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Tariff Authority for Major Ports

GNo. 250

New Delhi,

18 December 2009

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 coking coal and steam coal handling 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/58/2008-VPT

Visakhapatnam Port Trust

Applicant

O R D E R

(Passed on this 27th day of November 2009)

The Visakhapatnam Port Trust (VPT) had filed its proposal vide its letter dated 29 December 2008 for fixing upfront tariff for the mechanised handling of coking coal and steam coal at its General Cargo Berth (GCB) on Design Built Finance Operate and Transfer (DBFOT) basis in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Ports Trusts vide Notification No.TAMP/52/2007-Misc. dated 26 February 2008. Since the proposal contained some gaps, it was returned with an advice to file a comprehensive proposal.

2. The VPT has vide its letter dated 12 March 2009 filed a detailed proposal alongwith information on the various points raised by this Authority earlier. The port had initially proposed two different set of upfront tariff rates based on the cargo share of coking coal / steam coal proposed to be handled during different period. In the subsequent proposal, the VPT has proposed a uniform upfront tariff based on the optimal capacity assessed by it.

3.1. The highlights of the proposal are as below:

- (i). Length of the proposed berth is 356m length and 40.20 metres wide including the proposed widening of the berth by 18 mtrs. The dredged draft in the front of the berth is envisaged to be 20 mtrs.
- (ii).
 - (a). The optimal quay capacity of the berth is assessed at 12.9 million tonnes per annum following the norms and formula prescribed in the guidelines except for the deviation in the output norms. The output per ship per day for coking coal is considered at 70000 tonnes per day for cape size vessels (unloading norm prescribed in guidelines is 50000 tonnes per day) and for panamax vessel at 42000 tonnes per day (unloading norm prescribed in guidelines is 35000 tonnes per day). This deviation from the norms prescribed in the guidelines is on account of the VPT proposing deployment of 3 ship unloaders instead of 2 ship unloaders prescribed in the guidelines.
 - (b). The optimal yard capacity of the terminal is assessed at 9 million tones per annum (MTPA). Deviation from the norms prescribed in the guidelines is made with respect to stacking factor and the turnover ratio of cargo. The VPT has adopted the stacking factor 7.5 tonnes per sq.mtr. as against 3 tonnes / sq.mtr prescribed in the guidelines. The turnover ratio adopted by the VPT is 30 instead of 12 prescribed in the guidelines. The reasons for the deviations made from the guidelines are explained by the VPT in the revised proposal.
 - (c). As per the guidelines, the lower of the optimum quay and optimum stackyard capacity i.e. 9 million tones per annum (MTPA) is considered as the optimal capacity of the terminal for proposing the upfront tariff,
- (iii). The total estimated capital cost of the terminal considered in the upfront tariff calculation is Rs.439.72 crores. The break up of the capital cost estimates considered in the upfront tariff calculation is given below:

Sr. No.	Particulars	Capital cost estimation (Rs. in crores)
(i).	Civil construction cost (excluding the cost of construction of berth and berth side dredging)	72.59

(ii).	Mechanical & electrical Equipment cost	261.83
(iii).	Miscellaneous cost	16.72
(iv).	(a) Total capital cost for cargo handling, storage and miscellaneous services (i to iii)	351.14
(v).	(b) Capital cost for construction of berth including cost of dredging	88.58
(vi).	Cost of construction of berth including license fee	83.48
(vii).	Cost of dredging alongside the berth	5.10
(viii).	Total capital cost (a + b)	439.72

The port has made some deviation while estimating the equipment cost from the normative level of equipment prescribed in the guidelines. The port has considered 3 nos. of ship unloaders as against 2 nos., 1 stacker as against 2 nos. prescribed in the guidelines, 1 Reclaimer plus 1 Reclaimer-cum-stacker as against 2 nos. of reclaimers prescribed in the norms.

- (iv). The total revenue requirement from cargo handling activity is estimated at Rs.137.50 crores. It has apportioned the revenue requirement to handling charges, storage charges and miscellaneous charges as per the norms prescribed. The total revenue requirement from berth hire service is estimated at Rs.18.90 crores.
- (v). The upfront tariff cap proposed is as below:
- (a). Berth hire – Rs.0.60 ps. per GRT for foreign going vessel
 - (b). Coal handling charges – Rs.149.72 per tonne
 - (c). Storage charges beyond 10 free days (as against the prescribed norms of 25 days)
 - (i). For first 5 days – Rs.10 / tonne
 - (ii). 6 to 10 days – Rs.20 / tonne
 - (iii). 11 day onwards – Rs.40 / tonne
 - (d). Miscellaneous charges for sweeping, dust suppression, etc. – Rs.1.50 / tonne.

3.2. The port has furnished draft proposed Scale of Rates (SOR) along with its proposal.

3.3. The additional information / clarifications furnished by the VPT along with its proposal to the queries earlier raised is tabulated below:

Sl. No.	Our queries	Response of VPT
(i).	Optimal quay capacity: (a). The basis of estimating the share of steam coal/coking coal vessels to be handled at the proposed mechanised coal handling facility.	(a). The estimation of percentage share of Coking coal / steam coal vessels to be handled at the proposed mechanised coal handling facility is based on traffic projection arrived in consultation with RINL / SAIL / NALCO, power plants coming in the region, proposals of new steel plants by M/s.TATA & ESSAR and vessel distribution pattern of bulk carrier fleet profile for the vessels more than 70000 to 200000 DWT size vessels likely to visit the port by the time the facility is operational. The details are available in Techno Feasibility Report of the project.

	(b). The details of steam coal/coking coal vessels handled by the VPT/ Vizag Seaport Private limited (VSPL) during the last three years along with average GRT of vessel may be considered to substantiate the capacity calculation.	(b). The capacity calculations as can be seen from the proposal has been worked out based on the proposed deployment of Capesize vessels / Panamax non-gear vessels and the type of equipment proposed to deployed at the berth. It may be noted that either at GCB or at VPT berths at Inner Harbour, there is no mechanised handling equipment, which can be taken as basis to substantiate the calculations. The productivity achieved at EQ8 and EQ9 berths operated by M/s.Vizag Seaport Limited, where an integrated handling facilities exists is 25000 tonnes / day for Panamax non-gear vessels. However, there is a limitation in backup space at these berths, as such the same productivity cannot be taken as the basis for the estimation of capacity of the proposed facility. The justification for considering the output rates of 72,000 and 42,000 tonnes per day for coking coal cape size and panamax respectively can be perused from the feasibility report.
(ii).	Optimal yard capacity: (a). The upfront tariff guidelines prescribe norm for stacking coal at 3 tonnes per annum for assessing the optimal yard capacity. As against this, the VPT has considered the stacking factor at 7.5 tonnes per square metre of area. A detailed analysis done by the VPT for assuming the stacking factor at 7.5 tonnes per square metre against the prescribed norm of 3 tonnes per square meter may be furnished. (b). The average stacking factor achieved by the port / VSPL during the last two years in respect of coking coal/steaming coal handled in the port may be furnished. In this context, it may be pointed out that the stacking factor assumed while fixing the upfront tariff of mechanised coal handling facilities in the Paradip Port Trust and Mormugao Port Trust is 4.7 tonnes per square metre. (c). The actual average dwell time of coking coal and steam coal at the port for the last three years may be furnished to support the average turnover of 30 assumed by the port while assessing the optimal yard capacity as against the prescribed norm of 12. Annual turnover achieved by the port/ VSPL for handling the same cargo during the last three years 2005-06, 2006-07 and 2007-08 may be indicated.	(a). Average stacking factor has been assumed at 7.5 T / sqm as against 3 T / sqm proposed in TAMP guidelines, in view of the soil improvement by installation of suitably designed PVC band drains or similar methods at suitable spacing and pattern and pre-consolidation by keeping the pre-load of sufficient height of gravel for designed preload period. Upon soil stabilization the stockpile area will be provided with hard standing comprising stone soiling and filling the gaps with stone spills proposed at the stack yard. (b). The average stacking factor achieved by the VPT / VSPL during the last two years in respect of coking coal / steam coal ranges between 5 T/ sqm. to 10 T / sqm. Depending upon the nature of the stockpile at the respective stack yards, an average of 7.5 Ton / Sq. mtrs. was considered. It may not be proper to compare the facility with that of Paradip and Mormugao ports as it depends upon the type of the soil and its developments. (c). Average dwell time of steam coal is in the range of 44 to 53 days and for coking coal it is in the range of 22 to 25 days. However, as ascertained by M/s.IPA from one of the main importer of coking coal, that dwell time of 7 days in the port is reasonable for the imported coking coal i.e. to say that a minimum quantity of 1 week's consumption would be more or less in the ports stock pile. Based on the size of vessel proposed, a minimum receiving capacity for 1 large ship of 2,00,000 DWT, an average parcel load of 1,50,000 tonnes or two Panamax vessels of average

	parcel load of 72,000 tonnes and a dwell time of one week for the cargo at the port has been considered for estimation of stockpile requirement. Hence, for this proposal, a dwell time of 10 days is considered reasonable and on that basis the turnover ratio of the stockpile works out to 30. Annual turnover of the VSPL for the last three years is as below: (in lakh tonnes) <table><tr><th>Year / Cargo</th><th>2007-08</th><th>2006-07</th><th>2005-06</th></tr><tr><td>Coking coal</td><td>10.37</td><td>1.04</td><td>0.12</td></tr><tr><td>Steam coal</td><td>2.21</td><td>3.86</td><td>1.56</td></tr></table> The annual turnover of the VPT cannot be considered for the optimum terminal capacity, since the coking coal and steam coal are handled at different multipurpose berths of inner harbour and at GCB at outer harbour and the cargo is being stacked at different stack piles. (d). The optimal yard capacity assessed in Section 2.2.3 at 9 Million Tonnes Per Annum (MTPA) is lower than the quay capacity assessed by the VPT under two different scenarios. As per the upfront tariff guidelines, lower of the optimal yard/ quay capacities is to be considered as the optimal capacity of the terminal as per clause 3.3.2, the upfront tariff cap has to be determined with reference to the optimal capacity of the terminal irrespective of the traffic forecast. As already stated earlier, the proposed upfront tariff under Scenario I based on the expected traffic of 7.5 MMT is not in line with the upfront tariff guidelines.	Year / Cargo	2007-08	2006-07	2005-06	Coking coal	10.37	1.04	0.12	Steam coal	2.21	3.86	1.56
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Coking coal	10.37	1.04	0.12										
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(iii).	The item 'License fee' under operating cost is with reference to rental for land and the port asset. As per the upfront tariff guidelines, this cost item has to be estimated as per rates prescribed in the Scale of Rates of the concerned Major Port Trusts. The basis of estimation of lease rental by spreading Rs.15855 lakhs over 30 years period is not explained and also shown to be in line with the norms prescribed in the upfront guidelines for estimating this cost item. The VPT is advised to furnish detailed calculation of area proposed to be leased and the lease rental adopted.	The calculation of the License fee has been revisited and arrived at Rs.388.72 lakhs. The details of the calculations of the area proposed to be leased and lease rental adopted are furnished.											
(iv).	Capital cost estimation: (a). The number of coal handling equipment considered in the proposal for fixation of upfront tariff does not match with the coal handling equipment stipulated in 4.3.-Annex II of the upfront tariff guidelines. The reasons for	(a). The coal handling equipment indicated in the upfront tariff guidelines and the equipment proposed in the proposal are almost similar except with regard to ship unloaders (3 nos. as against 2 nos. in guidelines), stacker (1 no. as against 2 nos. in guidelines). However, no											

