyard is required.

**Berth No 18(8):** This berth is designated for handling Iron ore for Kudremukh iron ore plant. As KIOCL directly handling iron ore and directly transports to the KIOCL plant, no extra stackyard is required.

Berth No 13(9), 14(10), 15(11), 16(12) & 17(13): All these berths are dedicated oil berths. POL products are transported through pipe line for MRPL and other oil firms. So, no extra stackyard is required. Berth No 8(14): This berth is deep draft multi-purpose handling general cargo. About 7 acres of land just behind Berth No 14 has been identified as storage yard of this berth.

Berth **No 9(15):** This berth is handling coal. About 16 acre of land behind proposed berth no 16 is already been made available to UPCL. So, no excess area is required.

Berth No 10(16), 11(17) & 12(18): While Berth No 10(16) and 11(17) are proposed to be constructed; Berth No 12(18) is under construction. Services of Berth No 12(18) will be made on PPP mode. As these berths will handle general cargo, all the cargo directly will go to the designated back up area for these cargoes and no extra stackyard is required. An area of about 51.89 acres (21 Ha) behind Berth no 9(15) has been identified for stackyard of berth no. 11(17), 12(18), if required. As and when these berths will operate and cargo will be handled, this identified area can be utilized for all three berths.



# 4.2 <u>SITE RECONNAISSANCE SURVEY</u>

## 4.2.1 General

A site reconnaissance survey of the port was conducted during the project kick-off meeting. The current developmental activities in the port, activities within the vicinity of the proposed project site have been identified under this study. Mangalore port already has berthing facilities for bulk cargo, cement, coal, LPG, crude, liquid ammonia, chemical, and oil berths.

Major land near NMP is covered by industrial area, human settlements, agricultural land and water bodies. Bajpe village has a petrol refinery by MRPL. Near MRPL refinery complex, there are other industries like a OMPL (ONGC Mangalore Petrochemicals Limited), HPCL and Petronet MHB Ltd. MCFL (Mangalore Chemicals and Fertilizers Ltd.) is in close vicinity of NMP. Mangalore city is the largest settlement in the vicinity of the project site. Other prominent settlements are Tholur, Baikampady, Bondel, Bajala, Surathkal and Ullal.

The present proposed site for development of Berth No. 12 is in front of present UPCL berth no. 9 where coal is being handled.



Figure 4-2 Location of Proposed Berth 12 for handling of coal in Western Dock Arm

### 4.2.2 Water Resources

The major source of water around the area is Gurupur River and Netravati River. Mangalore city and industrial area has municipal corporation water supply which lifts water



from pumping station near Thumbe Potable water pipelines with suitable manifolds to supply water to ships will be provided from existing port sources.

### 4.2.3 Resettlement Aspects

The proposed site lie within the boundary of notified NMP. Hence rehabilitation and resettlement issues are not applicable.

## 4.2.4 Environmental Aspects

According to MoEF guidelines, new industrial establishment should be minimum 25 km away from sensitive areas. There are no reserved forests, sanctuaries or national parks located within 25 km radius area. Similarly no major mangroves, breeding and nesting sites, corals are presents near the project site. Dredging and dredge disposal activities will be involved in the present development which will be considered for the environmental study.

# 4.3 **REVIEW OF LAND POLICY**

Land policy guidelines for Major Ports-2014 have been issued by the Ministry of Shipping and New Mangalore Port essentially is under the purview of the same. The purpose of the land policy is to enable major ports to allot land on lease/licence basis for various commercial ventures, which is expected to increase throughput of the ports. In this new land policy released, discretionary powers have been reduced and tender-cum-auction had been prescribed as the most preferred method of allotment.

A few highlights of the policy pertaining to PPP projects are as follows:

#### 1) Lease:

- a) Land should be leased only in accordance with the land use plan.
- b) Land can be leased up to a maximum cumulative period of 30 years by the port with the approval of the Board.
- c) Cases of fresh lease above thirty years and for a maximum period of up to 99 years shall be sent with the recommendation of the Port Trust Board to the Ministry for the consideration of the Empowered Committee comprising of Secretary (Shipping), AS&FA (Shipping), a representative of Department of Expenditure and a representative of the Planning Commission. Such cases will be finalized by the Ministry of Shipping.
- d) Land shall be leased through tender -cum —auction methodology through a competitive bidding process over the reserve price of such plots which shall be worked out by the Land Allotment Committee of the Port and approved by the Port Trust Board and by TAMP.
- e) In respect of PPP projects, the annual lease rent based on updated/latest market value with the approved rate of annual escalation would be indicated to the bidders at the bidding stage itself. With respect to land allotted for captive facilities, the lease rentals for the land allotted shall be recovered from the user as per the annual lease rental based on market value with the approved rate of annual



escalation. The lease rental as well as the annual escalation would be approved by the port trust.

According to Para 18(c) of land policy, to estimate the annual lease rental based on market price the Port Trust would make a proposal as outlined in para 18(a) to TAMP for fixing the market value of the land. According to paragraph 18(a), for fixing the market value of the land, land Allotment Committee may normally take into account the highest of the factors mentioned herein below to determine the latest market value of Port land. In case the land allotment committee is not choosing the highest factor, the reasons for the same have to be recorded in writing. The factors are as given below:-

- State Government's ready reckoner of land values in the area, if available for similar classification/ activities.
- ▶ Highest rate of actual relevant transactions registered in last three years in the Port's vicinity (the vicinity of the Port is to be decided by the respective Port Trust Boards), with an appropriate annual escalation rate to be approved by the Port Trust Board.
- Highest accepted tender-cum-auction rate of Port land for similar transactions, updated on the basis of the annual escalation rate approved by the Port Trust Board.
- Rate arrived at by an approved valuer appointed for the purpose by the Port.
- Any other relevant factor as may be identified by the Port.

The land allotment committee shall recommend the highest value obtained as per the guidelines given in para 18 (a) of land policy 2014 for major ports. Reserve price in terms of annual lease rent would be considered as a percentage of the latest market value determined in accordance with para 18 (a), and would in no case be less than 6 % of the latest market value, to be fixed by the Board of the Port Trust.

After the port trust makes a proposal to TAMP for fixing up the market value for the land as mentioned above, TAMP would notify the market value of the land after following due process of consultation with stake holders within 45 days of receipt of the proposal. The Port Trust Board will fix a rate of annual escalation which would not be less than 2%. The lease rental, as well as the rate of annual escalation would be approved by the Port Trust Board.

With regards to the present project and according to the recent land policy, the concessionaire (In case of PPP Project) shall be charged leased rental for the allocated land based on the updated/latest market value with approved rate of annual escalation. The port trust has to make a proposal to TAMP for fixing up the market value of the land created by filling up of the underutilized Bunder basin. The proposed site for Berth No. 19 is in the custom bound area New Mangalore Port. The procedure for fixing up of the lease rental is given in Para 16.2 (f), 18 (c), (a) of the latest "land policy-Guidelines for Major Ports- 2014" as elaborated above.



Upfront fees payment for use of land and water to New Mangalore Port as per land policy for major ports will be evaluated in close discussion with NMP. The concessionaire has to pay lease rental for the land as well as water area from the date of signing of concession agreement.

## 4.4 REVIEW OF COMPREHENSIVE LAND USE PLAN REPORT

#### 4.4.1 Summary of Land Use Plan

The new land policy guidelines for major ports-2014 envisaged that every major port shall have a land use plan covering all the land owned and/or managed by the port. In August 2014, RITES has submitted the land use plan report to NMPT. The land use plan prepared by RITES is based on 50.48 MTPA projected traffic as on 2019-20 by RITES.

RITES have assessed the present land use pattern and availability of land with NMPT as of Aug 2014. The port's marine territory stretches from 21 km off shore (equal to the 12 nautical miles in territorial zone of India) to a length of 12 km along the coast. The acquisition of land was commenced in 1962 and completed in 1971.

As per the RITES Report – Aug 2014, the total vacant area with the port is 151 Acre (55 Acre vacant land inside the port security wall and 96 acre outside the port security wall). The breakup of the land area available with NMPT is as given below:-

Table 4-3 Present land use pattern of NMPT

| Land Description                     | Available land<br>(Acre) |      | Vacant land<br>(Acre) |
|--------------------------------------|--------------------------|------|-----------------------|
| Total area available with port       | 2352                     |      | -                     |
| Total area of land                   | 1908                     |      | -                     |
| Total land inside port security wall |                          | 885  | 55                    |
| Land area                            |                          | 565  | -                     |
| Water lagoon area                    |                          | 320  | -                     |
| Area outside the compound wall       |                          | 1023 | 96                    |

(Source: Final report on Comprehensive land use plan for NMPT – Aug 2014 by RITES)

#### **EXISTING ZONE WISE LAND WISE PLAN**

Existing zone wise land use plan for NMPT has been studied. As per TAMP approved SOR, land available with NMPT has been divided into 5 zones: Commercial yards along with NH 66, Marshalling yard, Panambur village, Tannirbavi and Water Bodies. Both sides of NH 66 the area is demarcated as Commercial zone. Apart from the lagoon area, entire area inside customs boundary and near stadium and adjacent to the stadium, staff quarters are in Panambur village zone. The area of ware houses and railway tracks near Panambur Beach is designated as Marshalling yard zone and area in the Guest House area is designated as Tannirbavi zone.



#### STACK YARDS DETAILS

Stockyards allocated to various berths and stockyard requirement for future development activities of the Port as given in the RITES land use plan report – Aug 2014 are as briefed below:-

- At present 9 (15) berths are operational in NMPT consisting of general cargo, crude, LPG, POL berths
- ▶ Around 6 acres of available unused land has been identified by RITES for the additional stockyard for general cargo berth no 3 and about 7 acres of land just behind Berth No 14 has been identified as storage yard of this berth. No additional stockyard has been identified by RITES for rest of the 13 berths.
- ▶ RITES has identified the new berths development in the western dock arm and designated it as general cargo berth. RITES has enumerated that, as these berths will handle general cargo, all the cargo directly will go to the designated back up area for these cargoes and no extra stockyard is required. However, an area of about 7 acres behind Berth no 15 can be used for stockyard of all three berths, if required. As and when these berths will operate and cargo will be handled, this identified area can be utilized for all three berths.

NOTE: The entire berth numbers mentioned in this section (Summary of RITES land use plan Aug - 2014) is as per the old numbering of berths.

At present 9 (15) berths are operational in NMPT consisting of general cargo, crude, POL berths, etc.

#### REQUIREMENT OF TRUCK TERMINAL

RITES has identified requirement of additional truck parking area of 29500 sqm once the ban on mining will be lifted and / or traffic volume will increase. Presently the port has a truck parking area of 17,500 sq m. As several open storage areas have been identified near NH 66 towards Baikampady to store timber, granite etc, it is expected that truck movement will increase considerably for transportation of cargo.

#### PRESENT LEASED LAND STATUS

Presently NMPT has leased around 300 Acres of land on long term basis. NMPT has allotted around 2.55 acres of land on short term basis for stacking of granite, 0.8 acres for godown, 26 acre for stacking of timber and bentonite. Around 3.2 acres of land has been allocated to various parties on short term basis by traffic department on NMPT.

## PPP PROJECTS ON ANVIL

As per RITES report, under construction Berth No. 18 (New berth no 12) and proposed berth no. 16 (New Berth No. 10) and berth no. 17 (New Berth No. 11) are planned under PPP mode and will handle general cargo. RITES has proposed an area of about 7 acres behind Berth no 15 (New Berth No. 9) for stackyard for the cargo of all these three upcoming berths.

#### **REVENUE ACCRUED FROM LEASED LAND**



As data collected from Finance Division of Estate department of NMPT, revenue accrued by Estate Division during the year 2012 -2013 is around Rs. 39.37 Cr which was around Rs. 50 Cr during 2011 -12.

#### STORAGE AREA WITH THE PORT

As per RITES land use plan - Aug 2014, the port is having around 7.5 Acres of land consisting of transit sheds, over flow sheds, godowns and warehouses for storage of food grains and fertilizers.

#### LAND REQUIREMENT FOR PORT CONNECTIVITY INFRASTRUCTURE

RITES have not envisaged any additional requirement of land for construction of internal road for the movement of trucks.

NMPT has handled around 7 million tones of total traffic by rail in the year 2013 – 14 which is around 18 % of the total traffic handled by the port. NMPT has projected the traffic of around 50 MTPA for the year 2019-20. RITES have envisaged the need of expansion of rail in future to handle this traffic growth. As per the land use plan, it is required to dismantle some ware houses for the expansion of this rail infrastructure.

#### LAND REQUIREMENT FOR PORT CONNECTIVITY INFRASTRUCTURE

In June 2005, the Indian Ports Association (IPA) conducted a feasibility study for setting up a LNG terminal at New Mangalore Port. The intended capacity is set at 10 MTPA. Although the expected ship size of 65,000 DWT can easily enter and moor in the port, the feasibility study of 2005 showed the best location for the development of such terminal is outside the lagoon area, south of the existing southern breakwater. A solution would be to create a dedicated LNG dock to eliminate the risk of collision.

#### TRAFFIC PROJECTION AS CARRIED OUT BY RITES

Commodities wise traffic projection as per the RITES land use plan report – Aug 2014 is as summarized below:-

**Table 4-4 Commodity Wise Traffic Projections** 

|   | Commodity                   | Unit    | 2015-16 | 2020-21 | 2025-26 |
|---|-----------------------------|---------|---------|---------|---------|
| 1 | POL                         | MTPA    | 28.07   | 33.79   | 39.82   |
| 2 | Iron Ore                    | MTPA    | 2.22    | 2.84    | 3.62    |
| 3 | Coal                        | MTPA    | 8.21    | 11.64   | 13.24   |
| 4 | Fertilizers                 | MTPA    | 0.76    | 1.02    | 1.19    |
| 5 | Containers                  | MTPA    | 0.75    | 0.93    | 1.08    |
| 3 | Containers                  | Mil TEU | 0.075   | 0.14    | 0.19    |
| 6 | Iron / Steel Product        | MTPA    | 0.042   | 0.048   | 0.056   |
| 7 | Food Grains                 | MTPA    | 0.223   | 0.258   | 0.3     |
| 8 | Chemicals and Other Liquids | MTPA    | 0.886   | 0.0978  | 1.08    |



| 9 | Other Cargo | MTPA | 0.853 | 0.0989 | 1.14 |
|---|-------------|------|-------|--------|------|
|   | Total       |      | 42    | 52.5   | 61.5 |

#### LAND REQUIREMENT TO HANDLE FUTURE TRAFFIC

RITES have envisaged the following requirement of land to handle the future projected traffic at NMPT.

- ▶ About 107 acres of land on both sides of NH 66 has been identified as open storage area to handle projected general cargo.
- ▶ About 68 acres of land in western side of NH 66 has been identified as open and covered storage area to handle bulks such as timber, granite, as well as ware houses to handle fertilizers, grains, foods etc. About 15 acres of land has been identified behind berth no 2 for this purpose.
- Area utilized by SICAL and UPCL for iron ore and coal handling seems to be adequate at this moment but if rail based cargo increases in future then expansion of marshalling yard may be required. Then, existing open / covered storage area adjacent to the marshalling yard will be needed to be destroyed.
- ▶ Approximately 12.5 acres of land is kept between proposed Berth No 16 and 17. This area was used in handling iron ore fines. As this is banned at this moment, this area can be utilized for handling coal till Government lifts ban on iron ore or Construction of berth no 16 and 17 takes place. An area of approximately 23.5 acres has been identified for handling iron ore / coal just behind proposed berth no 17.
- ▶ The projected traffic for general cargo for the year 2019-20 is 2.2 MTPA. This volume of traffic can easily be handled in the locations presently used for handling general cargo of 5.06MTPA. Open storage area of about 107 acres has been identified on the both sides of NH 66. Timber, Bentonite and other dry bulk cargoes can be kept in these areas.
- For storage of iron ore, no extra area is required.
- Considering the projected traffic for POL products, an additional area of about 103 acres including about 25 acres of land presently outside customs boundary which is available near sea shore, is proposed to be utilized for POL products exclusively. These additional areas are identified near sea beach and Guest House area and are shown in the enclosed drawing.
- ▶ According to RITES, there will be no increase of handling coal throughput by the port. The area presently handling coal, i.e. behind the proposed berth no 17 and under construction berth no 18 is sufficient to handle coal for the projected traffic in 2019-20.
- ➤ The area allocated to SICAL can also be taken back, if required, for handling coal and iron ore, whenever ban on mining will be lifted.
- ➤ To handle future container traffic, RITES has estimated the area requirement of 2.7 acres and has proposed 6 acres of land requirement.

According to RITES, considering the projected traffic till 2019-20 of 50.48 MT, no additional land is recommended to acquire by the port as it has sufficient land for the storage and handling of cargo purpose.



## 4.4.2 <u>Deviations from land use plan and NMPT's proposal</u>

With regards to development of berth 11 and 12, Rites have earlier proposed to utilise the available land behind the proposed berth 11 and 12 for the storage of coal and iron ore. According to the RFP document, NMPT has initially intended to handle general cargo and containers at berth 12. However as per the discussions with NMPT and as outcome of TCE's traffic study, it is envisaged to handle coal at proposed berth 11 and 12 in the western dock arm and the area available behind berth 11 and 12 will be utilised for the storage of coal.



# 5 TRAFFIC ANALYSIS

TCE engaged M/s TATA Strategic Management Group to carry out traffic forecast and demand assessment for NMPT. It emerged that coal will be one of the major drivers of traffic growth at NMPT and the Western Dock Arm can be utilized to handle coal cargo exclusively. The brief summary of coal traffic forecast at NMPT is summarized below:

# 5.1 TRAFFIC FORECAST AT NEW MANGALORE PORT

New Mangalore port handles liquid and dry bulk cargo and container cargo at present. Important dry bulk commodities handled at the port that are being imported are: Coal, Iron ore fines, Limestone and Timber. Important dry bulk materials exported out of NMPT are: Iron Ore Pellets and Granite Stone. Iron ore fines used to be the major export item at the port but after ban on mining in Karnataka its export has gone down to zero.

Traffic for the NMPT port has been forecasted for next 30 years i.e. FY46 keeping in view long term investment in port infrastructure. Two scenarios have been considered in the forecast: Base case and Optimistic case. (Refer Annexure 1)

Base case forecast is considering the present infrastructure conditions and present challenges faced by the port users.

In the case of optimistic scenario, we have considered that few of the challenged faced by the users will be solved even if not all. It is expected that the road conditions in the Western Ghat region will improve and the New Mangalore region will be connected to Bangalore by a 4 lane highway. Train connectivity has also been an issue for NMPT. NMPT is connected with Bangalore via train but no regular train service for containers is available.

# **5.2 COAL**

India is the 3<sup>rd</sup> largest producer of coal in the world after China and USA, and the 4<sup>th</sup> largest energy consumer in the world after USA, China and Russia. 55% of these energy needs are met by coal.

Coal reserves in India are mainly in the Eastern and Central parts and are at the value of 301.6 billion tonnes as of 2014. Out of the proven coal reserves (126 billion tonnes), 85% is non-coking coal which is used for thermal power generation. Coking coal constitutes the reaming 15% which is mainly used for steel production. The cement and sugar industries also use coal.

Despite having sufficient coal reserves, in 2013-14 India was the 3<sup>rd</sup> largest importer of coal, importing 20% of its total requirement. This is mainly due to land acquisition and environmental issues. Further, coking coal is of poor quality and hence steel plants have to rely on imports.



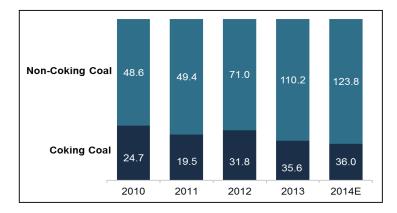


Figure 5-1 Coal Imports of India (MMT)

Karnataka has no known coal reserves and therefore its requirements for coal are imported through New Mangalore Port. Besides the power, steel and cement industries, sugar industries also make use of coal in Karnataka.

Coal imported via NMPT port is used by Power and Steel plant in the vicinity of NMPT. UPCL is one of the largest users of coal imported at NMPT. It has a 1,200 MW power plant and is expected to need to 4 MT of coal to run the facility. In future another 1,320 MW of capacity is planned for the facility. In the base case the addition in power capacity is expected to happen by FY31 and in optimistic it is expected to come up by FY26.

#### **Assumptions**

More than 12 GW of thermal power capacity is planned in the vicinity of NMPT. 3GW of the capacity is expected to come up by FY21 where as another 9 GW is expected to come up by FY31. It is assumed that only 20% of power plant coal requirement will be imported and 25% of domestic coal will use coastal route for transport. In the base case 15% of new coal transport is expected through NMPT port and in the optimistic case 40% is expected through NMPT. By FY16 additional traffic of coal for power plant through NMPT is expected to be 5.8 MMT and 15.4 MMT in base case and optimistic case.

Steel and sponge iron plants are other major users of coal in Karnataka. Majority of the coal demand of sponge iron plants is fulfilled by domestic coal. Coastal movement of coal is limited for sponge iron plants.

Steel plants in Karnataka are importing coal for their consumption. 80% of the coal is expected to be imported and 20% of indigenous coal is expected to come through coastal movement. In base case 15% of new coal demand of steel plant is expected to come through NMPT and in optimistic case it will be 40%.

In the base case coal traffic is expected to touch 10.8 MMT in FY21 and 25 MMT in FY46. In the base case coal traffic will be 12.5 MMT in FY21 and will touch 40 MMT in FY46 as shown in table below.



