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Tariff Authority for Major Ports

GNo.142 **New Delhi,** **11 May 2010**

NOTIFICATION

In exercise of the powers conferred by Sections 48, 49 and 50 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from the Visakhapatnam Port Trust for setting upfront tariff for handling alumina and other bulk cargo in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Ports vide this Authority's Notification No.TAMP/52/2007-Misc. dated 26 February 2008 as in the Order appended hereto.

(Rani Jadhav)
Chairperson

Tariff Authority for Major Ports

Case No. TAMP/51/2009-VPT

Visakhapatnam Port Trust - - - - - **Applicant**

O R D E R

(Passed on this 19th day of April 2010)

The Visakhapatnam Port Trust (VPT) vide its letter dated 21 November 2009 filed a proposal for fixation of upfront tariff for handling Alumina, Gypsum and Caustic soda at Western Quay 8 on Design Built Finance Operate and Transfer (DBFOT) basis at Visakhapatnam Port in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Port Trusts, 2008. The proposal filed by the VPT was not complete in all respects and hence was returned with an advice to file a comprehensive proposal.

2. The VPT had subsequently vide letter dated 11 January 2010 filed a proposal which was further modified vide its another letter dated 18 January 2010. The port has furnished draft proposal Scale of Rates and Techno Economic Feasibility Report.

3. The highlights of the revised proposal filed by the VPT with reference to Alumina, Caustic Soda and Gypsum at Western Quay Berth No. 8 dated 18 January 2010 are given below:

(i). Capacity of the terminal:

(a). The port has assessed the capacity of the terminal at the proposed WQ-8 at 4.56 Million Tonnes per Annum (MTPA) based on the share of cargo to be handled and the ship day output of each type of cargo. It has considered the share of cargo capacity of Alumina, Gypsum and Caustic soda at 80%, 15% and 5% respectively.

(b). The handling rate considered for each type of cargo and the reasons for the same is tabulated below:

Type of cargo	Handling rate	Reasons for the same
Alumina	20000	No specific handling rate mentioned in the guidelines. Hence the productivity level achieved at the adjacent berth having similar facility is considered.
Gypsum	10000	Considered as per norms prescribed in the guidelines for multipurpose terminal.
Caustic soda	7200	As per norms prescribed in the guidelines for liquid terminal.

(ii). The total capital cost is estimated at Rs.20886.98 lakhs. The break up of the capital cost is as below:

Sr. No.	Particulars			Estimated Capital cost (in lakhs)
A.	Capital cost for handling activity			
	(i).	Civil Work		
		(a). Berth apron and approach	44.18	
		(b). Storage yards, building, etc.	55.15	
		(c). Dismantling of existing structure	34.61	
		(d). Area illumination	46.72	
	TOTAL			**180.66**

	(ii).	Equipments		
		(a). Ship loaders – 1 no. (for Alumina)	1699.44	
		(b). Conveyer system – 1 no. (for Alumina)	2832.40	
		(c). Transfer Houses – 6 nos. (for Alumina)	453.18	
		(d). 60 tonne HMC – 1no. (for Gypsum)	2802.71	
		(e). Front end loader/dozer – 2 nos. (for Gypsum)	67.98	
		(f). Caustic soda unloading arm	906.37	
		(g). Silo Farm – 4 nos. (for Alumina)	2719.10	
		(h). Power & lighting (Common asset)	1472.85	
		TOTAL		**12954.03**
	(iii).	Miscellaneous cost (5% of i & ii above)		**656.73**
TOTAL (i + ii +iii)				**13791.42**
B.	Berthing activity			
	(a). Civil construction		4918.58	
	(b). Berth fixture		180.29	
	(c). Ground improvement		590.99	
	(d). Dredging cost		1405.70	
	TOTAL			**7095.56**
TOTAL CAPITAL COST				**20886.98**

(a). The port has submitted that as there are no specific guidelines for deployment of equipment for handling alumina, it has proposed equipments based on the handling facility at WQ 5 berth operated by the NALCO.

(b). Cost of civil assets for handling activities and capital cost relating to power and lighting has been apportioned to different cargo items based on percentage share of cargo.

(c). The estimates are prepared based on the VPT schedule of rates of 1 June 2008 and with latest amendment no.2 effective from 1 January 2009. Prevailing market rates / quotations are considered for items where rates are not available in VPT Schedule of Rates in respect of civil works. Unit cost of dredging is considered at Rs.300/cum based on the work done by M/s.Dredging Corporation of India.

(iii). (a). The port has estimated the operating cost for each type of cargo with reference to equipment proposed to be deployed. The total operating cost for cargo handling activities is estimated at Rs.3816.22 lakhs. The break up of operating cost cargo-wise is tabulated below:

(**Rupees in lakhs**)

Sr. No.	**Item of operating cost**	**Alumina**	**Gypsum**	**Caustic Soda**
(i).	Power	452.72	---	15.03
	Fuel	---	160.50	----
(ii).	Repairs and Maintenance			
	1% on civil assets	1.45	0.27	0.09
	7% on Mech. & Elect. assets	621.77	216..41	68.60
(iii).	Insurance 1% of gross fixed assets	94.78	32.75	10.38
(iv).	Depreciation			
	Civil assets – 3.34%	4.83	0.91	0.30
	Mech. & Elect. assets - 10.34%	918.44	319.67	101.33
(v).	License fee	60.66	34.79	10.98
(vi).	Other expenses – 5% of gross fixed assets	473.91	163.73	51.92
TOTAL		**2628.56**	**929.03**	**258.63**

(b). The port has submitted that since the equipment proposed to be deployed for Alumina is similar to the norms for coal terminal, the operating cost is estimated following the guidelines prescribed for coal terminal. For

Gypsum and Caustic Soda, the port has stated that they have adopted the norms prescribed in the guidelines for multipurpose cargo berth and liquid terminal respectively. (It is noted that estimation of repairs and maintenance, insurance, other expenses, etc., are done borrowing the norms prescribed in the guidelines for coal terminal even for gypsum and caustic soda.)

(c). Power cost for Alumina is estimated assuming consumption of power at 2 units per tonne as against the consumption norm of 1.4 per tonne prescribed in the guidelines citing that the stacking area is located 2 kms away from the berth and that it is based on inquiry with M/s.NALCO which is operating a similar facility.

Fuel cost for gypsum is estimated for 1 no. HMC and 2 nos. front end loaders/dozers assuming fuel consumption of 83 liters per hour per HMC and 12 litres per hour for each front end loader. The fuel cost is estimated for 4000 working hours as prescribed in the guidelines for multipurpose cargo terminal.

For Caustic Soda, power cost is estimated adopting the consumption norm of 2.4 lakh units / annum / hectare for liquid cargo terminal for area of 1.01 hectares. The unit rate adopted for estimating power cost is Rs.6.20.

(d). The license fee is estimated for area proposed to be allotted for each cargo items at Zone IX-A adopting unit rate of Rs.105.07 per sq. mtr. It has furnished detailed calculation of estimation of license fee.

(iv). Annual Revenue Requirement (ARR)

(**Rs. in lakhs**)

Sr. No.	Items of Revenue Requirement	Alumina	Gypsum	Caustic Soda
(i).	Annual Operating Cost	2628.56	929.03	258.63
(ii).	ROCE @ 16%	1516.53	523.95	166.16
(iii).	**Total**	**4145.09**	**1452.98**	**424.79**

(v). The ARR estimated for each type of cargo is apportioned to determine various tariff items as follows:

Sr. No.	Tariff Items	Alumina	Gypsum	Caustic Soda
(i).	Handling charges	98%	96%	90%
(ii).	Storage charges	1%	2%	10%
(iii).	Miscellaneous charges	1%	2%	-----

(vi). **Berth hire**

(a). The capital and operating cost is considered for arriving at the proposed berth hire charges. The sum of capital cost for construction of berth and dredging cost is estimated at Rs.7095.56 lakhs. The operating cost takes in to account repairs and maintenance and insurance at 1% each and depreciation at 3.34% on the total capital cost of berthing service.

(b). The revenue requirement from the berthing activity is assessed as below:

Sr. No.	Group	Amount in lakhs
(i).	Operating cost	378.91
(ii).	ROCE at 16%	1135.29
(iii).	Total estimated annual revenue requirement	1514.20

(c). It has furnished detailed working for arriving at the proposed berth hire charges.

(vii). The draft SOR proposes the following charges:

(a). Berth hire

Rate per GRT per hour or part thereof	
Foreign going vessel (in Rs)	**Coastal vessel (in Re)**
1.13	0.68

(b). Cargo handling charges

(**Rate per metric tonne**)

Sr. No.	Commodity	Rate in Rupees	
		Foreign	**Coastal**
(i).	Alumina	111.26	66.76
(ii).	Caustic soda	167.68	100.60
(iii).	Gypsum	203.93	122.36

(c). Storage charges (beyond free period)

- Free period: 10 days free period for Alumina and Gypsum.

(**Rate in Rs. per tonne per day or part thereof**)

Sr. No	Commodity	First 5 days after expiry of free period	6th day to 10th day after expiry of free period	Beyond 10th day
(i).	Alumina	1.33	2.00	2.67
(ii).	Caustic soda	21.78	32.67	43.56
(iii).	Gypsum	5.01	7.52	10.03

(d). Miscellaneous charges:

Rate in Rs. per tonne per day	
Alumina (in Rs.)	**Gypsum (in Rs.)**
1.14	4.25

4. In accordance with the consultation process prescribed, the proposal dated 18 January 2010 received from the VPT was circulated to the concerned users / organisation bodies and RFQ applicants as per the list provided by the VPT seeking their comments. The comments received from the users / organisation bodies and RFQ applicants have been forwarded to the VPT as feedback information.

5. Based on a preliminary scrutiny of the proposal, it was observed that the two proposals filed by the Visakhapatnam Port Trust (VPT) with reference to upfront tariff for handling Alumina, Caustic Soda & Gypsum at Western Quay 8 and another proposal filed by the port vide its letter No. IRNP/WQ7/ Upfront tariff/2010 dated 18 January 2010 for fixation of upfront tariff for handing Alumina, Caustic Soda & BF Slag at Western Quay 7 are almost identical in terms of physical features (length, draft of the berth), share of cargo in capacity calculation, optimal capacity, capital investment, unit rate, etc. Since the guidelines do not require upfront tariff fixation project-wise, the port was advised to consider proposing uniform rates for a standard terminal for handling Alumina, caustic soda and other dry bulk cargo covering both Gypsum and BF Slag for which the same handling rate is presumed in the upfront tariff calculation. The port was, therefore, advised to examine both the proposals relating to WQ-8 and WQ-7 berths in the light of the above observations and reformulate the proposal bearing in mind the gaps / inconsistencies pointed in our letter dated 11 March 2010. A summary of the queries raised and the clarifications furnished by the VPT are brought out in subsequent paragraphs.

6.1. A joint hearing in this case as well as with reference to its proposal for fixation of upfront tariff for berth no.WQ-7 were held together on 17 March 2010 at the VPT premises. The VPT made a power point presentation of its proposals. At the joint hearing, VPT and the concerned users / organisation bodies / potential bidders have made their submissions:

6.2. It was decided at the joint hearing that VPT would initiate action on the following points:

(i). Detailed response on the questionnaire issued by us vide our letter of even number dated 11 March 2010.

(ii). Reviewing Grouping of various commodities to be handled at WQ 7 and WQ 8 berths which results in perpetual underutilization of some of the proposed facilities particularly, the equipments and increase in capital cost.