deviation from the norms in respect of each item of equipment need to be clearly brought out. (b). Detailed break-up of estimating the cost of strengthening the general cargo berth at Rs.5752.80 lakhs may be furnished. (c). Clarify the nature of the expense estimated (Rs.3468 lakhs) under the head license fee payable for the berth and the basis of valuation may be explained. (d). The basis of estimating cost of individual capital items under the heads civil, berth cost, dredging and equipment may be indicated along with detailed calculation. The period pertaining to the unit rate adopted for estimation of each items of capital cost may be indicated. Also, copies of supporting documents / calculations / rate analysis done by the port to justify the estimation of the capital cost giving relevant references to the main sheet to enable us to co-relate the figures.	cranes are proposed as against 2 nos. indicated in the guidelines. Deviation is proposed for the following reasons: Ship unloaders: For the ship of a 2,00,000 DWT size vessel length will be about 300 meters. Hence, three gantries are recommended for faster turnaround of vessels. Also, in the event of breakdown of one of the gantries, the unloading will not be unduly affected and the turnaround of the vessel will not be significantly affected. Three such unloaders of 40 tonne capacity, with a cycle time of 1 minute will have an installed unloading capacity of 4500 tonnes / hour (1500 tonnes x 3 unloaders). This will be able to achieve an average output rate of 70,000 TPD and a maximum of 75,000 TPD. Stacker: Instead of installation of 2 nos. of reclaimers and 2 nos. of stackers as indicated in the upfront tariff guidelines, VPT proposed to have one stacker and one Bucket wheel reclaimer / stacker as the Bucket wheel reclaimer / stacker will serve the purpose the stacker and reclaiming the cargo in the east yard dumps. The reason for not considering 2 nos. of cranes is due to installation of 3 nos. of ship unloading grab gantries with unloading capacity of 4500 tonnes / hour (1500 tonnes x 3 unloaders) which will achieve an average output rate of 70,000 TPD and a maximum of 75,000 TPD. (b). Details breakup of cost of strengthening the general cargo berth and dredging for Rs.4879.65 lakhs and Rs.509.84 lakhs are furnished. (c). Inclusion of Rs.33.33 crores towards license fee of the berth is the residual value of the existing berth on the replacement cost of Rs.64.08 (as per the asset valuation report of M/s.Jodan & Co.), which will be charged upfront from the BOT operator. (d). The estimates are prepared based on the VPT schedule of rates applicable from 1 June 2008 and Rate Analysis prepared in VPT schedule of rates of 1 June 2008 and with latest amendment no.2 effective from 1 January 2009 and prevailing market rates/quotations for the items where rates not applicable in the VPT. In respect of strengthening of berth and cost of dredging is worked out based on Rs.300/cum done by M/s.DCI recently. With regard to Mechanical and Electrical equipment, the rates adopted by consultants based on the information collected from the neighbouring ports as per the latest work orders.
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	(e). Ensure that the unit rates adopted for estimation of capital and operating costs are closer to the rates prevailing as on 1 January 2009. (f). The basis of applying 12.8% of the capital cost towards engineering, supervision, contingencies, works contract tax may be explained alongwith breakup of these components. Also, confirm whether the works contract tax will be applicable for all the items of assets i.e. civil work, equipment cost, electrical work. (g). Details of the quantum of dredging and the unit rate of dredging adopted for estimating the dredging cost may be furnished.	(e). As advised by the TAMP, capital and operating cost estimates are revised as per prevailing rates closer to the January 2009. (f). Applying 12.8% of the capital cost toward engineering, supervision, contingencies and work contract tax has been revisited and work out to 13.296% on the following basis: • 3% of the base cost for contingencies are 5% towards project supervision charges, • 1% each for detailed engineering and surveying charges on the base cost and contingencies as per the CPWD guidelines / practice followed for the previous projects. • 4% on 70% of the project cost after considering contingencies and supervision charges etc. is considered as per APVAT (Works contract tax) as per the Government Order. (g). The estimated dredging quantity for deepening in front of the berth from -16.5 m to -20 m is 1,50,000 cum. estimated at the rate of Rs.180/- based on the contract rate of the on going dredging work with necessary escalation.
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4. In accordance with the consultation process prescribed, the proposal dated 12 March 2009 as well as the feasibility report received from the VPT were circulated to the concerned users / organisation bodies and prospective applicants as per the list provided by the VPT seeking their comments. The comments received from the users / user organisations and prospective applicants were forwarded to VPT as feedback information. The VPT has furnished its observations on the comments of the users / prospective applicants.

5.1. The VPT was requested vide our letter dated 11 June 2009 to furnish additional information / clarifications on some points arising from its proposal dated 12 March 2009. The VPT vide its communication dated 27 July 2009 has responded to our queries. The summary of the queries raised and the response of VPT are tabulated below:

Sl. No.	Our queries	Response of VPT
(i).	With the present infrastructure and the draft available, clarify whether cape size vessels can call at the proposed coal terminal immediately upon its commissioning.	The Techno-Economic Feasibility Report (TEFR) envisages strengthening and upgradation of berth to cater to 200,000 DWT vessels with designed vessel size of 300 mtrs. LOA, 50 mtrs. beam and 18 mtrs. draft. For a 300 mtrs. LOA vessel, the berth length required will be 340 mtrs. As against this, the present berth length available is 356 mtrs., hence it will be adequate for 200,000 DWT vessels. Besides, the approach channel and turning circle of the outer harbour are proposed to be deepened to cater to 200,000 DWT vessels which is expected to be completed by end of 2010. As such, the proposed coal terminal will be able to cater to cape size vessels upon its commissioning.

(ii).	(a). Average GRT under different categories of coking coal/steam coal vessels viz. capsizes, panamax, handy max handled by the VPT during the last three years 2006-07 to 2008-09 may be indicated. (b). The average GRT per vessel considered in the calculation of berth hire charge, the average GRT of vessels differs from the GRT considered in the project feasibility report. The correct position may be indicated. Also, explain the basis of arriving average GRT of vessel for each category of vessels. (c). M/s.Vadinar Oil Terminal Limited in their comments on the subject proposal has made certain observations on the average GRT of vessels which may be examined and commented upon.	(a). Statement showing average GRT of cape size, panamax and handymax vessels handled by VPT for the last three years is furnished below: <table><tr><th></th><th colspan="3">Coking Coal</th><th colspan="3">Steam Coal</th></tr><tr><th></th><th>2006-07</th><th>2007-08</th><th>2008-09</th><th>2006-07</th><th>2007-08</th><th>2008-09</th></tr><tr><td>Handymax</td><td>29669</td><td>29089</td><td>29717</td><td>27810</td><td>28313</td><td>26894</td></tr><tr><td>Panamax</td><td>39042</td><td>39290</td><td>39368</td><td>39034</td><td>39475</td><td>37578</td></tr><tr><td>Cape size</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr></table> (b) and (c). The average GRT of vessels indicated in Appendix 13.01 in the feasibility report have been rounded off. Hence, there is a difference. However, keeping in view the observations made by M/s.Vadinar Oil Terminal Limited on the average GRT and based on the actual ratio of GRT: DWT realized at VPT for coking coal and steam coal vessels, the average GRT has been reconsidered as follows: <table><tr><th>Vessel size (DWT)</th><th>Average GRT of the vessel in earlier proposal</th><th>Average GRT of the vessel (Revised)</th></tr><tr><td>80000</td><td>42000</td><td>44000</td></tr><tr><td>140000</td><td>85400</td><td>77000</td></tr><tr><td>175000</td><td>106750</td><td>96250</td></tr></table>		Coking Coal			Steam Coal				2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	Handymax	29669	29089	29717	27810	28313	26894	Panamax	39042	39290	39368	39034	39475	37578	Cape size	--	--	--	--	--	--	Vessel size (DWT)	Average GRT of the vessel in earlier proposal	Average GRT of the vessel (Revised)	80000	42000	44000	140000	85400	77000	175000	106750	96250
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(iii).	The actual average stacking factor achieved at the port during the years 2007-08 and 2008-09 in respect of coking coal / steam coal handled in the port as well as at Vizag Seaport Private Limited (VSPL) may be furnished.	The average stacking factor achieved in respect of coking coal at M/s.Vizag Seaport Limited as furnished is 5.57 tonnes/sqm.																																															
(iv).	Furnish detailed analysis with calculations may be furnished to explain how the proposed soil improvement will enhance stacking height at the yard.	The proposal was reviewed with reference to the unit weight of coal. The bulk density of coking coal is 0.833 ton / cum. It is proposed to construct 7 mtrs. high compound wall as dust barrier at East Yard Dumps where the proposed stack yard is located. Considering a stack height of 7 meters, 6 tonnes of cargo per sq. mtr. can be stacked (7 mtrs. x 0.833 ton / cum.). Further, with the kind of soil improvement measures envisaged, the stack height of 7 mtrs. is considered feasible. It may be stated that at Vizag Seaport Limited, the stack height is between 9 to 10 mtrs.																																															
(v).	The average dwell time of steam coal during the years 2005-06 to 2007-08 is reported to be in the range of 43 to 52 days and 22 to 25 days in respect of coking coal. The best annual turnover achieved by the private terminal operator VSPL during the last three years 2005-06 to 2007-08 is reported to be at the level of 10.37 days in respect of coking coal and 2.21 days in respect of steam coal. In view of the above, explain whether the supporting evacuation facilities have since improved to justify the plot turnover of 30 adopted by the VPT in the upfront tariff	In the present system, railway yard is laid out behind the berth to accommodate three half trains of 29 wagons each. Two of these tracks exist in between the berth and the warehouses and one track behind the warehouse. While the total back-up of this berth is of order of 1,20,000 sqm., available cargo stacking excluding the area occupied by railway tracks and area required for movement of cargo handling equipment viz. trucks, pay-loaders and dozers is only 50,000 sqm. Cargo is generally stacked at a height of about 5 to 6 meters and the wagon loading is being done by																																															

	calculation as against the prescribed norm of 12 in the guidelines.	trucks, dozers and pay loaders etc. whereas the proposed stack yard of 1,02,050 sqm. envisages movement of 9 full trains per day to cater to mechanised wagon loading system which in turn increases the faster cargo evacuation and thereby reducing the cargo dwell time.
(vi).	(a). The method adopted by the VPT in estimating the lease rent by applying some adhoc increase in the market value of land is not found to be in line with the norms prescribed in the upfront tariff guidelines and the Government guidelines of March 2004 for revising the lease rental. (b). The lease rent approved by this Authority in the tariff Order of April 2008 does not cover for Zone I-B as the port did not seek approval of the rate for this zone. In this context, please indicate the zone which is analogous to Zone I-B in terms of market value of land, infrastructure and facilities provided by the port, etc.	(a). The license fee has been reworked duly considering base lease rent as approved for quinquennium of 2003-08 and annual escalation @ 2% per annum from 2003-04 to 2009-10 as considered by TAMP while fixing upfront tariff for other BOT projects of VPT. (b). Zone IA is considered analogous to Zone IB as it is existing to adjacent to Zone IA. Hence, rate considered for Zone 1A is considered for Zone IB also for estimating lease rentals.
(vii).	(a). The VPT has considered three unloaders as against the prescribed norm of two numbers in the calculation of optimal quay capacity. Consequently, discharge rate considered in the calculation of quay capacity is also higher than the norm prescribed in the guidelines. The optimal quay capacity thus assessed by the VPT is 12.59 million tonnes per annum. However, the optimal capacity of the coal terminal is restricted to 9 million tonnes as the yard capacity is reported to be a limiting factor. The optimal quay capacity of the coal terminal strictly following the guidelines i.e. deployment of two unloaders and adopting the output norms prescribed in the guidelines will be 10.55 million tonnes per annum which is still higher than the yard capacity. In view of the above, justify extraordinary circumstances warranting deviation from the upfront tariff guidelines by including the cost of one additional unloader and consequent operating cost and return thereon in the calculation of upfront tariff and then limiting the capacity to match that of the yard. If the quay capacity is to be pegged at the proposed level, the port should explore the possibilities of improving the yard capacity. (b). The upfront tariff guidelines stipulate deployment of 2 numbers of reclaimers and 2 numbers of stackers for coal handling terminal. As against this, the port has considered 1 stacker, 1 bucket wheel reclaimer, 1 bucket wheel stacker / reclaimer. The 3 numbers of Mobile Hooper considered by the VPT also do not conform to the normative level of equipment prescribed in the guidelines. The reasons for deviation in the number and nature	(a). The reason for considering three unloaders as against the prescribed norm of two numbers is to have a competitive edge with the neighbouring ports and to achieve to faster turnaround of vessel for a ship 2,00,000 DWT for which the ship length will be about 300 meters and in the event of break down of one of the Gantries, the unloading will not be unduly effected and the turnaround of the vessel will not be significantly effected. Three unloaders of 40 tonne capacity of 4500 tonnes/hour (1500 tonnes x 3 unloaders) will be able to achieve an average output rate of 70,000 TPD (4500 tonnes / hour x 70% x 22 hours) = 69000 or say 70,000 per day. (b). Regarding 2 number of reclaimers and 2 number of stackers for coal handling terminal, it is stated that the proposal envisages 1 stacker and 1 reclaimer and one stacker reclaimer cum stacker which will serve the purpose for the stacking and reclaiming the cargo in the East yard dumps. As such the above the difference in equipment indicated as per TAMP guidelines and VPT's proposal is only on one equipment i.e. one reclaimer cum