Table 5-1- Forecast of Coal Traffic at NMP (MT)

| Forecast of Coal Traffic (Million MT) |             |             |             |             |             |             |                                       |  |  |  |  |  |  |  |  |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------------|--|--|--|--|--|--|--|--|
| Base Case (MT)                        | FY16        | FY21        | FY26        | FY31        | FY36        | FY41        | FY46                                  |  |  |  |  |  |  |  |  |
| UPCL                                  | 4.0         | 4.0         | 4.0         | 8.4         | 8.4         | 8.4         | 8.4                                   |  |  |  |  |  |  |  |  |
| Other power plants                    | 0.0         | 0.6         | 1.6         | 2.6         | 3.5         | 4.6         | 5.8                                   |  |  |  |  |  |  |  |  |
| Present coal import                   | 5.5         | 5.5         | 5.5         | 5.5         | 5.5         | 5.5         | 5.5                                   |  |  |  |  |  |  |  |  |
| New Steel Plants                      | 0.0         | 0.7         | 1.4         | 2.2         | 3.4         | 5.0         | 6.8                                   |  |  |  |  |  |  |  |  |
| Total                                 | 9.5         | 10.8        | 12.5        | 18.7        | 20.8        | 23.5        | 26.5                                  |  |  |  |  |  |  |  |  |
| Fo                                    | recast of   | Coal Tr     | affic (Mil  | lion MT)    |             |             | Forecast of Coal Traffic (Million MT) |  |  |  |  |  |  |  |  |
|                                       |             |             |             |             |             |             |                                       |  |  |  |  |  |  |  |  |
| Optimistic case (MT)                  | FY16        | FY21        | FY26        | FY31        | FY36        | FY41        | FY46                                  |  |  |  |  |  |  |  |  |
| Optimistic case (MT) UPCL             | FY16<br>4.0 | FY21<br>4.0 | FY26<br>8.4 | FY31<br>8.4 | FY36<br>8.4 | FY41<br>8.4 | FY46<br>8.4                           |  |  |  |  |  |  |  |  |
| . ,                                   |             |             |             |             |             |             |                                       |  |  |  |  |  |  |  |  |
| UPCL                                  | 4.0         | 4.0         | 8.4         | 8.4         | 8.4         | 8.4         | 8.4                                   |  |  |  |  |  |  |  |  |
| UPCL Other power plants               | 4.0         | 4.0<br>1.6  | 8.4         | 8.4         | 8.4<br>9.4  | 8.4<br>12.3 | 8.4<br>15.4                           |  |  |  |  |  |  |  |  |

**Table 5-2 Forecast of Coal Traffic at NMPT** 

| Forecast of Coal Traffic (Million MT)    |      |      |      |      |      |      |      |  |
|--|------|------|------|------|------|------|------|--|
| Coal Traffic forecast                    | FY16 | FY21 | FY26 | FY31 | FY36 | FY41 | FY46 |  |
| For NMPT - Base Case                     | 9.5  | 10.8 | 12.5 | 18.7 | 20.8 | 23.5 | 26.5 |  |
| For NMPT - Optimistic Case               | 9.5  | 12.5 | 21.0 | 25.1 | 30.1 | 36.1 | 42.9 |  |
| For Existing Berth 9                     | 4.0  | 4.0  | 4.0  | 8.4  | 8.4  | 8.4  | 8.4  |  |
| For proposed berths –<br>Base Case       | 5.5  | 6.8  | 8.5  | 10.3 | 12.4 | 15.  | 18.  |  |
| For proposed berths -<br>Optimistic Case | 5.5  | 8.6  | 17.0 | 16.7 | 21.7 | 27.7 | 34.5 |  |

The detailed traffic study report is attached in the annexure for reference.



# 6 PROJECT FACILITY REQUIREMENT

# 6.1 **GENERAL**

To achieve maximum throughput of coal, it is required to identify various facilities required for marine side, and land side infrastructure. These requirements are berthing facilities, navigational facilities, and cargo handling facilities, storage facilities, evacuation facilities and others. The navigational need requires tranquillity in the harbour, depth in the manoeuvring area and channel etc. It is also required to assure optimal turnaround time for the vessel, minimal waiting time for berthing, and other operational requirements.

NMPT is studying the feasibility of deepening the inner harbour and it appears that dredging beyond the present depths (-) 15.4 - (-) 15.7 m CD is prohibitive in terms of cost, duration and effect on present operations owing to rock blasting involved. Hence the present channel depths are considered for the planning of facilities at the terminal.

Unloading of coal shall be carried out with the help of mechanical bulk unloaders. The coal shall then be conveyed by mechanised conveying system to the stockyard for onward evacuation. The area behind the proposed jetty can be envisaged to create storage area for imported coal. The evacuation of coal shall mainly take place through rail. Rapid Rail Loading System is envisaged for loading of rake. The unloaded coal can also be directly loaded in to wagons by Rapid Rail Loading System without diverting them to stockyard.

This chapter briefs about identification of various facilities required to handle the projected coal traffic for berth 12 efficiently and in environment friendly manner.

## 6.2 BERTH DIMENSION

The construction of berth 12 in the western dock arm is already under execution by NMPT. The dimensions of the berth are as given below:

Length of the berth 12 : 325 m Width of the berth : 25 m

Deck level : (+) 4.662 m CD

# 6.3 DESIGN VESSEL

One of the main factors that influence the layout and sizing of the port facilities and therefore the costs is the size of ships. The design ship is the largest ship that is likely to be handled at the berth. The size of the vessel influences the approach channel, berthing facility, mechanical handling equipments to be installed and therefore the cost of the project.

While deciding the design ship size for a particular commodity, it is essential to consider the development trends in the international maritime trade driven by the scale of economics in freight. The size of ships calling at the port will also have a bearing on the facilities available at the ports of origin/destination. The size of ships that would call at NMPT will be governed by the following aspects



- The trading route
- Availability of depth at channel and berth
- Present shipping trend
- Annual throughput at the terminal and parcel size
- Relative economics of capital cost vs. freight advantages

It is always preferable to look for a modern port with deep draft for handling of large parcel sizes and with modern mechanical handling equipments which will ensure faster turnaround of vessels. The present depth at NMPT approach channel and lagoon is maintained at (-) 15.4 m CD and (-) 15.1 m CD. It is expected to encounter rock in the lagoon area at (-) 15.4 m CD. Hence the depth in the lagoon and docks will be restricted to (-) 15.1 m CD i.e. the present maintained depth in the turning circle area.

Given the depth constraints in the inner harbour, vessel sizes up to and including 80,000 DWT have been considered for the purpose of berth occupancy and capacity calculations.

The assumption on percentage distribution of vessel sizes to be called at NMPT berth 12 and the corresponding unloading rate considered for calculation of berth occupancy is as given below:-

Table 6-1 Percentage of vessel call and unloading rate at jetty

| Parameters                | Dry Bulk Vessel Sizes (DWT) |       |       |       |  |  |  |
|---------------------------|-----------------------------|-------|-------|-------|--|--|--|
| Faranielers               | 50000                       | 60000 | 70000 | 80000 |  |  |  |
| Parcel Size, DWT          | 45000                       | 54000 | 63000 | 72000 |  |  |  |
| Percentage of vessel call | 20%                         | 30%   | 30%   | 20%   |  |  |  |
| Avg. Unloading rate - TPD | 35000                       | 35000 | 35000 | 35000 |  |  |  |

The average unloading rate of 35000 TPD has been considered for the unloading of the dry bulk vessels at the proposed berth 12 at NMPT. As per the assumption 100 % of the vessels expected to be called at berth 12 are Panamax vessels.

## 6.4 CAPACITY OF THE TERMINAL

## 6.4.1 Quay Capacity

Optimal quay capacity of the proposed berth 12 is as calculated as per TAMP guidelines. Optimal Quay Capacity can be calculated as given below:-

Optimal Quay Capacity =  $0.7 \times \{(S1/100) \times P1 + (S2/100) \times P2 + (S3/100) \times P3\} * 365$ 

S1 = Percentage Share of capacity of Capesize Vessel

P1 = Ship Day Output of capsize vessel

S2 = Percentage Share of capacity of Panamax Vessel



P2 = Ship Day Output of Panamax vessel

S3 = Percentage Share of capacity of Handymax Vessel
P3 = Ship Day Output of Handy and Handymax vessel

Considering 100 % of Panamax size vessel and average unloading rate of 35000 TPD, the Optimal Quay Capacity for the proposed berth 12 is found to be 8.94 MTPA.

### 6.4.2 Optimal Yard Capacity

As per TAMP, the optimal yard capacity can be calculated as 70% of maximum quantity of coal that could pass through the yard.

Optimal Yard Capacity =  $0.7 \times A \times (U/100) \times Q \times T$ 

A = Area of the yard in sq. m.

U = Percentage of yard area to be used for stacking
Q = Quantity that could be stacked per sq. m area

T = Turnover ratio of the plot in a year

The table below gives the calculation for optimal yard capacity as per TAMP guide lines parameters and actual site parameters.

Table 6-2 Optimal Yard capacity calculation

| Description  | TAMP   | <b>Present Case</b> |
|--|--------|---------------------|
| Area of the Yard in Ha                                   | 15.01  | 15.01               |
| Area utilised by Stockpile (Base Area for 6 stockpile)Ha | 10.50  | 9.24                |
| Quantity that could be stacked tons per sq. m area       | 3.0    | **6.44              |
| Total coal stacked (Tons)                                | 315000 | 595121              |
| Turnover ratio of the plot in an year                    | 12     | 15                  |
| Optimal Yard Capacity (MTPA)                             | 2.64   | 6.25                |

<sup>\*\*</sup>Note - Worked out considering 6 stockpiles (4nos 330m x 50m x 10m + 2 nos 330m x 40m x 10m)

Considering the need for the port to compete with private ports like Krishnapatnam which offer up to 2 months free storage at the yard, turnaround ratio of 15 has been considered. Quantity that could be stacked per sq. M area has been considered as 6.44 ton assuming the bigger size of stockpiles at the stockyard.

# 6.4.3 Terminal Capacity

The optimal terminal capacity is the lower value of the optimal quay capacity and optimal stack yard capacity. Hence the Optimal capacity of the terminal is found to be 6.25 MTPA.



# 6.5 NAVIGATIONAL AND OPERATIONAL REQUIREMENT

#### 6.5.1 Navigational Channel and Lagoon Area Depth

The existing outer approach channel has a bottom width of 245 m and a dredged depth of (-) 15.4 m below CD. Vessel up to 80,000 DWT can navigate at the present dredged level of (-) 15.4 m CD.

Also it is not proposed to further deepen the navigational channel and lagoon area for the purpose of development of berth 12

# 6.5.2 <u>Turning Circle</u>

The size of the manoeuvring area is a function of the length of the vessel. It is considered that the vessels will be assisted by the tugs. As per IS: 4651 (Part V) - 1980, the minimum diameter of the turning circle should be 1.7 to 2.0 times (1.7 for protected locations and 2.0 for exposed locations) the length of the largest vessel to be turned.

Existing diameter of the turning circle : 570 m LOA of 80000 DWT Dry Bulk Vessels : 240

Turning Circle required for 80000 DWT Vessels : 480 m (2 \* LOA)

The diameter of the present turning circle in the port area is 570 m and can accommodate manoeuvring of 80000 DWT dry bulk vessels.

## 6.5.3 Berthing Area

As discussed above, the berth has been designed to handle 1, 25,000 DWT vessels. Hence the berth can easily handle 80,000 DWT vessels as shown below.

The size of berthing area and the berth will depend upon the dimensions of the largest ship i.e. the design vessel dimension. According to IS 4651(Part V)-1980, the length of the dredged area in front of the berth for single should not be less than the length of design vessel plus 10 percent. The width of the berth-pocket of the berth structure should not be less than 1.15 times the beam of the design vessel plus an additional width of the port crafts or tugs.

Length of the berth available : 325 m LOA of 80000 DWT Dry Bulk Vessels : 240 m

Required length of berth : 280 m (1.15 \* LOA)

# 6.6 MECHANICAL HANDLING FACILITIES

#### 6.6.1 Grab Unloaders

A fully mechanised coal unloading system has been planned for the coal berth 12. The berth will have 2 numbers of mechanical rail mounted grab type ship unloaders connected with conveyor system of required capacity for stacking and subsequent evacuation by rail



or road. The unloading rate considered for discharge of Panamax size dry bulk vessels has been considered at 35000 TPD. The unloading pattern for a grab unloader gives an average unloading rate of 70 % of the peak unloading capacity. The density of Coking Coal/Thermal Coal is around 0.9 T/cum for volume calculation

The grab type unloaders are most efficient, reliable and operation is environment friendly. The details of the proposed unloaders are given in subsequent chapters. The figure below shows a grab type bulk unloader.



Figure 6-1 Grab type bulk unloader

The required average capacity of mechanical rail mounted grab unloaders is as calculated below:-

Table 6-3 Required capacity of grab unloaders for berth 12

| Description   | Rate  | Unit             |
|---|-------|------------------|
| Coal unloading rate at berth 12                                     | 35000 | TPD              |
| Working hour per day  | 20    | Hrs              |
| Average unloading rate per hour                                     | 1750  | TPH              |
| Numbers of crane to be provided                                     | 2     | Nos.             |
| Average unloading rate per crane                                    | 875   | TPH              |
| Considering accidental break down of crane, Unloading rate required | 1750  | TPH Per Unloader |
| Rated capacity provided   | 2000  | TPH Per Unloader |

Hence it is envisaged to provide two numbers of 2000 TPH rated capacity rail mounted grab type unloaders at berth 12 to achieve average unloading rate of 35000 TPD.



## 6.6.2 Jetty Conveyor

The coal berth will be provided with a stream of jetty conveyor with rated capacity of 4000 TPH running parallel on the full length of the jetty. The rated capacity of 4000 TPH will ensure that conveyor capacity will be sufficient to evacuate discharge vessels and evacuate coal from stockyard seamlessly. The conveyor system on jetty will be receiving coal discharged from the vessels and feed the yard conveyor system for stacking operation using stacker or to direct loading of coal from the jetty conveyor to the Rapid Rail Loading System (RRLS). Jetty Conveyor and associated connecting conveyors up to feeding point on to Yard Conveyors have been envisaged Double line ,(1 working & 1 standby) thus ensuring 100% redundancy in the Ship Evacuation System.

#### 6.6.3 Stacker

Four stackers with adequate capacity (rated capacity of 4000 TPH) and outreach of 40 m will be required for stacking of coal. The stackers should have adequate slew angle and luffing angle for the purpose of forming uniform stacks of 10 m height. Stackers will be rail mounted having rail gauge of 8 m covering the entire length of the stockyard.

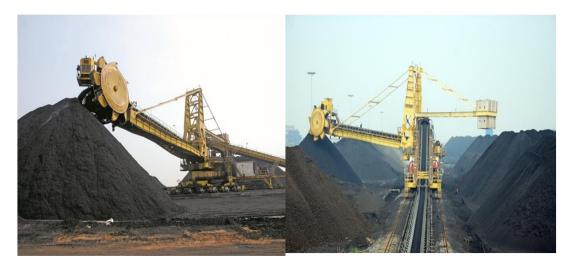
### 6.6.4 Yard Conveyor

The stockyard will be provided with a stream of trough belt yard conveyor with peak capacity of the conveyor 4000 TPH. The conveyor system at stockyard will be receiving coal from the jetty conveyor and for stacking at the stock pile using stacker.

### 6.6.5 Reclaimer

Three bucket wheel type reclaimers of adequate capacity (rated reclaiming capacity of 4000 TPH will be required at the stockyard. The reclaimer will reclaim the coal and feed the conveyor system for onwards evacuation through RRLS. The capacity of the reclaimer has been estimated considering 100 % evacuation of coal through RRLS.

The figure below shows indicative pictures of stacker and reclaimer which are used commonly in the stockyard.





Source: DPCL

#### Figure 6-2- stacker - reclaimer

# 6.7 EVACUATION REQUIREMENT

It is assumed that coal will be evacuated mainly by rail. For faster evacuation of coal, a Rapid rail loading system (RRLS) with peak capacity of 4000 TPH shall be installed adjacent to the existing UPCL RLS.

# 6.7.1 Rapid Rail Loading System (RRLS)

It is proposed to provide a RRLS system with average wagon loading capacity of 4000 TPH for faster loading of coal in to wagons and evacuation by rail.

Hence the loading capacity of the RRLS system to be provided will be in the range of 4000 TPH with a loading accuracy for each wagon  $\pm$  350 kg. The system will have to be designed to operate satisfactorily both for lump and fines interchangeable.

The RRLS will be fed from the reclaimer through connected conveyors. The wagon loading silos will be provided at the existing rail yard at NMPT. A separate conveyor line will be provided for direct loading of coal from the jetty conveyor to the Rapid Rail Loading System (RRLS).



Figure 6-3 Rapid Rail Loading System

### 6.7.2 Truck loading System

As per evacuation requirement, occasionally coal may be transported through trucks. Trucks will be loaded in combination with Pay Loaders and Excavators from Stockpile as per requirements. A truck loading station may be provided for small movement of coal to the nearby users by road.



# 6.7.3 Pay loaders at Stockyard

Pay loader of capacity 4.5 cum will be provided in the stockyard area. The in motion hopper system will be provided at the stockyard wherein the pay loaders will feed the hoppers for onwards evacuation by road or rail.

# 6.8 **STOCKYARD**

The area available for the storage is around 15.0 Ha. The stackyard capacity has been found to be 6.25 MTPA considering 15 as turnaround ratio and 62 % area utilisation for stockpile. The dimension of stockpiles is as given below:-

Table 6-4 Stockpile dimensions for stacking of coal

| Description                                | Value  | Unit            |
|--|--------|-----------------|
| Bottom Length of stockpile                 | 330    | m               |
| Bottom Width of stockpile (4 nos.)         | 50     | m               |
| Bottom Width of stockpile (2 nos.)         | 40     | m               |
| Height of Stockpile                        | 10     | m               |
| Angle of deposition of coal                | 37     | Degree          |
| Volume of the stackyard                    | 209415 | Cum             |
| No of stockpile                            | 6      |                 |
| Total coal stacked                         | 595121 | tons            |
| Total base area of 2 coal stockpile        | 92400  | Sq. M           |
| Qty that could be stacked per sq.m of area | 6.44   | Tons per sq. m. |
| Turn around ratio                          | 15     |                 |
| Area available for coal stackyard          | 15.01  | На              |

The stackyard will be provided with 6 numbers of stockpiles and will be equipped with 4 stacker and 3 reclaimer with rated capacity of 4000 TPH respectively. The stackyard will also be equipped with pay loader which for onwards evacuation of coal by trucks.

# 6.9 **SUPPORT FACILITIES**

## 6.9.1 Buildings

Electrical substation and control room buildings of suitable size will be provided.

## 6.9.2 <u>Terminal Internal roads</u>

The internal roads will be provided surrounding the stockpile. The proposed cross section of the internal roads will have four lane carriageways with a median of 2-3 m. The total



width required for the internal road ways surrounding the stockpiles is 20 and 10 m as shown in the layout. The total length of the road will be around 1800 m.

The area requirement for the purpose of providing internal roads in the stockpile area is as calculated below:-

Table 6-5 Area requirement for Internal roads

| Description                            | Value | Unit |
|--|-------|------|
| Total Area required for internal roads | 35960 | sqm  |

The total area required for internal roads, builds and utilities are as given below:-

Table 6-6 Area utilisation for coal stacking

| Description  | Value | Unit |
|--|-------|------|
| Total area available for stackyard                 | 15.01 | На   |
| % of area required for Utilities and internal road | 25    | %    |

### 6.9.3 Water Demand

The facilities for the water supply pump house and overhead storage tank facilities has to be provided by the BOT operator inside the terminal. Water demand shall include raw water for greenery and landscape, dust suppression and Potable water for terminal users, port users and canteen and ship supply. NMPT has to provide a source for the water.

### 6.9.4 Other Facilities

The following are the additional facilities required at the terminal.

- Navigational aids and communication
- Utilities and Services (Fire fighting facilities, pollution control facilities, power, water, lighting, etc.)

The following facilities should be required at land side.

- Side drains in the stacking area
- ▶ Utilities and Services (Fire fighting facilities, pollution control facilities, power, lighting, water etc.)
- Security system



# 7 TERMINAL LAYOUT

# 7.1 GENERAL

#### SCHEME: COAL UNLOADING, STACKING & RECLAIMING, TRANSPORTATION

The coal will be unloaded from Panamax size (maximum 80000 DWT size) dry bulk vessels at the proposed berth 12, transported to storage yard, reclaiming and further transportation of coal up to RRLS.

Two number of grab Bucket crane unloaders with peak capacity of 2000 TPH each, shall operate for the unloading of ship. Four Stackers and three Reclaimers have been envisaged for stacking the coal at the stockyard and to transport the coal from stockyard through yard conveyor up to Rapid Rail Loading System (RRLS). RRLS has been envisaged for Railway loading for subsequent dispatch of material to the respective users.

# 7.2 SYSTEM DETAILS

#### 7.2.1 Conveying System

This system covers the provisions of coal conveying, storing, reclaiming and loading at railway rakes through Rapid Loading System (RLS) from berth no. 12.

Imported coal will be handled by berth no. 12. Ship capacity has been envisaged tentatively 80000 DWT. Coal will be unloaded by 2 nos. of grab bucket crane from ship and will directly feed to jetty conveyor. Incoming coal further shall be stocked through jetty conveyor and belt conveyors and subsequently reclaimed by reclaimer and finally conveyed for railway loading through Rapid Loading System. Coal shall be distributed to the end users through Railways.

Also, Jetty Conveyor and associated connecting conveyors upto feeding point on to Yard Conveyors have been envisaged Double line (1 working & 1 standby) thus ensuring 100% redundancy in the Ship Evacuation System

# 7.2.2 <u>Design Criteria And Assumptions</u>

The design criteria are based on the following functional requirements and assumptions:

- a) Conveying system shall be designed for unloading the coal from berth 12
- **b)** Bulk density of coal 0.8 0.9 T/m<sup>3</sup>.
- c) The maximum lump size of the coal expected to be received shall be approximately (-) 50 mm.
- d) Conveyor system capacity has been designed for 4000/4400 TPH (rated/design).
- e) 6.25 MTPA Coal stockyard has been considered for berth 12.
- f) Rapid loading system of 4000 Tonne has been envisaged for Rail Loading.



# 7.2.3 System Capacity

Capacity of ship & vessel has been envisaged 80000 DWT. Conveyor capacity has been envisaged 4000 and 4400 TPH (rated/design).

Six (6) nos. of stockpiles for meeting 6.25 MTPA capacity have been envisaged.

### 7.2.4 System Description

The system description furnished below is to be read with reference to drawing of proposed arrangement showing conveying, storage, reclaiming and rail loading facilities from berth no. 12.

Jetty Conveyor and associated connecting conveyors up to feeding point on to Yard Conveyors have been envisaged Double line ,(1 working & 1 standby) thus ensuring 100% redundancy in the Ship Evacuation System

Coal of (-) 50 mm size lump size imported coal shall be received at berth by ship. From ship coal will be evacuated through 2 nos. of grab bucket crane. Grab bucket crane shall feed on jetty conveyor JC-1A/12 or JC-1B/12 through combination of hopper and vibrating feeder.

Jetty conveyor JC-1A/12 or JC-1B/12 will feed to Jetty conveyor JC-2A/12 or JC-2B/12 at junction house JNT-1/12 which will further feed to belt conveyor BC-1A/12 or BC-1B/12 at junction tower JNT-2/12.

BC-1A/12 or BC-1B/12 will either feed to yard conveyor YC-1/12 at junction house JNT-3/12 through flap gate and two way chute at junction tower or to yard conveyor YC-3/12 at junction house JNT-5/12 through flap gate and two way chute at junction tower or to yard conveyor YC-5/12 at junction house JNT-7/12 through flap gate and two way chute at junction tower or to yard conveyor YC-7/12 at junction house JNT-9/12 through flap gate and two way chute at junction tower or will feed to YC-2/12, YC-4/12, YC-6/12 at JNT-4/12, JNT-6/12, JNT-812 to belt conveyor BC-2/12 for direct evacuation.

Yard conveyor YC-1/12, YC-3/12, YC-5/12, and YC-7/12 will have unidirectional Stacker for stacking and YC-2/12, YC-4/12, YC-6/12 will have unidirectional reclaimer for reclaiming the incoming coal.

The Stacker with yard conveyor YC-1/12 will stack the coal on one side of conveyor with trapezoidal cross section as shown in flow diagram. Stockpiles would be provided with total storage capacity of imported coal of about 595121 tonne considering 0.9 T/m<sup>3</sup> bulk density of coal.

The bucket wheel on the boom conveyor of the reclaimer would reclaim the coal from both sides of stockyard and feed on to the yard conveyor YC-2/12 in the same direction for onward conveying.

During reclaiming operation the reclaimed coal from both sides of conveyor will be fed to the yard conveyor YC-2/12 by the boom conveyor of reclaimer and YC-2/12 conveyor will feed onto conveyor BC-2/12 at junction tower JNT-10/12 for onward conveying.