(iii). Examining the possibilities of merging both the proposals for WQ 7 and WQ 8 in order to prescribe a common tariff for the same commodities to be handled at both these berths.

(iv). Taking into consideration the points made at (i) to (iii) above, VPT was advised to file a revised proposal by 27 March 2010.

6.3. The concerned users/ user associations / RFQ Applicants consulted in this case were allowed seven days time to furnish their comments to VPT. The VPT was advised to examine the comments received from users / user associations / RFQ Applicants and furnish its response along with the revised proposal.

6.4. It was also decided at the joint hearing that the revised proposal (to be) filed by the VPT will be taken up for final consideration without any further consultation.

7.1. In response to the decision taken at the joint hearing, the VPT has furnished its response vide letter dated 25 March 2010. The VPT has furnished its reply to the queries raised by us, and has also filed a completely revised proposal clubbing the two proposals filed by them earlier for handling Alumina, Gypsum and Caustic Soda at WQ-8 and similar cargo envisaged to be handled at WQ-7.

7.2. A summary of the queries raised by us vide letter dated 11 March 2010 and reply of the VPT furnished vide letter dated 25 March 2010 are tabulated below:

Sl. No.	**Queries raised by us**	**Reply of VPT**
(i).	The norms prescribes in the guidelines for determining the capacity, capital cost, operating cost and the upfront tariff thereon are with reference to handling facility envisaged for specific type of cargo like iron ore, coal, container, multipurpose cargo berth, and liquid berth. The proposal of the port is, however, for handling a combination of cargo items bulk, dry bulk, liquid for which norms prescribed in the guidelines for coal terminal / multipurpose cargo and liquid terminal are picked and applied.	No comments furnished.
(ii).	<u>Optimal Capacity</u>:	
	(a). The average handling rate of Alumina achieved by the port during the years 2008-09 is 22324 tonnes per day [as reported in Chapter 3 (page 13) of the Feasibility Report]. Even the performance of earlier two years i.e. 2006-07 and	As advised by TAMP, an independent analysis of the productivity achievable w.r.t. equipment proposed has been made and it is proposed to adopt 31,700 tonnes per day for loading of Alumina as explained below:

	2007-08 shows the productivity achieved is in the range of 18758 tonnes per day and 21350 tonnes per day. Since the port has already achieved productivity level of 22324 tonnes per day and that too with old equipment / facility, then justify why for the new project, the productivity is restricted to 20,000 tonne per day when latest handling technology could be deployed which should in fact deliver higher productivity than already achieved. It may not be necessary to solely rely on historical data in this case recognising the fact that the advancement in the technology can bring better productivity level and also bearing in mind that tariff to be fixed is for 30 years time frame. The VPT is, therefore, advised to carry out an independent analysis of the productivity achievable with reference to the equipment proposed to be deployed.	Design capacity of Ship loaders : 2200 TPH Efficiency factor : 60% No. of working hours : 24 hours Output per berth day : 31,700 TPH (2200 X 0.6X 24 = 31,680 say 31,700 T)
	(b). With reference to Gypsum, the port has stated that the handling rate as prescribed in the guidelines for multipurpose cargo terminal is considered. The output norm of 10000 tonnes per day for parcel size more than 30,000 tonnes and 7,500 tonnes per day for smaller parcel size vessel prescribed in the tariff guidelines of 2008 is with reference to operation of 3 numbers of level luffing cranes of 20 tonne capacity each. Since the proposal of the port is for deployment of HMC of 60 tonne capacity, handling capacity of HMC may be much higher as compared to the aggregate capacity of the wharf cranes prescribed in the 2008 guidelines. The productivity rate adopted for Gypsum may, therefore, be reviewed and improved in the light of the above observation.	A productivity norm of 12600 tonnes per day has been reckoned for Harbour Mobile Cranes on the following basis. Gross lifting capacity : 60 T Net lifting capacity (excluding tare weight of grab : 35 T No. of cycles : 25 No. of effective working hours : 24 hrs. Efficiency factor : 60% Capacity (35 T x 25 cycles x 24 hrs x 0.6) = 12600 T Normally for any equipment 1 to 2 hrs. idle time per day will be there for hatch changing, testing of equipment, etc. Further cargo pick up will not be uniform throughout handling operations. As such 60% efficiency factor is reckoned.
(iii).	<u>Capital Cost Estimation</u>:	
	(a). The capital cost estimates are based on the Schedule of Rates applicable from 1 June 2008 with amendment effected from 1 January 2009 and for other items for which rates are not available, the prevailing market rate are adopted. Please update the estimates of capital cost based on the prevailing market.	The capital cost estimates furnished for civil works are based on the schedule of rates with latest amendments as on 1 January 2010. For the items which are not available in SR, the prevailing market rates as on January 2010 have been adopted. As far as mechanical works is concerned, the budgetary offer obtained by NALCO has been updated and enclosed (Appendix – I).
	(b). Despite specific advice, port has not furnished documentary support of unit rate adopted in the estimation of civil and equipment cost. The project Feasibility Report does not contain documents validating the estimates. Furnish copies of supporting documents / calculation/ rate analysis / budgetary quotations, market rates to justify the estimates of both civil and equipment cost.	The documentary support of unit rate adopted in the estimation of civil cost and copies of supporting documents / calculation / rate analysis / budgetary quotations, market rates to justify the estimates of civil costs are enclosed as Annexure – II. Documentary support for ship loader obtained from NALCO is enclosed.

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<td>(c). The basis of estimating the capital cost towards berth apron and approach at Rs.44.16 lakhs may be explained.</td>
<td>Berth Apron and Approach comprises of the strengthening part of berth apron as well as approaches which include laying of hard surfacing enabling unhindered cargo handling activity at the approaches as well as berth location. All these activities are identified and worked under the head as indicated below:

<table>
<tr><th>S. No.</th><th>Description</th><th>Quantity</th><th>Rate</th><th>Total</th></tr>
<tr><td>01.</td><td>Earth work in excavation over areas</td><td>510 m^3</td><td>93.60</td><td>47,736</td></tr>
<tr><td>02.</td><td>Supplying and filling with gravel/morum</td><td>637 m^3</td><td>483.35</td><td>3,07,894</td></tr>
<tr><td>03.</td><td>Transportation of debris/excavated earth up to a lead of 11 KM.</td><td>510 m^3</td><td>163.57</td><td>83,421</td></tr>
<tr><td>04.</td><td>Providing sub-base 300 mm thick with moorum/gravel</td><td>764 m^3</td><td>769.50</td><td>5,87,898</td></tr>
<tr><td>05.</td><td>Providing and laying Water bound macadam 225 mm thick</td><td>574 m^3</td><td>1344.20</td><td>7,71,571</td></tr>
<tr><td>06.</td><td>Supplying and laying of high strength M-50 grade precast blocks 200x100x100mm</td><td>2548 m^3</td><td>824.90</td><td>21,01,845</td></tr>
<tr><td></td><td colspan="3">Total</td><td>39,00,365 or say 39.00 lakhs.</td></tr>
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Add: 3% contingencies, 7% project supervising charge and 2.8% work contract tax.</td>
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<td>(d). In the normative list prescribed in the guidelines, electrical works is grouped under mechanical and electrical equipment. The civil cost includes Rs.46.72 lakhs towards area illumination which is not as per the normative list prescribed in the guidelines. Since the estimation of mechanised equipment already includes Rs.1472 lakhs towards electrical works and lighting, justify the reason for estimating Rs.46.72 lakhs under civil cost towards area illumination.</td>
<td>The observation made by TAMP is correct and, the component for area illumination has been included under power and lighting.</td>
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<td>(e). For Alumina:

➢ The estimation of silo farms (4 nos.) (Rs.27.19 crores) under handling equipment perhaps for storage purpose is not found as per the normative guidelines list of civil works prescribed in the guidelines for coal terminal. The reasons for deviation may be explained.

➢ In the instant proposal, the capital cost on silos is considered under mechanical equipment. In its earlier proposal for fixation of upfront tariff for mechanised fertiliser handling facility which has been approved by the Authority, the capital cost of silos was considered under civil works. The proposal may be modified accordingly.</td>
<td>There are no guidelines for Alumina handling terminal. As such the proposed facilities available at NALCO for alumina handling has been taken as the basis.

➢ Accordingly 3 silos each 25,000 T Cap has been considered which is in line with the facilities available for Alumina of NALCO Terminal. Further the nature of alumina requires covered storage like silos and cannot be stored in the open stackyard.

➢ Cost of the 3 silos has since been included under civil construction cost for handling activity.</td>
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	➢ Transfer towers is stipulated under list of civil work in the guidelines. The port has considered this item under handling equipment which is not as per the guidelines. ➢ The proposal states that the composite handling rate for handling Alumina includes loading of Alumina from storage yard to ships and unloading from railway wagons. The proposal does not state or consider any equipment (other than conveyor system and ship loader) for unloading of Alumina from railway wagon. Please examine and clarify the position.	➢ Cost of Transfer towers has since been considered under civil construction cost. ➢ The cost for mechanized wagon unloading system has since been included in the capital cost which covers unloading of cargo from wagons at siding and transfer through conveyor to the storage yard. The investment made by NALCO on similar system is taken as the basis and the cost has been updated based on the increase in Index nos. for Machinery, Cement, Steel and Iron, Industrial workers etc.
	(f). **For Caustic Soda**: The port envisages the caustic soda to be unloaded through unloading arms and transferred to storage tanks through pipelines. The capital cost does not include cost of pipelines and storage tanks which are included in the normative list of equipment for liquid terminal. The reasons for these deviations may be explained.	Caustic Soda has been deleted from the proposal.
(iv).	The proposal of the port is for handling heterogeneous commodity mix in a berth with requirement for different handling equipment for each of type of cargo. The port has proposed 1 ship loader (as against the prescribed norm of 2 for the coal terminal) for handling alumina, 1 unloading arm for handling Caustic Soda (as per norm prescribed for liquid handling terminal) and 60 tonne Harbour Mobile Crane (as against 20 tonne level luffing crane (2 nos.) prescribed in the guidelines for multipurpose cargo terminal) for handling Gypsum. Apart from the above handling equipment, the port has also proposed other complements of handling equipment for each of the cargo item. With reference to the prescribed norm of 70% utilisation in the guidelines, the utilisation Harbour mobile crane and front end loader for handling gypsum estimated to cost around Rs.28.71 crores is 38% and utilisation of unloading arm estimated at Rs.9.06 crores is 18%. Underutilisation of the facility will definitely impose an undue tariff burden on users. It is noteworthy that the underutilisation is envisaged to continue for 30 years. The heterogeneous commodity grouping needs to be reviewed. Explain why the	The revised proposal envisages handling of Alumina and bulk cargo in the ratio of 50% and 50%. For handling of Alumina of about 4.05 M.T. with the proposed rate of 31,700 MT per day and about 128 berth days are sufficient. As such, only one ship loader of 2200 TPH capacity is adequate. It may be stated that even the existing facility owned by NALCO has only 1 ship loader of similar capacity and is catering to about 1 M.T. of Alumina in about 50 berth days. With the revised estimate of 1.61 M.T. for bulk cargoes the utilization of Harbour Mobile Crane will work out to 3072 hours (77% utilisation).