	of equipment from the normative level of equipment prescribed in the guidelines may be justified particularly with reference to our observation at point (a) above and the contribution of such equipment to the productivity of the terminal.	stacker as against one reclaimers and one stacker. With regard to installation of 3 nos. of mobile hoppers, it is stated that unloading gantries will discharge coal from ship's hold to a conveyor installed immediately behind the berth or in between the tracks of the gantries through mobile hoppers. It is pertinent to state that mobile hoppers and gantry together form a unit and hence for proposed 3 unloaders, it is necessary to deploy three mobile hoppers.
(viii).	The written down value of the GCB berth as on 31 March 2009 as per provisional Annual Accounts 2008-09 may be indicated.	The written down value of the GCB berth as on 31 March 2009 as per provisional Annual Accounts 2008-09 is Rs.11.56 crores. The license fee of the berth was erroneously considered as Rs.34.68 crores instead of Rs.33.33 crores. The same has been corrected in the present proposal and necessary upfront tariff calculations have been modified.
(ix).	Clarify whether the works contract tax will be applicable for all the items of assets i.e. civil work, equipment cost, electrical work.	4% on 70% of the Civil works after considering contingencies and supervision charges etc. is considered as per APVAT (works contract tax) as per the Government Order. With regard to Mechanical assets, 70% of the cost is expected to attract work contract tax @ 4%.
(x).	The correct unit rate adopted for estimation of dredging cost may be indicated and also substantiated with copy of any recent bill raised by M/s.Dredging Corporation of India for similar kind of work undertaken in the port.	The capital cost of Rs.509.84 lakhs towards dredging alongside the berth is estimated adopting the unit rate of dredging at Rs.300 per cubic metre which is as per the dredging done by M/s. Dredging Corporation of India (DCI) recently. The copy of the recent bill raised by M/s. DCI for similar kind of work undertaken is produced.
(xi).	Despite specific request, the VPT has not furnished supporting documents/ rate analysis etc., to validate the estimates of capital cost. The project feasibility report also does not contain documents validating the estimates. It is, therefore, reiterated that copies of supporting documents/ calculation/ rate analysis be furnished to justify the estimation of capital cost updated as on 1 January 2009 giving references to the main sheet to co-relate the figures. The estimation of mechanical and electrical equipment cost (updated by the port as of 1 January 2009) may be substantiated with copies of quotations/ market rates, etc.	Detailed estimate of the capital cost has been prepared based on inputs received from neighboring ports who have recently acquired equipments as replacement/procurement to be more realistic.
(xii).	<u>Scale of Rates:</u> (a). The proposed note under schedule 3 may be modified to state that the composite charge includes wharfage and supply of labour whenever necessary and all other miscellaneous charges not specifically prescribed in the Scale of Rates. (b). Explain the basis of assuming 15% of total cargo to attract storage charge beyond the proposed free period. Considering the plot turnover of 30 assumed by VPT and proposed free period of 10 days free, the cargo attracting storage charge would be in fact around 17%.	(a). Note under schedule 3 has been modified as suggested. (b). The percentage of cargo that attract storage charges is considered as 17%.

(c). Explain the basis of arriving at the proposed slab wise storage charge. Furnish detailed estimation of revenue from the proposed storage charge indicating number of days the cargo will stay under each of the slabs beyond the proposed free period of 10 days. (d). The average GRT for 80000 DWT vessel carrying either coal or steam coal may not be different as considered by the VPT in the calculation of berth hire charges. The VPT may make suitable correction in the said calculation. (e). Though the port has proposed concessional tariff for coastal vessel / coastal cargo in berth hire as well as composite handling charge, the revenue impact of allowing such concession is not considered while arriving at the proposed rates. It may be confirmed that no coastal vessel / coastal movement of cargo is envisaged at the proposed coal terminal.	(c). In the absence of specific guidelines, it is considered 5-day slab for the storage charges. The proposed slab wise storage charges has been considered in line with the upfront tariff approved by the Authority for the coal terminals at Paradip and New Mangalore Port Trusts. (d). Based on the actual ratio of parcel size of vessel and DWT realized at VPT for coking coal and steam coal vessels. The average parcel size has been reconsidered as follows: <table border="1"> <thead> <tr> <th>Vessel Size (DWT)</th><th>Average Parcel considered in the revised calculation</th></tr> </thead> <tbody> <tr> <td>80,000</td><td>72000</td></tr> <tr> <td>140,000</td><td>126,000</td></tr> <tr> <td>175,000</td><td>157500</td></tr> </tbody> </table> (e). It is confirmed that no coastal vessels/coastal movements of cargo is envisaged at the proposed coal terminal as the coking coal is being imported from countries like China Australia, New Zealand, USA etc.	Vessel Size (DWT)	Average Parcel considered in the revised calculation	80,000	72000	140,000	126,000	175,000	157500
Vessel Size (DWT)	Average Parcel considered in the revised calculation								
80,000	72000								
140,000	126,000								
175,000	157500								

5.2. While furnishing clarifications to the query raised by us, the VPT has also modified the calculation of upfront tariff. The main modifications done by VPT in the upfront tariff calculation vis-à-vis its proposal dated 12 March 2009 is summarised below:

- (i). License fee is reworked considering base lease rent as approved for quinquennium 2003-08 and escalated by 2% per annum. The revised lease rental considered is Rs.203.83 lakhs as against Rs.388.72 lakhs considered initially.

Consequently, the annual revenue requirement from cargo handling activity is also modified. The revised annual Revenue requirement is Rs.13565.28 lakhs as against Rs.13750.17 lakhs estimated earlier.

- (ii). In the capital cost of berth, License fee for berth is corrected as Rs.3332 lakhs (Rs.3469 lakhs considered earlier)
- (iii). Average parcel size for categories of vessel is modified as follows:

Vessel Size (DWT)	Average Parcel considered in the earlier calculation	Average Parcel considered in the revised calculation
Panamax vessel 80,000	76,000	72000
Cape Size vessel 140,000	125,000	126,000
Cape size vessel 175,000	150,000	157500

Consequent to this modification, the total GRT hours is revised.

- (iv). The revised upfront tariff proposed by VPT is as follows:

- (a). Berth hire charges:

RATE PER GRT PER HOUR PART THEREOF	
Foreign-going vessel [in Re.]	Coastal vessel [in Re.]
0.65	0.36

- (b). Coal handling charges:

(Rate in Rs. per tonne)

Nomenclature	Foreign	Coastal
Coking Coal	147.70	88.60
Steam Coal	147.70	88.60

- (c). Storage charges:

- (i). Free period: 10 days

- (ii). Storage charge for balance cargo remaining beyond the free period:

Sl. No.	Particulars	Rate in Rs. per tonne per day or part thereof
(i).	For 1 st 5 days	9.00
(ii).	6 th to 10 th day	18.00
(iii).	11 th day onwards	36.00

6. Revised proposal dated 27 July 2009 filed by the VPT was circulated to the users/user associations and prospective bidders seeking their comments, if any. We have not received any comments from users / user associations / prospective applicants with reference to the revised proposal of the VPT.

7.1. The VPT was requested to furnish further clarification on certain points with reference to the revised proposal vide our letter dated 10 September 2009. The VPT has furnished its reply vide letter dated 19 September 2009. Summary of queries raised and additional information/clarifications furnished by the VPT are tabulated below:

Sl. No.	Our queries	Response of VPT
(i).	For computation of yard capacity, the area considered by the port in its proposal of 12 March 2009 was 81250 sq. mtrs. which is revised to 102050 sq. mtrs in the revised proposal. The stock pile area to be made available by the port to the prospective operator is 122000 sq. mtrs. as per appendix 12.01 of the feasibility report. Explain the reasons for scaling down the area to 102050 sq. mtrs. for estimating the optimal yard capacity. The guidelines provide a separate norm of 70% of the total stackyard area that can be used for stacking.	In the project report of September 2008 an area of 122,000 m ² excluding the area for conveyor corridor (6,600 m ²) and area for office and operational buildings (1,000 sq.m.) has been identified at stockpile area, of which 81,250 m ² was considered for yard capacity with 2 stockpiles of 650 X 50m each duly providing 650 X 25 m for equipment track. Further, the reason for considering only 81,250 m ² out of 1,22,000 m ² is to make a provision for 9m. service road, drainage, peripheral roads and other service areas. The drawing showing the total area of 1,22,000 m ² and stockpiles of 81,250 m ² considered in September 2008 report is herewith enclosed. In the revised proposal, the area of 1,02,050 m ² has been considered excluding conveyor corridor and office & operational buildings as there is a provision in TAMP formula to provide space for peripheral roads etc., by 30%. Accordingly, the inconsistency observed in the 12 th March 2009 proposal has been taken care in the revised proposal of July 2009.
(ii).	(a). The feasibility project report furnished by the port considers stacking factor of 7.5 tonnes/sq. mtrs. Stack height achieved by Vizag Seaport Private Limited operating in the VPT is reported to be in the range of 9 to 10 mtrs. In view of the above, and also when the port admits that with the soil improvement	In the Feasibility Report of September 2008, a stacking factor of 7.5 tonnes per sq.m was reckoned by the consultants. Based on the density of the cargo and the peripheral wall proposed for the stockpile area, which is of 7 m. height, a stack height of 7m. has been considered for coking coal (7 X 0.833 = 5.831