Coal received by conveyor BC-1A/12 or BC-1B/12 at junction tower JNT-5/12 will further feed either to yard conveyor YC-3/12 or conveyor YC-4/12 through flap gate and two way chute at junction tower JNT-6/12.

The Stacker with yard conveyor YC-3/12 will stack the coal on two sides of conveyor with trapezoidal cross section as shown in flow diagram.

The bucket wheel on the boom conveyor of the reclaimer would reclaim the coal from both sides of conveyor and feed on to the yard conveyor YC-4/12 in the same direction for onward conveying which will feed onto conveyor BC-2/12 at junction tower JNT-11/12 for onward conveying

Coal received by conveyor BC-1A/12 or BC-1B/12 at junction tower JNT-7/12 and JNT-9/12 will further feed either to yard conveyor YC-5/12 or conveyor YC-7/12 through flap gate and two way chute at junction tower

The Stacker with yard conveyor YC-5/12 & YC-7/12 will stack the coal on two sides and one side respectively of conveyor with trapezoidal cross section as shown in flow diagram.

The bucket wheel on the boom conveyor of the reclaimer would reclaim the coal from both sides of the conveyor and feed on to the yard conveyor YC-6/12 in the same direction for onward conveying which will feed onto conveyor BC-2/12 at junction tower JNT-12/12 for onward conveying

Conveyor BC-2/12 will feed coal to conveyor BC-3/12 at junction tower JNT-13/12. Then conveyor BC-3/12 will be fed to conveyor BC-4/12 at junction tower JNT-14/12.

At junction tower JNT-15/12, conveyor BC-4/12 will discharge coal to the conveyor BC-5/12 and which will discharge the material to BC-6/12 at JNT-16/12

Conveyor BC-6/12 will directly fed onto the rapid loading system which finally load coal into the railway wagons and dispatches at client's desired location.

#### 7.2.5 Salient Features Of The System

The following are the salient features of the conveying system

#### A. COAL TRANSPORT FACILITY

Imported coal (-) 50 mm shall be brought at New Mangalore Port through ship.

#### B. BELT CONVEYORS

The rated and design capacity of all belt conveyors would be 4000 and 4400 TPH. All conveyors would be provided with Nylon-Nylon belting with fire retardant (FR) grade covers of minimum 5 mm thickness at top and 3 mm thickness at bottom. The belt width has been envisaged as 2000 mm with a troughing angle of 35°. The belt speed would be 3.65 m/sec.

## C. CONVEYOR GALLERIES

All above-ground conveyors would be provided with enclosed galleries. Deck plate of 3.15 mm thickness should be provided throughout the conveyors length. Seal plates would be provided at road or rail way crossing or where the conveyor is crossing a building and would continue up to 5 m on both sides. Chequered plate shall be provided



at walkways. Hand railings would be provided on both sides of central walkway and outer side of side walkway.

The Gallery at entry to a building and exit from a building would be provided with covered galleries for a length of minimum 5 m to prevent rain water to go inside the building floors. The sides and top would be provided with colour coated GI sheet.

## D. <u>UNIDIRECTIONAL STACKER AND RECLAIMER</u>

Three (4) Nos. stackers and three (3) nos. reclaimers shall be provided for stacking and reclaiming of Coal. The rated stacking and reclaiming capacity would be 4000 TPH. The Coal would be stacked in 6 nos. of stockpile.

#### E. TRANSFER TOWERS

All transfer towers would be of structural steel with RCC floors. Side and Top would be provided with corrugated GI sheet covering. Adequate translucent sheeting would be provided for proper illumination inside the junction tower. All the openings would be covered with steel gratings and edges would be provided with hand railings.

#### F. BELT WEIGHER

Adequate number of electronic belt scales would be provided on conveyors at appropriate places to monitor the inflow of coal feed to the railway wagons.

### G. TRAMP IRON DETECTION AND REMOVAL

Tramp iron and other magnetic materials would be removed by means of and in-line magnetic separators provided on the head pulley of jetty conveyor. Metal detectors would be provided on conveyors at appropriate locations to detect non-magnetic metal pieces and heavy iron pieces that may be present in the coal being conveyed.

# H. <u>DUST CONTROL</u>

Dry Fog jet spray dust suppression system would be provided for junction towers. Plain Water type dust suppression system would be used for stockpile.

# I. COAL YARD DRAINAGE

Around the coal stock yard, drainage channels shall be constructed to take all the effluent from the coal stock yard (sprinkling water, rain/ leach water) which shall be collected at ultimately led to a coal pile run off pit. Collected effluent shall treated in a clarifier and the clarified water shall be led to guard pond.

#### J. POTABLE/SERVICE WATER

One number Potable/service water connection would be provided for each floor of Junction Towers at easily accessible locations.

# K. <u>SWITCHGEAR AND CONTROL ROOM VENTILATION AND AIR CONDITIONING</u>

Pressurized ventilation system would be provided to prevent ingress of dust in to MCC/switchgear room. The pressurized ventilation system is capable of pressurizing slightly above atmospheric pressure to prevent ingress of dust from outside.



Split type air conditioning system would be provided for air conditioning of the CHP control room.

#### L. FIRE DETECTION & PROTECTION

Fire hydrants would be provided at junction towers and along the overhead conveyors. Medium velocity water spray system would be provided along conveyor galleries. Necessary fire detection and alarm system have also been envisaged.

# M. CONTROLS

Operation of the complete conveying system would be monitored from the control room. The control and protection system would be microprocessor based with redundant CPU and colour monitor. Tele-metered integrated readings would be provided for accounting of coal transfer.

## 7.2.6 CONVEYOR DETAILS

| Conveyor<br>No.  | Type Of<br>Conveyor | Capacity TPH (Rated/Design) | Belt<br>Width<br>MM | Belt<br>Speed<br>M/Sec | Troughing<br>Angle | Length Of<br>Conveyor<br>(M) |
|------------------|---------------------|-----------------------------|---------------------|------------------------|--------------------|------------------------------|
| JC-1A &<br>1B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 335 & 335                    |
| JC-2A &<br>2B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 70 & 70                      |
| BC-1A &<br>1B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 350 & 350                    |
| YC-1/12          | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-2/12          | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-3/12          | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-4/12          | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-5/12A         | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-6/12          | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-7/12B         | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| BC-2/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 270                          |
| BC-3/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 453                          |
| BC-4/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 305                          |
| BC-5/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 232                          |
| BC-6/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 570                          |

## 7.2.7 EQUIPMENT SYSTEM DETAILS

| SI. no. | Major equipment/system | Quantity | Rated Capacity /<br>Features |
|---------|------------------------|----------|------------------------------|
|---------|------------------------|----------|------------------------------|



| 1.0 | Stacker                                   | 4   | 40000 TPH          |
|-----|---|-----|--------------------|
| 2.0 | Reclaimer                                 | 3   | 4000 TPH           |
| 3.0 | Grab bucket crane                         | 2   | 2000 TPH           |
| 4.0 | Rapid loading system                      | 2   | 4000 TPH           |
| 5.0 | Dust suppression/Dry fog dust suppression | Lot | As per requirement |
| 6.0 | Potable Water system                      | Lot | As per requirement |
| 7.0 | AC, Ventilation etc.                      | Lot | As per requirement |
| 8.0 | Fire detection and protection system      | Lot | As per requirement |

**Note:** BOQ of civil & structural for conveying system and junction towers has not been considered here.

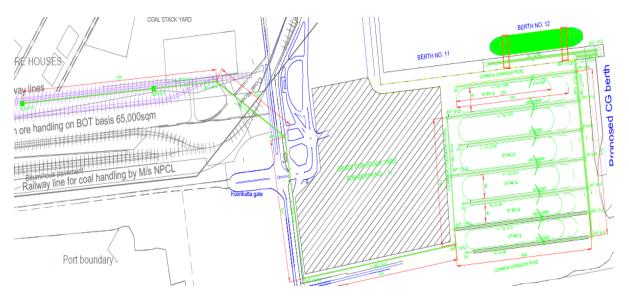


Figure 7-1 Coal Flow diagram for the proposed berth 12



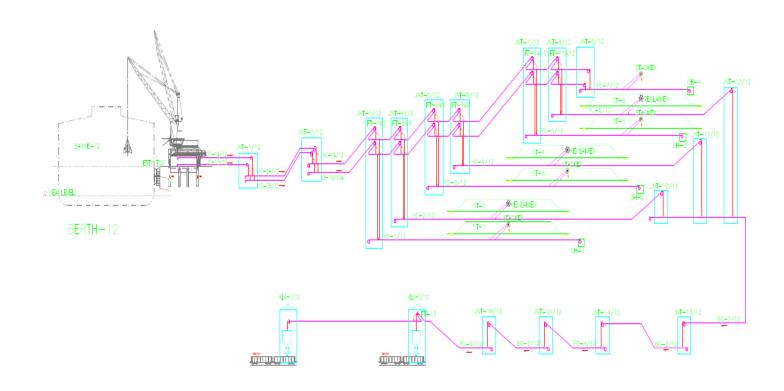


Figure 7-2 Terminal Layout – Proposed berth 12

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# 8 DREDGING

# 8.1 DREDGING AT APPROACH CHANNEL

It is assumed that 100 % of the vessels to be called at berth 12 of NMPT will be Panamax size (50,000 to 80,000 DWT). At the present scenario vessels up to 80000 DWT can navigate the channel and the lagoon without any additional requirement of dredging. However for vessels in the Capesize category i.e. 80000 DWT and above, the channel and the lagoon area has to be deepened.

NMPT has a dredged channel, about 7.5 km long. The entrance is protected by two breakwaters extending to a length of 770 m (from shoreline) on either side of the channel. The dredged channel has a bottom width of 245 m, and a dredged depth of 15.4 m below CD. The centre line of the channel is 270° from the north.

The depth requirement for the navigation of 80000 DWT vessels is as given below:-

Table 8-1 Design depth at outer approach channel

| Description                        | Depth<br>Requirement |
|------------------------------------|----------------------|
| Vessel Size                        | 80000 DWT            |
| Static draft of the vessel         | 14 m                 |
| Under Keel Clearance               | 10 %                 |
| Required Depth at Approach Channel | (-) 15.4 m CD        |

# 8.2 DREDGING IN LAGOON AND DOCK

For vessels with 80000 DWT capacities having draft of 14 m, the required depth of the pocket along side of the berth and at the lagoon area is as evaluated below.

Table 8-2 Design for Depth at berth pocket and lagoon

| Design of berth pocket Depth   | Depth Requirement |
|--------------------------------|-------------------|
| Vessel Size                    | 80000 DWT         |
| Static draft of the vessel     | 14 m              |
| Under Keel Clearance           | 8 %               |
| Required Depth at Berth Pocket | (-) 15.1 m CD     |

# 8.3 **Dredging quantity**

Based on the berth pocket design, the dredging quantity has been estimated. It is to be noted the dredging work in the western dock has to be carried out by NMPT. Upon completion of berth 12 construction, the soil in front of the berth has to be dredged up to (-) 15.1 m CD to accommodate vessel s up to 80000 DWT. The estimated dredging quantity is as given below:-



## Table 8-3 Dredging Quantity for Western dock for berth 12

| Western Dock Dredging for berth 12 | Dredging volume in front of berth 12 i.e. in berth pocket |  |
|------------------------------------|---|--|
| 80000DWT                           | 874000 cum  |  |

A separate study on dredging at NMPT is being carried out by NMPT. The above quantity estimate is based on secondary data. The dredging in the dock has to be carried out by NMPT. The quantity of rock dredging and soil dredging can only be estimated separately by conducting sub soil parameter investigation.

As mentioned in CWPRS Technical Report No. 4574, August 2008, the Radio Active Tracer (RAT) studies were conducted during October 2007 to January 200.8 Based on its results it was recommended to dispose the dredged material during the development of WDA at northerly region of approach channel at depth contours of about 24 m - 26 m that is 10.5 km from the shore line.



# 9 PRELIMINARY ENGINEERING

## 9.1 MECHANICAL HANDLING EQUIPMENTS

## 9.1.1 SHIP UNLOADER

As discussed in earlier sections, two number of rail mounted grab unloaders are proposed to be installed at berth 12 to unload coal.

Basic specification of grab unloaders to be installed at berth 12 at NMPT is as given below:-

Type of Unloaders : Rail Mounted Grad Bucket Type

Average unloading rate required : 35000 TPD

Number of unloaders : 2

Unloading rate required per Unloader : 17500 TPD Unloading rate to be provided per unloader : 35000 TPD

(Considering accidental

breakdown of one unloader)

Unloading rate to be provided per unloader : 35000 TPD Number of working hours per day : 20 Hrs Average Unloading rate (Per Hour) : 1750 TPH

Rated capacity of each unloader = 2000 TPH.

The rated capacity of each unloader should be around 2000 TPH such that even if one unloader fails the other unloader can compensate for the other.

Type of unloader : Grab type unloader (2 nos.)

Rated capacity : 2000 TPH
Rail span : 20 m
Max outreach : 42 m
Type of Bulk : Coal

Bulk Density : 0.9 t / m<sup>3</sup> (for volumetric

calculation)

1.1 t / m<sup>3</sup> (for weight calculation)

#### 9.1.2 CONVEYOR SYSTEM

Unidirectional type yard conveyor dedicated for Stacking & Reclaiming rated capacity of 4000 TPH. Individual conveyors for berth 12 have been envisaged for further transportation up to RRLS. Belt parameters shall be selected from table 1.3.

#### Table 9-1 Belt Conveyor

#### **Belt Selected:**

In view of the above, it may be recommended that belt conveyor system with belt width 2000 mm & 35 deg. troughing angles with a speed of 3.65 m/s can be used for coal transportation.



**Table 9-2 Description of Conveyor System** 

| Conveyor<br>No.  | Type Of<br>Conveyor | Capacity TPH (Rated/Design) | Belt<br>Width<br>MM | Belt<br>Speed<br>M/Sec | Troughing<br>Angle | Length Of<br>Conveyor<br>(M) |
|------------------|---------------------|-----------------------------|---------------------|------------------------|--------------------|------------------------------|
| JC-1A &<br>1B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 335 & 335                    |
| JC-2A &<br>2B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 70 & 70                      |
| BC-1A &<br>1B/12 | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 350 & 350                    |
| YC-1/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-2/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-3/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-4/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-5/12A         | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| YC-6/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 400                          |
| YC-7/12B         | Yard Conveyor       | 4000/4400                   | 2000                | 3.65                   | 35°                | 380                          |
| BC-2/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 270                          |
| BC-3/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 453                          |
| BC-4/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 305                          |
| BC-5/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 232                          |
| BC-6/12          | Troughed Belt       | 4000/4400                   | 2000                | 3.65                   | 35°                | 570                          |

## 9.1.3 STACKER AND RECLAIMER

**Table 9-3 Selection of Belt Conveyor** 

| Description           | Average capacity | Rated<br>Capacity |
|-----------------------|------------------|-------------------|
| Capacity of stacker   | 1750             | 4000 TPH          |
| Capacity of Reclaimer | 2000             | 4000 TPH          |

Four bucket wheel type stacker and three reclaimer with adequate capacity and outreach of 40 m will be required for stacking of coal. The stackers should have adequate slew angle and luffing angle for the purpose of forming uniform stacks of 10 m height. Stackers will be rail mounted having rail gauge of 8 m covering the entire length of the stackyard.

The reclaimer will reclaim the coal and feed the conveyor system for onwards evacuation through RRLS. The capacity of the reclaimer has been estimated considering 100 % evacuation of coal through RRLS.



## 9.1.4 JUNCTION HOUSES

Junction Houses (JHs) will be of RCC foundation on bored piles & steel superstructure of framed/braced design. Floors will be RCC or Steel chequered plate over structural steel beam. Translucent sheets will be provided on sides & roof for natural lighting. Side cladding will be permanent colour coated galvanized steel sheets. Adequate ventilation will be given using steel louvers/windows. Staircases / steel ladders of structural steel construction will be provided to access various floors. Roof will be of permanent colour coated galvanised steel 0.6 mm thick. Roof will be given adequate slope for drainage. Adequate ventilation will be given using steel louvers/windows. Wherever monorails are projecting outside for lifting of equipment, steel hinged doors will be provided. Grade slab will be of RCC. Intermediate floors will be supported on steel beams. Handrail will be provided around all big openings and kerb plates will be provided around all small openings. Staircases/ Steel Ladder of structural steel construction will be provided to access various floors. An RCC curb wall of 300 mm has been envisaged around the floor.

As per the layout prepared for the coal terminal, 16 numbers of junction house will be required to convey the coal from the unloaders to the stockyard and ultimately to the RRLS for loading of rakes.

## 9.2 **STORAGE FACILITIES**

## 9.2.1 STACKYARD

#### 9.2.1.1 Stockpile

Four numbers of stockpiles with length of 330 m each and width 50m and two number of stockpiles with length 330 m each and width 40 m shall be envisaged in the coal storage area for stacking.

Detail of stockpile as follows:-

Capacity of stockpile : 595121 ton

Number of stock pile : 6
Bottom length of each stockpile : 330 m

Bottom Width of the stockpile : 50 m( 4 nos.) and 40 m (2 nos)

Height of the stockpile : 10m (approximately)

Angle of deposition of coal : 37°

Four lane approach road of 20 m width, pavement and drain along with the periphery of the storage facility area shall be provided. Road shall be designed for mainly truck movement, pay loader movement and fire access during emergency. Branch road shall be provided wherever required. Dust suppression, Dust extraction for junction houses, service water, potable water and fire fighting system facility etc. utility services shall be arranged from a certain terminal points / sources provided by the NMPT authority wherever possible.

The concrete roads and side drains will be provided along the coal stacking area. The stacker and reclaimer will be provided with necessary pile or other foundations.



## 9.2.2 Stockyard Boundary Wall

To avoid intrusion of coal dust particle into surrounding human settlements, it is proposed to provide the stockyard with boundary wall of 10 m height. The boundary wall can be constructed of light steel sheet. The bottom part of the wall will be 4 m high brick structure and 6 m high of steel sheet will be mounted over it. The total length of the boundary wall has been envisaged to be around 630 m of length.



# 10 CARGO EVACUATION

## 10.1 EVACUATION OF COAL BY RAIL

It is assumed that almost all the coal material will be evacuated through rail. For faster evacuation of coal, a Rapid rail loading system (RRLS) with peak capacity of 4000 TPH shall be installed adjacent to the proposed adjacent to the existing UPCL RLS.

The RRLS shall be fed from the reclaimer through the connected conveyor. A full rake of 58 - 60 wagons, each 55 T capacity can evacuate 3300 T of coal. Total number of rakes to be loaded in a day to meet the capacity requirement has been as calculated below:-

Table 10-1 Number of rail movement for evacuation of coal

| Description                          |       | Unit |
|--------------------------------------|-------|------|
| Loading rate                         | 4000  | TPH  |
| Capacity of 1 full rake              | 3300  | Tons |
| Per day cargo evacuation requirement | 20000 | TPD  |
| Time taken to load one rake          | 0.75  | Hrs  |
| Transit time                         | 1.2   | Hrs  |
| Total Time                           | 1.95  | Hrs  |
| Number of rakes required             | 7     | Nos  |

The rail/wagon loading system shall be located adjacent to the existing rail marshalling yard at NMPT. The wagon loading system will be provided at about midway for the railway sliding. Around 1.80 km of new rail track has to be laid up to evacuate the coal from RRLS.

The capital cost towards the laying of 1.80 km of rail has been considered in calculating the total project cost.

## 10.2 EVACUATION OF COAL BY ROAD

As per evacuation requirement, occasionally coal may be transported through trucks. Trucks will be loaded in combination with Pay Loaders and Excavators from Stockpile as per requirements. Also, in case number of Truck Loading are more in a day & are frequently required due to non arrival of Railway Rakes in time, provision of a separate Truck Loading Station with Hopper & Clamp shell gates for Truck Loading facility shall be envisaged. A truck loading station can also be provided for small movement of coal to the nearby users by road. Pay loader of capacity 4.5 cum will be provided in the stockyard area for feeding into coal into the trucks.



## 10.3 RAPID RAIL LOADING SYSTEM

#### 10.3.1 Introduction

The loading capacity of the RRL system will be in the range from 4000 TPH with a loading accuracy for each wagon  $\pm$  350 kg. The system will have to be designed to operate satisfactorily both for lump and fines interchangeable.

## 10.3.2 Bulk material properties

The Rapid rail loading system is determined to handle coal at 4000 TPH. The coal unloaded shall be having the following characteristics.

The RRLS will be fed from the reclaimer through connected conveyors. The wagon loading silos will be provided at the existing rail yard at NMPT. A separate conveyor line will be provided for direct loading of coal from the jetty conveyor to the Rapid Rail Loading System (RRLS).

 Material handled
 Coal

 Coal Density (t/m³)
 0.90 t/m³ for Volume 1.1 t/m³ for Design

 Lumps
 (-) 100 mm

 Abrasiveness
 Moderate

 Moisture content
 ≤20%

Table 10-2 Property of coal to be handled

# 10.4 TRUCK LOADING STATION

In case of Coal required to be dispatched to off taker by Trucks, a separate Truck Loading Arrangement may be proposed if required. In such a case two numbers of Hoppers each of 60T with Sector Gate arrangement should be provided. Belt conveyor shall feed coal either on to belt conveyor through a two way chute with motorized flap gate. From belt conveyor coal will be delivered on to truck loading hoppers. As per the Capacity requirement by the off taker through Trucks, cycle time & numbers of Truck may be suitably decided during the operation of the plant.

Since the transportation by Trucks will be substantially less as compared to RLS, during Truck loading operation, reclaimer capacity shall be suitably reduced to match the Truck Loading operation.



# 11 UTILITIES

# 11.1 TERMINAL BUILDINGS

The stackyard will also accommodate various buildings, control room, substations etc. The general specifications for all the building works in the proposed terminal is as given below:-

- Minimum grade of concrete shall be M30 conforming to IS: 456-2000 for columns, foundation and superstructures unless otherwise specified
- ➤ The reinforcement shall be high strength deformed bars of grade Fe 415 conforming to IS: 1786 2008
- All super structure shall conforming to IS: 226/IS: 2062 Grade A

# 11.2 POWER SUPPLY

The total indicative Power requirement (maximum demand) for the mechanical coal handling system has been envisaged to be around 11.65 MW.

Table 11.1 Electrical Load List for Mechanical Handing System

| SI.<br>no. | Description  | Power requirement in kW |
|------------|--|-------------------------|
| 1.         | Belt conveyors, Grab unloader, Stacker Reclaimer, RRLS Equipment & accessories | 10900                   |
| 2.         | DE/DS/Utility Services   | 300                     |
| 3.         | Gallery Lighting, Yard lighting etc  | 250                     |
| 4.         | Misc provision for Administration, staff Room & other emergency requirements   | 200                     |
| 5.         | Total requirement  | 11650 (approx.)         |

To operate the dry bulk terminal, power shall be drawn from KPICL or any other licensed power distributer from their nearest sub-station.

The total power requirement has been carried out considering mechanical handling equipments for coal unloading terminal, stockyard, Belt conveyors, RRLS for Coal terminal, all utilities services, Conveyor gallery lightening, yard lightning, shed lightening, all Administration, staff Room & other emergency requirements.