	other berths of the port envisaged exclusively are for liquid cargo handling and multipurpose cargo handling cannot handle certain cargo items like gypsum, caustic soda, etc. to achieve economies of scale.	
(v).	Operating Cost:	
	(a). The guidelines prescribe power consumption norm of 1.4 units / tonne. As against this, the port has considered the power consumption at 2 units / tonne for determining the power cost for Alumina citing the example of NALCO having similar facility. The explanation furnished by the port is not found to be satisfying in the context that the facility deployed by NALCO may be with old and depreciated assets. Recognising that the facility envisaged is a new one, the port may re-assess the consumption of power based on an independent analysis to justify the deviation made from the guidelines.	The reasons for considering 2 units per tonne is keeping in view the power consumption of NALCO and also the distance of the stack yard (about 2 KM) from the berth. In case of NALCO, the facility is situated within 1 KM. However, as observed by TAMP only 1.4 unit per tonne has been reckoned.
	(b). The unit rate of power considered in the upfront tariff fixation of the multipurpose cargo terminal in February 2009 was Rs.6.20 in the instant proposal. The port has adopted the same unit rate. Confirm whether the unit rate of power considered is the prevailing rate and substantiate it with copy of recent electricity bill.	The unit rate of power i.e., Rs.6.20 ps is the prevailing rate in vogue.
	(c). It is relevant to state that subsequent to the Order passed by the Authority setting upfront tariff for multipurpose cargo terminal for the VPT, the port has passed separate Orders fixing hire charge for a 100 tonne mobile at Paradip Port Trust and Tuticorin Port Trust vide Order No.TAMP/22/2007-TPT and No.TAMP/54/2007-PPT both dated 30 December 2009 wherein consumption of fuel is considered at 70 litres / hour based on the estimation furnished by the Paradip Port Trust. In fact the, the fuel consumption indicated by Vizag Seaport Private Limited which is a bulk terminal operator in Visakhapatnam Port Trust for operating a 104 tonne HMC is 60 litres/ hour. In the light of the above position, the fuel consumption of 83 litres / hour for 60 tonne HMC adopted by the VPT in the calculation of upfront tariff need to be justified.	The observation of TAMP has been noted and the fuel consumption considered by the Authority in case of Paradip Port i.e., 70 Lts. Per hour has been reckoned.
	(d). The fuel cost for harbour mobile crane and front end loaders for handling Gypsum are estimated for 4000 working hours by the port based on the working hour norms prescribed in the guidelines for multipurpose cargo terminal. In light of the ports own calculation showing 1632	As observed by the TAMP, the fuel cost has been modified with reference to the actual working hours i.e., 3072 hours.

	berth hours for handling Gypsum vessel the fuel cost may be modified with reference to the expected working hours of these equipments. Confirm that the unit rate of Rs.37.50 adopted for estimating the fuel cost is the rate prevailing rate and also substantiate with documentary support.	
	(e). The instant proposal is not for exclusive liquid terminal. Caustic soda is proposed to be handled with other cargo and the cost of general illumination will get covered in the other expenses of those cargo items. In this context, explain why the power cost is to be estimated separately for caustic soda and thus leading to duplication in the cost.	Does not arise as the Caustic Soda has been deleted.
	(f). For estimating the cargo-wise operating cost, the entire capital cost of silos is considered for Alumina cargo. For estimating the license fee, it is observed that 8096 sq. mtrs. of silos area is considered for Caustic Soda and 48576 sq. mtrs. of silos area is considered for Alumina. Likewise, the entire capital cost for conveyor is considered for determining the operating cost of Alumina. While the estimating license fee, the conveyor corridor area of 2024 sq. mtrs. is considered both for Alumina and for Caustic Soda. As explained earlier, the capital cost for Caustic Soda does not include capital cost of pipelines. The above inconsistency observed may be reviewed and modified if necessary.	In view of the deletion of the Caustic Soda, this inconsistency is removed.
	(g). The share of cargo considered for allocation of license fee for common assets i.e. building and operational area is found to be different from the share of cargo for determining the optimal quay capacity. The reasons for the variation may be explained. The logic of allocating the common expenses based on share of cargo without linkage to the individual handling rate may be explained. The cargo having lower handling rate will occupy / use the facilities for longer period of time, which may warrant the allocation to be done based on the utilisation time by each cargo items.	As observed by TAMP, the share of cargo has been considered for allocation of License fee for common assets 50 : 50. Based on the number of berth days, which is linked to productivity rates also the share is 50 : 50.
	(h). Clarify why the repairs and maintenance cost with reference on mechanised equipment and electrical equipment proposed for Gypsum and Caustic Soda is considered adopting the norms for coal terminal (i.e. 7% of asset value) when the relevant norms prescribed in the guidelines are 5% and 2% respectively.	In the revised proposal, Repairs and Maintenance costs on mechanised equipment has been considered at 5% for Alumina and other bulk cargo as per norms prescribed for multi purpose terminal.

	(i). For handling Caustic Soda and Gypsum, exclusive handling equipment are proposed to be deployed. From the calculation of berth hire furnished by the port, it is observed that the no of hours the vessel carrying Gypsum will occupy the berth is 1632 hours and 768 berth hours by vessel carrying caustic soda. When the number of working hours for these equipment are less than 50% of the working hours norms of 4000 prescribed in the guidelines, justify the need to consider the repairs and maintenance cost at the normative level (which is prescribed for the full year operation). Also, justify the need for allowing full return on these equipments which by design are envisaged to be underutilized through out the project period.	As per the revised proposal, the berth hours is estimated at 3072 hours each for Alumina and other bulk cargo. The revised calculation excludes Caustic Soda.
(vi).	If the yard capacity is calculated based on the area of silos (i.e. 48576 sq. mtrs.) proposed for Alumina, then the yard capacity works out to 8.56 MTPA for Alumina alone. Whereas, the optimal quay capacity of Alumina based on the handling rate and share of cargo adopted works out to 4.08 MTPA. In view of huge gap in the two capacities, the yard area may be reassessed so as to match the quay capacity of this cargo and consequently modify the estimation of license fee.	Assessment of Yard capacity as per the coal terminal cannot be applied to Alumina as it is stored in silos. Regarding area requirement for Alumina, it is clarified as below. In the longitudinal direction of the Railway track: Three silos each of 38.0 m diameter (outer to outer) to be arranged with a clear spacing of 3 m in between the silos. Along the width-wise a clearance of 3.0m shall be allotted on either side of the silo (which is 38.0 m diameter outer to outer) followed by one railway track of 5m width on either side of the silo then followed by a clearance of 3.0 m on either side of the silo. This results in a configuration of silo + clearance of 3.0 m on either side + one railway track of 5.0 m on either side + clearance of 3.0 m on either side. = 38.0m + 3.0m x 2 + 5.0m x 2 + 3.0m x 2 = 60.0 m Length of the Railway line = 800 m Therefore 800 m x 60.0 m = 48,000 mtrs. Thus the yard area is determined from the facilities to be provided and their minimum requirement like Railway track length, size, clearance etc.
(vii).	Annual Revenue Requirement determined for each cargo items is spread over the share of individual cargo in optimal capacity i.e. 80% Alumina (3.65 Million Tonnes) 15% Gypsum (0.68 Million Tonnes) and 5% of Caustic Soda (0.228 Million Tonnes). It is, however, noticed that the share of these cargo items in the capacity calculation linked to the handling rate works out to 4.088 Million Tonnes of Alumina, 0.38 Million Tonnes of Gypsum and 0.0919 Million Tonnes of Caustic Soda. This inconsistency in the calculation may be removed.	Annual Revenue Requirement determined on the basis of cargo share i.e. 50% of Alumina and 50% of other Dry Bulk within the revised calculation.

(viii).	The concessional rate for entitled coastal cargo / vessel is prescribed at 60% of the rate for normal cargo in respect of berth hire and handling rate in the proposed Scale of Rates. The revenue model considered for arriving at the upfront tariff, however, does not reckon this factor. The port may, therefore, reckon this factor for arriving at the handling rate and berth hire based on the ratio of foreign and coastal cargo expected at the cargo terminal to ensure that the estimated revenue requirement can be achieved by the BOT operator at the proposed tariff level. The ratio of foreign and coastal cargo considered in the calculation of upfront tariff may be furnished explaining the basis of the ratio adopted.	Alumina is only overseas cargo. The share of overseas & Coastal cargo in case of other Bulk is 90% and 10% respectively and the same has been reckoned.
(ix).	The upfront handling rate approved by the Authority in its Order No.TAMP/39/2008-VPT dated 12 February 2009 for multipurpose cargo terminal for dry bulk cargo (having handling rate of 10,000 tonnes per day) is Rs.78.50 (foreign) and the upfront handling rate approved by the Authority for Caustic Soda in Order No.TAMP/17/2008-VPT dated 12 February 2009 for liquid terminal is Rs.35.95 (foreign). The upfront handling rate now proposed by the port is Rs.203.93 per tonne for Gypsum (bulk cargo) and 167.68 per tonne for Caustic Soda. Please justify the reasons for such wide difference in the handling rates for these cargo items at two different berths of the port.	Caustic soda is not considered for the revised proposal. The word Gypsum is replaced by other bulk including gypsum, BF slag and Granulated slag etc.
(x).	The proposed note under Schedule 2 may be elaborated to state that it shall include all cost towards all other miscellaneous services not specifically prescribed in the Scale of Rates.	Complied with.
(xi).	The number of free days prescribed in the guidelines for coal terminal (which is adopted as the base for Alumina) is prescribed at 25 days and the number of free days prescribed for dry bulk cargo in a multipurpose cargo terminal (which is adopted as the base for Gypsum) is prescribed at 5 days for import cargo and 15 days for export. As against the above position, the port has in the proposal stated 10 days free period for both the cargo items. Specific reasons for deviations from the guidelines may be explained.	In the revised proposal, free days for is proposed for 5 days for alumina and also for other bulk cargo both import / export.
(xii).	The number of free days for each type of cargo items may be explicitly stated in the note under Schedule 2 – Cargo Handling Charges.	Complied with

<table>
<tr>
<td>(xiii).</td>
<td>Please furnish analysis to show that 17% of cargo capacity in respect of Alumina and Gypsum will attract storage charge. The average dwell time assumed for each of the cargo items while assuming the cargo capacity likely to attract storage charge may be indicated.