	envisaged in the proposal, it is likely to achieve stack factor upto 10 tonnes / sq. mtr. which incidentally is the level achieved by the operator in its port, the reasons for reducing the stack factor of 7.5 tonnes / sq. mtrs. considered in its earlier proposal to 6 tonnes / sq. mtrs in the revised proposal dated 27 July 2009 may be explained.	or say 6.0 tonnes per sq.m.). With regard to steam coal, the nature of cargo being light in weight and dusty cargo without inherent moisture, the staking height of 5 mtrs (As ascertained from one of the steam coal importer) 4 tonnes of per sq.m ($5 \times 0.833 = 4.165$ or say 4.0 tonnes per sq.m.) has been considered in the revised proposed (attached at Annexure-II).															
	(b). If the quay capacity is to be pegged at the proposed level of 12.59 million tonnes per annum by deploying additional unloader and Mobile Hopper, it may be necessary to explore the possibilities of improving the yard capacity.	The reason for proposing an additional unloaders and mobile hopper was to ensure that higher rates are achieved which only will make the port competitive. Regarding yard capacity, the stacking factor considered for turnover ratio are practicable and any increase in yard capacity may not address the unforeseen situation like inadequate supply of rakes, bunched arrival of vessels etc.															
	(c). Whilst the port has reduced the stack factor from 7.5 tonnes / sq. mtrs. to 6 tonnes / sq. mtrs., it has not revised the capital cost with reference to yard development. The original estimates were reportedly drawn up to improve the soil bearing capacity to stack 10 tonnes / sq. mtr.	The stacking factor of 7.5 or 6 T. is only an average. However, the soil should be developed to have a load bearing capacity of at least 50% an excess of average. In order to meet the eventualities like bunched arrival of vessels, inadequate supply of rakes, breakdown of wagon loader equipment etc., Hence, there is no need to revise the capital cost estimate.															
	(d). The stack height of coking coal and steam coal based on the density of the respective cargo items.	Stack of 7 mts is considered for coking coal based on density and the height of peripheral wall of 7 mtrs. for coking coal and in respect of steam coal, being the nature of the cargo is light in weight and dusty cargo with inherent moisture, the stack height is limited to 5 mtrs.															
(iii).	From the computation of license fee, it appears that total area of 109650 sq. mtrs. of land is considered. Whereas, the Project Techno Feasibility Report in Appendix 12.01 states that total 1,29,600 sq. mtrs. of land is to be allotted by the port comprising 1,22,000 sq. mtrs. for stock pile, 6600 sq. mtrs. for conveyor and 1000 for office and operational buildings. Storage area itself is taken at 102050 sq. mtrs. by the port for assessing yard capacity. The correct position may be indicated and the proposal may be modified to reflect the correct position. The license fee may be estimated correctly.	As per the revised TEFR (August 2009) sent to TAMP vide VPT's letter dt. 19.08.2009, the total area to be allotted is 1,09,650 sq. m. (Appendix 12.01, Pg. 78) comprising of 1,02,050 sq.m. for stockpile area, loader tracks and railway tracks, 6,600 sq.m. for conveyor corridor and 1,000 sq. m. for office & operational buildings. Hence, the license fee has been worked out on the total area of 1,09,650 sq.m. <table border="1"> <thead> <tr> <th>Description</th><th>Area as per TEFR (Sept. 2008) (in sq.m.)</th><th>Area as per revised TEFR (Aug. 2009) (in sq.m.)</th></tr> </thead> <tbody> <tr> <td>Stock pile area, loader, railway tracks etc.</td><td>122,000</td><td>102,050</td></tr> <tr> <td>Conveyor corridor</td><td>6600</td><td>6600</td></tr> <tr> <td>Office & operational buildings</td><td>1000</td><td>1000</td></tr> <tr> <td>Total</td><td>129,600</td><td>109,650</td></tr> </tbody> </table> It is confirmed that the stockpile area is 102,050 m² as considered in the revised TEFR.	Description	Area as per TEFR (Sept. 2008) (in sq.m.)	Area as per revised TEFR (Aug. 2009) (in sq.m.)	Stock pile area, loader, railway tracks etc.	122,000	102,050	Conveyor corridor	6600	6600	Office & operational buildings	1000	1000	Total	129,600	109,650
Description	Area as per TEFR (Sept. 2008) (in sq.m.)	Area as per revised TEFR (Aug. 2009) (in sq.m.)															
Stock pile area, loader, railway tracks etc.	122,000	102,050															
Conveyor corridor	6600	6600															
Office & operational buildings	1000	1000															
Total	129,600	109,650															
(iv).	(a). The handling rate for panamax vessels bringing steam coal is assumed at 27000 tonnes / day as against handling rate of 42000 tonnes / day assumed for same size vessel	The reasons for reckoning different handling rates for coking coal and steam coal are furnished below:															

	carrying coking coal cargo. Explain the basis of differential handling rate assumed in the upfront tariff calculation.	(i). Compared to coking coal, steam coal is light weight cargo due to which grab pickup will be relatively low which results in low productivity with the same kind of equipment. (ii). Coking coal is hard coal whereas steam coal is dusty cargo without inherent moisture which requires frequent sprinkling of water while discharging as well as transporting to stack yards and loading into wagons thus affecting handling rate. (iii). The emission of dust while unloading steam coal is relatively high compared to coking coal due to which there will be restriction on the discharge rate to contain pollution. (iv). As the cargo is light in weight and not solid when compared to coking coal, the productivity rate is low.
	(b). If handling rate of steam coal is different from coking coal, please explain why a differential composite handling rate is not proposed taking into consideration the different level of productivity of the two cargo items. Wharfage rate at present is same for both the commodities handled at VPT is not an adequate justification.	It is felt not prudent to link the rate with productivity as even for the same cargo, say coking coal, productivity will not be uniform as it depends upon difference grades of coking coal, also age of the vessels etc. As such only one rate is considered towards handling charges.
(v).	Despite specific request, the VPT has not furnished supporting documents/ rate analysis etc., to validate the estimates of capital cost. The project feasibility report also does not contain documents validating the estimates. It is, therefore, reiterated that copies of supporting documents / calculation / rate analysis be furnished to justify the estimation of capital cost updated as on 1 January 2009 giving references to the main sheet to co-relate the figures. The estimation of mechanical and electrical equipment cost (updated by the port as of 1 January 2009) may be substantiated with copies of quotations/ market rates, etc. Rates stated to have been adopted from other ports may also be established with necessary documents.	Copies of the rate analysis considered during September 2008 and 1st January 2009 in respect of civil works are enclosed. With regards to mech and elec. Equipment, the manufactures normally do not give budgetary offers to non-buyers. The cost is based on the recent purchases of similar equipment by other major ports and it is confirmed that the rate adopted for estimates is based on prevailing market rates.
(vi).	For arriving at the proposed storage charge of Rs.9.00 per tonne per day for the first slab, the VPT has divided the revenue requirement by the cargo likely to attract storage charge (i.e. 17%). Revenue is also dependent upon the number of days the cargo is likely to remain uncleared. The time factor is not considered by VPT. The clarification by the VPT that the rate proposed is based on the upfront tariff fixed in other cases is not adequate.	The storage charges have been modified in the revised proposal taking in consideration of 17% of the capacity will remain for 5 days beyond free period of 10 days attract storage charges. Accordingly storage charges worked at Rs.1.85 per tonne per day for first five days.
(vii).	The port may confirm whether the instant proposal filed by the port for fixation of upfront tariff of coking coal and steam coal berth is having a standard feature of coal berth and will apply to any other coal berth likely to be developed by VPT on PPP basis in the next five years.	Yes. The proposal is having a standard feature of existing coal berth proposed to be upgraded and mechanized.

(viii).	The VPT has, while offering its response to the comments of M/s.Jayaswal Neco Industries Limited, has indicated about evacuation of cargo by both rail and road. From the project feasibility report, however, it appears that evacuation of entire coking coal and steam coal will be by rail. Please confirm there will be no evacuation of cargo by road. If the port envisages road movement of cargo, a rebate in the consolidated handling rate may be proposed which may be derived based on the relevant cost of investment and operations for cargo not availing the facility of mechanised wagon loading system and marshalling yard. It may be desirable to have such tariff arrangement for road movement of cargo which may happen in future.	Yes. It is confirmed that evacuation is only by rail. The same has been confirmed to the short listed bidders in the pre bid meeting.
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7.2. The VPT again revised the upfront tariff calculation while responding to the queries raised by us. The main modification made by the VPT in the revised upfront tariff calculation are given below:

- (i). The Optimal Yard Capacity has been assessed considering stacking height of 6 tonnes/sq.mtrs for coking coal and 4 tonnes/sq.mtrs for steam coal as against uniform stacking height of 6 tonnes/sq.mtrs considered in its earlier proposal. Consequently Optimal Yard Capacity is re-calculated at 8.39 Million Tonnes Per Annum (MTPA) which is rounded off to 8.50 MTPA as against 9 million tonnes per annum considered by the VPT in its earlier proposal.
- (ii). In view of the modifications in the Optimal Capacity of the terminal, the estimation of power cost and consequently the Annual Revenue Requirement is also revised. The revised Annual Revenue Requirement for Cargo Handling Activity is Rs.13521.88 lakhs and for Berth Handling charges is Rs.1861.20 lakhs.
- (iii). The revised upfront tariff proposal by the VPT vis-à-vis of the upfront tariff proposal vide its earlier revision proposal dated 27 July 2009 is tabulated below:

(a). **Berth Hire Charges:**

(Rate per GRT per hour or part thereof)

Earlier proposal dated 27 July 2009		Revised proposal	
Foreign-going vessel (in Re.)	Coastal vessel (in Re.)	Foreign-going vessel (in Re.)	Coastal vessel (in Re.)
0.65	0.36	0.73	0.44

(b). **Coal Handling Charges:**

(Rate in Rs. per tonne)

Commodity	Earlier proposal dated 27 July 2009		Revised proposal	
	Foreign-going vessel	Coastal vessel	Foreign-going vessel	Coastal vessel
Coking Coal	147.70	88.60	155.90	93.55

(c). **Storage Charges:**

- (i). Free period: 10 days
- (ii). Storage charge for balance cargo remaining beyond the free period:

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

Sl. No.	Particulars	Earlier proposal	revised proposal
(i).	For 1 st 5 days	9.00	1.85
(ii).	6 th to 10 th day	18.00	3.70
(iii).	11 th day onwards	36.00	7.40

8.1. A joint hearing in this case was held on 22 October 2009 at the Visakhapatnam Port Trust premises. The VPT made a presentation of its proposal. At the joint hearing, VPT and the concerned user / organisations and prospective bidders have made their submissions.

8.2. At the joint hearing, the VPT was advised to take action on the following points:

- (i). A detailed explanatory note on the mismatch of quay and yard capacities bearing in mind the developments to take place in mid / long term in the light of the infrastructure improvement plans reportedly drawn up by the port.
- (ii). The infrastructure improvement plans may be circulated to all users and prospective bidders of this case within the next 2 to 3 days time as agreed by the port.

8.3. Users and bidders were allowed one more opportunity to furnish their additional comments, if any, on the subject proposal to VPT and the port was advised to furnish its comment thereon within a week.

9.1. With reference to the points decided at the joint hearing, the VPT has furnished its reply vide letters dated 13 November 2009 and 14 November 2009 which is summarised below:

- (i). (a). The mis-match between quay and yard capacity has been examined. The port has decided to increase the yard capacity by increasing the stacking yard area from 1.02 lakh sq. mtrs. to 1.22 lakh sq. mtrs. For this purpose, the port has decided to allot 5 acres of additional land to increase the yard capacity. With this increase, the optimal yard capacity is assessed at 10 Million Tonnes Per Annum (MTPA) which has been considered as the terminal capacity being lower of quay capacity assessed at 12.59 MTPA. Hence the mismatch in the yard and quay capacity is minimized to the extent possible.
- (b). Further, in view of the concern expressed by the users in the joint hearing, the width of the berth is also proposed to be increased from 18.0 mtrs. to 21.0 mtrs. With this, the total capital cost has increased from Rs.438.36 crores to Rs.461.57 crores. This cost is accepted in the Public Private Participation Appraisal Committee (PPPAC) meeting held on 11 November 2009. The proposal has been suitably modified based on the re-assessed yard capacity and the revised capital cost and revised upfront tariff calculation is furnished.
- (ii). The port has furnished details of infrastructure improvement plans which is summarised below:
 - (a). Deepening and widening of Inner Harbour entrance channel and turning circle to 11m. draft vessels was completed and deepening and widening of Inner Harbour entrance channel and turning circle to 12.5m. draft vessels has been taken up and is expected to be completed by October 2010.
 - (b). Port connectivity road of 12.5 kms. connecting National Highway as joint venture with NHAI is operational which will enable free flow of movement of cargo.
 - (c). Development of Road infrastructure and fly over bridgers at an estimated cost of Rs.215 cores is in progress. Other Road improvement proposals include development of road infrastructure and flyover bridges in 11th plan, strengthening of existing two lane roads including rehabilitation of bridges, development of internal roads to connect the Port connectivity road.
 - (d). Expression of Interest initiated for development of Truck terminal to have parking facilities for 1000 nos. trucks (approx) and 20 nos. trailers and

associated facilities with efficient communication system between place of loading/ unloading and parking area.