#### 11.3 WATER SUPPLY SYSTEM

#### 11.3.1 **General**

The potable water will be required for people working at jetty and facilities on landside. It is presumed that tapping for drinking water is available near the facility on land and piping



and pumping and minor storage will suffice the requirement. The operator has to avail the water supply by his own arrangement and will have to incur the cost towards same.

#### 11.3.2 Storm Water Drainage

The storm water drainage on jetty will be done by providing necessary drains. The sizing of drains will be based on the rainfall data available and return period not less than 10 years. It is required to provide an efficient storm runoff and disposal system in the terminal area. Storm water drainage shall be designed with the following basic consideration:

- ► The drainage system shall be separate system to carry only storm runoff of the stackyard and jetty area.
- Storm run-off from the stackyard will be collected in catch pits. Such catch pits will be connected with buried pipe conduit for conveyance and discharge into harbour basin through number of out-fall;
- ► The drainage of jetty area is limited to some drainage spouts discharging directly to the harbour
- Conveyance of flow will be through gravity only.
- System design will be based on the Manual on "Sewerage and Sewage Treatment" -Central Public Health and Environmental Engineering Organization (CPHEEO), Govt. of India and IRC: SP-50, Guidelines on Urban Drainage, 1999 published by Indian Roads Congress,
- ► A maximum and minimum velocity through the conduit shall be 2.50 m/sec and 0.6 m/sec respectively (as per CPHEEO manual)
- ► Minimum diameter of the conduit : 150mm (as per CPHEEO manual)
- Estimation of Run-off:

Rational Formula, Q = 10 CIA

Q = Runoff in m<sup>3</sup>/hr

C = Coefficient of runoff = 0.90

(as per CPHEEO Manual)

I = Intensity of rainfall in mm/hr = 120mm/hr

A = Area of drainage in hectares.

- Minimum cushion on top of pipes : 0.9 m
- All pipes shall be RCC NP3 except below the road. Pipe shall be of NP4 type below road.

#### 11.3.3 Fire Fighting System

The requirement of water for fire fighting will be catered by use of sea water, if possible. Otherwise Port Authorities will provide same. Any separate storage required for this is not considered in this report.

Fire protection in Ports should consist of the following

- ► Fire Protection
- ► Fire Alarms
- ► Fire-Fighting Equipments
- ▶ Means of escape in case of fire



All sources of ignition should be highly controlled. Appropriate uses of Fire Fighting equipments & agents like water, foam, carbon dioxide & powder are commonly used.

#### **FIRE PROTECTION SYSTEM**

This para discusses the requirements of fire protection system such as fire water pumping system, hydrant system, portable extinguishers, etc. and describes the proposed plant and equipment installation for meeting the requirements.

#### FIRE WATER PUMPING SYSTEM

Pumping capacity shall be selected considering the no. of equivalent hydrant valves, and spray system throughout the area to be protected. Hydrant spacing shall be as per TAC guideline and shall not be more than 45m considering ordinary hazard area. Sea water will be used for fire protection and service water will be used for flushing the system.

The pump head shall be calculated considering the pressure at hydraulically farthest point is 5.5 kg/cm2 (g). In any case pump head shall not be less than 88mWc.

Pump shall have adequate redundancy and shall be at least one diesel engine driven standby pump for each type. At least one working and one standby motor driven jockey pump shall be considered for pressurised the entire network. Jockey pump shall be of 3% to 5% of aggregate capacity as per TAC norm and the head of jockey pump shall not be less than 95 mWc.

All electrics and instruments as required to trouble free run the system throughout the life of the plant shall have to be considered.

#### **HYDRANT AND MONITOR SYSTEM**

The hydrant and water monitor system shall cover the unloading area, jetty area, pipe conveyor corridors and coal stock pile area. Hydrant system shall be designed as per TAC guideline. The hydrant network shall be hydraulically connected to existing hydrant network. TAC guideline shall be followed for hydrant spacing. Water monitors shall be provided in strategic locations and the pressure required at the furthest water monitor point shall not be less than 5.5 kg/cm2(g).

The hydrant network shall be isolated by isolation valves for better maintenance.

The total hydrant pipe network shall be laid over ground on the pedestal and in case of road crossing the hydrant ring main shall be taken underground with proper protection. Wrapping and coating material shall meet the requirement of AWWA 203.

The total thickness of wrapping coating material shall not be less than 4mm.

For road and rail crossing the hydrant pipe shall be inside the Hume pipe of proper pressure rating (NP3 or better) or RCC trench/ culvert may be prepared to protect the dynamic / static load of vehicle / moving equipments.

The hydrant pipe material shall be selected considering the water quality and the weathering effect at the area covered.

## PORTABLE FIRE EXTINGUISHERS

The portable fire extinguishers shall be selected according to the type of fire that may be encountered. In this system, the following classes of fire are envisaged:



Class A: Fire in ordinary combustibles such as wood, coal dust, vegetable, fibre, paper and the like

Class B: Fires in flammable liquids, paints, grease, solvents and the like.

Class C: Fires in Electrical Equipment

The selection of number of extinguishers for each type shall basically follow the guidelines laid down in Cl. No. 4.0 of the latest edition of the Fire Protection Manual Published by TAC, Part I and IS 2190.

## 11.3.4 <u>Dust Suppression System</u>

Jet type dust suppression system with plain water shall be provided for all the transfer points and feeders in jetty area and plain water type dust suppression system shall be provided for stackyard. The dust suppression system shall comprise of all the accessories like the tanks, pumps etc. The pumping capacity and reservoir capacity shall be as follows:

| Pumping Capacity   | 75 cum/hour |
|--------------------|-------------|
| Head               | 80M         |
| Reservoir capacity | 450 cum     |

#### 11.3.5 Effluent Treatment Plant

A settling pond has to be provided to suitably treat the coal pile run-off water before discharge. The treatment plant will be of recycling type where the treated water will be again used for dust suppression. The detention time and storage capacity shall be as follows:

| ETP capacity              | 450 cum   |
|---------------------------|-----------|
| Detention time            | 24 hours  |
| Clear water tank capacity | 450 cum   |
| Pump capacity             | 75 cum/hr |
| Head                      | 80M       |

## 11.3.6 Stacker and Reclaimer Foundations

Stacker and Reclaimer operate on tracks on which it moves, for the stacking and reclaiming operation of stacks. For trouble free operations, the track needs to be in the same level throughout. The stacker and reclaimer tracks shall be supported on R.C.C sleepers laid on ballast embankment. Sleepers shall be connected to prevent lateral movement of rail beams relative to one another. The stacker reclaimer foundation shall be designed for a wheel load of 50 T with a wheel spacing of 0.8 M.



# 12 **ENVIRONMENTAL ASPECTS**

Environmental clearance was already obtained for Western Dock Arm by the Port. Vide MoEF Letter No.F.No. 11 - 2/2010- IA.III, Dated 19.09.2011. The clearance accorded for berth no. 12(18) was to develop it as container terminal with a quay length of 300 m However, the present proposal is for berth 12 to be developed for handling coal. Hence it is required to make necessary representations to MoEF for change in cargo to be handled at berth no. 12.

The Environmental clearance obtained for berth no. 12 (18) by the Port. Vide MoEF Letter No.F.No. 11 - 2/2010- IA.III, Dated 19.09.2011 has been attached as the Annexure 2. Normally the following parameters are required to be monitored as part of Environment Management Plan for development of coal terminal.

**Table 12.1 Environmental Monitoring Plan during Construction Phase** 

| Sr.<br>No | Potential<br>Impact | Action to be followed   | Parameters for<br>Monitoring   | Frequency of Monitoring   |
|-----------|---------------------|---|--|---|
| 140       | •                   | All equipments will be operated within specified design parameters for pollution control.             | Random checks of equipment logs/manuals  | Fortnightly   |
|           |                     | Minimization of Vehicle trips to the extent possible  | Vehicle logs   | Fortnightly during site clearance & construction activities                           |
| 1         | 1 Air Emissions     | Regular ambient air quality monitoring within the premises of the proposed unit.                      | The ambient air quality will conform to the standards for SPM, RPM (PM10, PM2.5),SO <sub>2</sub> , NOx, and CO | As per CPCB/<br>SPCB<br>requirement or on<br>monthly basis<br>whichever is<br>earlier |
|           |                     | Maintenance of DG set emissions to meet prescribed standards of CPCB                                  | Gaseous emissions (SO <sub>2</sub> , HC, CO, NOx)  | Monthly emission monitoring   |
|           |                     | Onsite inventory of all noise generating machinery. Equipment to be maintained in good working order. | Equipment logs, noise reading  | Fortnightly during construction activities  |
|           |                     | Minimize night time working   | Working hour records   | As per CPCB/SPCB requirement  |
| 2         | Noise               | Regular Monitoring of vehicular noise   | Maintenance of records of vehicles   | As per CPCB/SPCB requirement  |
|           |                     | Ambient Noise to be monitored within the plant premises.  | Spot Noise and Leq levels recording  | As per CPCB/SPCB requirement or on quarterly basis whichever is earlier               |
| 3         | Wastewater          | No untreated effluent to be   | No discharge hoses   | As per  |



| Sr.<br>No | Potential<br>Impact                       | Action to be followed  | Parameters for<br>Monitoring   | Frequency of<br>Monitoring                       |
|-----------|---|--|--|--|
|           | Discharge                                 | discharged to the surface water/ groundwater or soil.  | shall be in vicinity of watercourses.  | CPCB/SPCB requirement                            |
| 4         | Soil Erosion                              | Protect topsoil stockpile where possible at edge of Site.  | Effective cover in place.  | As per CPCB/SPCB requirement                     |
| 5         | Drainage and effluent<br>Management       | Ensure effective operation of drainage system and specific design measures  The design to incorporate existing drainage pattern and avoid disturbing the same.   | Visual inspection of drainage and records thereof  | Fortnightly during construction activities       |
| 6         | Waste<br>Management                       | Implement waste management plan that identifies and characterizes every waste arising associated with proposed activities and which identifies the procedures for collection, handling & disposal of each waste arising. | Comprehensive Waste Management Plan should be in place and available for onsite inspection. Compliance with MSW Rules, 2000 and Hazardous Wastes (Management and Handling Rules), 2003 | Fortnightly check during construction activities |
| 7         | Health                                    | Employees and labour health check ups  | All relevant parameters including HIV  | Fortnightly check<br>Ups                         |
| 9         | Environmental<br>Management<br>Cell/ Unit | The Environmental Management Cell/Unit to ensure implementation and monitoring of environmental safeguards.  | Responsibilities and roles will be decided before the commencement of work.  | Fortnightly check during construction phase      |

**Table 12.2 Environmental Monitoring Plan during Operation Phase** 

| Sr. No | Potential<br>Impact | Action to be followed  | Parameters for<br>Monitoring  | Frequency of<br>Monitoring   |
|--------|---------------------|--|---|--|
|        |                     | Monitoring of Stack emissions from DG set  | Gaseous emissions (SO <sub>2</sub> , HC, CO, NO <sub>x</sub> )  | Monthly during operation phase   |
| 1      | Air<br>Emissions    | Ambient air quality within the project premises and nearby habitations to be monitored.  Minimize emissions from vehicles by use of fuel efficient vehicles and well maintained vehicles having PUC certificate. | Gaseous emissions (SO2, CO, & NOx) AND Particulate emissions RPM (PM10 & PM2.5),  Vehicle logs to be maintained | As per CPCB/<br>SPCB requirement<br>or on Monthly<br>basis whichever is<br>earlier |
|        |                     | Vehicle trips to be minimized to   | Vehicle logs  | As per CPCB/   |



| Sr. No | Potential<br>Impact                                     | Action to be followed  | Parameters for Monitoring   | Frequency of Monitoring  |
|--------|---|--|---|--|
|        | •   | the maximum extent possible  |   | SPCB requirement   |
|        |   | Measuring onsite meteorological data   | Wind speed, direction, temp., relative humidity and rainfall and solar insulation     | Continuous monitoring using on-line weather station during operation phase |
| 2      | Noise   | Regular monitoring of Noise generated from operation of equipments.  Noise generated from operation of DG set to be monitored DG sets to generate less than 75 dB(A) Leq at 1-m from the | Spot Noise Level recording; Leq (night), Leq (day), Leq (dn)                          | Once in three months during operation phase                                |
|        |   | DG sets are to be provided with suitable acoustic enclosures   | Maintain records of   | Monthly during   |
|        |   | Generation of vehicular noise  | vehicles  | operation phase  |
|        |   | No discharge of untreated effluent to any surface water body /, groundwater or soil.   | Regular inspection  | Monthly during operation phase   |
| 3      | Wastewate<br>r<br>Discharge                             | Protect surface water and groundwater resources from contamination by waste water  | Discharge norms for effluents to be maintained.                                       | Monthly during operation phase   |
|        |   | Compliance of wastewater discharge to standards  | pH, TSS, TDS, BOD, COD & Temperature  | Once in a month during operational phase                                   |
| 4      | Drainage<br>and<br>effluent<br>Manageme<br>nt           | Ensure effective working of drainage system and specific design measures   | Visual inspection of drainage and records thereof                                     | As per CPCB/<br>SPCB requirement   |
| 5      | Water<br>Quality<br>and Water<br>Levels                 | Monitoring surface water quality, groundwater quality around ash pond and ground water levels  | Comprehensive<br>monitoring as per IS<br>10500<br>Groundwater level in<br>meters bgl. | Monthly during operation phase   |
|        |   | Marine water quality downstream to discharge   | As per IS `10500  | Once in a month  |
| 6      | Emergency<br>preparedne<br>ss, such as<br>fire fighting | Fire protection and safety measures to take care of fire and explosion hazards, Hazards to be assessed and necessary steps will be taken for their prevention.                           | Mock drill records, on site emergency plan, evacuation plan                           | Monthly during operation phase   |
| 7      | Maintenanc<br>e of flora                                | Vegetation, greenbelt / green cover development  | No. of plants, species  | Monthly during operation phase   |



| Sr. No | Potential<br>Impact     | Action to be followed   | Parameters for<br>Monitoring   | Frequency of<br>Monitoring   |
|--------|-------------------------|---|--|--|
|        | and fauna               |   |  |  |
| 8      | Waste<br>Manageme<br>nt | Appropriate waste management plan that identifies and characterizes every waste arising associated with proposed activities and which identifies the procedures for collection, handling & disposal of each waste arising shall be implemented. | Solid waste generation, treatment and disposal records to be maintained. | As per CPCB/<br>SPCB requirement<br>or Monthly during<br>operation phase |
| 9      | Soil quality            | Maintenance of soil quality   | Physico-chemical parameters and heavy metals.                            | Monthly monitoring at ash handling area                                  |



# 13 RISK MANAGEMENT

## 13.1 RISKS INHERENT IN THE PRESENT PROJECT

#### 13.1.1 Traffic Risk

#### Impact of Existing / Upcoming Port on Traffic Forecast

TCE has considered the impact of neighbouring existing / upcoming ports and their augmentation plans while carrying out the traffic projection for NMPT. Further, sensitivity analysis has been carried out varying the traffic projection for NMPT by  $(\pm)$  20% and the impact on Project IRR and Equity IRR has been assessed. The traffic sensitivity analysis has been discussed in the financial analysis chapter. Competition from ports like Krishnapatnam will determine the realization of coal cargo at NMPT and to that extent, suitable assumptions in traffic forecast have been incorporated

#### Impact of Govt. Policy

The state government's ban on the export of iron ore has had an adverse effect on the New Mangalore Port Trust (NMPT). Further, the present government is inclined against export of iron ore fines and is encouraging consumption of iron ore in domestic steel industry. In view of these, the forecast for export of iron ore fines has been capped at the present iron ore handling capacity of the port (8 MTPA).

#### Impact of Connecting Infrastructure Project

The planning of the proposed cargo terminal has been carried out considering mainly evacuation by Rail. The terminal will require a Rapid Rail Loading System (RRLS) for loading of coal in to wagons for onward evacuation. Adequate area is available for rail siding and RRLS in the NMPT rail yard

The alignment of the rail line is also required to be studied. Also as per evacuation requirement, evacuation by road through truck loading system may be provided.

## 13.1.2 Technical Risks

#### **Subsoil Strata**

Subsoil investigation in the Western Dock Area was carried out by NMP, through M/s. Fugro Geotech Ltd, during March to June 2006. Total of 37 boreholes (32 nos. on in the land and 5 numbers of marine borehole were drilled up to sound rock penetration. The soil profile on the Western side of the dock arm, near to the line of B-15(9) indicates variation of hard rock from –12.5m (BH – 28) to –27.6m. The shallow level of rock observed in Bore No.28 may cause some concern. The rock appears to be in a pinnacle shape. To provide a dredged depth of –15.1m initially, removal of rock pinnacle may be involved. The rock levels in boreholes Nos 30, 36 and 37 are –16.5m to -17.5 m respectively. The borehole takes in the middle of the Western Dock arm show rock varying from –23m to –26m. In general soil profile of area consists of top layer of loose to medium dense sand, followed by dense to very dense sand, weathered rock before finally reaching the hard rock structure.



#### **Dredging Quantity**

The project involves capital dredging in front of the berth. The quantity of dredging has been estimated considering soil dredging up to (-) 15.1 m CD.

#### **Adequacy of Existing Navigational Facilities**

NMPT has a maintained navigation channel with (-) 15.4 m CD water depth and lagoon with (-) 15.1 m CD depth. The present navigation channel and lagoon can accommodate all the vessels that are expected to be called at berth 12. The berth pocket will be dredged up to (-) 15.1 m CD to accommodate vessels up to 80000 TEU.

Ship manoeuvring study and channel density simulation is suggested to assess the manoeuvrability of vessel at the approach channel and in the lagoon. The width of the channel / manoeuvring lane must be wide enough to cater the future additional vessel and design vessel with safety.

#### **Land Acquisition**

As the proposed project is within the boundary of the operational port, there will be no requirement of land acquisition involved with this project. No rehabilitation and resettlement issues are expected considering development is within the port premises. The risk of project delays due to these issues does not arise.

#### 13.1.3 Operational Risks

#### **Ship Collision**

The entrance width of western dock arm is about 250 m wide which is sufficient for ships sizes upto 80000 DWT to berth at berth no. 12 without collision of ships at berth no 9.

#### **Equipment Breakdown**

The coal berth will be equipped with two number of grab unloaders. Hence adequate redundancy has been provided at berth in terms of grab type unloaders to eliminate the down time expected due to equipments breakdown that could affect the cargo handling operation.

#### System Failure

Adequate redundancy has been provided at the terminal to maintain a continuous cargo handling operation and flow and to avoid performance decline of the system due to any unforeseen system break down. All the critical components of the system have been provided with increased capacity / additional stand by machines with an intention of increasing reliability of the system, in the form of a backup or fail-safe.

## Adequacy of Berth and Yard

The length of berth and yard area has been estimated to be sufficient enough to handle the projected coal traffic at NMPT. The area available for the stackyard behind the berth is 15.01 Ha. Additional area behind proposed berth no 11 may also be provided to the operator at Berth 12 on temporary basis (11 months - 5 years lease) till Berth 11 is developed.



## 13.1.4 Environmental Safety and Health

#### **Dredging and Disposal**

The disturbances expected due to the dredging operation has to be monitored and minimised. One of the environmental concerns involved in this project is disposal of the dredged material in environmentally safe manner. There is already a designated disposal ground inside the NMPT port limit. The adequacy of the same has to be assessed by NMPT.

To model the dispersion plumes at the disposal ground a detailed 3D model shall be used taking into account advanced convection diffusion processes. The way the dredged material is disposed is an important factor that should be taken into account. The location and timing of the disposal process is important, to prevent the material from flowing back to the dredging location immediately. The stirred up sediment should be modelled in the way it spreads as a function of time and space. The sequence of dredging and dumping operations should be simulated in the model as a function of time.

The dredging process itself should be optimized in order to minimize hindrance for vessels calling at the berths and reduce the frequency of maintenance dredging operations. Hence separate study has to be carried out by NMPT to optimise the dredging process and to assess the dredge material for offshore disposal (Sediment Dispersion Study).

#### Fire / explosion at Proposed Coal terminal – Berth 12

An adequate fire fighting system has been proposed at the terminal to counter any accidental fire break out.

## **Natural Disaster**

The berthing structures at the terminal have been designed for the seismic load in combination. In case of any occurrence of rough weather such as strong winds, heavy swell and sea, Floods, High temperature during working hours and Heavy rain, a 35 days of down time in a year has been considered in planning of the facilities.



# 14 COST ESTIMATION

## 14.1 GENERAL

This chapter presents the preliminary estimation of capital cost for the proposed project at NMPT. This also includes the cost estimation of the associated systems on the basis of conceptual schemes, layouts and facilities as described in the previous chapters. The capital costs as well as the annual maintenance costs of the project are discussed during financial analysis.

The cost of mechanical handling facilities has been considered based on the market information. The prices are fine tuned through TCE's in-house data, budgetary enquiries and discussions with different agencies.

The quantities for major items of works have been worked out on the finalized layout and the preliminary design developed on the available site and soil data. The estimate of cost for mechanical works, equipment etc., is based on TCE's past experience (in-house data), discussions with the suppliers/manufacturers. The cost estimate for all other items are also based upon the TCE in-house data and on the current rates of similar works obtained in the recent past.

## 14.2 BASIC ASSUMPTIONS:

- ► The costs of all components & accessories are on the basis of basic prices excluding applicable taxes and duties.
- A contingency of 5% has been considered in CAPEX.
- ► Capital Cost has been estimated at 2015 16 prices (suitable escalation shall be applicable)

#### 14.3 CAPITAL BLOCK COST

#### 14.3.1 Cost of facilities planned

Summary of the capital cost estimate of the project is as furnished below:-

| Sr.<br>No | Description   | Nos/RM                 | Cost per<br>unit | Block Cost<br>Rs. | Block<br>Cost Rs.<br>(In Crore) |
|-----------|---|------------------------|------------------|-------------------|---------------------------------|
|           | Civil & Structural Works  |                        |                  |                   |                                 |
| 1         | Civil Works for JHs (16 nos), DH (4 no.) and RRLS ( 2 nos.)       |                        |                  | 24200000          | 2.74                            |
| 2         | Structural Works - JH (16 nos.), DH (4 no.) and RLS (2 nos.) etc. |                        |                  | 169500000         | 21.03                           |
| 3         | Civil & structural cost of Conveyor                               | Total length 5250 mtrs |                  | 770850000         | 77.08                           |
| 4         | Control Room/ Substation (2 no. considered)                       | 2 no.<br>considered    |                  | 33000000          | 3.30                            |
| 5         | Additional Rail siding at existing railway yard for wagon loading | 1850                   | 45000            | 83250000          | 8.33                            |



|    | (1850m)   |      |           |            |        |
|----|---|------|-----------|------------|--------|
| 6  | Stockyard Boundary Wall   |      |           | 30000000   | 3.00   |
| 7  | Road pavement   |      |           | 185194000  | 18.5   |
|    | TOTAL CIVIL & STRUCTURAL COST FOR CONVEYING SYSTEM                        |      |           | 1339994000 | 134.00 |
|    | Mechanical Works  |      |           |            |        |
| 1  | Grab Unloaders – 2000 TPH – 2 Nos   | 2    | 450000000 | 900000000  | 90.00  |
| 2  | Jetty Conveyor (4000 TPH)   | 810  | 150000    | 121500000  | 12.15  |
| 3  | In between conveyors upto RLS   | 2530 | 150000    | 379500000  | 37.95  |
| 4  | Conveyor for Stockyard (4000 TPH)   | 2720 | 150000    | 408000000  | 40.80  |
| 5  | Stacker Equipment (4 nos.)  | 4    | 120000000 | 480000000  | 48.00  |
| 6  | Reclaimer Equipment (3 nos.)  | 3    | 130000000 | 390000000  | 39.00  |
| 7  | Rapid Loading system (RLS (4000TPH) (2 nos.)                              | 2    | 150000000 | 300000000  | 30.00  |
| 8  | Truck loading system (1 nos.)   | 1    | 35000000  | 35000000   | 3.50   |
| 9  | Pay loaders - 4.5 cum – 1 nos   | 1    | 4000000   | 4000000    | 0.40   |
| 10 | Utilities   |      |           | 95000000   | 9.50   |
|    | TOTAL MECHANICAL, ELECTRICAL AND I&C COST FOR CONVEYING SYSTEM            |      |           | 3113000000 | 311.30 |
|    | Total Cost excluding contingency  |      |           |            | 445.30 |
|    | Total Contingency of 5% and lease rental cost during construction         |      |           |            | 29.36  |
|    | Total Cost (including Contingency of 5% +Lease rental during contingency) |      |           |            | 474.7  |

In the cost estimates suitable provision has been made during cost estimation for contingencies to cover minor deviations during detailed engineering

In addition, 5% of the cost has been considered towards detailed engineering, project management, administrative and pre-operative expenses.