For caustic soda, no storage facility is proposed by the port. It is, therefore, not clear how 17% of caustic cargo capacity will attract storage charge?</td>
<td>The port has furnished revised calculation of cargo likely to attract storage charge which is summarised below:

(a). For Alumina

Capacity of the Silos = 75000
Free period = 5 days
Turn over in a month = 6 turns
Quantity that can be stacked in a month = 450000 Tonnes
Quantity that will be exported in a month = 340000 Tonnes
Quantity that may attract storage = 24%

(b). For other bulk cargo

<table>
<tr><th>Description</th><th>Export</th><th>Import</th></tr>
<tr><td>Cargo per month</td><td>69000</td><td>65741</td></tr>
<tr><td>% of share</td><td>(51%)</td><td>(49%)</td></tr>
<tr><td>Free period</td><td>5 days</td><td>5 days</td></tr>
<tr><td>Dwell Time</td><td>10 days</td><td>10 days</td></tr>
<tr><td>Avg. Parcel</td><td>30000</td><td>30000</td></tr>
<tr><td>Stay of vessel at berth</td><td>2.4 days or say 3 days</td><td>2.4 days</td></tr>
<tr><td>Cargo stay beyond free period</td><td>2.6 days (10-2.4 - 5)</td><td>2.6 days (10-2.4 – 5)</td></tr>
<tr><td>Avg. receipt per day</td><td>2300 T</td><td>2200 T</td></tr>
<tr><td>Cargo that attracts storage</td><td>5980</td><td>5720</td></tr>
<tr><td>% over parcel size</td><td>20%</td><td>19%</td></tr>
<tr><td>Average</td><td colspan="2">19.5% or say 20%</td></tr>
</table>
</td>
</tr>
<tr>
<td>(xiv).</td>
<td>The capital cost estimates should be updated to reflect the current market position and the indexation in the upfront tariff will be with reference to 1 January 2010.</td>
<td>The rates have been worked out based on Schedule of Rates applicable as on 1 January 2010.</td>
</tr>
</table>

7.3. As decided in the joint hearing, ABG-LDA Bulk Handling Pvt. Ltd. has furnished their comments. A summary of comments received from ABG-LDA Bulk Handling Pvt. Ltd. on both the proposals and reply furnished by VPT is tabulated below:

Sl. No.	Comments of ABG-LDA Bulk Handling Pvt. Ltd.	Reply of VPT
(i).	Clarify whether it is feasible to install all the proposed handling equipment in 280 m. of berth length with 22.5 mts. of apron, and whether the OSBD envisaged can be performed with the proposed Handling Equipment. We also request VPT to furnish the proposed layout of the facilities.	The berth is planned to install the required handling equipment for the envisaged cargoes, which can be accommodated within the berth length/width of the apron and can discharge the expected OSBD. The layout of the facilities will be issued along with the RFP document to the prospective bidders who participate in the bid of the subject project. However, the successful bidders do have the option of planning and design of the berthing structure and deployment of suitable equipment.
(ii).	Clarify the type & size of vessel to be handled for the proposed facility.	The facility can cater to Panamax vessels of 14 M. draft.

(iii).	The type of cargo's to be handled at West Quay 8 is more or less similar to the type of cargo's projected for West Quay 7 (WQ7). Please clarify how & on what basis traffic will be allocated between the two berths for similar cargo's.	The traffic allocated for both the berths is Alumina and other bulk cargoes. The other bulk cargoes are Gypsum, BF Slag, granular slag etc.
(iv).	Please clarify why the percentage share evaluated for cargoes is different while calculating license fees.	While calculating the license fee, the requirement of area for silos has been reckoned for Alumina and balance is considered for other bulk cargoes. The license fee for common assets has been distributed in the ratio of 50 : 50 in the revised proposal.
(v).	Section 5, Alumina handling Activity : It is mentioned that it is a composite charge, which comprises charges for loading of alumina from storage yard to ship and unloading from railway wagons for onward transport to berth. Kindly clarify following points : (i) Distance from railway yard to stock yard. (ii) How will the cargo be shifted from railway yard to berth and why such cost has not been included in the operational cost. (iii) How evacuation from storage yard to berth and from railway yard to berth will be done and the cost incurred for feeding conveyors. (iv) Is wagon unloading charges included in handling cost, if not then why such cost is not included in the operational cost. How conveyors will be feeding and why such cost has not been included in the operational cost.	In the revised proposal the cost of wagon unloading system for Alumina and additional set of front end loaders for other bulk cargoes have been included to meet the requirement. Alumina will be transported by conveyors from wagon unloader system to silos and from silos to ship loader. In case of other bulk, through front end loaders.
(vi).	Section 5, BF Slag/Granulated slag handling Activity : It is mentioned that it is a composite charge, which comprises charges for unloading of BG slag / Gypsum from railway wagons/truck at storage yard for onward transport to berth for loading into ship. Kindly clarify following points : (a). Is onward transportation cost included in handling cost, if not then why such cost is not included in the operational cost.	Regarding number of trucks, it depends upon type and capacity of trucks deployed. It may be noted that the choice for deployment of equipment is vested on the operator. Regarding number of wagons, it may be stated for a throughput of 1.6 M.T. of bulk cargo movement, 1.6 rakes per day is envisaged. To unloading/loading of cargo into trucks in the stack yard, a component of 2 front end loaders have been included. The tariff thus arrived includes the following :

	(b). No's of wagon & truck to be evacuated & handled per day. (c). Is wagon & truck unloading charges included in handling cost, if not then why such cost is not included in the operational cost.	*"The cargo handling charges include the cargo loading or unloading charges (as the case may be), transportation and storage charges, wharfage etc."*

8. In consonance with the decision taken during joint hearing held and while responding to the queries raised by us, the port has filed a revised proposal vide its letter dated 25 March 2010. It has also forwarded revised proposed Scale of Rates vide email dated 28 March 2010. The main modifications made by the port in the revised upfront tariff proposal are summarized below:

(i). (a). The two separate proposals filed by the port earlier for fixation of upfront tariff for berth Nos. WQ 7 and WQ 8 have been clubbed seeking approval for upfront tariff for Alumina and other bulk cargo.

(b). The average handling rate of Alumina has been reassessed as 31700 tonnes / day based on the performance features of the equipment proposed. For other bulk cargo, the average handling rate is calculated as 12600 tonnes / day.

(c). Caustic Soda has been excluded from the cargo profile as upfront tariff is already fixed for this cargo in another proposal of VPT for liquid berth.

(ii). (a). The handling equipment for shipshore operation include one ship loader for Alumina and one harbour mobile crane for Bulk Cargo as envisaged in the original proposal. For handling of other bulk cargo at the stackyard, additional two front end loaders have been included. A total 4 front end loaders are proposed as against 2 front end loaders envisaged in the original proposal.

(b). The capital cost of wagon unloading system and associated conveyor system for receiving alumina cargo from wagon and transferring it to silos has been included in the revised proposal.

(c). Unloading arm for caustic soda has been deleted as this cargo is not envisaged to be handled.

(d). The capital cost has been updated based on rates applicable as on January 2010 and the revised capital cost is estimated at Rs.242.51 crores.

(iii). Optimal Capacity:

The optimal capacity based on the revised handling rates and modified share of cargo has been reassessed as 5.66 million tonnes. The handling rate and share of cargo assumed for arriving at the optimal capacity of the terminal are given below:

Cargo	**Percentage share of cargo capacity**	**Handling rates (in tonnes / day)**
Alumina	50	31700
Other bulk cargo	50	12600

The percentage share of capacity is reportedly based in the indications received from the users and business plan by International consultants.

(iv). Capital Cost:

Estimated capital cost is revised to Rs.24251.33 lakhs as detailed below:

Sl. No.	Description	Estimated Cost (Rs. in lakhs)
A.	**Cost of the Berth**	
(i).	Cost of construction of 280m berth length	4918.58
(ii).	Berth fixtures	180.30
(iii).	Cost of Dredging	1335.15
	Total (A)	**6434.03**
B.	**Civil Structures**	
(i).	Berth Apron & approach (Common Asset)	44.19
(ii).	Silo farms - 3 nos. (for Alumina)	2719.10
(iii).	Transfer houses - 6 nos. (for Alumina)	453.18
(iv).	Wagon unloading System- Civil work (for Alumina)	713.76
(v).	Storage yard Building water supply Sewerage and ground improvement	646.14
(vi).	Dismantling of existing structures and reconstruction of compound wall	56.79
(vii).	Railway Tracks	135.96
	Total (B)	**4769.12**
C.	**Equipment cost**	
(i).	Ship loader - 1 no. (for Alumina)	3217.60
(ii).	Conveyor system - 1 no. (for Alumina)	3115.64
(iii).	60 Tonne Harbour Mobile Crane (for other bulk cargo)	2802.71
(iv).	Front end loader - 4 nos. (for other bulk cargo)	135.96
(v).	Power and lighting (Common Asset)	229.13
(vi).	Wagon unloading system (for Alumina)	2698.71
	Total (C)	**12199.75**
D.	Miscellaneous Cost at 5% on civil and equipment cost	**848.44**
	Total (A+B+C+D)	**24251.33**

Return on capital employed is calculated at 16% on gross block assets.

(v). Operating Cost:

(a). The operating cost for Alumina and other bulk cargo are estimated separately with reference to the fleet of equipment proposed to be deployed for each of the cargo groups. Cost of common assets such as berth apron, approach, storage yard, and building are apportioned to the Alumina and other bulk cargo in the ratio of 50 : 50 based on share of cargo and ratio of number of days the cargo is expected to occupy the berth.

(b). Power cost is estimated for Alumina considering consumption norm of 1.4 unit per tonne prescribed in the guidelines for coal terminal. The unit rate of power adopted is Rs.6.20.

(c). Fuel Cost is estimated assuming 70 litres of consumption of fuel by one harbour mobile crane for 3072 hours. This is based on the fuel consumption considered by the Authority for a harbour mobile crane at Paradip Port Trust. The unit rate of Rs.38.13 per litre is considered for estimating the fuel cost.

(d). Repairs and Maintenance is estimated at 1% on civil cost and 5% on mechanical and electrical equipment cost.

(e). Lease rental is estimated with reference to the area proposed to be allotted for storage for alumina and other bulk cargo at Zones IC and XB and IXA at berth nos.WQ7 and WQ8 and the average lease rental is considered in the upfront tariff calculation. The lease rent approved by the Authority for Zone IC and IXA for the quinquennium 2003-08 is considered with suitable annual escalation in the rate as per the Govt. guidelines. For land proposed to be allotted at zone XB which is analogous to XA, lease rent is estimated adopting the valuation of land fixed by the DRA, for quinquennium 2003-08 and applying 6% return as per the Government guidelines as per the proposal filed by the port. Annual escalation of 2% per annum is considered to arrive at rate for 2009-10.

The lease rental on common areas such as building and operational purposes are allocated equally between the alumina and other bulk cargo based on share of berth days.

(f). Insurance and other expenses are estimated at 1% on gross asset value estimated separately for both these cargo items.

(g). The depreciation rate adopted is 3.34% on civil assets and 10.34% on mechanical and electrical assets.

(vi). As regards berth hire service, the guidelines prescribe norm of 1% of the berth cost towards maintenance charge.

(vii). The Annual Revenue Requirement (ARR) estimated is as follows:

(**Rs. in lakhs**)

Sl. No.	**Particulars**	**For handling charges**		**For berth hire**
		Alumina	**Other Bulk**	
(i).	Capital cost			
	(a). Civil	4395.56	373.57	6434.03
	(b). Cargo handling equipment	9146.51	3053.24	-
	(c). Miscellaneous	677.10	171.34	-
	Total Capital Cost	**14219.16**	**3598.15**	**6434.03**
(ii).	ROCE @ 16%	2275.07	575.70	1029.44
(iii).	Operating cost	2898.96	968.06	343.58
(iv).	**Total revenue requirement**	**5174.03**	**1543.76**	**1373.02**

(viii). The Annual Revenue Requirement (ARR) estimated for handling service is apportioned as follows:

(**Rs. in lakhs**)

Sl. No.	**Particulars**	**Estimated revenue requirement**	
		Alumina	**Other Bulk Cargo**
(i).	Cargo handling service (96% of ARR)	4967.07	1482.02
(ii).	Storage charge (2% of ARR)	103.48	30.87
(iii).	Miscellaneous charge (2% of ARR)	103.48	30.87
	Total	**5174.03**	**1543.76**

(ix). The composite cargo handling charge is estimated separately for Alumina and other bulk cargo.