- (e). The port owns, operates and maintains 200 kms. of track length. There are 12 sidings and 17 open terminals in the port railway system. There are plans to develop 16 more sidings by 2007-12. The following are the rail connectivity proposals:
- Modernization of railway siding facilities at an estimated cost of Rs.25 crores is under progress.
 - Revamping of East yard railway lines has been taken up and is progressing at a faster pace for facilitating loading of 8 full rakes as against 9 half rakes.
 - Construction of 7 mtrs. height compound wall at East Yard is in progress.
 - Development of interchange yard at Vadlapudi and reception and dispatch yard at Mindi and associated facilities at an estimated cost of Rs.81 crores.
- (f). Other logistics.
- Procurement of launches and barges is under progress.
 - 3 nos. Locos of 3100 HP locos have been procured.
 - Tenders invited for Hiring of High power Tugs which is in advanced stage of action.
 - Work order issued for procurement of 2 nos. High power Tugs and is under progress.
- (iii). The VPT has vide letter dated 13 November 2009 confirmed that the revised upfront tariff proposal and the infrastructure improvement plans have been forwarded to the concerned users / user associations / prospective bidders.
- (iv). After the Joint hearing, comments were received from M/s.IL & FS and M/s.Gammon Infrastructure Projects Ltd. The clarifications on the issues raised by them have been reportedly furnished by the port.

9.2. With reference to the decision taken at the joint hearing, M/s.IL & FS Maritime Infrastructure Co. Ltd. have furnished their comments to TAMP with a copy to VPT. M/s.Mundra Port & Special Economic Zone Limited have also furnished their comments. The VPT has stated that it has also received comments from M/s.Gammon Infrastructure Projects Ltd. The VPT has given its remarks on the comments made by the bidders.

9.3. The main modifications in the revised upfront tariff proposal filed by VPT vide letter dated 13 November 2009 are given below:

- (i). The optimal capacity of the terminal is revised to 10 Million Tonnes Per Annum (MTPA) as against 8.5 MTPA considered in the earlier revised proposal.
- (ii). Capital cost of strengthening the berth updated and revised from Rs.4879.85 lakhs in the earlier proposal dated 14 September 2009 to Rs.5454.06 lakhs. The revised total capital cost is Rs.461.57 crores as against Rs.438.36 crores estimated earlier.
- (iii). (a). Miscellaneous capital cost (under cargo handling service) is estimated at 8% on civil and equipment cost instead of the prescribed norm of 5% which were considered by the VPT in its earlier revised proposal.

- (b). In the revised proposal, 8% of capital cost of berth including dredging (i.e. 8% x Rs.9296.06 lakhs = Rs.743.68 lakhs) is estimated as Miscellaneous capital cost to meet Interest During Construction, Working Capital Margin, etc.
- (iv). Consequent to the above modifications, the capital cost of berth hire service, cargo handling service and the total capital cost are modified.
- (v). The estimation of operating cost are also modified with reference to the revised capital cost estimation. Estimates of License fee is also modified taking into consideration the additional land proposed to be allotted by the port.
- (vi). The revised Annual Revenue Requirement is given below:

(Rs. in lakhs)			
Sl. No.	Particulars	For cargo handling activity	For berth hire
(i).	Capital cost		
	(a). Civil	7259.40	9296.06
	(b). Mechanical and electrical equipment	26182.60	-
	(c). Miscellaneous	2675.37	743.68
	Total Capital Cost	36117.44	10039.74
(ii).	ROCE @ 16%	5778.79	1606.36
(iii).	Operating cost	8131.82	503.85
(iv).	Total revenue requirement	13910.61	2110.21

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

- (a). Berth hire charges:

RATE PER GRT PER HOUR PART THEREOF
Foreign-going vessel [in Re.]
0.71

- (b). Handling charges:

(Rate in Rs. per tonne)	
Nomenclature	Foreign
Handling charge for coking coal and steam coal	136.35

- (c). Storage charges:

- (i). Free period: 10 days
- (ii). Storage charge for balance cargo remaining beyond the free period:

Sl. No.	Particulars	Rate in Rs. per tonne per day or part thereof
(i).	For 1 st 5 days	1.65
(ii).	6 th to 10 th day	3.30
(iii).	11 th day onwards	6.60

- (d). Miscellaneous charge proposed at Rs.1.40 per tonne for sweeping, dust suppression and environment, etc.

10. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the comments received from 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>

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

- (i). The proposal is to fix upfront tariff cap for handling coking coal and steam coal at Visakhapatnam Port Trust (VPT) to be developed on Public Private Participation (PPP) basis. The proposal is based on the guidelines for upfront tariff fixation issued by the Ministry of Shipping, Road Transport and Highways (MSRTH) in February 2008.

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

- (ii). It can be seen from the narration of factual position recorded in the earlier part of this Order that the VPT has modified its proposal four times since its original proposal filed in December 2008. The capital cost estimated in the original proposal of December 2008 was Rs.413.92 cores, which was revised and updated for stated reasons. Even after the joint hearing held on the subject proposal, the VPT has revised its proposal vide letter dated 13 November 2009 wherein the capital cost is revised to Rs.461.57 cores. The VPT has confirmed that the revised proposal has been circulated to the concerned users / bidders.

Some of the prospective bidders have expressed a concern that the width of the berth proposed at 18 metres may not be sufficient from the operational point of view. This Authority had been repeatedly advising the VPT to reduce the mismatch between the yard capacity and the quay capacity. It was only in the revised proposal dated 13 November 2009 the VPT has addressed the concern expressed by bidders. The VPT has attempted to increase the yard capacity to 10 Million Tonnes Per Annum (as against 8.50 MTPA proposed in the earlier revised proposals) by considering allotment of additional area which reduce the gap between the quay and yard capacities to some extent. The last revised proposal filed by the VPT dated 13 November 2009 along with the information / clarification furnished during the processing of the case is considered in this analysis.

- (iii). The VPT has in general complied with the guidelines issued for upfront tariff setting vide Notification No.TAMP/52/2007-Misc. dated 26 February 2008. Deviations proposed in some of the norms / parameters are, *inter alia*, discussed in the subsequent paragraphs.

- (iv). Optimal Terminal Capacity:

- (a). Optimal Quay Capacity:

- (i). Optimal quay capacity of the coal handling terminal is assessed at 12.59 Million Tonnes Per Annum (MTPA). The share of coking coal / steam coal assumed in the upfront tariff calculation is reportedly based on the traffic projections arrived in consultation with some of the industries in the region and new power / steel plants expected to come in that region. The port has confirmed that with the upgradation of the berth and deepening of the approach channel and turning circle of the outer harbour, will enable the operator to cater to capesize vessels upto 200,000 DWT upon commissioning of the mechanised coal handling terminal.
- (ii). The unloading norms prescribed in the upfront tariff guidelines for coal terminal are 50,000 tonnes per day for capesize vessels and 35,000 tonnes per day for panamax vessels. The VPT has considered the handling rate for capesize vessels carrying coking coal at 70,000 tonnes per day which is higher than the norms

prescribed in the guidelines. For panamax vessels, different handling rates are presumed viz. 42,000 tonnes per day for coking coal and 27000 tonnes per day for vessels bringing steam coal.

The VPT in order to have a competitive edge in the neighbouring ports and to achieve faster turnaround of vessel has proposed deployment of three unloaders as against the prescribed norm of two numbers. This is complimented with 3 mobile hoppers instead of the prescribed norm of 2 cranes. Consequently, the handling rate for capesize vessel and panamax vessel bringing coal has been considered higher than the norms prescribed in the guidelines. It has been reported that Public Private Participation Appraisal Committee has already considered the capital estimates for this project and approved it with the proposed set of plant and equipment. Though deployment of an additional ship unloader is proposed, the handling norms prescribed in the guidelines are not found to be increased proportionately. Some of the prospective bidders have, however, pointed out that the output rate of 70,000 TPD considered by the VPT is on the higher side.

The port has furnished calculation to show that three unloaders with 40 tonnes capacity and with installed unloading capacity of 1500 tonnes / loader can achieve average output of 70,000 TPD. For panamax vessels, the handling rate is assumed at 42000 TPD as against the handling norm of 35000 tonnes prescribed in the guidelines for this category of vessel. The assessment of average output of coking coal for capesize vessel and panamax vessels furnished by VPT is relied upon in this analysis.

The upfront tariff guidelines for coal handling terminal prescribes the handling norms for different size of vessels such as capesize / panamax vessels/ handy max. The guidelines do not prescribe separate productivity norms for different types of coal handled by different categories of vessel.

Despite specific request, the port has not furnished detailed calculation for assuming the handling rate of panamax vessels bringing steam coal vessels at 27000 tonnes per day as against 42000 tonnes per day adopted for panamax vessels bringing coking coal. The VPT has in general terms explained that the steam coal being lighter in weight in comparison to coking coal, the pickup is relatively lower reducing its productivity. Further, the steam coal being dusty by nature requires frequent water sprinkling service which also affects the handling rate.

There has been no pointed objection from any user/ user associations/ prospective applicants/ bidders with reference to the handling rate assumed by the VPT for steam coal handled by panamax vessels. In the absence of any thing contradictory available on record and also considering the limitation otherwise imposed by the yard capacity, this Authority relies upon the submissions made by the VPT.

(b). Optimal Yard Capacity:

- (i). The upfront tariff guidelines stipulates that the yard capacity is to be assessed for the area of the yard made available by the port for development. In its earlier proposals of December 2008 and March 2009, the port proposed to develop 81250 square metres of area for stackyard which was revised to 102050 sq. mtrs. in its proposal of July 2009. Though an additional unloader is proposed to achieve higher productivity level, the capacity of the terminal

was, however, pegged at the yard capacity at 8.5 Million Tonnes Per Annum. It is noteworthy that the yard capacity is dependent upon the backup area available and the guidelines do not specify any norm for storage area to be considered. At the same time, the ground reality at a port cannot be wished away by this Authority considering storage area which will more or less match the quay capacity. As stated earlier, in view of the mismatch between the quay and yard capacities, it was repeatedly emphasised that the possibilities of improving the yard capacity should be examined by the port to increase the overall capacity of the terminal. The VPT has, therefore, reviewed the proposal and proposed to increase the area to be allotted for development of yard to 122330 square meters which will improve the capacity of the yard. The total area proposed for yard development is segregated into two i.e. 101530 sq. mtrs., for stacking of coking coal and 20800 sq. mtrs. for stacking steam coal.

(ii). Stacking Capacity:

The guidelines for upfront tariff setting prescribe the stacking factor norm at 3 tonnes per square metre. The VPT has considered the stacking factor at 6 tonnes per square metre for coking coal and 4 tonnes per square metre for steam coal.

M/s.Vadinar Oil Terminal Limited have submitted that the stacking factor of 7.5 tonnes per square metre considered by the VPT in the original proposal cannot be achieved and have requested to maintain it at the level prescribed in the upfront tariff guidelines. Some of the bidders have also referred to the environmental issue with reference to the stack height proposed by the port.

Based on stack height of 9 to 10 metres achieved by the Vizag Seaport Private Limited operating in Visakhapatnam Port, the port finds that the stack height of 7 metres can be achieved. Regarding the environmental issues, the port has clarified that it proposes to construct 7 metres high compound wall as dust barrier at the proposed stack yard location.

Considering a stack height of 7 metres and density of coking coal at 0.833 tonnes / cum., the VPT has assessed that stacking factor of 6 tonnes per square metres can be achieved. It is reported that the Vizag Seaport Private Limited operating in Visakhapatnam Port Trust has achieved the average stacking of 5.57 tonnes / sq. mtr. in respect of coking coal in the last two years. Incidentally, even Gammon Infrastructure Projects Ltd. have suggested to reckon the stacking factor at 5.95 tonnes/ sq. metres which is closer to the level considered by the VPT. Based on the clarification furnished by the port and recognising that the assumption made by the VPT is not very different from the stacking already achieved by the private terminal operator operating in the port, the stacking factor adopted by the VPT is considered in the analysis.

With regard to steam coal, the nature of cargo being light in weight and dusty, a stacking height of 5 metres is considered by the port. Stacking factor is accordingly considered at 4 tonnes per square metres based on the density of the cargo. This is still higher than the norms prescribed in the guidelines. The stacking factor assumed by the VPT is considered in the analysis without any modification.

(iii). Plot turnover:

The norm for plot turnover for a coal terminal prescribed in the guidelines is 12. Annual turnover ratio considered by VPT is 30. M/s.Vadinar Oil Terminal Limited has objected the turnover ratio assumed by the VPT and have requested to recognise turnover ratio as per the norms prescribed in the guidelines citing that no study has been done by the port about cargo evacuation through rail and road, availability of rakes, etc.