## 14.4 ANNUAL OPERATING COST

The annual maintenance and operating costs of the different components of the project has been assessed taking into consideration the life of the individual components of the project, on the repair and maintenance of works, salary and wages of operating crew and cost of electric power, fuel and other consumables. A realistic assessment of the O & M cost however often proves difficult as it varies from project to project depending on the actual use of plant and equipment and the works, maintenance standards, workforce employed and the local environment. A practical approach is to fix the annual operating & Maintenance cost as a percentage of the capital cost of the project, this percentage to be judged on the basis of the past performance of similar items of work and equipment in use



elsewhere under similar environment and work conditions. For this report, it was considered sufficient to adopt this methodology not only for the estimation of the repair expenditure but for the total maintenance and operational costs. The maintenance and operating costs have been worked out based on standard practice separately under following heads viz.:

- Civil works
- Mechanical works, Electrical works & Utilities

The percentage assumed for the annual O&M cost is given in Table 14-1 Operating Expenditure Assumptions.

**Table 14-1 Operating Expenditure Assumptions** 

| Civil Works/Buildings                    | O&M<br>EXP% | Plant & Machinery                     | O&M<br>EXP% |
|--|-------------|---------------------------------------|-------------|
| Jetty                                    | 1.00%       | Unloader (Grab Type)                  | 7.00 %      |
| Civil works for JH, RRLS                 | 1.00%       | Troughed Belt Conveyor                | 7.00 %      |
| RLS strls, JHs etc.                      | 1.00%       | RRLS                                  | 7.00 %      |
| Structural Works -<br>Conveyor Galleries | 1.00%       | Rail Track (Stacker/Reclaimer)        | 7.00 %      |
| Control Room/Substation                  | 1.00%       | Stacker/reclaimer Equipment           | 7.00 %      |
| Railway                                  | 1.00%       | Yard Conveyor                         | 7.00 %      |
| Stockyard Boundary wall                  | 1.00%       | Electrical, Control & Instrumentation | 7.00 %      |
|  |             | Other utilities                       | 7.00 %      |



# 15 **FINANCIAL ANALYSIS**

# 15.1 PROJECT INVESTMENT

The total project cost has been worked out to be Rs. 474.7 Cr including 5 % contingency.

# 15.2 PROJECT STRUCTURING

The project structuring alternatives has been worked out with in the PPP structure frame work and the operator has been loaded with substantial financial, technical and operational risk in the project which can be best taken by him. As per the recommended project structuring alternative, the concessionaire has to incur Rs. 474.7 Cr. whereas NMPT will be incurring Rs. 118.1 Cr.

Table 15-1 Project Structuring – PPP Mode

| Description of Facilities   | BOT     | NMPT   |
|---|---------|--------|
| Description of Facilities   | Rs. Cr. | Rs. Cr |
| Civil Works/ Buildings  |         |        |
| Jetty Construction  | -       | 96.2   |
| Capital dredging  | -       | 21.9   |
| Civil Works for JHs (16 nos), and RRLS ( 2 nos.)                          | 2.7     | -      |
| Structural Works - JH (16 nos.) , DH 4 nos.) and RLS (2 nos.) etc.        | 21.0    | -      |
| Civil and Structural Cost of Conveyor                                     | 77.1    |        |
| Control Room/Substation / Buildings                                       | 3.3     | -      |
| Stockyard Boundary  | 3.0     | -      |
| Additional Rail Siding at existing rail yard for wagon loading (1850 m)   | 8.3     | -      |
| Road pavement   | 18.5    | -      |
| Plant and Machinery   |         |        |
| Unloaders, stacker cum reclaimer equipment, payloader                     | 177.4   | -      |
| Yard conveyor for stacker, yard conveyor for reclaimer                    | 40.8    | -      |
| Jetty Conveyor  | 12.2    | -      |
| Conveyor for RLS  | 38.0    | -      |
| RRLS, Lorry Loading System  | 33.5    | -      |
| Utilities - Water supply, dust suppression, fire fighting, compressed air | 9.5     | -      |
| Contingency Cost @ 5% + Lease Rental During Construction                  | 29.4    | -      |
| Total Cost (Rs. Cr)   | 474.7   | 118.1  |



# 15.3 PROJECT IMPLEMENTATION SCHEDULE

The total construction period is envisaged to be 24 months excluding preconstruction activities. The scheduled date has been assumed as given below. Suitable overlap wherever possible has been assumed to crash the execution time and commission the project at the earliest. The basic assumptions are as given below:-

Table 15-2 Assumption related to Project implementation timeline

| Project Specific Assumptions   | Value     | Unit  |
|--------------------------------|-----------|-------|
| Civil Estimate Date            | 1-Apr-15  | Date  |
| Construction Period            | 2.00      | Years |
| Construction Period Start Date | 1-Apr-16  | Date  |
| Construction Period End Date   | 31-Mar-18 | Date  |
| Operations Start Date          | 1-Apr-18  | Date  |
| Operations Period              | 28.00     | Years |
| Operations End Date            | 31-Mar-46 | Date  |
| Concession Period Start Date   | 1-Apr-16  | Date  |
| Concession Period              | 30.00     | Years |
| Concession Period End Date     | 31-Mar-46 | Date  |
| Location                       | Mangalore |       |

As per the construction schedule, the project development cost for the BOT operator is as estimated below:-

Table 15-3 Project Developmental Cost – BOT Operator-with escalation

| Cost Description                      | Amount | Unit   |
|---------------------------------------|--------|--------|
| Total CAPEX                           | 445.3  | Rs. Cr |
| Contingency @ 5 %                     | 29.4   | Rs. Cr |
| Total Project Cost                    | 474.7  | Rs. Cr |
| Add Other Costs                       | 29.4   | Rs. Cr |
| Add Cost Escalation                   | 31.1   | Rs. Cr |
| Add Financing Cost (1% of Total Debt) | 4.2    | Rs. Cr |
| Add Interest During Construction      | 34.2   | Rs. Cr |
| Add Engineering and supervision cost  | 26.4   | Rs. Cr |
| DSRA                                  | 7.5    | Rs. Cr |
| Project Development Cost              | 600.3  | Rs. Cr |



## **Table 15-4 Project Implementation Schedule**

| Project Components  | 01 Apr<br>16<br>30 Jun<br>16 | 01 Jul<br>16<br>30 Sep<br>16 | 01 Oct<br>16<br>31 Dec<br>16 | 01 Jan<br>17<br>31 Mar<br>17 | 01 Apr<br>17<br>30 Jun<br>17 | 01 Jul<br>17<br>30 Sep<br>17 | 01 Oct<br>17<br>31 Dec<br>17 | 01 Jan<br>18<br>31 Mar<br>18 |
|---|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| CIVIL WORKS/ BUILDINGS  |                              |                              |                              |                              |                              |                              |                              |                              |
| Civil Works for JHs (16 nos), DH (4 no.)And RRLS ( 2 nos.)                | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        |
| Structural Works - JH (16 nos.), DH (4 no.)RLS (2 nos.) etc.              | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        |
| Civil and Structural Cost of Conveyor                                     | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       |
| Control Room/Substation / Buildings                                       | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        | 33.33%                       | 33.33%                       | 33.34%                       | 0.00%                        |
| Stackyard Boundary  | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       |
| Additional Rail Siding at existing rail yard for wagon loading (1850 m)   | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       |
| Road Pavement   | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       |                              |                              |                              |                              |
| PLANT AND MACHINERY   |                              |                              |                              |                              |                              |                              |                              |                              |
| Unloaders, stacker ,reclaimer equipment, payloader                        | 0.00%                        | 0.00%                        | 20.00%                       | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        | 80.00%                       |
| Yard conveyor for stacker, yard conveyor for reclaimer                    | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       | 0.00%                        | 0.00%                        |
| Jetty Conveyor  | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       | 0.00%                        | 0.00%                        |
| Conveyor for RLS  | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       | 0.00%                        | 0.00%                        |
| RRLS, Lorry Loading System and Rail Weighing System                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       |
| Utilities - Water supply, dust suppression, fire fighting, compressed air | 0.00%                        | 0.00%                        | 0.00%                        | 0.00%                        | 25.00%                       | 25.00%                       | 25.00%                       | 25.00%                       |
| Contingency Cost @ 5% + Lease Rental During<br>Construction               | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       | 12.50%                       |

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# 15.4 ASSUMPTIONS FOR FINANCIAL MODEL

#### 15.4.1 Financing Structure

The project is proposed to be financed by way of debt equity ratio of 70:30. Drawdown of debt in each quarter is made in a manner such that the debt equity ratio by the end of each quarter is maintained at 70:30 during the construction period. The financing assumptions are presented below: -

**Table 15-5 Financing Assumptions** 

| Debt %                               | %      | 70  |
|--------------------------------------|--------|-----|
| Equity %                             | %      | 30  |
| Debt Cost (p.a.)                     | % p.a. | 12% |
| Construction Period                  | Months | 24  |
| Post Commissioning Moratorium period | Months | 36  |
| Repayment Period                     | Months | 120 |

## 15.4.2 Capital Cost Assumptions

The assumptions towards Capital Cost are as follows: -

**Table 15-6 Preliminary Expenses** 

| Capital Cost Assumptions             | %     | Unit                        |
|--------------------------------------|-------|-----------------------------|
| Financing Charges                    | 1.00% | Percentage of debt drawdown |
| Engineering Services and Supervision | 5.00% | percentage of EPC cost      |

## 15.4.3 Operating Cost Assumptions

**Table 15-7 Operating Cost Assumptions** 

| Power Cost                | 14.00 | Rs per ton |                            |
|---------------------------|-------|------------|----------------------------|
| Lease Rental              | 3.45  | Rs Cr      | 2 % of Land Cost           |
| Insurance Cost            | 4.97  | Rs Cr      | 1 % of gross fixed assets  |
| Other Miscellaneous Costs | 22.27 | Rs Cr      | 5.0% of gross fixed assets |

## 15.4.4 Income Tax Assumption

Ten year tax holiday under section 80IA, Income Tax Act has been considered for PPP projects. The tax holiday commences in the 5th year and extends up to 16th year of commissioning of the project.



**Table 15-8 Income Tax Assumptions** 

| Income Tax                    |        |            |
|-------------------------------|--------|------------|
| First Year of 80 IA Exemption | 2019   |            |
| Last Year of 80 IA Exemption  | 2029   |            |
| Income Tax Rate               | 33.99% | Percentage |
| MAT Rate                      | 20.96% | Percentage |

# 15.4.5 Depreciation rate

**Table 15-9 Depreciation Rate Assumptions** 

| Straight Line Method - Civil                      | 3.34%  |
|---|--------|
| Straight Line Method - Plant and equipment        | 10.34% |
| Depreciation for Income tax - civil               | 10%    |
| Depreciation for income tax - plant and equipment | 15%    |

# 15.5 <u>CAPEX</u>

The quarterly CAPEX requirement is as shown below. The CAPEX has been escalated to the construction year and the total expenditure requirement has been estimated.



Table 15-10 Quarterly CAPEX Requirement (Rs. Cr)

| Construction Expenditure<br>(Quarterly Schedule) | FY 17  | FY 18  |
|--|--------|--------|
| Total Civil (without escalation)                 | 45.98  | 94.72  |
| Period of Escalation                             | 2.00   | 6.00   |
| Escalation during construction                   | 1.14   | 7.18   |
| TOTAL CIVIL (with escalation)                    | 47.12  | 101.90 |
| TOTAL PLANT AND MACHINERY (without escalation)   | 102.56 | 224.30 |
| Period of Escalation                             | 2.00   | 6.00   |
| Escalation during construction                   | 3.38   | 19.39  |
| Total Plant And Machinery (with escalation)      | 105.94 | 243.69 |
| TOTAL EPC COST                                   | 167.75 | 360.28 |
| Engineering and supervision cost                 | 8.39   | 18.01  |
| Finance Charges                                  | 1.28   | 2.92   |
| Interest During Construction                     | 6.04   | 28.17  |
| Funding Requirement                              | 183.46 | 416.87 |

The funding requirement is as shown below. The CAPEX has been escalated to the construction year and the total expenditure requirement has been estimated.

Table 15-11 Annual CAPEX Requirement (Rs. Cr)

| Yearly Funding      | Total  | 2017   | 2018   |
|---------------------|--------|--------|--------|
| Funding Requirement | 600.34 | 183.46 | 416.87 |
| Debt                | 420.24 | 128.42 | 291.81 |
| Equity              | 180.10 | 55.04  | 125.06 |

## 15.5.1 Tariff Calculation

The calculated tariff for coal handling is calculated as given below:-.

**Table 15-12 Tariff Calculation** 

| Tariff Computation |   |       |  |  |  |
|--------------------|---|-------|--|--|--|
| CAPEX              |   |       |  |  |  |
| Total Civil Cost   | 1 | 34.00 |  |  |  |



| Total Plant and Equipment Cost | 311.30  |
|--------------------------------|---------|
| Miscellaneous Costs            | 22.27   |
| TOTAL                          | 467.57  |
| ANNUAL OPEX                    |         |
| Opex Civil                     | 1.34    |
| Opex Plant and Equipment       | 21.79   |
| Lease Rental                   | 3.45    |
| Power Cost                     | 8.75    |
| Insurance Cost                 | 4.68    |
| Depreciation (Companies Act)   | 36.66   |
| Other Miscellaneous Cost       | 22.27   |
| TOTAL Opex                     | 98.94   |
| 16% ROCE                       | 74.81   |
| TOTAL Revenue requirement      | 173.75  |
| Optimum capacity               | 6250000 |
| Upfront Tariff                 | 278     |
|                                |         |

# 15.6 FINANCIAL CALCULATIONS STATEMENTS

# 15.6.1 Debt Repayment

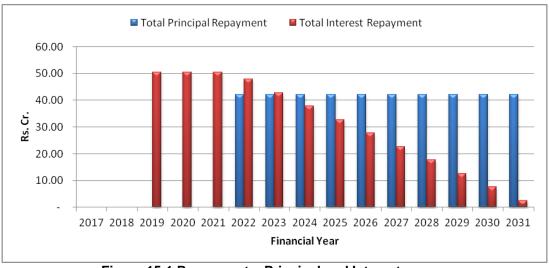


Figure 15-1 Repayment - Principal and Interest



## 15.6.2 Revenue and PAT

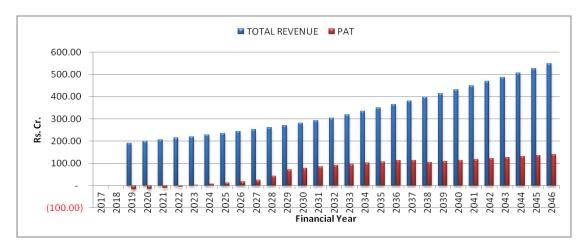


Figure 15-2 Revenue and PAT

## 15.6.3 Cash Flow Statement

A cash flow statement depicting cash flow from operating activities, cash flow from investing activities and cash flow from financing activities has been attached in the Appendix 4.

## 15.6.4 P/L Statement

P/L Statement has been attached in Appendix 4.

## 15.6.5 Balance Sheet Position

Balance sheet position year by year over the project has been shown in Appendix 4.

## 15.6.6 OPEX Calculation

OPEX calculation has been shown in Appendix 4.

## 15.7 FINANCIAL RETURNS PARAMETERS

## 15.7.1 Financial Returns

The financial returns parameters for the project are as follows: -

**Table 15-13 IRR Consolidated** 

| Particulars               |       |
|---------------------------|-------|
| Project IRR (Basic)       | 22.0% |
| Project IRR (Post Tax)    | 21.2% |
| Equity IRR (BOT Operator) | 22.0% |



# 15.8 **SENSITIVITY ANALYSIS**

The sensitivity analysis has been carried out by varying two inputs viz tariff and revenue share. The revenue share is an internal transaction between NMPT and BOT operator and therefore will only affect the Equity IRR of the BOT operator and not the Project IRR.

## 15.8.1 Project cost and tariff sensitivity

Project IRR (Basic)

The sensitivity analysis of Project IRR (Basic) with respect to Project cost and Traffic is presented below: -

PROJECT IRR (BASIC) TRAFFIC SENSITIVITY 22.0% 80% 90% 100% 110% 120% 100% 19.8% 21.3% 22.0% 22.0% 22.0% 105% 18.5% 19.9% 20.6% 20.6% 20.6% 17.3% 19.2% 19.2% 110% 18.6% 19.2% 115% 16.2% 17.4% 18.0% 18.0% 18.0% 120% 15.1% 16.3% 16.8% 16.8% 16.8%

Table 15-14 Project IRR (Basic)

## Project IRR (Post Tax)

The sensitivity analysis of Project IRR (Post Tax) vs Project cost and Traffic is presented below: -

Table 15-15 Project IRR (Post Tax) Sensitivity - Project Cost and Tariff

| PROJECT IRR (POST TAX)      |       |       |       |            |       |       |  |  |  |
|-----------------------------|-------|-------|-------|------------|-------|-------|--|--|--|
|                             |       |       | TRAF  | FIC SENSIT | IVITY |       |  |  |  |
|                             | 21.2% | 80%   | 90%   | 100%       | 110%  | 120%  |  |  |  |
| TSO<br>TY                   | 100%  | 19.0% | 20.5% | 21.2%      | 21.2% | 21.2% |  |  |  |
| ) TC                        | 105%  | 17.8% | 19.3% | 19.9%      | 19.9% | 19.9% |  |  |  |
| PROJECT COST<br>SENSITIVITY | 110%  | 16.8% | 18.1% | 18.7%      | 18.7% | 18.7% |  |  |  |
| PRC<br>SE                   | 115%  | 15.7% | 16.9% | 17.5%      | 17.5% | 17.5% |  |  |  |
|                             | 120%  |       |       |            |       |       |  |  |  |

#### Equity IRR

Table 15-16 Equity IRR Sensitivity - Project Cost and Tariff



| EQUITY IRR          |       |       |                     |       |       |       |  |  |  |  |  |
|---------------------|-------|-------|---------------------|-------|-------|-------|--|--|--|--|--|
|                     |       |       | TRAFFIC SENSITIVITY |       |       |       |  |  |  |  |  |
|                     | 22.0% | 80%   | 90%                 | 100%  | 110%  | 120%  |  |  |  |  |  |
| · COST              | 100%  | 17.2% | 20.5%               | 22.0% | 22.0% | 22.0% |  |  |  |  |  |
| T C                 | 105%  | 14.7% | 17.8%               | 19.1% | 19.1% | 19.1% |  |  |  |  |  |
| JEC<br>NSI          | 110%  | 12.1% | 15.0%               | 16.1% | 16.1% | 16.1% |  |  |  |  |  |
| PROJECT<br>SENSITI' | 115%  | 9.6%  | 12.2%               | 13.2% | 13.2% | 13.2% |  |  |  |  |  |
|                     | 120%  | 7.2%  | 9.7%                | 10.5% | 10.5% | 10.5% |  |  |  |  |  |

# 15.8.2 Revenue Share Sensitivity

The sensitivity of Equity IRR (PPP Operator) and Revenue Share is presented below: -

**Table 15-17 Revenue Share Sensitivity** 

| EQUITY IRR |                           |       |       |       |       |  |  |
|------------|---------------------------|-------|-------|-------|-------|--|--|
|            | REVENUE SHARE SENSITIVITY |       |       |       |       |  |  |
|            | 10%                       | 15%   | 20%   | 25%   | 30%   |  |  |
| 21.97%     | 29.2%                     | 25.8% | 22.0% | 17.6% | 12.5% |  |  |



# 16 <u>ALTERNATIVE TO HANDLE ADDITIONAL CARGO AT</u> <u>BERTH 12</u>

In order to provide support in viability to prospective bidder during initial project phases of coal cargo realization and in order to utilize available spare quay capacity of berth 12; NMPT directed TCE during meeting held on 13th July, 2015 to assess the feasibility of handling following dry bulk cargo at Berth 12 over and above the handling of coal cargo. NMPT proposes to handle this cargo at a separate storage area (identified by the port between existing STP and VTMS building), and hence its handling will not interfere with the storage of coal cargo. The cargo to be assessed include: -

- Fertilizers
- Limestone
- Gypsum
- Dolomite

It is to be noted that Berth 12 remains primarily a mechanized coal handling and priority will be given to coal carrying vessels. The above mentioned arrangement and the above mentioned arrangement is only for the purpose of providing a stop gap arrangement for the BOT operator in the initial years in the event of a slowdown in realization of coal cargo.

## 16.1 TRAFFIC

The past traffic trends for the above mentioned commodities at NMPT are as follows: -

Traffic in ton

| COMMODITY     | 2005   | 2006   | 2007    | 2008    | 2009    | 2010    | 2011    | 2012   | 2013   | 2014   |
|---------------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|
| Fertilizer    | 353679 | 662015 | 971891  | 830937  | 904408  | 820369  | 783642  | 804067 | 519136 | 454286 |
| Fert. Raw Mat | 4262   | -      | 22548   | 8600    | 12700   | 13376   | 4335    | 20744  | 16795  | 49663  |
| Limestone     | 86947  | 31500  | 265448  | 698555  | 767721  | 1127539 | 326039  | 55000  | 26270  | 55110  |
| Gypsum        | -      | -      | -       | -       | -       | -       | -       | -      | -      | -      |
| Dolomite      | -      | -      | -       | -       | -       | -       | -       | -      | -      | -      |
| TOTAL         | 444888 | 693515 | 1259887 | 1538092 | 1684829 | 1961284 | 1114016 | 879811 | 562201 | 559059 |

Source: - NMPT Traffic Statistics

The above table shows that Fertilizers and Limestone were the only two commodities of the four proposed handled at NMP in the last 10 years. NMP handled approximately 1 Mil Ton of Fertilizers (incl raw mat) in 2009. The same has decreased to approx 0.5 Mil Ton in 2014. Similarly, NMP handled approx 1.1 Mil Ton of Limestone in 2010 which has decreased to 0.05 Mil Ton in 2014. The total



traffic from the proposed commodities at NMP decreased from 1.96 Mil Ton in 2010 to 0.55 Mil Ton in 2014.