(x). The upfront tariff proposed by the VPT to meet the estimated revenue requirement is as follows:

(a). Berth hire charges:

DESCRIPTION	RATE PER GRT PER HOUR PART THEREOF	
	Foreign-going vessel [in Re.]	Coastal vessel [in Re.]
Vessels carrying Alumina and other bulk cargo.	0.75	0.45

(b). Cargo handling charges:

Cargo handling charges is arrived based on the ratio of the handling rate and considering the share of individual cargo items to reach the optimal terminal capacity. The cargo handling charges proposed by the VPT are given below:

(**Rate in Rs. per tonne**)

Item No.	Nomenclature	Foreign	Coastal
1.	Alumina	122.64	73.58
2.	Other Bulk Cargo	95.86	57.52

(c). Storage charges:

Sl. No.	Particulars	Alumina	Other Bulk
(i).	Free period	5 days	5 days
(ii).	Storage charge after expiry of free period (in Rs./Ton/Day)		
	First Five days	2.15	1.92
	6 to 10 days	3.25	2.88
	11th day onwards	4.30	3.84

(d). Miscellaneous charges for environment and management related services, sweeping of cargo and safety measures.

Alumina	2.56 per ton
Other bulk cargo	1.92 per ton

9. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the comments received and arguments made by the concerned parties will be sent separately to the relevant parties. These details will also be made available at our website http://tariffauthority.gov.in.

10. With reference to totality of the information collected during the processing of this case, the following position emerges:

(i). As already brought out in the earlier part which narrates the factual position, the Visakhapatnam Port Trust (VPT) had earlier filed two separate proposals for fixation of upfront tariff for handling various cargo like Alumina, caustic soda and BF slag / gypsum at berth nos.WQ-7 and WQ-8. Since the projects were almost identical in terms of physical features (length, draft of the berth), share of cargo, optimal capacity, capital investment, unit rate proposed, etc., and the tariff guidelines of 2008 do not envisage upfront tariff setting project-wise, the port was advised to propose uniform rates for a standard terminal for handling such cargo. Further, grouping of heterogeneous commodities for handling at a single berth was found to have significant impact on capital cost due to multifarious equipment

requirement and underutilisation of many of the proposed facility due to less than optimal cargo share engaging such facilities.

At our instance, the port has reviewed its earlier proposals and filed a revised proposal vide its letter dated 25 March 2010. The revised proposal excludes handling of caustic soda at the proposed facilities and groups the targeted commodities under Alumina and other bulk cargo. The revised proposal, as required, covers both the projects envisaged by VPT and, therefore, replaces both the proposals filed earlier. The revised proposal filed by the VPT dated 25 March 2010 along with the information / clarifications furnished during the processing of the case are considered in this analysis.

As per Clause 2.2. of the guidelines of February 2008 for upfront tariff setting for PPP Projects at the major ports, the upfront tariff caps to be prescribed would be applicable to all the projects to be bid out for handling alumina and other bulk cargo at the Visakhapatnam Port Trust during the next five years. It is noteworthy that the VPT is well aware of this position.

(ii). The proposal of the port is for handling alumina by a mechanised handling facilities and other bulk cargo by semi mechanised handling facilities. The upfront tariff guidelines of 2008 do not prescribe any exclusive norm for handling the commodities envisaged by the port.

The port has, therefore, proposed deployment of equipment based on the existing alumina handling facility developed by National Aluminum Company Limited (NALCO) operating in the port of Visakhapatnam. For handling other bulk cargo, 1 number of 60 tonne capacity harbour mobile crane are proposed instead of three number of 20 tonne capacity level luffing cranes prescribed in the guidelines for a multipurpose cargo terminal. The proposed handling rates are the result of an independent assessment made by the port. The port has estimated operating cost by adopting the norms prescribed for multipurpose berth to the extent relevant.

(iii). <u>Optimal Terminal Capacity</u>:

(a). Optimal quay capacity of the terminal is assessed by the port at 5.66 Million Tonnes Per Annum (MTPA). It is relevant to mention that in the initial proposal, the share of alumina was estimated at 80% which has been reduced to 50% in the revised proposal citing that alumina exports may take some lead time to reach the ultimate projections. The percentage share of capacity of alumina assumed at 50%, and other bulk cargo at 50% in the revised proposal is reportedly based on the projections furnished by relevant users. The share of cargo capacity assumed by the VPT in the revised proposal is relied upon.

(b). The handling rates for loading alumina and bulk cargo are proposed by the port based on an analysis of the nature and capacity of the handling equipment proposed to be deployed.

The port has assessed the handling rate of alumina at 31700 tonnes / day. The average handling rate of alumina achieved at the port in the year 2008-09 is reported at 22324 tonnes per day. It has to be recognised that that handling rate achieved by the port in the past may be with reference to old / depreciated equipment. Advancement in the technology can bring better productivity level and also it has to be borne in mind that tariff to be fixed is for 30 years time frame. The handling rate assessed by the VPT with reference to equipment envisaged to be deployed is considered in this analysis.

The handling norms prescribed in the upfront tariff guidelines for dry bulk cargo is 10,000 tonnes per day for vessels more than 30,000 tonnes

parcel size and 7500 tonnes per day for lower parcel size vessels. The handling rate prescribed in the guidelines is with reference to deployment of three numbers of 20 tonne capacity of level luffing cranes. The handling rate for other bulk cargo assessed by the port for vessel parcel size of 30000 tonne and with reference to the 60 tonne capacity Harbour mobile crane is 12600 tonnes per day. It is relevant to state that the handling rate considered for a 100 tonne Harbour mobile crane at Paradip Port Trust is 12500 tonnes per day for handling dry bulk cargo. The VPT has, however, furnished a detailed calculation of the handling rate proposed by them. Based on the analysis furnished by VPT, the proposed handling rate of 12600 tonnes per day for dry bulk cargo is considered in this analysis.

(c). At the proposed handling rates and share of commodities, the optimal quay capacity of the terminal works out to 5659325 MTPA of which 4049675 MTPA pertains to Alumina and 1609650 MTPA is for other bulk cargo. In our analysis, optimal capacity is considered without any rounding off.

(iv). Capital Cost:

(a). The capital cost estimated by the VPT in the revised proposal is Rs.242.51 crores of which Rs.64.34 crores is for berthing activity and Rs.178.17 crores is estimated for cargo handling services.

The items of civil works estimated by the VPT follow the broad indicative list prescribed in the guidelines for the coal terminal. In addition to that port has included items like silo farm (3 nos.) which are required for storage of Alumina.

The estimated capital cost of berth includes Rs.50.99 crores towards construction of the berth including berth fixtures and Rs.13.35 crores for dredging. The upfront tariff guidelines require to rely on the estimates the civil cost made by the port.

(b). With reference to equipment, as stated earlier, the port has considered 1 ship loader, conveyors, wagon unloading system exclusively for handling alumina. The port has clarified that in the absence of any exclusive norms prescribed in the guidelines for mechanised alumina handling, equipment proposed are based on the existing facilities put up by M/s.NALCO. Incidentally, most of the items match with the normative list prescribed for mechanised handling of coal. The port proposes deployment of one ship loader as against 2 nos. prescribed in the guidelines for coal terminal. Recognising that the share of alumina is envisaged at 50%, the number of ship loader proposed by the port and other handling facilities are accepted. The handling rate of Alumina at 31700 tonnes / day considered in determining the optimal capacity is with reference to working of one Ship loader. For handling other bulk cargo, 1 Harbour Mobile Crane of 60 tonne capacity and 4 front end loaders are proposed by the port.

The civil cost which are common to alumina and other bulk cargo such as berth apron and approach, storage yard, building, water supply and sewerage, dismantling of existing structures and reconstruction of compound wall Ground improvement and cost of power and lighting including area illumination under mechanical and electrical equipment are allocated in the ratio of 50 : 50 between the two major cargo groups based on the cargo share in terms of berth days. The approach adopted by the VPT in the revised proposal is found to be reasonable.

It is noteworthy that clause 3.2. of the guidelines for upfront tariff setting permits this Authority to make necessary adjustment in the norms based

on justification furnished by the port and in view of port specific conditions having impact on the norms prescribed in the guidelines. It is relevant to mention that none of the users/ bidders have made any pointed objection on the civil work and equipment proposed by the VPT except on few points by M/s.ABG - LDA Bulk Handling Pvt. Ltd. which are also addressed by the port while revising its earlier proposals. The equipment proposed by the port is, therefore, accepted subject to modification in the number of front end loaders for reasons explained in the subsequent paragraph.

(c). The guidelines stipulate 3 front end loaders for a multipurpose cargo terminal where other dry bulk cargo are expected to be handled. In the initial proposal, port envisaged deployment of 2 front end loaders. In the revised proposal, the port has proposed two additional front end loaders stating that 2 nos. are required at the berth side and the other two are proposed in the stack yard for unloading/loading of cargo into trucks. It is relevant to mention that the share of other bulk which will avail the services of front end loader is 1.61 million tonnes per annum of the total optimum capacity of 5.66 million tonnes per annum. In terms of the number of berth days it works out to 3066 days of the total berth occupancy estimated at 6132 days. Recognising that this cargo will utilise only 50% of the total berth days, deployment of an additional front end loader beyond the norms prescribed in the guidelines does not appear to be justifiable. It is relevant to mention that the upfront tariff fixed by this Authority vide our Order No.TAMP/39/2008-VPT dated 18 February 2009 for multipurpose cargo terminal recognises only two front end loaders as proposed by the port. There is, therefore, no extraordinary circumstances explained by the port warranting deviation from the normative level prescribed in the guidelines. In this analysis, deployment of 3 nos. of front end loaders is considered.

(d). The miscellaneous capital cost is estimated at 5% on civil and equipment cost which is as per the norms prescribed in the guidelines for multipurpose cargo terminal as well as other cargo terminals.

(e). The port has clarified that the estimates are updated based on rates applicable as on January 2010. The port has stated that prevailing market rates / quotations are considered for items where rates are not available in VPT Schedule of Rates in respect of civil works. The VPT has furnished documents/ rate analysis etc., to validate the estimates of capital cost with reference to cost of berth, the budgetary quotation for ship loader, etc. The civil and equipment cost estimates prepared by the port are with a provision for contingencies to take care of any requirement which is not envisaged in the estimates, works contract tax and supervision cost. The capital cost estimated by the port is considered subject to the modification in the capital cost of front end loader as explained above. The modified total capital cost is Rs.24215.65 lakhs as against Rs.24251.33 lakhs estimated by the VPT.

(v). Return on capital employed is calculated at 16% of the estimated capital cost as per the norms prescribed in the guidelines.

(vi). <u>Operating Cost</u>:

(a). The power cost is estimated for 1.4 units per tonne of the power consumption for handling alumina. The power consumption adopted by the port is in line with the consumption norm prescribed for coal handling terminal. Recognising that the facility envisaged for mechanised handling of alumina consists of equipment which are very much similar to mechanised coal handling system, the power consumption adopted by VPT is considered. The unit cost of power considered by the VPT is

Rs.6.20 and the port has confirmed that it is based on the prevailing unit cost of power incurred by the port. Even in the upfront tariff earlier determined in December 2009 for mechanised fertiliser handling the unit rate of power at Rs.6.20 indicated by the port was considered.

(b). The consumption norm of fuel prescribed in the guidelines for multipurpose cargo terminal is with reference to operation of 3 nos. of luffing cranes. Since the VPT proposes deployment of one Mobile Harbour Cranes (MHCs) for handling other bulk cargo, it has estimated fuel cost for the HMC assuming 70 litres of consumption of fuel by a harbour mobile crane. Fuel consumption considered by the VPT matches with the fuel consumption adopted by this Authority for 100 tonne harbour mobile crane in the upfront tariff determination of multipurpose cargo terminal at Paradip Port Trust. For front end loader, the port has adopted the fuel consumption of 12 litres / hour which is as per the norms prescribed in the guidelines for multipurpose cargo terminal.