Another prospective bidder, Gammon Infrastructure Project Limited has requested to consider turnover ratio as 24 citing different grades of coal will have different dwell time period ranging between 15 to 35 days. The port has stated that the average dwell time for coking coal ascertained by the Consultant appointed by the port from one of the main importers of coking coal is stated to be 7 days. The average dwell time at Vizag Seaport Private Limited is reported at 10.7 days for coking coal. Hence, the port finds the average dwell time assumed at 10 days is reasonable. Based on the average dwell time, the turnover ratio of stockpile is considered at 30 while assessing the yard capacity. To our query to explain the supporting evacuation facilities to justify the plot turnover of 30 adopted by the VPT, the port has clarified that the improvement in rail connectivity envisaged to be developed by the port by the year 2012 is expected to increase rail side service and thereby increasing the evacuation of cargo and reduce the dwell time. As mentioned earlier, it is also necessary to improve yard capacity and in a capacity mismatch scenario, the yard has to be optimally utilised by discouraging long term storage of cargo. Based on the clarification furnished by the VPT, the turnover ratio considered by the VPT is adopted in the calculation of yard capacity. Incidentally, in the upfront tariff fixation of coal terminal at Paradip Port Trust (PPT) the turnover ratio at 30 was considered.

- (iv). The optimal yard capacity of the mechanised terminal for handling coking coal and steam coal adopting the stacking factor and the turnover ratio as explained above and applying the formula prescribed in the guidelines is assessed at 10.18 Million Tonnes Per Annum (MTPA). If turnover ratio and cargo stacking factor are considered strictly as per norms, the yard capacity would be 2.15 Million Tonnes Per Annum as against 10.18 MTPA arrived at based on modified parameters.

(c). Optimal Terminal Capacity:

The optimal capacity of mechanised terminal for handling coking coal and steam coal is considered at 10177986 tonnes per annum (around 10.18 MTPA) being lower of the two capacities i.e. quay and yard in the calculation of upfront tariff without any rounding off. Steam coal will use the capacity to the extent of 1.22 MTPA and the balance 8.96 MTPA is for coking coal.

- (d). M/s.Vadinar Oil Terminal Limited have argued that 70% capacity utilisation cannot be achieved in the first year itself. It will take some time for the operator to ramp up the capacity and stabilize and has, therefore, requested to consider the capacity utilisation at lower levels in the initial year say at 30% and increase it gradually each year while fixing the upfront tariff. It has to be recognised that upfront tariff is to be fixed based on the optimal capacity irrespective of any traffic likely to be handled by the operator. As required by the guidelines, the upfront tariff fixation exercise will recognise only the optimal capacity of the terminal determined based on the given formula irrespective of the traffic handled.

It is for the concerned bidders to assess volume build up while formulating their financial bid.

(v). Capital Cost:

The revised capital cost for the coal terminal estimated by the VPT is Rs.461.57 crores of which Rs.100.40 crores is allocable to berthing activity and Rs.361.17 crores for cargo handling services as explained hereunder:

(a). Berthing activity:

- (i). As per the upfront tariff guidelines, the capital cost for berth hire services include cost of construction of berth and cost of dredging, if any, carried out alongside the berth. The guidelines require to consider the cost as per the estimated by the Port Trust.

The length of the mechanised coal berth is envisaged to be 356 metres and the width of the berth at 21 metres. The cost of berth is estimated at Rs.8786.22 lakhs. This includes estimated cost of Rs.5454.06 lakhs towards strengthening the General Cargo Berth plus Rs.3332.16 lakhs payable by the operator to the VPT as license fee towards the cost of constructed berth developed and made available by the VPT.

Though the port has referred this payment as license fee, it has to be recognized that it is the part of the constructed berth made available to the operator which otherwise the operator would have incurred for construction. In the instant case since the berth hire would be collected by the operator, it is logical to consider cost of constructing the required berth.

- (ii). The VPT has estimated Rs.509.84 lakhs towards dredging alongside the berth adopting the unit rate of Rs.300/cum based on the work recently done by M/s.Dredging Corporation of India. The estimation of the dredging cost is relied upon based on documentary evidence furnished by the port.
- (iii). The port has also estimated Miscellaneous Cost at Rs.743.68 lakhs towards interest during construction period, working capital margin, etc. applying 8% on the capital cost estimated for berth and dredging. The estimation of Miscellaneous Cost under berth hire service is not found to be in line with the capital cost norms prescribed in clause 4.4. of Annex-III of the upfront tariff guidelines. The port has not explained any reason with justification for the deviation made from the norms prescribed in the guidelines in this regard. That being so, the estimation of miscellaneous capital cost by the VPT under berth hire service which is not in line with the guidelines is excluded.

(b). Cargo handling activity:

- (i). Civil construction cost:

The upfront tariff guidelines broadly indicate the civil works involved for coal terminal and require the port to estimate civil cost. The items of civil works generally adhere to normative list of items stipulated in the guidelines for the unloading terminal.

- (ii). Equipment cost:

As per the guidelines, the equipment cost is to be estimated for the list of equipment prescribed therein. The deviations made by the VPT from the normative level of equipment prescribed in the

guidelines and justification furnished by the port for such deviations are discussed hereunder:

- (a). The VPT has considered 3 number of ship unloaders as against norm prescribed at 2 nos. As stated earlier, the port has justified that the additional ship unloaders is proposed in order to have a competitive edge with the neighbouring ports and to achieve to faster turnaround of vessel. Consequently, as brought out in preceding paragraphs, the port has considered the average output rate higher than the norms prescribed in the guidelines.
- (b). The normative list of equipment prescribes 2 cranes, 2 nos. of reclaimers and 2 stacker amongst other equipment.

The VPT has explained mobile hoppers and gantry together form a unit and hence to compliment 3 unloaders, three mobile hoppers are considered instead of prescribed norm of 2 cranes.

Regarding stacker and reclaimers, the port has clarified that 1 stacker and 1 reclaimer and one stacker reclaimer cum stacker will serve the purpose for the stacking and reclaiming the cargo. As such the difference in equipment with reference to the norms stipulated is only on one equipment i.e. one reclaimer cum stacker. The port proposes deployment of one reclaimer-cum-stacker instead of one reclaimer and one stacker separately.

It is noteworthy that clause 3.2. of the guidelines for upfront tariff setting give flexibility to 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. In view of clarification furnished by the VPT and also recognising that none of the users / bidders have raised any objection on the complement of equipment proposed by VPT, this Authority accepts the estimates of these items.

- (iii). The civil and equipment cost estimates prepared by the port are with provision for contingencies to take care of any requirement which is not envisaged in the estimates, works contract tax and soil investigation, engineering / supervision charge. Despite specific request, the VPT has not furnished supporting documents/ rate analysis etc., to validate the estimates of capital cost with reference to cost of berth, the unit rate adopted for civil work and equipment cost except for a copy of the recent bill for dredging work undertaken by the Dredging Corporation of India.

The Port has clarified that the estimates are prepared based on the VPT schedule of rates applicable from 1 June 2008 and Rate Analysis prepared in VPT schedule of rates and considering the amendments in the rates effective from 1 January 2009. For the items where rates not applicable in the VPT, rates prevailing in the market rates/ quotations are considered. With regards to mechanical and electrical equipment cost, the port has explained that the manufactures normally do not give budgetary offers to non-buyers. The cost is based on the recent purchases of similar equipment by other major ports and it is confirmed that the rate adopted for estimates is based on prevailing market rates.

For reasons explained by the port, this Authority relies on the estimates furnished by the port subject to modification in the estimation of miscellaneous capital cost as explained in the subsequent analysis. It is notable that none of the users or bidders have any objection on the civil and equipment cost estimated by the VPT.

- (iv). With reference to miscellaneous capital cost, the guidelines prescribe a norm of estimating this item 5% on civil and equipment cost. M/s.Vadinar Oil Terminal Limited has suggested that the norm for estimating miscellaneous cost should be increased to atleast 30% of the civil and equipment cost.

The VPT has in the revised proposal estimated miscellaneous capital cost at 8% on the civil and equipment cost. The port has stated that the total revised capital cost of Rs.461.57 crores which includes miscellaneous capital cost under the berth hire and miscellaneous capital cost under cargo handling service both estimated at 8% of the relevant civil and equipment cost has been accepted by the Public Private Participation Appraisal Committee (PPPAC).

The estimation of miscellaneous capital cost is not found to be in line with the norms prescribed in the guidelines. The reasons for considering the deviations are also not brought on record with necessary analysis to justify the modified norm considered by VPT. It is relevant to state here that the Miscellaneous Capital Cost in the upfront tariff setting of coal terminals at other Major Port Trusts has been estimated following the norms prescribed in the guidelines. There is, therefore, no extraordinary circumstances brought out by the port warranting deviation from the norms prescribed in the guidelines only in its case. That being so, the estimation of Miscellaneous Cost is modified and considered as per the norms prescribed in the guidelines.

- (v). Subject to the above modifications, the capital cost for berth hire service at Rs.9296.06 lakhs and cargo handling service at Rs.35114.17 lakhs summing to Rs.44410.23 lakhs is considered.
- (vi). M/s.Vadinar Oil Terminal Limited have suggested to take into account atleast 25% escalation on account of inflation and price escalation as the project would be implemented over a period of 2-3 years. It may be relevant to mention that the capital cost estimations are based on the rate prevailing as of January 2009. As per upfront tariff guidelines, annual indexation of the base upfront tariff cap is allowed @ 60% of the WPI.
- (vii). The return on capital employed is estimated at 16% of the estimated capital cost. M/s.Vadinar Oil Limited has requested to enhance return to 20% in view of the present slow down in investment, difficulty in the procuring credit facility etc. It is relevant here to mention that the rate of ROCE was reviewed recently by this Authority and it was decided to adopt ROCE of 16% for the year 2009-10 to determine tariff for major ports and private terminals. Hence the return on capital employed is computed at 16% on the estimated capital cost. This works out to Rs.14.87 crores for berth hire service and Rs.56.18 crores for cargo handling services.

(vi). Operating Cost:

- (a). Gammon Infrastructure Projects Ltd. has requested to consider power consumption at 2.393 units per tonne based on some analysis for similar

project. The VPT has clarified that the power consumption in case of mechanised iron ore handling at the port is less than 1 unit per tonne and the 1.4 per tonne assumed in the calculation as per the norms prescribed in the guidelines is reasonable. The upfront tariff setting for coal terminal of other Major Ports such as Mormugao Port Trust and Paradip Port Trust also recognised the power consumption as per the norms prescribed in the guidelines. Power Consumption at 1.4 unit per tonne is as per the norms prescribed which is considered in the estimation of operating cost.

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 February 2009 for multipurpose cargo berth and liquid cargo berth, the VPT had indicated the unit rate of power at Rs.6.20 which was considered by this Authority.

- (b). As per the norms, the repairs and maintenance cost is estimated at 1% on the civil assets and 7% on the mechanical and electrical equipment, insurance cost at 1% of the gross fixed assets and other expenses at 5% of the gross value of fixed assets.
- (c). Depreciation, as per the guidelines, should be calculated following the depreciation rates for Straight Line Method (SLM) prescribed in the Companies Act, 1956. Depreciation is computed @ 3.34% on civil cost and 10.34% on equipment cost as per the rates prescribed in the Companies Act under the SLM for the relevant group of assets.
- (d). Lease rentals is calculated for 122330 sq. mtrs. of storage area, 6600 sq. mtrs. of for conveyor and 1000 sq. mtrs. of area for office and operational buildings for land proposed to be allotted by the VPT for the terminal's operation.

The VPT has confirmed that lease rent is estimated based on the rate approved by this Authority for quinquennium of 2003-08. Annual escalation is considered @ 2% per annum as per the existing schedule of rates from the years 2004-05 onwards to 2009-10. The port has clarified that the rate for land (to be) allotted in Zone IB is not approved by this Authority, hence the unit rate is considered at the existing lease rent applicable for Zone IA which is adjacent and analogous to Zone IB.