Over the past five years, the traffic trends show <u>negative growth</u> and as such do not provide confidence about demand for handling of the proposed cargo basket at NMP in future. However, given that the average throughput handled for the past five years among the proposed commodities is approximately 1.25 MTPA, the same is considered as the projected throughput for the proposed commodities from 2019 onwards. Of this, it is assumed that volume available for Berth 12 will be of the order of 0.5 MTPA and the rest will be handled at other berths at NMP.

The limiting coal throughput achievable with 0.5 MTPA of other cargo and 60% total berth occupancy is worked out as below: -

| Vessel Size - Coal =        |  |   |  |  |
|-----------------------------|--|---|--|--|
| Vessel Size - Other Cargo = |  |   |  |  |
|                             | 35000  | TPD   |  |  |
| ) =                         | 8000   | TPD   |  |  |
| Unit                        | Coal   | Other Cargo   |  |  |
| MTPA                        | 5.4  | 0.5   |  |  |
| DWT                         | 72000  | 27000   |  |  |
| Calls / yr                  | 75   | 19  |  |  |
| TPD                         | 35000  | 8000  |  |  |
| Days                        | 2.06   | 3.38  |  |  |
| Days                        | 154.3  | 64.1  |  |  |
| Days                        | 360  |   |  |  |
| %                           | 60%  |   |  |  |
|                             | Unit MTPA DWT Calls / yr TPD Days Days Days Days | 35000    Unit   Coal     MTPA   5.4     DWT   72000     Calls / yr   75     TPD   35000     Days   2.06     Days   154.3     Days   3 |  |  |

Hence, the limiting coal throughput works out to 5.4 MTPA at Berth 12.

| Year               | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2029 | 2034 | 2039 | 2044 | 2047 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|
| Coal (MTPA)        | 5.4  | 5.4  | 5.4  | 5.4  | 5.4  | 6.25 | 6.25 | 6.25 | 6.25 | 6.25 | 6.25 |
| Other Cargo (MTPA) | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0    | 0    | 0    | 0    | 0    | 0    |





Figure 16-1 Location of additional area

# 16.2 ADDITIONAL SYSTEM REQUIREMENTS

The additional system requirements, for handling the proposed "other" cargo basket at Berth 12, are as follows:

- ▶ 1 no.s Mobile hopper, placed on the yard side of the ship unloaders, which will unload directly into trucks.
- Requisite number of trucks for transportation of cargo from jetty to storage area.
- Evacuation of 100% cargo by road.
- ▶ 1 nos pay loader in the proposed storage yard.

The number of trucks required for continuous unloading is worked out as below: -

| Description                                     |      | Unit |
|---|------|------|
| Per day cargo evacuation requirement            | 8000 | TPD  |
| Carrying Capacity of 1 Truck                    | 15   | ton  |
| Time taken to load one rake                     | 2    | min  |
| Transit time (assuming lead distance of 2.5 km) | 28   | min  |
| Total Time                                      | 0.5  | Hrs  |
| Number of trucks required                       | 14   | nos  |
| Allowance for break down and peak movement      | 6    | nos  |



| Total No of Trucks to be provided | 20  | nos         |
|-----------------------------------|-----|-------------|
| Total Truck trips per day         | 534 | trips / day |

# 16.3 CAPITAL BLOCK COST TO HANDLE ADDITIONAL CARGO

Summary of the capital cost estimate for alternative to handle additional cargo at berth is as furnished below:-

| ADDITIONAL CARGO - COSTING FOR BERTH NO. 12 (Cost of conveyors, yard conveyor, Stacker, Reclaimer, RLS, JHs, DHs and utilities) |   |                                 |                  |                   |                                    |
|---|---|---------------------------------|------------------|-------------------|------------------------------------|
| SL. No  | Description   | Nos/RM                          | Cost per<br>unit | Block Cost<br>Rs. | Block<br>Cost Rs.<br>(In<br>Crore) |
|   | Civil & Structural Works  |                                 |                  |                   |                                    |
| 1   | Civil Works for JHs (16 Nos.),<br>DHs (4 nos.) and RLS ( 2<br>nos.)       |                                 |                  | 27400000          | 2.74                               |
| 2   | Structural Works - JH (16 Nos. ) , DH (4 Nos.) and RLS (2 nos.) etc.      |                                 |                  | 210300000         | 21.03                              |
| 3   | Civil & structural cost of Conveyor                                       | Total conv.<br>Length<br>5250 m |                  | 770850000         | 77.085                             |
| 5   | Control Room/ Substation (2 no. considered)                               | 2 no.<br>considered             |                  | 33000000          | 3.30                               |
| 6   | Additional Rail siding at existing railway yard for wagon loading (1850m) | 1850                            | 45000            | 83250000          | 8.325                              |
| 7   | Stockyard Boundary Wall   |                                 |                  | 30000000          | 3.00                               |
| 8   | Road pavement   | 35960                           | 5150             | 185194000         | 18.52                              |
|   | TOTAL CIVIL & STRUCTURAL COST FOR CONVEYING SYSTEM                        |                                 |                  | 1339994000        | 134.00                             |
|   | Mechanical Works  |                                 |                  |                   |                                    |
| 1   | Grab Unloaders – 2000 TPH   | 2                               | 450000000        | 900000000         | 90.00                              |
| 2   | Jetty Conveyor (4000 TPH)   | 810                             | 150000           | 121500000         | 12.15                              |
| 3   | In between conveyors upto RLS   | 2530                            | 150000           | 379500000         | 37.95                              |
| 4   | Yard Conveyor for Stockyard (4000 TPH)                                    | 2720                            | 150000           | 408000000         | 40.80                              |
| 5   | Stacker Equipment (4 nos.) 2 slewing and 2 non slewing                    | 4                               | 120000000        | 480000000         | 48.00                              |



| 6  | Reclaimer Equipment (3 nos.)  | 3 | 130000000 | 390000000  | 39.00  |
|----|---|---|-----------|------------|--------|
| 7  | Rapid Loading system (RLS )(2000-4000TPH)                                       | 2 | 150000000 | 30000000   | 30.00  |
| 8  | Truck loading system (1 nos.)   | 1 | 35000000  | 35000000   | 3.50   |
| 9  | Pay loaders - 4.5 cum – 2 nos   | 2 | 4000000   | 8000000    | 0.80   |
| 10 | Mobile Hopper - 1 nos   | 1 | 15000000  | 15000000   | 1.50   |
| 11 | Utilities   |   |           | 95000000   | 9.50   |
|    | TOTAL MECHANICAL,<br>ELECTRICAL AND I&C<br>COST FOR CONVEYING<br>SYSTEM         |   |           | 3132000000 | 313.20 |
|    | Total Cost excluding contingency  |   |           |            | 447.20 |
|    | Total Contingency of 5% and lease rental cost during construction               |   |           |            | 29.46  |
|    | Total Cost (including<br>Contingency of 5% +Lease<br>rental during contingency) |   |           |            | 476.7  |

# 16.4 TARIFF CALCULATIONS

| CAPEX                               |      |       |  |
|-------------------------------------|------|-------|--|
| Civil Cost                          | 0    |       |  |
| Total Plant and Equipment Cost      | 1.90 | Rs Cr |  |
| Miscellaneous                       | 0.10 | Rs Cr |  |
| TOTAL CAPEX                         | 2.00 | Rs Cr |  |
| Opex Civil                          | 0.00 | Rs Cr |  |
| Opex Plant and Equipment            | 0.10 | Rs Cr | 5% of Plant and equipment cost   |
| Lease Rental for 20 nos 15 T trucks | 1.30 | Rs Cr | Rs 10,000 / day x 3.5 days x 20 trucks / vessel call   |
| Lease Rental                        | 0.23 | Rs Cr | Rs 19.21 / m2 / month x 10,000 m2 / 12 months  |
| Power Cost                          | 0.63 | Rs Cr | 500 units / hr x 10 Rs / unit x 20 hrs / 8000 TPD  |
| Fuel Cost                           | 1.18 | Rs Cr | 10litre/ hr for 10 FLT (16 hrs operations per truck) 12 litre/ hr for 10T payloader (20 hr operations) |
| Insurance Cost                      | 0.02 | Rs Cr | 1% x Equipment Cost  |
| Depreciation (Companies Act)        | 0.20 | Rs Cr | 10.34% x Equipment Cost  |
| Other Miscellaneous Cost            | 0.10 | Rs Cr | 5% of Gross Fixed Asset  |
| TOTAL OPEX                          | 3.75 | Rs Cr |  |



| 16% ROCE                  | 0.32  | Rs Cr  |  |
|---------------------------|-------|--------|--|
| Total Revenue Requirement | 4.07  | Rs Cr  |  |
| Optimal Capacity          | 0.5   | MTPA   |  |
| Tariff                    | 81.31 | Rs / t |  |

# 16.5 FINANCIAL RETURNS PARAMETERS

### 16.5.1 Financial Returns

The financial returns parameters for the project are as follows: -

**Table 16-1 IRR Consolidated** 

| Particulars               |       |
|---------------------------|-------|
| Project IRR (Basic)       | 19.7% |
| Project IRR (Post Tax)    | 18.9% |
| Equity IRR (BOT Operator) | 16.1% |

The project financials still remain attractive even in the event of coal volumes being realized at the reduced levels of 5.4 MTPA for the first five years and other cargo volumes realized at 0.5 MTPA. This is mainly on account of difference in tariff for coal and other cargo (coal – Rs 278 per ton, other cargo – Rs 81.31 per ton) as well as reduction in total throughput (6.25 MTPA vs 5.9 MTPA).



# 17 CONCLUSION

The coal traffic at NMPT, which is 8.2 mil ton at present, is projected to grow to 25 mil ton in base case and 40 mil ton in optimistic case by FY 2046. Berth No 12 is assumed to handle all coal cargo at NMPT, excluding captive UPCL cargo, subject to its handling capacity. The vessel sizes in the Western Dock Arm are expected to be of the order of 80000 DWT only considering the fact that deepening the inner harbour beyond (-) 15.4 to (-) 15.7 m CD is not operationally and commercially viable.

The capacity of the proposed coal terminal at NMPT has been estimated to 6.25 MTPA. It is proposed to unload the coal at the jetty by means of 2 rail mounted grab unloaders (Rated capacity of 2000 TPH each) with connected jetty conveyors. Four stackers and three reclaimers of 4000 TPH capacity are proposed to be provided at the stockyard. The area available for the stockyard purpose is around 15.01 Ha. The stacked coal will be reclaimed and evacuated via rail. Rapid Rail Loading System with average wagon loading capacity of 4000 TPH is proposed to be provided at existing rail marshalling yard.

The total project cost for creation of Material Handling Infrastructure has been worked out to be Rs. 474.7estimated as of FY 2015 prices (including contingencies). The construction period is estimated to be 2 years from 01<sup>st</sup> April 2016 to 31<sup>st</sup> Mar 2018. The operation period is proposed to be 28 years post commissioning.

The tariff considered for financial analysis works out to Rs 278 per ton. This is comparable to that of Adani Coal Terminal at Mormugao Port which is Rs 254 per ton.

The project IRR Basic and Post tax has been estimated to be **22.0**% & **21.2**% respectively. The Equity IRR for the PPP Operator post tax has been estimated to be **22.0**% (considering 20% of revenue share and 12% Debt cost). The financial results depend largely on assumptions related to CAPEX, and traffic projections. This is evident from the sensitivity analysis on Project IRR (basic) which varies from 15.7% (worst case) to 22.0% (best case) as we vary projected traffic (from 80% to 120%) and project cost (from 100% to 120%).

Based on the above, it is evident that the proposed Berth 12 is financially viable provided: -

- NMPT provides exclusivity for handling coal cargo at Berth 12, till its capacity is utilized, and will cease coal handling operations anywhere else in the port during the period.
- In the event NMPT may require to provide additional free storage period (in excess of 24 days considered for capacity calculations) to compete with private ports like Krishnapatnam (2 months free storage), additional area behind proposed berth 11 may be made available to the operator on



temporary basis (11 months – 5 years lease) to ensure terminal capacity does not fall below estimated 6.25 MTPA.

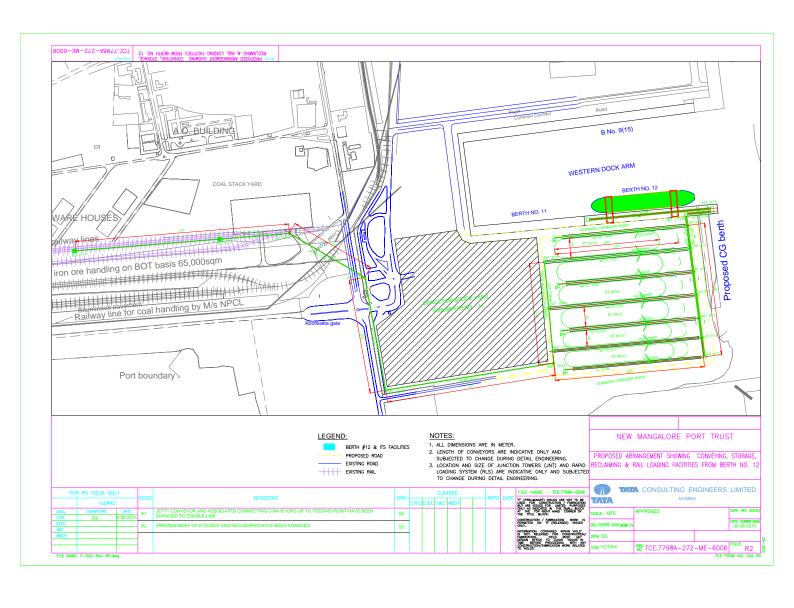
Additionally, at NMPT's request, an exercise was carried out to assess feasibility of handling other cargo – fertilizers, limestone, gypsum and dolomite, at the proposed berth for the first five years, to the extent of 0.5 MTPA. This is to provide additional support in viability to prospective bidder during initial project phase of coal cargo realization and in order to utilize available spare quay capacity. Since this will be a temporary operation for the first five years, it is proposed to handle the additional cargo using equipments mainly on lease. Considering the nominal CAPEX and OPEX for the additional cargo handling, the tariff worked out to Rs 81.3 per ton. The limiting coal throughput achievable at berth 12 reduced to 5.4 MTPA on account of handling other cargo at lower discharge in the range of 8000 TPD as against coal discharge rates of 35000 TPD and limiting berth occupancy to 60% to ensure priority berthing and minimal waiting time for coal vessels..

In this case, the project IRR Basic and Post tax worked out to **19.7**% & **18.9**% respectively. The Equity IRR for the PPP Operator post tax worked out to **16.1**% (considering 20% of revenue share and 12% Debt cost). The project financials still remain attractive even in the event of coal volumes being realized at the reduced levels of 5.4 MTPA for the first five years and other cargo volumes realized at 0.5 MTPA. This is mainly on account of difference in tariff for coal and other cargo (coal – Rs 278 per ton, other cargo – Rs 81.3 per ton) as well as reduction in total throughput (6.25 MTPA vs 5.9 MTPA).



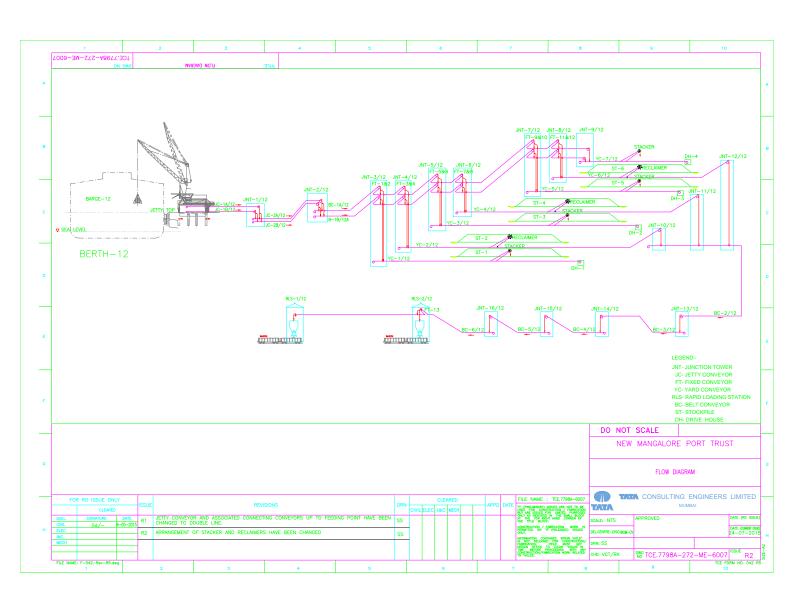
### **APPENDIX 1LAYOUT OF PROPOSED COAL BERTH 12**