The guidelines for multipurpose berth prescribe a norm of 4000 working hours for estimating fuel cost. The fuel cost is estimated by VPT for 3072 hours based on number of berth days estimated for handling other bulk cargo. Based on our calculation the number of berth days works out to 3066 which is considered for estimating the fuel cost.
The unit rate of fuel is updated to Rs.38.90 prevailing at the time of the analysis of this case as against Rs.38.13 per litre considered by the VPT.

(c). As per the norms prescribed in the guidelines for multipurpose coal terminal, the repairs and maintenance cost on civil work is estimated at 1% on the civil cost and 5% on mechanical equipment and electrical equipment cost. Insurance cost is estimated at 1% of the gross fixed assets and other expenses at 5% of the gross value of fixed assets.

(d). Depreciation is computed @ 3.34% on civil cost and 10.34% on equipment cost as per the rates prescribed in the Companies Act, 1956 under the Straight Line Method for the relevant group of assets and is in line with the guidelines for upfront tariff fixation.

(e). The guidelines for upfront tariff stipulate that lease rent for port land is to be estimated based on the rate prescribed in the Scale of Rates of the respective major ports. Lease rentals is estimated by the port based on the average lease rental for storage area of 25 acres proposed to be allotted at zone IXA for the project envisaged at berth No.WQ8 and for 27 acres proposed to be allotted partly at Zone 1C and Zone XB for berth WQ7. Though, lease rentals will be levied from the operator on the rate applicable for the relevant zone where lands are allotted to them, it is not possible to prescribe upfront tariff caps for same cargo handled at different projects only for the reason of difference in lease rentals. The peculiarity of the individual project should be taken care at the bidding stage by the prospective operators.

It is notable that while fixing the upfront tariff for multipurpose cargo terminal at West Quay (WQ6), the lease rental was estimated based on the unit rate of Rs.76.20 per sq. yard per annum approved for Zone VIII for the quinquennium 2003-08 with annual escalation of 2% per annum as per the Government guidelines. Recognising that the berth proposed to be allotted for handling alumina and other bulk cargo is in West Quay and also recognising that unit rate of lease rental for zone IX A at Rs.78 per sq. yard per annum is closer to the unit rate considered while fixing upfront tariff for multipurpose cargo terminal which is also at West Quay, lease rent in the analysis is considered taking the base lease rental for Zone IX A at Rs.78 per sq. yard per annum with annual escalation as per the Government guidelines.

It is relevant to mention here that the lease rental for the VPT lands approved by this Authority vide Order No.TAMP/41/2005-VPT dated 22 April 2008 is pertaining to the quinquennium 2003-08. While processing its earlier proposals for fixation of upfront tariff, the port has submitted that proposal for revision of lease rentals for quinquennium 2008-13 could not be submitted as the fixation of land valuations by District Revenue Authorities (DRA) as per the procedure being followed is awaited. To mitigate the urgency to implement port projects on time bound manner in terms of directions of Government, the VPT has adopted the rate approved by this Authority for the quinquennium 2003-08 giving escalation @ 2% per annum compoundable as provided in Government policy guidelines on Land Management dated 8 March 2004 with reference to land proposed to be allotted at Zone IXA. For the reasons cited by the VPT, the lease rental estimated by the VPT based on the existing lease rental and applying the 2% annual escalation as prescribed in the guidelines issued by the Government on land policy of major port is accepted. Similar approach was followed by this Authority while determining upfront tariff for liquid cargo terminal, multipurpose cargo terminal and mechanised fertiliser handling terminal based on the proposal of the VPT.

In case the revised lease rental for the quinquennium 2008-13 comes into force before issue of the RFP for the proposed fertiliser handling facility, then the port may approach this Authority to review the upfront tariff with reference to this item.

(vii). The guidelines requires the operating cost for berthing service to be estimated at 1% of the berth cost.

The VPT has considered insurance @ 1% and depreciation @ 3.34% on the aggregate capital cost relating to construction of berth and dredging while estimating the annual revenue requirement of berthing service apart from the prescribed norm of 1% towards maintenance.

Although the guidelines restrict the operating cost at 1% of the berth cost, the asset requires adequate insurance coverage and the fact that the value of the asset will depreciate due to wear and tear can also not be denied. While fixing upfront berth hire at the other Major Port Trusts including the Visakhapatnam Port Trust, this position was recognised and the cost of insurance and depreciation were considered to assess the annual revenue requirement from berthing service.

In view of the position explained above, the element of insurance cost and depreciation cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service. In this context, it is noteworthy that clause 3.6. of the guidelines for upfront tariff setting gives flexibility to this Authority to decide on a particular item of expenditure, which it considers for incorporation while computing the upfront tariff cap for which norms are not explicit in the guidelines.

(viii). The statement for fixing upfront tariff submitted by the VPT has been modified in line with the above analysis. A copy of the modified statement is attached as **Annex - I**.

(a). The annual revenue requirement which is sum of the operating cost and return on capital employed is estimated at Rs.5133.13 lakhs from cargo handling service for Alumina as against Rs.5174.03 lakhs estimated by the port. For bulk and other cargo, the annual revenue requirement for cargo handling service is estimated at Rs.1436.31 lakhs as against Rs.1543.76 lakhs estimated by the VPT.

(b). The guidelines for multipurpose cargo terminal require 90% of the total revenue requirement to be apportioned to handling charge, 5% towards storage charge and 5% each towards miscellaneous charge.

As against this, the VPT has apportioned 96% of the estimated revenue requirement towards handling charge, 2% from storage charge and 2% from miscellaneous charge. Apportionment of the total revenue requirement between the three tariff heads is accepted as proposed by the port. Incidentally, while fixing tariff for multipurpose cargo terminal, this Authority had, for the reasons advanced by the VPT, allowed apportionment of 96% of revenue determined towards handling charge and 2% each to storage and miscellaneous charge. The revenue apportionment allowed while determining the upfront tariff for mechanised fertiliser handling facilities is also closer to this level.

(c). The upfront tariff caps for alumina and other bulk cargo are determined so as to meet the revenue requirement estimated for each of these cargo groups under the three heads and with reference to the share in the optimal capacity.

(d). As per policy direction of the Government, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets) and coastal vessels not exceeding 60% of the normal cargo / vessel related charges. The entire capacity of alumina cargo to be handled is reportedly foreign and with reference to other bulk cargo 10% of the relevant cargo capacity is expected to be by coastal means. The upfront tariff cap for berth hire and cargo handling charge has been arrived after considering the impact of concession applicable for coastal cargo.

(e). Based on the above analysis, the handling rate for alumina and other bulk cargo works out to Rs.121.68 per tonne and Rs.89.23 per tonne as against Rs.122.64 and Rs.95.86 per tonne proposed by the port for foreign movement .

(f). The VPT has proposed a provision to state that the composite handling charges covers (i). unloading of the cargo from the vessel including stevedoring and transfer of the same up to the point of storage, storage at stack yard upto a free period of 5 days and loading on the trucks / wagons upto in respect of import cargo and (ii) unloading of the cargo from the trucks/ wagons at the stackyard, storage at the stackyard up to a period of 5 days in case of the other dry bulk and Alumina, transfer the cargo to the loading point and loading onto the ship including stevedoring. This composite charge includes wharfage and supply of labour, wherever necessary and all other miscellaneous charges not specifically prescribed in the Scale of Rates.

(g). In the proposed Scale of Rates, the VPT has proposed free period of 5 days for both alumina and other bulk cargo (both import/export).

Based on the storage capacity of three silos assessed at 75000 tonnes, average dwell time of 10 days and cargo expected received in silos and dispatched for export, the VPT has assessed 24% of the total cargo capacity of alumina will attract storage charge. Likewise, for other bulk cargo the port has estimated 20% of cargo will attract storage charge beyond the proposed free period assuming average dwell time of 10 days for both import / export. It has furnished calculation in support of its assumption. It has proposed the rate for the first slab (6^{th} day to 10^{th} day) at 2.15 per tonne per day for alumina and Rs.1.92 per tonne per day for other bulk cargo. For the subsequent two slabs, the rate proposed is one and half and two times respectively of the rate proposed for the base slab.

In view of modification in the estimated annual revenue, the unit storage charge proposed by the VPT has been modified keeping the slab structure adopted by the VPT unaltered.

Consequently, the storage charge for alumina is pegged at Rs.2.11 per tonne per day or part thereof and for other bulk cargo at Rs.1.78 per tonne per day for the first slab. The rates for the subsequent slabs are determined following the approach adopted by the VPT.

(h). Based on the modified revenue requirement, tariff cap for miscellaneous charge is prescribed at Rs.2.55 per tonne for alumina and Rs.1.78 for other bulk cargo. The miscellaneous charge covers miscellaneous services such as environment and management, sweeping of cargo on the wharf, safety measures etc.

(i). The revenue requirement from berthing service is estimated at Rs.1373.02 lakhs at the level estimated by the port.

The VPT has proposed berth hire in rupee terms for foreign going vessel at Re.0.75 per GRT per hour or part thereof. The methodology followed by the VPT for arriving at the berth hire is in general found to be in line with the approach followed by this Authority in other upfront tariff cases. The VPT has considered the impact of concession applicable to the coastal vessels as per the 2005 tariff guidelines while arriving at the pre-determined berth hire. The number of berth days for the two major cargo groups comes to 6132 days as per our calculation as against 6144 days estimated by the VPT. Subject to this modification, the berth hire rate for foreign vessel is Re.0.74 per GRT per hour.

It has already been decided by this Authority while finalising the upfront berth hire at the other Major Port Trusts including VPT to approve the upfront berth hire charge in Rupee term only. The proposal of the VPT for rupee denominated berth hire is in line with the decision taken by this Authority in the other upfront tariff cases.

(ix). Definitions of some of the common terms like foreign going vessel, coastal vessel, per day are included in upfront schedule in line with the definitions prescribed in the Scale of Rates of VPT and other private terminals operating in VPT. Definition of week proposed by the VPT in the upfront tariff schedule is not found to be relevant and hence is deleted.

(x). Some of the common conditions stipulated in the guidelines of 2005 and uniformly prescribed in the Scale of Rates of other major ports / private terminals such as users should not be required to pay charges for delays beyond reasonable level attributable to the private terminal operator, non accrual of storage charge for the period when the operator is not in a position to effect deliver/ship the cargo when requested by user for the reasons attributable to the operator, etc. proposed by the VPT are incorporated in the upfront tariff schedule.

(xi). The VPT has proposed to prescribe a few conditions regarding the commencement of free period which are in line with the prescription at the other major ports / private terminals.

(xii). The VPT has proposed to include the provisions prescribed in its Scale of Rates for levy of penal berth hire equivalent to normal berth hire for the period of overstayal of vessel beyond the stipulated period provided there is a demand for the berth and notice is served in 10 hours advance by the terminal operator to vacate the berth after completion of discharge / shipment operations. This is an existing provision prescribed in the Scale of Rates of VPT. Similar provision for levy of penal berth hire are also prescribed in the Scale of Rates of the another

BOT operator Vizag Seaport Limited operating in the VPT and also in the upfront tariff schedule approved for multipurpose cargo terminal at the VPT. Recognising that berth is a scarce resource of the port / operator and need to be utilised optimally, the provision for levy of penal berth is included in the upfront tariff schedule as proposed by the port.