The guidelines for upfront tariff guidelines stipulate that the lease rent for the port land is to be estimated based on the rate prescribed in Scale of Rates of the respective Major Port Trusts. The lease rent of the land belonging to the VPT was last approved by this Authority vide Order No.TAMP/41/2005- VPT on 22 April 2008 for the quinquennium 1998-2003 and 2003-2008 following the Government guidelines on land policy issued in March 2004. The lease rent approved by this Authority is due for revision but the port has not yet filed any proposal for revision of lease rental in line with the guidelines of the Government on land policy of major ports.

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

In its revised proposal, 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 other Port Trusts, 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 at 1% and depreciation @ 3.34% of the capital 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.

(vii). 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 total revenue requirement from cargo handling service is estimated at Rs.13705.53 lakhs which is an aggregate of operating cost of Rs.8087.26 lakhs and Return on a capital cost of Rs.5618.27 lakhs.
- (b). As per the guidelines, 98% of the total revenue requirement is apportioned to handling charge and 1% each to storage charge and miscellaneous charge for arriving at the pre-determined tariff.
- (c). As brought out earlier, the handling rate for steam coal assumed is different from coking coal. The port was, therefore, advised to consider proposing a differential composite handling rate based on the productivity for the said two cargo items. The upfront tariff guidelines do not explicitly require prescribing separate rates for different categories of coal. The VPT has also insisted prescription of uniform tariff for both the cargo items citing that even for the same cargo i.e. coking coal productivity will vary depending upon difference grades of coking coal, age of the vessels etc. Thus based on the optimal capacity of the terminal assessed at 10.18 MTPA, the composite handling rate to meet the estimated revenue requirement of Rs.13431.41 lakhs from cargo handling service works out to Rs.131.94 per tonne.
- (d). Composite handling charge proposed by the VPT include charges for unloading of the cargo from the vessel, transfer upto the point of storage, storage at the stackyard upto 10 days free period, reclaiming from stackyard, loading on railway wagons including wharfage and supply of labour whenever necessary and all other miscellaneous services not specifically prescribed in the Scale of Rates.
- (e). The VPT has assumed 17% of the total cargo will attract demurrage. It has proposed the rate for the first slab (6th day to 10th day) at 1.65 per tonne. For the subsequent slabs, the proposed rate is twice that of the preceding slab.

In view of modification in the optimal terminal capacity and estimated annual revenue requirement, the unit storage charge proposed by the VPT has been modified following the approach adopted by the VPT.

Consequently, the storage charge for the first slab is Rs.1.58 per tonne per day or part for the first slab following the approach adopted by the VPT. The rates for the subsequent slabs are determined accordingly as proposed by VPT.

- (f). Based on the modified revenue requirement and modified optimal capacity, tariff cap for miscellaneous charge is prescribed at Rs.1.35 per tonne as against Rs.1.40 per tonne proposed by the port. The

miscellaneous charge covers charges for sweeping, dust suppressions, environment safety etc.

- (g). The revenue requirement from berthing service works out to Rs.1983.78 lakhs as against Rs.2110.21 lakhs estimated by the port.

Normally vessel related charges for foreign going vessels are denominated in US dollar terms by converting the rupee value to dollar terms by applying the exchange rate prevailing at the time of notification of the relevant tariff order. This Authority while finalising the upfront berth hire at other major port trusts has already decided to approve the upfront berth hire charge in Rupee term only for the stated reasons.

The VPT has proposed berth hire in rupee terms for foreign going vessel at Re.0.71 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 optimal capacity of the terminal is limited by the yard capacity. Accordingly, the quantum of steam coal is considered at 1.22 MTPA i.e. at the level determined in the yard capacity calculation. The percentage share of cape size / panamax vessels bringing coking coal furnished by the VPT is taken as the base for distributing the coking coal capacity. Subject to the above modifications, the berth hire is Re.0.654 per GRT per hour for foreign going vessel (calculation attached as part of Annex - I).

- (h). The port has proposed concessional tariff for coastal vessel / coastal cargo in berth hire as well as composite handling charge as per clauses 4.3 and 6.1.2 of the tariff guidelines notified in the Gazette of India on 31 March 2005. The revenue impact of allowing such concession is, however, not considered while arriving at the proposed rates concessional tariff. On being pointed out, the port has confirmed that no coastal vessels/coastal movements of cargo is envisaged at the proposed coal terminal as the coking coal is being imported from other countries. Though prescribing concession rate to coastal cargo / vessel may not have any impact on the revenue realization, concessional rate is prescribed for coastal category in line with the Government policy in this regard.
- (viii). 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.
- (ix). 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, berth hire shall stop 4 hours after the vessel signaling readiness to sail, penal berth hire for a false signal, 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 proposed by the VPT are incorporated in the upfront tariff schedule for coal terminal.
- (x). 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. The condition stating that free period shall commence after complete discharge of vessel cargo are modified to state it will commence from the day following the day of completion of final discharge from the vessel in line with the conditions prescribed in the Scale of Rates of the Visakhapatnam port and other ports.
- (xi). 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.

12.1. 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 2009 as reported by the VPT, it is appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2009 as rightly stipulated by VPT also in general note 6 in the proposed Scale of Rates.

12.2. 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.

12.3. 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.

12.4. 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.

12.5. 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.

12.6. 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.

13. In the result, and for the reasons given above and based on a collective application of mind, this Authority approves the upfront tariff caps for handling coking coal and steam coal at Visakhapatnam Port Trust attached as **Annex - II**.

(Rani Jadhav)
Chairperson

FORMULATION OF UPFRONT TARIFF FOR COAL TERMINAL AT VISAKHAPATNAM PORT TRUST

Rs. in lakhs

Sr. No.	Particulars	Revised estimates furnished by the VPT	Estimates modified by TAMP
I	Optimal capacity		
(i).	Optimal Quay Capacity		
(a).	Share of Vessel Size		
	Percentage share of capacity of Capesize vessels (for coking coal) vessels upto 175000 DWT - 28% and vessels upto 140000 DWT = 14%) (S1)	42%	42%
	Percentage share of capacity of Panamax vessels (for coking coal) (S2)	28%	28%
	Percentage share of capacity of Panamax vessels (for handling steam coal) (S3)	30%	30%
(b).	Ship day Output (in tonnes per day)		
	- Capesize vessels (P1)	70000	70000
	- Panamax vessels (for coking coal) (P2)	42000	42000
	- Panamax vessels (for steam coal) (P3)	27000	27000
(c).	Quay Capacity = $0.7 * (S1 * P1) + (S2 * P2) + (S3 * P3) * 365$	12585930	12585930
	Quay Capacity in million tonnes	12.59	12.59
(ii).	Optimal Yard Capacity		
(a).	Area of yard made available by the Port (in square metres) (A)	For coking coal 101530 For steam coal 20800	For coking coal 101530 For steam coal 20800
(b).	Area available for stacking (%) (U)	70%	70%
(c).	Stacking Quantity per square metre (tons) (Q)	For coking coal 6 T/sqm For steam coal 4T/sqm	For coking coal 6 T/sqm For steam coal 4T/sqm
(d).	Annual Turnover Ratio of the plot (T)	30	30
(e).	Yard Capacity (in tonnes) = $0.7 * A * U * Q * T$ (for coking coal)	8954946	8954946
	Yard Capacity (in tonnes) = $0.7 * A * U * Q * T$ (for Steam coal)	1223040	1223040
(f).	Total Yard Capacity (in tonnes)	10177986	10177986
(g).	Total Yard Capacity (in million tonnes)	10.17	10.18
(iii).	Optimal capacity of the Terminal - lower value of the optimal quay capacity and optimal stack yard capacity (in Million tonnes).	10.00	10.18
II	Capital Cost		
(i).	Cargo Handling Activity	Rs. in lakhs	Rs. in lakhs
(a).	Civil Cost		
	- Berth apron and approach	260.58	260.58
	- Storage Yard	1834.21	1834.21
	- Rail tracks for stacker, reclaimers, ship unloader wagons & wagon loading station.	1521.18	1521.18
	- Conveyor galleries & Transfer towers	1865.57	1865.57
	- Marshalling Yard	1010.27	1010.27
	- Others		
	- Buildings	52.71	52.71
	- Roads	658.88	658.88
	- Water supply and drainage	56.00	56.00
	Subtotal (a)	7259.40	7259.40
(b).	Equipment Cost		
	- Ship unloader (norms - 2 nos) VPT proposes 3 nos.	7817.42	7817.42
	- Reclaimer (norms 2 Nos.) VPT proposes 1 bucket Reclaimer	2152.62	2152.62
	- Wagon loader and Truck loader (norms - 1 No each) VPT proposes 1 Wagon Loader	1699.44	1699.44
	- Stackers (norms - 2 No) VPT proposes 1 Stacker	1812.73	1812.73
	- Stacker cum Reclaimer 1 No. (not included in the normative list of equipment)	2265.92	2265.92
	- Cranes (norms -2 nos) VPT proposes 3 Mobile Hoppers.	169.95	169.95
	- Conveyors	6588.15	6588.15
	- Transfer House	793.07	793.07
	- Pay loaders & dozers (norms -4 nos) VPT proposes 4 Nos of Dozers/ Front end loaders	135.95	135.95
	Work Shop equipment	-	-
	Electric Power & Control switch gears	2747.42	2747.42
	Subtotal (b)	26182.67	26182.67
(c).	Miscellaneous Cost [VPT has estimated this item at 8% on (a) and (b)]. Modified and considered at 5% on (a) and (b) as per norms.	2675.37	1672.10
	Total Capital Cost for Handling Activity (a +b + c)	36117.44	35114.17
(ii).	Capital Cost For Berthing Services		
(a).	Cost of strengthening of General Cargo Berth	8786.22	8786.22
(b).	Cost of dredging alongside berth	509.84	509.84
(c).	Miscellaneous Cost [8% on (a) and (b)]	743.68	0
	Total Capital cost for berthing services (a+b+C)	10039.74	9296.06
(iii).	Total Capital Cost of the Project (i+ii)	46157.18	44410.23

Sr. No.	Particulars	Revised estimates furnished by the VPT	Estimates modified by TAMP
III	Operating Cost		
(i).	Cargo Handling Activity	Estimates (Rs.in lakhs)	Estimates (Rs.in lakhs)
	(a). Power Cost (1.4 units per tonne @ Rs. 6.20 per unit) .	868.00	883.62
	(b). Repair & Maintenance		
	- Civil Assets (1% on civil work)	72.59	72.59
	- Mechanical & Electrical Equipment including spares (7% on mechanical and electrical works)	1832.79	1832.79
	(c). Insurance (1%on Gross fixed assets)	361.17	351.14
	(d). Depreciation	2949.75	2949.75
	(e). License Fee	241.65	241.65
	(f). Other Expenses towards salaries and overheads (5% on gross value of assets)	1805.87	1755.71
	Total Operating Cost	8131.82	8087.26
IV	Revenue Requirement & proposed tariff		
(i).	Cargo Handling charge		
	1. Revenue Requirement		
	(a). Total Operating Cost	8131.82	8087.26
	(b). Return on capital Employed @ 16%	5778.79	5618.27
	(c).Total Revenue requirement from cargo handling activity	13910.61	13705.53
	2. Apportionment of Revenue Requirement		
	(a). Coal Handling Charges (98% of ARR)	13632.40	13431.41
	(b). Storage Charges (1%of ARR)	139.11	137.06
	(c). Miscellaneous Charge (1% of ARR)	139.11	137.06
	(d). Total Revenue requirement from cargo handling activity	13910.61	13705.53
	3. Proposed tariff per tonne rate		
	(a). Coal Handling Charge (Composite)		
	- Revenue Requirement (Rs. in lakhs)	13632.40	13431.41
	- Capacity (Million Tonnes per annum)	10.00	10.18
	Composite Handling Charge - cargo wise (foreign)	136.35	131.94
	(b). Storage Charge		
	- Revenue Requirement (Rs. in lakhs)	139.11	137.06
	- % of Cargo to attract storage charge	17%	17%
	- Cargo likely to pay storage charge (lakh tonnes)	17.00	17.31
	(i). Free period	10 days	10 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	1.65	1.58
	-6th day to 10th day	3.30	3.16
	-11th day onwards	6.60	6.32
	(c). Miscellaneous Charge		
	- Revenue Requirement (Rs. in lakhs)	139.11	137.06
	- Capacity (Million Tonnes per annum)	10.00	10.18
	- Miscellenous Charge per tonne	1.40	1.35
(ii).	BERTH HIRE CHARGES		
(a).	Revenue Requirement	(Rs. in Lakhs)	(Rs. in Lakhs)
	(i). Repairs & Maintenance Charge (1% on capial cost for berth)	92.96	92.96
	(ii). Depreciation	310.49	310.49
	(iii). Insurance (1% on total cost for berth hire service))	100.40	92.96
	Subtotal (a)	503.85	496.41
(b).	Return on capital Employed @ 16%	1606.36	1487.37
	Total Revenue requirement from Berthing services (a + b)	2110.21	1983.78
	Berth hire Charge		
	Foreign going vessel (Rate per GRT per hour) in Re	0.71	0.654
	Coastal vessel (Rate per GRT per hour) in Re	0.43	0.392