**TATA CONSULTING ENGINEERS LIMITED** 





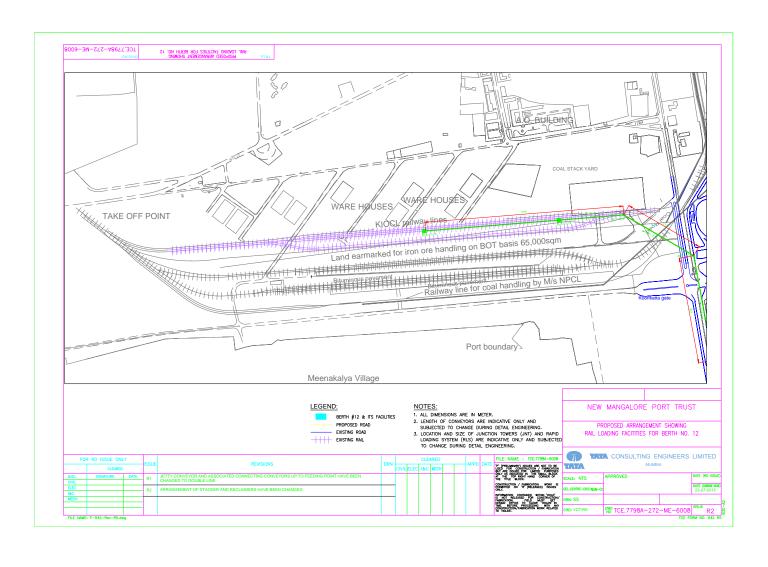
## **APPENDIX 2 COAL FLOW DIAGRAM**





### **APPENDIX 3 RAIL LOADING FACILITY LAYOUT**

TATA CONSULTING ENGINEERS LIMITED





#### APPENDIX 4 FINANCIAL ANALYSIS CALCULATIONS

#### Cash Flow Statement

| Francial Year Ending  Construction Days  Sist  Const. periof Pig. 1  Operation Period Days  Operation Days  In Sister Days  I | 2018<br>365<br>1<br>0<br>0<br>2 |                    | 18 2019                    | 2020<br>0<br>0          |                         | 31 Mar 22 2022 0 0 365 1 | 31 Mar 23 3<br>2023 0<br>0 365 | 31 Mar 24 2024<br>0<br>0<br>366 | 31 Mar 25 3<br>2025 0<br>0<br>365 | 31 Mar 26<br>2026<br>0 | 31 Mar 27 2027<br>0 | 31 Mar 28 3<br>2028<br>0 | 1 Mar 29 2<br>2029 | 31 Mar 30 3<br>2030 | 31 Mar 31 .<br>2031 | 31 Mar 32 31<br>2032 | Mar 33 31<br>2033 | Mar 34 31<br>2034 | Mar 35 31<br>2035 | Mar 36 3 | 31 Mar 37 31<br>2037 | Mar 38<br>2038 | -        | 31 Mar 40 2040 |          | 31 Mar 42 3<br>2042 | 31 Mar 43 3<br>2043 | 31 Mar 44 3<br>2044 | 1 Mar 45 3<br>2045 | 31 Mar 4 |
|--|---------------------------------|--------------------|----------------------------|-------------------------|-------------------------|--------------------------|--------------------------------|---------------------------------|-----------------------------------|------------------------|---------------------|--------------------------|--------------------|---------------------|---------------------|----------------------|-------------------|-------------------|-------------------|----------|----------------------|----------------|----------|----------------|----------|---------------------|---------------------|---------------------|--------------------|----------|
| Construction Days  Cons. profit Rig.  1  Operatine Revis Days  Operatine Revision  Operatine Rev | 1 0 0 0 2                       |                    | 1 0<br>0 365<br>0 1<br>2 3 | 0                       | 0                       | 0                        | 0                              | 0                               | 0                                 | 2026<br>0<br>0         | 2027<br>0           | 2028<br>0                | 2029               | 2030                | 2031                | 2032                 | 2033              | 2034              | 2035              | 2036     | 2037                 | 2038           | 2039     | 2040           | 2041     | 2042                | 2043                | 2044                | 2015               |          |
| Const. periof Rug Operation Period Days Operation Operating Activities Gross Cash Acroual  TOTAL Cash Flow from Operations Cash Row form Deveations  Cash Row from Deveations  Cash Row from Investing Activities Operation  Cash Row from Investing Activities Operation  Cash Row from From Investing Activities Operation  DIAL Cash Flow from Investing Activities Operation Flow from | 1 0 0 0 2                       | 365<br>1<br>0<br>0 | 1 0<br>0 365<br>0 1<br>2 3 | 0<br>0<br>366<br>1<br>4 | 0<br>0<br>365<br>1<br>5 | 0<br>0<br>365<br>1       | 0<br>0<br>365                  | 0<br>0<br>366                   | 0<br>0                            | 0                      | 0                   | 0                        | 0                  |                     |                     |                      |                   |                   |                   |          |                      |                |          | 2010           |          |                     |                     |                     | 2045               | 20       |
| Operation Period Days  Operation Period Days  Operation Period Days  Operation Period  Orner, Period No.  1  Cash Row from Operating Activities  oross Sesh Acroual  101AL Cash Row from Operations  Cash Row from Investing Activities  101AL Cash Row from Investing Activities  Caper  101AL Cash Row from Investing Activities  101AL Cash Row from Emancing Activities  101AL Cash Row from Investing Activities  101AL Cash Row from Investing Activities  101AL Cash Row from Investing Activities  101AL Cash Row from Derations  101AL Cash Row from Investing Activities  101AL Cash Row from Inv | - 3                             | 1 0 1              | 0 1 2 3                    | 0<br>366<br>1<br>4      | 0<br>365<br>1<br>5      | 0<br>365<br>1            | 0<br>365                       | 0<br>366                        | 0                                 | 0                      | 0                   |                          |                    | U                   | 0                   | 0                    | 0                 | 0                 | 0                 | 0        | 0                    | 0              | 0        | 0              | 0        | 0                   | 0                   | 0                   | 0                  |          |
| Open Period Ray  | - 3                             | 0 1                | 0 1 2 3                    | 366<br>1<br>4           | 365<br>1<br>5           | 365<br>1                 | 365                            | 366                             | 2/5                               |                        | ٧                   | 0                        | 0                  | 0                   | 0                   | 0                    | 0                 | 0                 | 0                 | 0        | 0                    | 0              | 0        | 0              | 0        | 0                   | 0                   | 0                   | 0                  |          |
| Cash Row form Operating Activities Gross Cash Accoust  OTHAL Cash Flow form Operating Activities Gross Cash Accoust  Cash Row form Department  Cash Row form Investing Activities OPIAL Cash Flow form Investing Activities  Cash Row form Financing A | - 3                             | 1                  | 0 1<br>2 3                 | 4                       | 1<br>5                  | 1                        | - 4                            |                                 | 303                               | 365                    | 365                 | 366                      | 365                | 365                 | 365                 | 366                  | 365               | 365               | 365               | 366      | 365                  | 365            | 365      | 366            | 365      | 365                 | 365                 | 366                 | 365                | 3        |
| Cash Row finm Operating Activities Gross Cash Account  1017AL Cash Flow from Operations  Cash Row finm Investing Activities Cipex 1010AL Cash Flow from Investing Activities Cipex 1010AL Cash Flow from Investing Activities  Cash Row finm Financing Activities  Cash Row finm Financing Activities  Equity Drawal  1028 AC 2  2 Parasal Finno Si (on meet senior debt service) Release from DSR  Finnoja Repumpent  Addition to DSR  Equity Distribution  | - 3                             | -                  | - 31.43                    | 4                       | 5                       |                          | - 4                            | 1                               | 1                                 | 1                      | 1                   | 1                        | 1                  | 1                   | 1                   | 1                    | 1                 | 1                 | 1                 | 1        | 1                    | 1              | - 1      | 1              | 1        | 1                   | 1                   | 1                   | 1                  |          |
| Gross Cash Acrosal  TOTAL Cash Flow from Operations  Cash Flow from Investing Activities  Operations  133.45 4 10144 Cash Flow from Investing Activities  Cash Flow from Financing Activities  Cash Flow from Cash Flow from Financing Activities  Activities  Activities  Activities  Activities  Cash Flow from Investing Activities  Cash Flow from Financing Activities  Cash Flow from F | - 3                             | ė                  | - 31.43                    |                         |                         | 6                        | 7                              | 8                               | 9                                 | 10                     | 11                  | 12                       | 13                 | 14                  | 15                  | 16                   | 17                | 18                | 19                | 20       | 21                   | 22             | 23       | 24             | 25       | 26                  | 27                  | 28                  | 29                 |          |
| Gross Cash Acrosal  TOTAL Cash Flow from Operations  Cash Row from Investing Activities  Gapex  193.46  193.45  193.45  193.46 | - 3                             |                    | - 31.43                    |                         |                         |                          |                                |                                 |                                   |                        |                     |                          |                    |                     |                     |                      |                   |                   |                   |          |                      |                |          |                |          |                     |                     | -                   |                    |          |
| TOTAL Cash Flow from Exercising Activities   | - 3                             |                    |                            | 34.88                   | 38.42                   | 43.47                    | 49.85                          | 55.35                           | 61.09                             | 67.07                  | 73.30               | 76.76                    | 77.18              | 83.76               | 90.68               | 96.84                | 102.12            | 107.57            | 113.21            | 119.03   | 119.55               | 110.11         | 114.30   | 118.58         | 122.95   | 127.40              | 131.91              | 136.48              | 141.10             | 145.7    |
| 182.46   4   | 410.07                          |                    | 31.43                      | 34.88                   | 38.42                   | 43.47                    | 49.85                          | 55.35                           | 61.09                             | 67.07                  | 73.30               | 76.76                    | 77.18              | 83.76               | 90.68               |                      |                   | 107.57            | 113.21            | 119.03   |                      | 110.11         | 114.30   | 118.58         | 122.95   | 127.40              | 131.91              | 136.48              | 141.10             | 145.7    |
| 182.46   4   | 416.07                          |                    |                            |                         |                         |                          |                                |                                 |                                   |                        |                     |                          |                    |                     |                     |                      |                   |                   |                   |          |                      |                |          |                |          |                     |                     |                     |                    |          |
| TOTAL Ceith Flow from Intenting Activities  Cash Flow from Financing Activities  Equity Travail 55.04 1  Delet Drawil 1008 (to meet senior delet service)  Release from DSR (to meet senior delet service)  Principal Repayment 4  Addition to DSR 58  Equity Distribution 59.55   | 41C 07                          |                    |                            |                         |                         |                          |                                |                                 |                                   |                        |                     |                          |                    |                     |                     |                      |                   |                   |                   |          |                      |                |          |                |          |                     |                     |                     |                    |          |
| Cash Row from Financing Activities   | 410.6/                          | 183.46 416         | 7 -                        | -                       | -                       | -                        | -                              | -                               | -                                 | -                      | -                   |                          | -                  | -                   | -                   | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   | -                  |          |
| Equity Drawal         55.04         1         28.42            | (416.87)                        | (183.46) (416      | 7) -                       |                         |                         |                          |                                |                                 |                                   | -                      |                     | -                        |                    |                     |                     |                      | •                 |                   | •                 |          |                      |                |          |                | ·        |                     |                     |                     | -                  |          |
| Debt Drawal  Drawal From USR (to meet senior debt service)  Drawal From USR (to meet senior debt service)  Principal Repayment  Addition to USR  Equity Distribution   |                                 |                    |                            |                         |                         |                          |                                |                                 |                                   |                        |                     |                          |                    |                     |                     |                      |                   |                   |                   |          |                      |                |          |                |          |                     |                     |                     |                    |          |
| Drawal from DSR (to meet senior debt service) - Release from DSR - Principal Repayment - Addition to DSR - Equity Distribution   | 125.06                          | 55.04 12           | 6 -                        | -                       | -                       | -                        | -                              | -                               | -                                 | -                      | -                   | -                        |                    | -                   | -                   | -                    | -                 |                   | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   |                    |          |
| Release from DSR   | 291.81                          | 128.42 29          | 1 -                        | -                       | -                       | -                        | -                              |                                 | -                                 |                        | -                   |                          | -                  | -                   | -                   | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   |                    |          |
| Principal Regument   | -                               | -                  |                            | -                       | -                       | -                        | -                              | -                               | -                                 | -                      | -                   | -                        | -                  | -                   | -                   | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   | -                  |          |
| Addition to DSR - Equity Distribution  | -                               | -                  | - 3.29                     | -                       | -                       | 0.42                     | 0.42                           | 0.42                            | 0.42                              | 0.42                   | 0.42                | 0.42                     | 0.42               | 0.42                | 3.71                | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   | -                  |          |
| Equity Distribution -  | -                               | -                  |                            | -                       | -                       | (42.02)                  | (42.02)                        | (42.02)                         | (42.02)                           | (42.02)                | (42.02)             | (42.02)                  | (42.02)            | (42.02)             | (42.02)             | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   | -                  |          |
|  | (7.49)                          | - (                | 9) -                       | -                       | (3.29)                  | -                        | -                              | -                               | -                                 | -                      | -                   | -                        | -                  | -                   | -                   | -                    | -                 | -                 | -                 | -        | -                    | -              | -        | -              | -        | -                   | -                   | -                   | -                  |          |
| TOTAL Cash Flow from Financing Activities 183.46 4   | -                               | -                  |                            | -                       | -                       | -                        | -                              | -                               | -                                 | -                      | -                   | -                        | -                  | -                   | -                   | -                    | -                 | -                 | -                 | -        | -                    | -              |          | -              | -        | -                   | -                   | -                   | -                  |          |
|  |                                 | 183.46 40          | 8 3.29                     |                         | (3.29)                  | (41.60)                  | (41.60)                        | (41.60)                         | (41.60)                           | (41.60)                | (41.60)             | (41.60)                  | (41.60)            | (41.60)             | (38.31)             |                      |                   |                   |                   |          |                      | ·              |          |                |          |                     | -                   |                     |                    |          |
|  | 409.38                          |                    | $oxed{\Box}$               |                         |                         |                          | Ţ                              |                                 |                                   |                        |                     |                          |                    | Ţ                   |                     |                      |                   |                   |                   |          |                      |                |          |                |          |                     |                     |                     |                    |          |
| Opening Cash Balance -   |                                 | · ·                | 0,000                      | 34.73                   | 69.61                   | 108.04                   | 109.90                         | 118.15                          | 131.90                            | 151.38                 | 176.85              | 208.54                   | 243.70             | 279.27              | 321.42              |                      | 470.62            | 572.74            | 680.31            | 793.52   |                      | 1,032.10       | 1,142.21 | -,-,-,-        | 1,375.09 | -,                  | ,                   | ,                   | ,                  | 2,034.   |
|  | (0.00) (                        |                    |                            | 34.88                   | 35.13                   | 1.87                     | 8.25                           | 13.75                           | 19.48                             | 25.46                  | 31.70               | 35.15                    | 35.57              | 42.15               | 52.36               | 96.84                | 102.12            | 107.57            | 113.21            | 119.03   | 119.55               | 110.11         | 114.30   | 118.58         | 122.95   | 127.40              | 131.91              | 136.48              | 141.10             | 145.     |
| Shadow Revenue (interest free sub debt from promoters for senior debt service)  - Closing Cash Balance (0.00)  | (0.00) (<br>(7.49) 3            |                    | 9 34.73                    | 69.61                   | 3.29                    | -                        |                                |                                 | -                                 | 176.85                 | -                   | -                        | -                  |                     | -                   | -                    | -                 | -                 | 793.52            | -        | -                    | -              | -        | -              |          | 1,625.45            |                     |                     | -                  |          |

**TATA** CONSULTING ENGINEERS LIMITED

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#### Depreciation Calculation - Over the Project

|   | Mo    | del Period Beginning | 01 Apr 16 | 01 Apr 17 | 01 Apr 18 | 01 Apr 19 | 01 Apr 20 | 01 Apr 21 | 01 Apr 22 | 01 Apr 23 | 01 Apr 24 | 01 Apr 25 | 01 Apr 26 | 01 Apr 27 | 01 Apr 28 | 01 Apr 29 | 01 Apr 30 | 01 Apr 31 | 01 Apr 32 | 01 Apr 33 | 01 Apr 34 | 01 Apr 35 | 01 Apr 36 | 01 Apr 37 | 01 Apr 38 | 01 Apr 39 | 01 Apr 40 | 01 Apr 41 | 01 Apr 42 | 01 Apr 43 | 01 Apr 44 | 01 Apr 4 |
|---|-------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
|   | )     | dodel Period Ending  | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 1 Mar 26  | 31 Mar 27 | 31 Mar 28 | 31 Mar 29 | 31 Mar 30 | 31 Mar 31 | 31 Mar 32 | 31 Mar 33 | 31 Mar 34 | 31 Mar 35 | 31 Mar 36 | 31 Mar 37 | 31 Mar 38 | 31 Mar 39 | 31 Mar 40 | 31 Mar 41 | 31 Mar 42 | 31 Mar 43 | 31 Mar 44 | 31 Mar 45 | 31 Mar 4 |
|   | F     | inancial Year Ending | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | 20       |
|   |       | Construction Days    | 365       | 365       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |          |
|   |       | Const. periof Flag   | 1         | 1         | 1 0       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |          |
|   | 0     | peration Period Days | 0         | •         | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 3        |
|   |       | Opex Period Flag     | 0         |           | 1         | 1         | 1         | 1         | - 1       | 1         | 1         | 1         | - 1       | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | - 1       | - 1       | - 1       | - 1       |          |
|   |       | Conc. Period No.     | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        | 17        | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        |          |
|   |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Depreciation                            | SLM   |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Depreciation Rate - civil               |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Opening Balance                         |       |                      |           | 56.48     | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.1    |
| Capital Expenditure                     |       |                      | 56.48     | 120.71    |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Additional CAPEX - Civil                |       |                      |           |           |           |           |           | -         | -         |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Deductions                              |       |                      |           |           |           |           |           |           | -         |           |           |           |           |           |           |           |           |           | -         | -         |           |           |           |           |           |           |           |           |           |           |           |          |
| Closing                                 |       |                      | 56.48     | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.19    | 177.1    |
| Depreciation                            | 3.34  | 6                    |           |           |           | 5.92      | 5.92      | 5.92      | 5.92      |           | 5.92      | 5.92      | 5.92      | 5.92      |           | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      |           | 5.92      | 5.92      | 5.92      | 5.92      |           |           | 5.92      | 5.92      | 5.92      | 5.9      |
| Acc dep                                 |       |                      | -         |           | 5.92      | 11.84     | 17.75     | 23.67     | 29.59     | 35.51     | 41.43     | 47.35     | 53.26     | 59.18     | 65.10     | 71.02     | 76.94     | 82.86     | 88.77     | 94.69     | 100.61    | 106.53    | 112.45    | 118.36    | 124.28    | 130.20    | 136.12    | 142.04    | 147.96    | 153.87    | 159.79    | 165.71   |
| Net Value                               |       |                      | 56.48     | 177.19    | 171.27    | 165.36    | 159.44    | 153.52    | 147.60    | 141.68    | 135.76    | 129.85    | 123.93    | 118.01    | 112.09    | 106.17    | 100.26    | 94.34     | 88.42     | 82.50     | 76.58     | 70.66     | 64.75     | 58.83     | 52.91     | 46.99     | 41.07     | 35.15     | 29.24     | 23.32     | 17.40     | 11.48    |
|   |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Depreciation Rate - Plant and Equipment |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Opening Balance                         |       |                      |           | 126.98    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65   |
| Capital Expenditure                     |       |                      | 126.98    | 288.67    |           | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         | -         |           | -         | -         | -        |
| Additional CAPEX - Plant & Equipment    |       |                      |           |           |           | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         | -         |           | -         | -         | -        |
| Deductions                              |       |                      |           |           |           | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         |           | -         | -         |           | -         |           | -         | -         | -         |           | -         | -         | -        |
| Closing                                 |       |                      | 126.98    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65   |
| Depreciation                            | 10.34 | 6                    |           |           | 42.98     | 42.98     | 42.98     | 42.98     | 42.98     | 42.98     | 42.98     | 42.98     | 42.98     | 28.85     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Acc dep                                 |       |                      | -         |           | 42.98     | 85.96     | 128.93    | 171.91    | 214.89    | 257.87    | 300.85    | 343.82    | 386.80    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65    | 415.65   |
| Net Value                               |       |                      | 126.98    | 415.65    | 372.67    | 329.69    | 286.71    | 243.74    | 200.76    | 157.78    | 114.80    | 71.82     | 28.85     | -         |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Depreciation                            | WDV   |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Depreciation Rate - civil               |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Opening Balance                         |       |                      |           | 56.48     | 177.19    | 161.08    | 146.44    | 133.13    | 121.02    | 110.02    | 100.02    | 90.93     | 82.66     | 75.15     | 68.32     | 62.10     | 56.46     | 51.33     | 46.66     | 42.42     | 38.56     | 35.06     | 31.87     | 28.97     | 26.34     | 23.94     | 21.77     | 19.79     | 17.99     | 16.35     | 14.87     | 13.52    |
| Capital Expenditure                     |       |                      | 56.48     | 120.71    |           |           | -         |           |           |           | -         |           |           | -         |           |           | -         |           |           |           | -         |           |           |           |           |           |           |           |           |           |           | -        |
| Additional CAPEX - Civil                |       |                      |           |           |           |           | -         |           |           |           | -         |           |           | -         |           |           | -         |           |           |           | -         |           |           |           |           |           |           |           |           |           | -         | -        |
| Deductions                              |       |                      |           |           | 16.11     | 14.64     | 13.31     | 12.10     | 11.00     | 10.00     | 9.09      | 8.27      | 7.51      | 6.83      | 6.21      | 5.65      | 5.13      | 4.67      | 4.24      | 3.86      | 3.51      | 3.19      | 2.90      | 2.63      | 2.39      | 2.18      | 1.98      | 1.80      | 1.64      | 1.49      | 1.35      | 1.23     |
| Closing                                 |       |                      | 56.48     | 177.19    | 161.08    | 146.44    | 133.13    | 121.02    | 110.02    | 100.02    | 90.93     | 82.66     | 75.15     | 68.32     | 62.10     | 56.46     | 51.33     | 46.66     | 42.42     | 38.56     | 35.06     | 31.87     | 28.97     | 26.34     | 23.94     | 21.77     | 19.79     | 17.99     | 16.35     | 14.87     | 13.52     | 12.29    |
| Depreciation                            | 10.00 | 6                    |           |           | 16.11     | 14.64     | 13.31     | 12.10     | 11.00     | 10.00     | 9.09      | 8.27      |           | 6.83      |           | 5.65      |           | 4.67      |           | 3.86      |           |           | 2.90      | 2.63      | 2.39      | 2.18      | 1.98      | 1.80      |           | 1.49      |           |          |
| Acc dep                                 |       |                      |           | -         | 16.11     | 30.75     | 44.07     | 56.17     | 67.17     | 77.17     | 86.26     | 94.53     | 102.05    | 108.88    | 115.09    | 120.73    | 125.87    | 130.53    | 134.77    | 138.63    | 142.14    | 145.32    | 148.22    | 150.85    | 153.25    | 155.43    | 157.40    | 159.20    | 160.84    | 162.33    | 163.68    | 164.91   |
| Net Value                               |       |                      | 56.48     | 177.19    | 161.08    | 146.44    | 133.13    | 121.02    | 110.02    | 100.02    | 90.93     | 82.66     | 75.15     | 68.32     | 62.10     | 56.46     | 51.33     | 46.66     | 42.42     | 38.56     | 35.06     | 31.87     | 28.97     | 26.34     | 23.94     | 21.77     | 19.79     | 17.99     | 16.35     | 14.87     | 13.52     | 12.29    |
| Depreciation Rate - Plant and Equipment |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Opening Balance                         |       |                      |           | 126.98    | 415.65    | 361.43    | 314.29    | 273.30    | 237.65    | 206.65    | 179.70    | 156.26    | 135.88    | 118.15    | 102.74    | 89.34     | 77.69     | 67.55     | 58.74     | 51.08     | 44.42     | 38.62     | 33.59     | 29.21     | 25.40     | 22.08     | 19.20     | 16.70     | 14.52     | 12.63     | 10.98     | 9.5      |
| Capital Expenditure                     |       |                      | 126.98    | 288.67    |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Additional CAPEX - Plant & Equipment    |       |                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Deductions                              |       |                      | -         |           | 54.22     | 47.14     | 40.99     | 35.65     | 31.00     | 26.95     | 23.44     | 20.38     | 17.72     | 15.41     | 13.40     | 11.65     | 10.13     | 8.81      | 7.66      | 6.66      | 5.79      | 5.04      | 4.38      | 3.81      | 3.31      | 2.88      | 2.50      | 2.18      | 1.89      | 1.65      | 1.43      | 1.2      |
| Josing                                  |       |                      | 126.98    | 415.65    | 361.43    | 314.29    | 273.30    | 237.65    | 206.65    | 179.70    | 156.26    | 135.88    | 118.15    | 102.74    | 89.34     | 77.69     | 67.55     | 58.74     | 51.08     | 44.42     | 38.62     | 33.59     | 29.21     | 25.40     | 22.08     | 19.20     | 16.70     | 14.52     | 12.63     | 10.98     | 9.55      | 8.3      |
| Depreciation                            | 15.00 | 6                    |           |           | 54.22     | 47.14     | 40.99     | 35.65     | 31.00     | 26.95     | 23.44     | 20.38     | 17.72     | 15.41     | 13.40     | 11.65     | 10.13     | 8.81      | 7.66      | 6.66      | 5.79      | 5.04      | 4.38      | 3.81      | 3.31      | 2.88      | 2.50      | 2.18      | 1.89      | 1.65      | 1.43      | 1.2      |
| Acc dep                                 |       |                      | -         |           | 54.22     | 101.36    | 142.35    | 178.00    | 209.00    | 235.95    | 259.39    | 279.77    | 297.50    | 312.91    | 326.31    | 337.96    | 348.09    | 356.91    | 364.57    | 371.23    | 377.02    | 382.06    | 386.44    | 390.25    | 393.57    | 396.45    | 398.95    | 401.13    | 403.02    | 404.67    | 406.10    | 407.3    |
| let Value                               |       |                      | 126.98    | 415.65    | 361.43    | 314.29    | 273.30    | 237.65    | 206.65    | 179.70    | 156.26    | 135.88    | 118.15    | 102.74    | 89.34     | 77.69     | 67.55     | 58.74     | 51.08     | 44.42     | 38.62     | 33.59     | 29.21     | 25.40     | 22.08     | 19.20     | 16.70     | 14.52     | 12.63     | 10.98     | 9.55      | 8.3      |