The port has proposed a condition stating that the rate and conditions for granting ousting priority berthing / priority berthing will be governed by extant Government guidelines in this regard and provisions approved in the Scale of Rates of VPT. This is in line with the prescription approved in the upfront tariff case of multipurpose cargo terminal at the Visakhapatnam Port.

(xiii). Recognising that conditionalities fixed now would applicable for a time frame of 30 years, the provision relating to penal rate of interest for delayed payment by users and delayed refund by the operator, is prescribed at 2% above the Prime Lending Rate of the State Bank of India in line with the provision prescribed in other upfront tariff cases decided by this Authority.

11.1. As per clause 2.8 of the Guidelines, 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 2008 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. In the instant case, since the estimation of capital cost and unit rate of operating cost considered in the upfront tariff calculation are as of 1 January 2010 as reported by the VPT, it may be appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2010. The schedule 6 in the proposed Scale of Rates is accordingly modified to reflect this position.

11.2. As specified in clauses 2.9.1. and 2.9.2. of the guidelines, before commencement of commercial operations, the private operator shall approach this Authority for notification of Scale of Rates containing the approved ceiling rates and the statement of conditions, as required under Section 48 of the Major Port Trusts Act, 1963.

11.3. As per clause 3.8.5 of the guidelines, if any question arises requiring clarifications or interpretation of the Scale of Rates and the statement of conditionalities, the matter shall be referred to this Authority and its decision in this regard will be binding on the operator.

11.4. The performance norms for the projects should be clearly brought out in the bid documents. The private operator is expected to perform at least at the performance norms brought out in the bid document/concession agreement.

11.5. The actual performance of the private operators will be monitored by this Authority. If any complaint regarding quality of service is received, this Authority will enquire into such allegation and forward its findings to the Visakhapatnam Port Trust. If any action is to be taken against the private operators, the Visakhapatnam Port Trust shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement.

11.6. During the commercial operation at the terminal, within 15 days from the end of every quarter, the private operator shall submit to this Authority through the Visakhapatnam Port Trust a report containing the terminal's physical and financial performance during the preceding three months.

12. In the result, and for the reasons given above, this Authority approves the upfront tariff caps for handling alumina and other bulk cargo at Visakhapatnam Port Trust which is attached as **Annex - II**.

(Rani Jadhav)
Chairperson

ANNEX - I

UPFRONT TARIFF CALCULATION FOR ALUMINA AND OTHER BULK CARGO AT THE VISAKHAPATNAM PORT TRUST

Rs. in lakhs

Sr. No.	Particulars	Revised estimates by VPT	Modified estimates by TAMP
I	**Optimal capacity**		
(i)	**Optimal Quay Capacity**		
(a)	Share of capacity of different cargo items		
	Percentage share of capacity of Alumina (S1)	50%	50%
	Percentage share of capacity of other bulk cargo (S2)	50%	50%
(b)	Ship day Output (in tonnes per day)		
	- Handling rate of vessels carrying Alumina (P1)	31700	31700
	- Handling rate of vessels carrying other bulk cargo (P2)	12600	12600
(c)	Quay Capacity		
	Alumina		4049675
	Other Bulk Cargo		1609650
(d)	Optimal Capacity of the Terminal= 0.7*((S1*P1)+(S2*P2)+(S3*P3))*365	**5659325**	**5659325**
	Optimal Capacity of the terminal in million tonnes / annum	**5.66**	**5.66**
II	**Capital Cost**		
A.	**Cargo Handling Activity**	**Rs. In lakhs**	**Rs. In lakhs**
	(i). Civil Cost		
	(a). Alumina		
	- Silo Farm (3 Nos)	2719.10	2719.10
	- Transfer Houses (6 Nos)	453.18	453.18
	- Railway track for unloading system	135.95	135.95
	- Wagon unloading system	713.76	713.76
	- Other civil assets such as berth apron approach, storage yard, Building, ground improvement, sewerage, water supply (50% allocated to Alumina	373.57	373.57
	Subtotal (a)	**4395.56**	**4395.56**
	(b). Other bulk cargo		
	- Berth appron and approach (50%)	22.09	22.09
	- Storage yard, building, water supply and sewerage (50%)	27.58	27.58
	- Dismantling of existing structures and reconstruction of compound wall (50%)	28.40	28.40
	- Ground improvement (50%)	295.50	295.50
	Subtotal (b)	**373.56**	**373.56**
	Total Civil cost (a+b)	**4769.12**	**4769.12**
	(ii). Equipment Cost		
	(a). Alumina		
	- Ship loader (1 no.)	3217.60	3217.60
	- Conveyors	3115.64	3115.64
	- Wagon unloading system	2698.71	2698.71
	- Power and lighting including area illumination (50%)	114.56	114.56
	Subtotal (a)	**9146.51**	**9146.51**
	(b). Other bulk cargo		
	- Harbour Mobile Crane (60 tonnes - 1 number)	2802.71	2802.71
	- Front end Loader / Dozers (4 Nos by VPT) [in our analysis considered three numbers)	135.96	**101.97**
	- Power and lighting including area illumination (50%)	114.57	114.57
	Subtotal (b)	**3053.24**	**3019.25**
	Total Equipment cost (a+b)	**12199.75**	**12165.76**
	(iii). Miscellaneous		
	- 5% on Civil Cost and Equipment Cost for Alumina	677.10	677.10
	- 5% on Civil Cost and Equipment Cost for Other bulk Cargo	171.34	169.64
	Subtotal (iii)	**848.44**	**846.74**
	Total Capital Cost for Handling Activity (i +ii + iii)	**17817.30**	**17781.62**
B.	**Berth Hire Activity**		
	- Construction of berth inlcuding berth fixtures	5098.88	5098.88
	- Cost of dredging	1335.15	1335.15
	Total capital cost for Berth hire Activity	6434.03	6434.03
	Total Capital Cost (A+B)	**24251.33**	**24215.65**

Sr. No.	Particulars	Revised estimates by VPT	Modified estimates by TAMP
III	**Operating Cost for Cargo Handling Activity**	**(Rs.in lakhs)**	**lakhs)**
	(i). For Alumina		
	(a). Power Cost (1.4 units per tonne * Rs. 6.20 per unit * 40.5 lakh tonnes)	351.54	351.51
	(b). Repair & Maintenance		
	- Civil Assets (1% on civil work)	43.96	43.96
	- Mechanical & Electrical Equipment including spares (5% on equipment cost)	457.33	457.33
	(c). Insurance (1% on Gross fixed assets)	142.19	142.19
	(d). Depreciation		
	- Civil Work @ 3.34%	146.81	146.81
	- Mechanical Work @ 10.34%	945.75	945.75
	(e). License Fee	100.43	59.55
	(f). Other Expenses towards salaries and overheads (5% on gross value of assets)	710.96	710.96
	Total Operating Cost	**2898.96**	**2858.06**
	(ii). For other bulk cargo		
	(a). Fuel		
	- For 1 Harbour Mobile Crane - 3072 hours * 70 lts* Rs. 38.13 / litre. In our calculation unit rate updated to 38.90/ litre and computed for 3066 hours	81.99	83.49
	- For 4 Front End Loader - 3072 hours * 12 lts* Rs. 38.13 / litre In our calculation unit rate updated to 38.90/ litre, and estimated for 3 front end loaders for 3066 hours	56.22	42.94
	(b). Repair & Maintenance		
	- Civil Assets (1% on civil work)	3.74	3.74
	- Mechanical & Electrical Equipment including spares (5% on equipment cost)	152.67	150.96
	(c). Insurance (1% on Gross fixed assets)	35.98	35.62
	(d). Depreciation		
	- Civil Work @ 3.34%	12.48	12.48
	- Mechanical Work @ 10.34%	315.71	312.19
	(e). License Fee	129.38	46.79
	(f). Other Expenses towards salaries and overheads (5% on gross value of assets)	179.91	178.12
	Total Operating Cost	**968.06**	**866.32**
IV	**Activity**		
A.	**For Alumina**		
(i).	**Estimated Revenue Requirement**		
	(a). Total Operating Cost	2898.96	2858.06
	(b). Return on capital Employed @ 16%	2275.07	2275.07
	(c). Total Revenue requirement from cargo handling activity	**5174.03**	**5133.13**
(ii).	**Apportionment of Revenue Requirement**		
	(a). Cargo Handling Charges (96% of ARR)	4967.07	4927.80
	(b). Storage Charges (2% of ARR)	103.48	102.66
	(c). Miscelleneous Charge (2% of ARR)	103.48	102.66
	(d).Total Revenue requirement from cargo handling activity	**5174.03**	**5133.13**
(iii).	**Cargo Handling charge**		
	(a). Cargo Handling Charge		
	- Revenue Requirement (Rs. in lakhs)	4967.07	4927.80
	- Capacity (Lakh Tonnes per annum)	40.50	40.50
	- Composite Handling Charge Rs.per tonne (Foreign)	**122.64**	**121.68**
	(b). Storage Charge		
	- Revenue Requirement (Rs. in lakhs)	103.48	102.66
	- % of Cargo to attract storage charge	24%	24%
	- Capacity of cargo to attract storage charge (lakh tonnes	9.72	9.72
	(i) Free period	5 days	5 days
	(ii) Storage Charge (beyond the free period)	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First five days	2.15	2.11
	-6th day to 10th day	3.25	3.17
	-11th day onwards	4.30	4.22
	(c). Miscelleneous Charge		
	- Revenue Requirement (Rs. in lakhs)	103.48	102.66
	- Capacity (Lakh Tonnes per annum)	40.50	40.50
	- Miscellenous Charge Rs. per tonne	**2.56**	**2.55**

Sr. No.	Particulars	Revised estimates by VPT	Modified estimates by TAMP
B.	**For Other Bulk Cargo**		
(i).	**Estimated Revenue Requirement**		
	(a). Total Operating Cost	968.06	866.32
	(b). Return on capital Employed @ 16%	575.70	569.99
	(c). Total Revenue requirement from cargo handling activity	**1543.76**	**1436.31**
(ii).	**Apportionment of Revenue Requirement**		
	(a). Cargo Handling Charges (96% of ARR)	1482.02	1378.87
	(b). Storage Charges (2% of ARR)	30.87	28.72
	(c). Miscelleneous Charge (2% of ARR)	30.87	28.72
	(d). Total Revenue requirement from cargo handling activity	**1543.76**	**1436.31**
(iii).	**Cargo Handling charge**		
	(a). Cargo Handling Charge		
	- Revenue Requirement (Rs. in lakhs)	1482.02	1378.87
	- Capacity (Lakh Tonnes per annum)	16.10	16.10
	- Composite Handling Charge Rs.per tonne (Foreign)	**95.86**	**89.23**
	- Composite Handling Charge Rs.per tonne (Coastal)	**57.52**	**53.54**
	(b). Storage Charge		
	- Revenue Requirement (Rs. in lakhs)	**30.87**	**28.72**
	- % of Cargo to attract storage charge	20%	20%
	- Capacity of cargo to attract storage charge (lakh tonnes	3.22	3.22
	(i) Free period (Import/ export)	5 days	5 days
	(ii) Storage Charge (beyond the free period)	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First five days	1.92	1.78
	-6th day to 10th day	2.88	2.67
	-11th day onwards	3.83	3.56
	(c). Miscelleneous Charge		
	- Revenue Requirement (Rs. in lakhs)	30.87	28.72
	- Capacity (Lakh Tonnes per annum)	16.10	16.10
	- Miscellenous Charge Rs. per tonne	**1.92**	**1.78**
C.	**BERTH HIRE CHARGES**		
(i).	**Revenue Requirement**	**(Rs. in Lakhs)**	**(Rs. in Lakhs)**
	(a). Repairs & Maintenance Charge (1% on captial cost for berth	64.34	64.34
	(b). Depreciation	214.90	214.90
	(c). Insurance (1% on total cost for berth hire service)	64.34	64.34
	Subtotal (i)	**343.58**	**343.58**
(ii).	Return on capital Employed @ 16%	**1029.44**	**1029.44**
	Total Revenue requirement from Berthing services (i + ii)	**1373.02**	**1373.02**
	Berth hire Charge		
	Foreign going vessel (Rate per GRT per hour) in Re	**0.75**	**0.74**
	Coastal vessel (Rate per GRT per hour) in Re	**0.45**	**0.45**

Berth Hire Calculation

Sr. No	Particulars	Alumina	Other Bulk Cargo	Total
i.	Average DWT			
ii	Ship day output	31700	12600	
iii.	Average GRT	39000	22000	
iv.	Average parcel size	60000	30000	
v.	Tonnage expected to be handlec	4049675	1609650	5659325
vi.	Average no of berth days (v / ii)	128	128	255.5
vii.	No of berth hours {24 x (vi)}	3066	3066	6132
viii.	Expected number of vessels (v/iv)	67	54	122
ix.	Total GRT hours	119574000	67452000	0
x.	Revenue Requirement			**1373.02**
xi.	**Berth hire - foreign going vessel (xi /x)**			
	Berth hire -Coastal vessel			
	Working for foreign / coastal vessel rate			
	180280800x + 6745200* 0.6x =			1373.02
	180280800x + 4047120x =			1373.02
	x = Foreign going vessel rate			**0.74**
	Coastal vessel Rate = 0.6 x foreign going vessel rate			**0.45**

Calculation of composite handling charge for other bulk cargo

Foreign Cargo (in tonnes)	
90% of other bulk cargo	1448685
Coastal Cargo (in tonnes) (10% of other bulk cargo)	160965
Total Cpacity (in tonnes)	1609650
Revenue requirement from Handling charge (in Rs.)	137,886,972
Rate for Foreign cargo say	x
1448685 x+ 160965 *0.6x =	137,886,972
1448685 x+ 96579x =	137,886,972
1545264x =	137,886,972
x =	89.23
Rate for Foreign cargo (in Re. per tonne)	**89.23**
Rate for coastal cargo (in Re. per tonne)	**35.95**

Annex - II

VISAKHAPATNAM PORT TRUST

UPFRONT TARIFF SCHEDULE FOR ALUMINA, OTHER DRY BULK VIZ. BF SLAG, GYPSUM AND GRANULATED SLAG ETC. TO BE HANDLED WQ7 AND WQ8 BERTHS ON DBFOT BERTHS

1.1. DEFINITIONS

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

(i). **"Coastal vessel"** means 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). **"Day**" shall mean the period starting from 6.00 A.M. of a day and ending at 6.00 A.M. on the next day.

(iii). "**Foreign-going vessel**" shall mean any vessel other than Coastal vessel.

1.2 GENERAL TERMS & CONDITIONS

(i). The status of the Vessel as borne out by its certification by the Customs or Director General of Shipping is the relevant factor to decide whether vessel is "Coastal" or foreign-going" for the purpose of levy of Berth hire, and the nature of cargo or its origin will not be of any relevance for this propose.

(ii). (a). A foreign going vessel of Indian 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 rates shall be chargeable by the load port from the time the vessel starts loading coastal goods.

(d). In cases of such conversion, coastal rates 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 the Director General of Shipping, no other document will be required to be entitled to Coastal rates.

(iii). (a). The berth hire for all coastal vessel should not exceed 60% of the corresponding charges for other vessels.

(b). The cargo related charges for all coastal cargo other than crude including POL, Iron ore and Iron pellets and thermal coal should not exceed 60% of the normal cargo 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). Cargo from a foreign port which reaches an Indian Port "A" for subsequent transhipment to Indian Port "B" will be levied the concession charges relevant

for its coastal voyage. In other words, cargo from/to Indian Ports carried by vessels permitted to undertake coastal voyage will qualify for the concession.

(e). The charges for coastal cargo / containers / vessels shall be denominated and collected in Indian rupee.

(iv). Interest on delayed payments / refunds.

(a). The user shall pay penal interest on delayed payments for any charge under this Scale of Rates. Likewise, the terminal operator shall pay penal interest on delayed refunds.

(b). The rate of penal interest will be 2% above the Prime Lending Rate declared by the State Bank of India from time to time.

(c). The delay on refunds by the terminal operator will be counted only 20 days from the day of completion of services or on production of all the documents required from the users, whichever is later.

(d). The delay in payments by the users will be counted beyond 10 days after the date of raising the bills by the terminal operator. This provision shall, 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.

(v). In calculating the gross weight or measurement by volume or capacity of any individual item, fractions upto and inclusive 0.5 shall be taken as 0.5 unit and fractions of above 0.5 shall be treated as one unit, except where otherwise specified.

(vi). All charges worked out shall be rounded off to the next higher rupee on the grand total of the each bill.

(vii). The rates prescribed in the Scale of Rates are ceiling levels: likewise, rebates and discounts are floor levels. The terminal operator may, if it so desires, charge lower rates and / or allow higher rebates and discounts.

The terminal operator may also, if it so desires rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation gives relief to the user in rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling levels.

The terminal operator should, however, 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

(viii). Users will not be required to pay charges for delays beyond a reasonable level attributable to the terminal operator.

2. BERTH HIRE CHARGES

2.1. Schedule of Berth hire

Sl. No.	Vessels	Rate per GRT per hour or part there of	
		Foreign Going Vessel (in Re.)	Coastal Vessel (in Re.)
1.	Vessels carrying Alumina and Other Dry bulk cargo	0.74	0.45

2.2. Penal Berth hire for overstayal of vessel:

(i). Penal berth hire equivalent to normal applicable berth hire shall be levied in addition to the berth hire charge for the period of overstayal of vessel for occupancy of the berth beyond the stipulated periods mentioned at (ii) below, provided there is a demand for the berth and a notice is served by the BOT operator or its authorized officials 10 hrs in advance of completion of discharge / shipment operations.

(ii). Vessel shall be permitted to occupy the berth after completion of cargo operation without attracting penalty for period mentioned below:-

(a).	Vessels taking bunkers through barges.	08 hrs
(b).	Vessels taking water through barges.	12 hrs [From the time of placement of barges alongside vessel].
(c).	Vessels taking Water / Bunkers through	08 hrs
(d).	In all other cases	07 hrs

General Notes relating to berth hire:

(i). The time for the purpose of levy of berth hire shall be reckoned from the time the vessel occupies the berth till she vacates the berth.

(ii). (a). Berth hire shall stop 4 hours after the time of vessel signaling its readiness to sail.

(b). The time limit of 4 hours prescribed for the 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.

(c). The master / agent of the vessel shall signal readiness to sail only in accordance with favourable tidal and weather conditions.

(iii). The Penal Berth hire shall be equal to one-day's (24 hours) berth hire charge for a false signal.

"False signal" would be when the vessel 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 vessels. This excludes the signaling readiness when a vessel is not able to sail due to unfavourable tide, lack of night navigation or adverse weather conditions."

(iv). No berth hire shall be levied for the period the vessel is compelled to idle at berth for continuously for one hour or more due to non- availability / break down of equipment and any other reasons including power failure attributable to the terminal operator.

(v). Ousting priority / Priority berth Hire:

The rate and conditions for granting ousting priority berthing / priority berthing will be governed by extant Government guidelines in this regard and provisions prescribed; in the scale of Rates of Visakhapatnam Port Trust.

3. CARGO HANDLING CHARGES:

Sl. No.	Commodity	Unit	Rate in Rupees	
			Foreign	Coastal
(1).	Alumina	Per Metric tonne	121.68	73.01
(2).	Other Dry bulk	Per Metric tonne	89.23	53.54

Notes:

The handling charges prescribed above is a composite charge for (i) unloading of the cargo from the vessel including stevedoring and transfer of the same up to the point of storage, storage at stack yard upto a free period of 5 days and loading on the trucks / wagons upto in respect of import cargo and (ii) unloading of the cargo from the trucks/ wagons at the stackyard, storage at the stackyard up to a period of 5 days in case of the Other dry bulk and Alumina., transfer the cargo to the loading point and loading onto the ship including stevedoring. This composite charge includes wharfage and supply of labour, wherever necessary and all other miscellaneous charges not specifically prescribed in the Scale of rates.

4. STORAGE CHARGES:

The Storage charges for the cargo stored in the stack yard beyond the free period allowed shall be as follows:

(A). Storage charges after free period (per ton / per day)

Description	Rate in Rs. per tonne per day	
	Alumina	Other Dry bulk
Free period	5 days	5 days
First five days after expiry of free period	2.11	1.78
6^{th} day to 10^{th} day after expiry of free period	3.17	2.67
Beyond 10^{th} day	4.22	3.56

Notes:

(i). For the purpose of calculation of free period Customs notified holidays and Terminal's non-working days shall be excluded.

(ii). Free period for export cargo shall commence from the actual date of the receipt of goods in the operator's premises.

(iii). Free period for import cargo shall be reckoned from the day following the day of completion of final discharge from the vessel.

(iv). Storage charge on cargo shall not accrue for the period when the terminal operator is not in a position to deliver / ship the cargo when requested by the user due to reasons attributable to the terminal operator.

5. MISCELLANEOUS CHARGES:

Description	Rate in Rs. per tonne per day	
	Alumina	Other Dry bulk
	2.55	1.78

Composite charge for all miscellaneous services such as environment and management, sweeping of cargo on the wharf, safety measures etc.

6. GENERAL NOTE TO SCHEDULE (2) to (5) ABOVE:

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 2010 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.

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SUMMARY OF THE COMMENTS RECEIVED FROM THE PORT USERS / RFQ APPLICANTS AND ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY

F.No.TAMP/51/2009 - VPT - **Proposal from the Visakhapatnam Port Trust for upfront tariff fixation for handling Alumina, Caustic Soda and other bulk cargo at the proposed WQ-7 and WQ - 8 berths in the inner harbour of Visakhapatnam Port on DBFOT basis.**

A summary of comments received from users / organisation bodies and RFQ applicants is tabulated below:

Sl. No.	Comments of users / user organisations and RFQ applicants
1.	**Sew Infrastructure Limited**
	It has stated that they have no comments on the proposed tariff fixation.
2.	**M/s. Hindalco Industries Limited**
	The proposed changes are very much on the higher side.

2. A joint hearing in this case as well as with reference to its proposal for fixation of upfront tariff for berth no.WQ-7 were held together on 17 March 2010 at the VPT premises. The VPT made a power point presentation of its proposals. At the joint hearing, VPT and the concerned users / organisation bodies / potential bidders have made the following submissions:

Visakhapatnam Port Trust

(i). Caustic soda is required by Aluminum industry. Therefore, it is clubbed with Alumina.

(ii). We will look into the proposed grouping of cargo

M/s.ABG - LDA Bulk Handling Pvt. Ltd.

(i). Installing MHCs, unloaders and caustic soda unloading arms within a berth length of 250 mtrs. may not be possible.

M/s.IMC Limited, Orissa Stevedores Limited, Navayuga - Anark Consortium, M/s. NALCO & Steel Authority of India Limited

(i). No comments.

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