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#### Tax Calculation

|  | Model Period Beginning | 01 Apr 16 | 01 Apr 17 | 01 Apr 18 | 01 Apr 19 | 01 Apr 20 | 01 Apr 21 | 01 Apr 22 | 01 Apr 23 | 01 Apr 24 | 01 Apr 25 | 01 Apr 26 | 01 Apr 27 | 01 Apr 28 | 01 Apr 29 | 01 Apr 30 | 01 Apr 31 | 01 Apr 32 | 01 Apr 33 | 01 Apr 34 | 01 Apr 35 | 01 Apr 36 | 01 Apr 37 | 01 Apr 38 | 01 Apr 39 | 01 Apr 40 | 01 Apr 41 | 01 Apr 42 | 01 Apr 43 | 01 Apr 44 | 01 Apr |
|--|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
|  | Model Period Ending    | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 | 31 Mar 28 | 31 Mar 29 | 31 Mar 30 | 31 Mar 31 | 31 Mar 32 | 31 Mar 33 | 31 Mar 34 | 31 Mar 35 | 31 Mar 36 | 31 Mar 37 | 31 Mar 38 | 31 Mar 39 | 31 Mar 40 | 31 Mar 41 | 31 Mar 42 | 31 Mar 43 | 31 Mar 44 | 31 Mar 45 | 31 Mar |
|  | Financial Year Ending  | 201       | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | :      |
|  | Construction Days      | 36        | 365       | 0         | 0         | (         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |           | 0         | 0         | 0         | 0         |        |
|  | Const. periof Flag     |           | 1 1       | 0         | 0         | (         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |        |
|  | Operation Period Days  | - 1       | (         | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       |        |
|  | Opex Period Flag       | - 1       | (         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |        |
|  | Conc. Period No.       |           | 1 2       | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        | 17        | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        |        |
| Tax Exemption begins                     | 6 year                 |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |
| Tax exemption ends                       | 15 year                |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |
| an exemption ends                        | 25 year                |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |
| PBDT                                     |                        |           |           | 31.43     | 34.88     | 38.42     | 43.47     | 50.10     | 57.06     | 64.32     | 71.89     | 79.77     | 87.89     | 96.07     | 104.40    | 113.15    | 120.95    | 127.62    | 134.53    | 141.66    | 149.03    | 156.46    | 163.49    | 170.22    | 177.04    | 183.95    | 190.95    | 198.02    | 205.15    | 212.32    | 2      |
| Depreciation - SLM (Companies Act)       |                        |           |           | 48.90     | 48.90     | 48.90     | 48.90     | 48.90     | 48.90     | 48.90     | 48.90     | 48.90     | 34.76     | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      | 5.92      |        |
| Depreciation - WDV (Income Tax Act)      |                        |           |           | 70.32     | 61.79     | 54.31     | 47.75     | 42.00     | 36.96     | 32.53     | 28.65     | 25.24     | 22.24     | 19.61     | 17.30     | 15.27     | 13.48     | 11.90     | 10.52     | 9.30      | 8.22      | 7.28      | 6.44      | 5.71      | 5.06      | 4.48      | 3.98      | 3.53      | 3.13      | 2.78      |        |
| PBT - Companies Act                      |                        |           |           | (17.46)   | (14.01)   | (10.47)   | (5.43)    | 1.21      | 8.17      | 15.42     | 22.99     | 30.87     | 53.13     | 90.15     | 98.48     | 107.23    | 115.03    | 121.71    | 128.61    | 135.75    | 143.11    | 150.54    | 157.57    | 164.30    | 171.12    | 178.04    | 185.03    | 192.10    | 199.23    | 206.41    | 2      |
| BT - Income Tax Act                      |                        |           |           | (38.89)   | (26.90)   | (15.88)   | (4.28)    | 8.11      | 20.11     | 31.79     | 43.24     | 54.53     | 65.65     | 76.46     | 87.10     | 97.89     | 107.47    | 115.72    | 124.01    | 132.36    | 140.80    | 149.18    | 157.05    | 164.51    | 171.98    | 179.47    | 186.97    | 194.49    | 202.01    | 209.54    | 2:     |
| Carry forward loss position for the year |                        |           |           | (38.89)   | (65.79)   | (81.67)   | (85.95)   | (85.95)   | (77.85)   | (57.74)   | (25.95)   |           |           |           |           |           |           |           |           |           |           |           |           | -         |           |           |           |           | -         |           |        |
| oss adjusted during the year             |                        |           |           |           |           |           | -         | 8.11      | 20.11     | 31.79     | 25.95     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | -         |           | -         |           |        |
| oss carried forward (cumulative)         |                        |           |           | (38.89)   | (65.79)   | (81.67)   | (85.95)   | (77.85)   | (57.74)   | (25.95)   |           |           |           |           |           |           |           |           |           | -         |           |           |           |           |           |           |           |           |           |           |        |
| Taxable income for the year              |                        |           |           |           |           | -         |           | -         |           |           | 17.28     | 54.53     | 65.65     | 76.46     | 87.10     | 97.89     | 107.47    | 115.72    | 124.01    | 132.36    | 140.80    | 149.18    | 157.05    | 164.51    | 171.98    | 179.47    | 186.97    | 194.49    | 202.01    | 209.54    | 2:     |
| Section 80(IA) exemtion                  |                        |           |           |           |           |           |           | 8.11      | 20.11     | 31.79     | 43.24     | 54.53     | 65.65     | 76.46     | 87.10     | 97.89     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |
| Taxable income after Section 80(IA)      |                        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | 107.47    | 115.72    | 124.01    | 132.36    | 140.80    | 149.18    | 157.05    | 164.51    | 171.98    | 179.47    | 186.97    | 194.49    | 202.01    | 209.54    | 21     |
| Winimum Alternate Tax                    |                        |           |           |           |           |           |           | 0.25      | 1.71      | 3.23      | 4.82      | 6.47      | 11.14     | 18.90     | 20.64     | 22.48     | 24.11     | 25.51     | 26.96     | 28.45     | 30.00     | 31.55     | 33.03     | 34.44     | 35.87     | 37.32     | 38.78     | 40.26     | 41.76     | 43.26     | -      |
| Corporate Tax                            |                        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | 36.53     | 39.33     | 42.15     | 44.99     | 47.86     | 50.71     | 53.38     | 55.92     | 58.46     | 61.00     | 63.55     | 66.11     | 68.66     | 71.22     |        |
| ligher of MAT and regular tax            |                        |           |           |           |           | -         | -         | 0.25      | 1.71      | 3.23      | 4.82      | 6.47      | 11.14     | 18.90     | 20.64     | 22.48     | 36.53     | 39.33     | 42.15     | 44.99     | 47.86     | 50.71     | 53.38     | 55.92     | 58.46     | 61.00     | 63.55     | 66.11     | 68.66     | 71.22     |        |
| ayment on account of MAT                 |                        |           |           |           |           |           |           | 0.25      | 1.71      | 3.23      | 4.82      | 6.47      | 11.14     | 18.90     | 20.64     | 22.48     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |
| AAT Credit Carried forward               |                        |           |           |           |           |           |           | 0.25      | 1.96      | 5.20      | 10.02     | 16.49     | 27.62     | 46.52     | 67.16     | 89.64     | 77.22     | 63.39     | 48.20     | 31.66     | 13.80     |           | -         |           |           |           | -         |           | -         |           |        |
| et Off of MAT Credit                     |                        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | 12.42     | 13.82     | 15.19     | 16.54     | 17.86     | 13.80     |           |           |           |           |           |           |           |           |        |
|  |                        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |        |

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#### P/L Statement

|                                   | Model Period Beginning |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        | 01 Apr 32 |        |        |        |        |           |        |        |        |        |        | 01 Apr 43 |        |       |
|-----------------------------------|------------------------|------|------|-----------|---------|---------|--------|-----------|--------|--------|-----------|-----------|-----------|-----------|--------|--------|--------|-----------|--------|--------|--------|--------|-----------|--------|--------|--------|--------|--------|-----------|--------|-------|
|                                   | Model Period Ending    |      |      | 31 Mar 19 |         |         |        | 31 Mar 23 |        |        | 31 Mar 26 | 31 Mar 27 | 31 Mar 28 | 31 Mar 29 |        |        |        | 31 Mar 33 |        |        |        |        | 31 Mar 38 |        |        |        |        |        |           |        |       |
|                                   | Financial Year Ending  | 2017 | 2018 | 2019      | 2020    | 2021    | 2022   | 2023      | 2024   | 2025   | 2026      | 2027      | 2028      | 2029      | 2030   | 2031   | 2032   | 2033      | 2034   | 2035   | 2036   | 2037   | 2038      | 2039   | 2040   | 2041   | 2042   | 2043   | 2044      | 2045   | 21    |
|                                   | Construction Days      | 365  | 365  | 0         | 0       | 0       | 0      | 0         | 0      | 0      | 0         | 0         | 0         | 0         | 0      | 0      | 0      | 0         | 0      | 0      | 0      | 0      | 0         | 0      | 0      | 0      | 0      | 0      | 0         | 0      |       |
|                                   | Const. periof Flag     | 1    | 1    | 0         | 0       | 0       | 0      | 0         | 0      | 0      | 0         | 0         | 0         | 0         | 0      | 0      | 0      | 0         | 0      | 0      | 0      | 0      | 0         | 0      | 0      | 0      | 0      | 0      | 0         | 0      |       |
|                                   | Operation Period Days  | 0    | 0    | 365       | 366     | 365     | 365    | 365       | 366    | 365    | 365       | 365       | 366       | 365       | 365    | 365    | 366    | 365       | 365    | 365    | 366    | 365    | 365       | 365    | 366    | 365    | 365    | 365    | 366       | 365    |       |
|                                   | Opex Period Flag       | 0    | 0    | 1         | 1       | 1       | 1      | 1         | 1      | 1      | 1         | 1         | 1         | 1         | 1      | 1      | 1      | 1         | 1      | 1      | 1      | 1      | - 1       | 1      | 1      | 1      | 1      | 1      | - 1       | 1      |       |
|                                   | Conc. Period No.       | 1    | 2    | 3         | 4       | 5       | 6      | 7         | 8      | 9      | 10        | 11        | 12        | 13        | 14     | 15     | 16     | 17        | 18     | 19     | 20     | 21     | 22        | 23     | 24     | 25     | 26     | 27     | 28        | 29     |       |
| Revenue                           |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| ncome from cargo handling charges |                        |      |      | 189.86    | 195.56  | 201.42  | 207.47 | 213.69    | 220.10 | 226.70 | 233.51    | 240.51    | 247.73    | 255.16    | 262.81 | 270.70 | 278.82 | 287.18    | 295.80 | 304.67 | 313.81 | 323.23 | 332.92    | 342.91 | 353.20 | 363.79 | 374.71 | 385.95 | 397.53    | 409.45 | 421.7 |
| nterest Income                    |                        |      |      | 1.04      | 3.13    | 5.33    | 6.54   | 6.84      | 7.50   | 8.50   | 9.85      | 11.56     | 13.57     | 15.69     | 18.02  | 20.86  | 25.33  | 31.30     | 37.59  | 44.21  | 51.18  | 58.34  | 65.23     | 71.96  | 78.95  | 86.19  | 93.70  | 101.48 | 109.54    | 117.86 | 126.  |
|                                   |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        | 249.0     |        |       |
| OTAL REVENUE                      |                        |      |      | 190.90    | 198.69  | 206.75  | 214.00 | 220.53    | 227.60 | 235.20 | 243.35    | 252.07    | 261.29    | 270.85    | 280.83 | 291.55 | 304.15 | 318.48    | 333.39 | 348.89 | 364.99 | 381.57 | 398.15    | 414.87 | 432.15 | 449.99 | 468.41 | 487.43 | 507.06    | 527.32 | 548.3 |
| Expenditure                       |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| Doex Civil                        |                        |      |      | 1.31      | 1.37    | 1.44    | 1.51   | 1.59      | 1.67   | 1.75   | 1.84      | 1.93      | 2.03      | 2.13      | 2.24   | 2.35   | 2.47   | 2.59      | 2.72   | 2.85   | 3.00   | 3.15   | 3.30      | 3.47   | 3.64   | 3.83   | 4.02   | 4.22   | 4.43      | 4.65   | 4.8   |
| Opex Plant and Equipment          |                        |      |      | 25.23     | 26.49   | 27.81   | 29.20  | 30.66     | 32.20  | 33.80  | 35.50     | 37.27     | 39.13     | 41.09     | 43.14  | 45.30  | 47.57  | 49.95     | 52.44  | 55.06  | 57.82  | 60.71  | 63.74     | 66.93  | 70.28  | 73.79  | 77,48  | 81.36  | 85.42     | 89.69  | 94.3  |
| ease Rental                       |                        |      |      | 3.66      | 3.73    | 3.81    | 3.89   | 3.96      | 4.04   | 4.12   | 4.21      | 4.29      | 4.38      | 4.46      | 4.55   | 4.64   | 4.74   | 4.83      | 4.93   | 5.03   | 5.13   | 5.23   | 5.33      | 5.44   | 5.55   | 5.66   | 5.77   | 5.89   | 6.01      | 6.13   | 6.3   |
| lower Cost                        |                        |      |      | 10.13     | 10.64   | 11.17   | 11.73  | 12.31     | 12.93  | 13.57  | 14.25     | 14.97     | 15.71     | 16.50     | 17.32  | 18.19  | 19.10  | 20.06     | 21.06  | 22.11  | 23.22  | 24.38  | 25.60     | 26.88  | 28.22  | 29.63  | 31.11  | 32.67  | 34.30     | 36.02  | 37.8  |
| nsurance Cost                     |                        |      |      | 4.97      | 4.97    | 4.97    | 4.97   | 4.97      | 4.97   | 4.97   | 4.97      | 4.97      | 4,97      | 4.97      | 4.97   | 4.97   | 4.97   | 4.97      | 4,97   | 4.97   | 4.97   | 4.97   | 4.97      | 4.97   | 4.97   | 4,97   | 4.97   | 4.97   | 4.97      | 4.97   | 4.5   |
| ther Miscellaneous Cost           | •                      |      |      | 25.77     | 27.06   | 28.42   | 29.84  | 31.33     | 32.90  | 34.54  | 36.27     | 38.08     | 39.98     | 41.98     | 44.08  | 46.29  | 48.60  | 51.03     | 53.58  | 56.26  | 59.08  | 62.03  | 65.13     | 68.39  | 71.81  | 75.40  | 79.17  | 83.13  | 87.28     | 91.65  | 96.2  |
| idditional OPEX                   |                        |      |      |           |         |         |        |           |        |        |           |           |           | -         | -      |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| levenue Share                     |                        |      |      | 37.97     | 39.11   | 40.28   | 41.49  | 42.74     | 44.02  | 45.34  | 46.70     | 48.10     | 49.55     | 51.03     | 52.56  | 54.14  | 55.76  | 57.44     | 59.16  | 60.93  | 62.76  | 64.65  | 66.58     | 68.58  | 70.64  | 72.76  | 74.94  | 77.19  | 79.51     | 81.89  | 84.3  |
|                                   |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| OTAL EXPENDITURE                  |                        |      | •    | 109.04    | 113.37  | 117.90  | 122.63 | 127.56    | 132.72 | 138.11 | 143.73    | 149.61    | 155.75    | 162.17    | 168.87 | 175.88 | 183.20 | 190.86    | 198.86 | 207.22 | 215.97 | 225.11 | 234.66    | 244.66 | 255.11 | 266.03 | 277.46 | 289.41 | 301.92    | 314.99 | 328.0 |
| BIDTA                             |                        |      |      | 81.86     | 85.31   | 88.85   | 91.38  | 92.97     | 94.88  | 97.10  | 99.62     | 102.46    | 105.54    | 108.68    | 111.96 | 115.67 | 120.95 | 127.62    | 134.53 | 141.66 | 149.03 | 156.46 | 163.49    | 170.22 | 177.04 | 183.95 | 190.95 | 198.02 | 205.15    | 212.32 | 219.  |
| NTEREST ON LONG TERM DEBT         |                        |      |      | 50.43     | 50.43   | 50.43   | 47.91  | 42.86     | 37.82  | 32.78  | 27.74     | 22.69     | 17.65     | 12.61     | 7.56   | 2.52   |        |           |        | -      |        |        |           |        |        | -      | -      | -      |           |        |       |
| NTEREST ON SHORT TERM DEBT        |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| BDT                               |                        |      |      | 31.43     | 34.88   | 38.42   | 43.47  | 50.10     | 57.06  | 64.32  | 71.89     | 79.77     | 87.89     | 96.07     | 104.40 | 113.15 | 120.95 | 127.62    | 134.53 | 141.66 | 149.03 | 156.46 | 163.49    | 170.22 | 177.04 | 183.95 | 190.95 | 198.02 | 205.15    | 212.32 | 219.5 |
| EPRECIATION - SLM                 |                        |      |      | 48.90     | 48.90   | 48.90   | 48.90  | 48.90     | 48.90  | 48.90  | 48.90     | 48.90     | 34.76     | 5.92      | 5.92   | 5.92   | 5.92   | 5.92      | 5.92   | 5.92   | 5.92   | 5.92   | 5.92      | 5.92   | 5.92   | 5.92   | 5.92   | 5.92   | 5.92      | 5.92   | 5.9   |
| BT                                |                        |      |      | (17.46)   | (14.01) | (10.47) | (5.43) | 1.21      | 8.17   | 15.42  | 22.99     | 30.87     | 53.13     | 90.15     | 98.48  | 107.23 | 115.03 | 121.71    | 128.61 | 135.75 | 143.11 | 150.54 | 157.57    | 164.30 | 171.12 | 178.04 | 185.03 | 192.10 | 199.23    | 206.41 | 213.0 |
| AX                                |                        |      |      | -         |         |         |        | 0.25      | 1.71   | 3.23   | 4.82      | 6.47      | 11.14     | 18.90     | 20.64  | 22.48  | 24.11  | 25.51     | 26.96  | 28.45  | 30.00  | 36.91  | 53.38     | 55.92  | 58.46  | 61.00  | 63.55  | 66.11  | 68.66     | 71.22  | 73.7  |
| AT                                |                        |      |      | (17.46)   | (14.01) | (10.47) | (5.43) | 0.96      | 6.45   | 12.19  | 18.17     | 24.40     | 41.99     | 71.26     | 77.84  | 84.76  | 90.92  | 96.20     | 101.65 | 107.29 | 113.11 | 113.63 | 104.19    | 108.38 | 112.66 | 117.03 | 121.48 | 125.99 | 130.56    | 135.18 | 139.  |
| iross Cash Accrual                |                        |      |      | 31.43     | 34.88   | 38.42   | 43.47  | 49.85     | 55.35  | 61.09  | 67.07     | 73.30     | 76.76     | 77.18     | 83.76  | 90.68  | 96.84  | 102.12    | 107.57 | 113.21 | 119.03 | 119.55 | 110.11    | 114.30 | 118.58 | 122.95 | 127.40 | 131.91 | 136.48    | 141.10 | 145.  |
|                                   |                        |      |      |           |         |         |        |           |        |        |           |           |           |           |        |        |        |           |        |        |        |        |           |        |        |        |        |        |           |        |       |
| perating Profit %                 |                        |      |      | 43%       | 43%     | 43%     | 43%    | 42%       | 42%    | 41%    | 41%       | 41%       | 40%       | 40%       | 40%    | 40%    | 40%    | 40%       | 40%    | 41%    | 41%    | 41%    |           | 41%    | 41%    | 41%    | 41%    | 41%    | 40%       | 40%    | 4     |
| let Income %                      |                        |      |      | -9%       | -7%     | -5%     | -3%    | 0%        | 3%     | 5%     | 7%        | 10%       | 16%       | 26%       | 28%    | 29%    | 30%    | 30%       | 30%    | 31%    | 31%    | 30%    | 26%       | 26%    | 26%    | 26%    | 26%    | 26%    | 26%       | 26%    | 2     |

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#### Balance Sheet

|                                | Mod | lel Period B | eginning  | 01 Apr 16 | 01 Apr 17 | 01 Apr 18 | 01 Apr 19 | 01 Apr 20 | 01 Apr 21 | 01 Apr 22 | 01 Apr 23 | 01 Apr 24 | 01 Apr 25 | 01 Apr 26 | 01 Apr 27 | 01 Apr 28 | 01 Apr 29 | 01 Apr 30 | 01 Apr 31 | 01 Apr 32 | 01 Apr 33 | 01 Apr 34 | 01 Apr 35 | 01 Apr 36 | 01 Apr 37 | 01 Apr 38 | 01 Apr 39 | 01 Apr 40 | 01 Apr 41 | 01 Apr 42 | 01 Apr 43 | 01 Apr 44 | 01 Apr 4 |
|--------------------------------|-----|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
|                                | M   | Iodel Perio  | d Ending  | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 | 51 Mar 28 | 1 Mar 29  | 1 Mar 30  | 31 Mar 31 | 31 Mar 32 | 11 Mar 33 | 11 Mar 34 | 31 Mar 35 | 31 Mar 36 | 31 Mar 37 | 31 Mar 38 | 31 Mar 39 | 31 Mar 40 | 31 Mar 41 | 31 Mar 42 | 31 Mar 43 | 31 Mar 44 | 31 Mar 45 | 31 Mar   |
|                                | Fi  | inancial Ye  | ar Ending | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | 2        |
|                                |     | Construc     | tion Days | 365       | 365       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |          |
|                                |     | Const. pa    | riof Flag | 1         | 1         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |          |
|                                | Op  | eration Per  | iod Days  | (         | 0         | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       | 365       | 365       | 366       | 365       |          |
|                                |     | Opex Pe      | riod Flag | (         | 0         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |          |
|                                |     | Conc. Pe     | riod No.  | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        | 17        | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        |          |
|                                |     |              |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Liabilities and Owner's Equity |     |              |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| quity                          |     |              |           | 55.04     | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    | 180.10    |           |          |
| Reserves and Surplus           |     |              |           |           | -         | (17.46)   | (31.47)   | (41.94)   | (47.37)   | (46.41)   | (39.96)   | (27.77)   | (9.60)    | 14.80     | 56.80     | 128.05    | 205.89    | 290.65    | 381.57    | 477.76    | 579.42    | 686.71    | 799.82    | 913.46    | 1,017.65  | 1,126.03  | 1,238.69  | 1,355.73  | 1,477.21  | 1,603.20  | 1,733.77  | 1,868.95  | 2,008    |
| Net Worth                      |     |              |           | 55.04     | 180.10    | 162.64    | 148.63    | 138.16    | 132.73    | 133.69    | 140.14    | 152.33    | 170.50    | 194.90    | 236.90    | 308.15    | 385.99    | 470.75    | 561.67    | 657.86    | 759.52    | 866.81    | 979.93    | 1,093.56  | 1,197.75  | 1,306.13  | 1,418.79  | 1,535.83  | 1,657.31  | 1,783.30  | 1,913.87  | 2,049.05  | 2,188    |
| Debt                           |     |              |           | 128.42    | 420.24    | 420.24    | 420.24    | 420.24    | 378.21    | 336.19    | 294.16    | 252.14    | 210.12    | 168.09    | 126.07    | 84.05     | 42.02     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.       |
| Shadow Revenue                 |     |              |           | -         | 7.49      | 7.49      | 7.49      | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10.79     | 10       |
| TOTAL Lizbilities              |     |              |           | 183.46    | 607.83    | 590.37    | 576.36    | 569.18    | 521.73    | 480.66    | 445.09    | 415.26    | 391.41    | 373.78    | 373.75    | 402.99    | 438.80    | 481.53    | 572.45    | 668.65    | 770.30    | 877.60    | 990.71    | 1,104.34  | 1,208.53  | 1,316.92  | 1,429.58  | 1,546.61  | 1,668.09  | 1,794.09  | 1,924.65  | 2,059.84  | 2,199.8  |
| Assets                         |     |              |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Gross Fixed Assets             |     |              |           | 183.46    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.34    | 600.     |
| Depreciation                   |     |              |           |           |           | 48.90     | 97.79     | 146.69    | 195.59    | 244.48    | 293.38    | 342.27    | 391.17    | 440.07    | 474.83    | 480.75    | 486.67    | 492.59    | 498.50    | 504.42    | 510.34    | 516.26    | 522.18    | 528.10    | 534.01    | 539.93    | 545.85    | 551.77    | 557.69    | 563.60    | 569.52    | 575.44    | 581      |
| Net Fixed Assets               |     |              |           | 183.46    | 600.34    | 551.44    | 502.54    | 453.65    | 404.75    | 355.85    | 306.96    | 258.06    | 209.16    | 160.27    | 125.50    | 119.59    | 113.67    | 107.75    | 101.83    | 95.91     | 89.99     | 84.08     | 78.16     | 72.24     | 66.32     | 60.40     | 54.49     | 48.57     | 42.65     | 36.73     | 30.81     | 24.89     | 18       |
| lebt Service Reserve           |     |              |           |           | 7.49      | 4.20      | 4.20      | 7,49      | 7.07      | 6.65      | 6.23      | 5.81      | 5.39      | 4.97      | 4.55      | 4.13      | 3.71      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |
| Cash Balance                   |     |              |           | (0.00)    |           | 34.73     | 69.61     | 108.04    | 109.90    | 118.15    | 131.90    | 151.38    | 176.85    | 208.54    | 243.70    | 279.27    | 321.42    | 373.78    | 470.62    | 572.74    | 680.31    | 793.52    | 912.55    | 1,032.10  | 1,142.21  | 1,256.51  | 1,375.09  | 1,498.05  | 1,625.45  | 1,757.36  | 1,893.84  | 2,034.94  | 2,180.   |
| TOTAL Assets                   |     |              |           | 183.46    | 607.83    | 590.37    | 576.36    | 569.18    | 521.73    | 480.66    | 445.09    | 415,26    | 391.41    | 373.78    | 373.75    | 402.99    | 438.80    | 481.53    | 572.45    | 668.65    | 770.30    | 877.60    | 000.71    | 1.104.34  | 1 200 52  | 1 216 00  | 1 420 50  | 1566      | 1.000.00  | 1 704 00  | 1.004.05  | 2.059.84  | 2 400    |

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