Sr. No.	Particulars	Revised estimates furnished by the VPT	Estimates modified by TAMP
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BERTH HIRE COMPUTATION

Furnished by VPT vide letter dated 13 November 2009

Sr. No	Particulars	Unit	Coking Coal			Steam Coal	Total
			Cape size	Cape size	Panamax	Panamax	
i.	Average DWT	tonnes	175000	140000	80000	80000	
ii.	Ratio	%	35%	18%	35%	12%	100%
iii.	Ship day output	Tonnes per day	70000	70000	42000	27000	
iv.	Average GRT	tonnes	96250	77000	44000	44000	
v.	Average parcel size	tonnes	157500	126000	72000	72000	
vi.	Tonnage expected to be handled	Tonnes	3500000	1800000	3500000	1200000	10000000
vii.	Average no of berth days (vi / iii)		50	26	83	44	203
viii.	No of berth hours {24 x (vii)}	hours	1200	624	1992	1056	4872
ix.	Expected number of vessels (vi/v)	No of vessels	22	14	49	17	102
x.	Total GRT hours	Tonne hours	115500000	48048000	87648000	46464000	297660000
xi.	Revenue Requirement	Rs. In lakhs					2110.21
xii.	Berth hire - foreign going vessel (xi / ix)	Re per GRT per hour or part thereof					0.71

Modified calculation by TAMP

Sr. No	Particulars	Unit	Coking Coal			Steam Coal	Total
			Cape size	Cape size	Panamax	Panamax	
i.	Tonnage expected to be handled	Tonnes	3581978	1790989	3581978	1223040	10177986
ii.	Average DWT	tonnes	175000	140000	80000	80000	
iii.	Ship day output	Tonnes per day	70000	70000	42000	27000	
iv.	Average GRT	tonnes	96250	77000	44000	44000	
v.	Average parcel size	tonnes	157500	126000	72000	72000	
vi.	Average no of berth days (i / iii)		51.2	25.6	85.3	45.3	207
vii.	No of berth hours {24 x (vi)}	hours	1228	614	2047	1087	4976
viii.	Expected number of vessels (iv/v)	No of vessels	23	14	50	17	104
ix.	Total GRT hours	Tonne hours	118195000	47278000	90068000	47828000	303369000
x.	Revenue Requirement	Rs. In lakhs					1983.78
xi.	Berth hire - foreign going vessel (x / ix)	Re per GRT per hour or part thereof					0.654

VISAKHAPATNAM PORT TRUST

**UPFRONT TARIFF SCHEDULE FOR MECHANISED HANDLING OF COKING COAL AND
STEAM COAL**

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). **"Foreign going vessel"** means any vessel other than a Coastal vessel.
- (iii). **"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.

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 vessel related charges; and the nature of cargo or its origin will not be of any relevance for this purpose.
- (ii).
 - (a). The berth hire charges for all coastal vessels should not exceed 60% of the corresponding charges for other vessels.
 - (b). The cargo related charges for all coastal cargo other than 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 transshipment 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
- (iii). Interest on delayed payments / refunds.
 - (a). The user shall pay penal interest on delayed payments of 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 of the State Bank of India.
 - (c). The delay on refunds 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 only 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.

- (iv). 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.
- (v). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.
- (vi).
 - (a). The rates prescribed in the Scale of Rates are ceiling levels : likewise, rebates and discounts are floor levels. The terminal operator may, if they so desire, charge lower rates and / or allow higher rebates and discounts.
 - (b). The terminal operator may also, if they so desire rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation gives relief to the user in rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling levels.
 - (c). The terminal operator should notify the public such lower rates and / or rationalisation of the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rates notified by the TAMP.
- (vii). Users will not be required to pay charges for delays beyond reasonable level attributable to terminal operator.

2. BERTH HIRE CHARGES:

Sl. No.	Vessels	Rate per GRT per hour or part thereof	
		Foreign Going Vessel (in Re.)	Coastal Vessel (in Re.)
1.	Vessels	0.654	0.392

Notes:

- (i). The period of berth hire shall be calculated from the time vessel occupied the berth till she vacates the berth.
- (ii). Berth hire includes charges for services rendered at the berth, such as occupation of berth, rubbish removal, cleaning of berths, fire watch etc.
- (iii). No berth hire shall be levied for the period when the vessel idles as its berth for continuous one hour or more due to non-availability / break down of terminal operator's equipment or power failure or any reasons attributable to the terminal operator.
- (iv).
 - (a). Berth hire shall stop four hours after the time of the vessel signaling its readiness to sail.
 - (b). The time limit of 4 hours prescribed for the cessation of the berth hire shall exclude the ship's waiting time for want of favorable tide conditions, inclement weather and due to lack of night navigation.
 - (c). The Master/ agent of the vessel shall signal readiness to sail only in accordance with favourable tidal and weather conditions.
- (v). The Penal berth hire shall be equal to one-day's (24 hours) berth hire charges 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 signaling readiness when a vessel is not able to sail due to unfavorable tide, lack of night navigation or adverse weather conditions.”

3. CARGO HANDLING CHARGES:

Sl. No.	Commodity	Unit	Rate in Rupees	
			Foreign	Coastal
(a).	Coking coal	Per Metric Tonne	131.94	79.16
(b).	Steam coal	Per Metric Tonne	131.94	79.16

Note:

The handling charges prescribed above is a composite charge for unloading of the cargo from the vessel and transfer of the same up to the point of storage, storage at the stackyard up to a free period of 10 days reclaiming from stackyard and loading on to railway wagons including wharfage and supply of labour whenever 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 shall be as below:

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

Sl. No.	Commodity	Rate for first 5 days for the balance cargo remaining after the free period	Rate for 6 th day to 10 th day for the balance cargo	Rate for 11 th onwards for the balance cargo
1.	Coking coal and Steam coal	1.58	3.16	6.32

Notes:

- (i). 10 free days shall be allowed. Free period shall commence from the day following the day of complete discharge of vessel cargo. For the purpose of calculation of free period, Custom notified holidays and Terminal's non-working days shall be excluded.
- (ii). Storage charges shall be payable for all days including Terminal's non-working days and Customs notified holidays for stay of cargo beyond the prescribed free days.
- (iii). Storage charges 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:

The following Miscellaneous charges are applicable of coking coal and steam coal handled:

Sl. No.	Particulars	Rate per tonne or part thereof (in Rs.)
(i).	Charges for Sweeping, dust suppression and environment etc.	1.35

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 2009 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 31st March of the following year.

SUMMARY OF THE COMMENTS RECEIVED FROM THE PORT USERS / DIFFERENT USER ORGANISATIONS AND PROSPECTIVE BIDDERS AND ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY

F. No.TAMP/58/2008 - VPT - Proposal from the Visakhapatnam Port Trust for fixation of upfront tariff for handling coking and Steam coal at general cargo berth in the outer harbour on Design Built Finance Operate and Transfer (DBFOT) basis at Visakhapatnam Port.

A summary of comments received from users / user organisations and prospective applicants and the comments of VPT thereon are tabulated below:

Sl. No.	Comments of users / user organisations and prospective applicants	Comments of VPT
1.	Tamil Nadu Electricity Board	
	TNEB has been using the facilities at Vizag Port only for loading indigenous coal received from IB Valley coal fields of MCL. The new facilities proposed by VPT cannot be utilized by TNEB and hence TNEB is not desired to make any comments on the above proposal.	No comments furnished.
2.	M/s.Jayaswal Neco Industries Limited	
(i).	Whether Port will allow us to collect the cargo from hook point, if so, what are the applicable charges for discharging alone.	(i). and (ii). The aspect of permitting and allowing the user to collect cargo from hook point is an operational issue to be decided between BOT operator and the user (Importer or Exporter). Regarding applicable charges for discharging, it is to clarify that the handling charges indicated for coal terminal comprises of charges for unloading from ship, storage at yard for prescribed period and loading onto wagons / trucks. In other words, it is a composite rate as per tariff guidelines and it is ceiling rate.
(ii).	Whether Port will allow us to collect the cargo from mechanical plot within free time and shift cargo to port designated manual plot (excluding mechanical wagon loading), if so, what are the applicable charges.	
(iii).	Storage charges are very high as compared to existing Scale of Rates for manual open yards.	Storage charges have been arrived and considered at 1% of total revenue requirement as per TAMP guidelines. Further, the storage charges of the present proposal cannot be compared with the Scale of Rates of VPT as the rates have been arrived based on the normative approach as per the guidelines prescribed by the TAMP as stated above. Moreover, it may be noted that the rates are at ceiling level.
(iv).	Whether the Wagon Loading of VPT Mechanised system will include the wagon cleaning prior to loading cargo and doors closing.	Wagon cleaning prior to loading cargo is not in the purview of the VPT even under the existing system. The party who is loading the cargo has to ensure that the wagon is cleaned before loading the cargo. On the same analogy the wagon loading system does not envisage wagon cleaning prior to loading and it is the responsibility of the user (party) who is loading the cargo in the wagons.

(v).	(a). Whether VPT / Private operator will guarantee the discharge rate of vessels as mentioned and the proposal is not clear as to what in case the stated discharge rate is not achieved. (b). Demurrage charges should be based on VPT Scale of Rates. The rate is to be fixed on size of vessels. This is usually being practiced in other major international port.	Para 4 of the upfront tariff guidelines stipulates provisions relating to performance monitoring which is reproduced below: <i>"The performance norms for a project would be brought out in the bid document itself. The private operator would be expected to perform at least at the levels contained in the concession agreement.</i> <i>The actual performance of the private operator will be monitored by TAMP. If any complaint regarding quality of service is received, TAMP will enquire into such allegation and forward its findings to the Port Trust. If any action is to be taken against the private operators, the Port Trust shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement."</i> In addition the above, the port is also proposing to include an appropriate clause in the bid document which envisages levy of penalty for under performance by the BOT operator.
(vi).	Return on Investment (ROI) has been calculated on 16% which is quite high in view of the current low rate of interest on capital, as ultimately it is loaded on consumers of the facilities.	ROCE at 16% is considered as per TAMP guidelines.
(vii).	Regarding high plot rent, it is observed that valuation of land has been increased by 64-100% where as this land was awarded to port at normal rate. Its impact on tariff is huge which needs to be looked into.	The valuation of land for 2008-13 has been calculated giving proportionate increase of 64% in respect of Zone-IA and IB and 100% in respect of Zone IC over the valuation of land for the quinquennium year 2003-08. This adhoc increase in lease rentals is as per VPT's Board approval. However, the lease rentals will be fixed in accordance with the TAMP's directions during the scrutiny of the proposal by TAMP.
3.	M/s. Vadinar Oil Terminal Limited	
(i).	Capital Cost and Operating Cost: (a). It is presumed that the capital cost and operating cost estimates given in the proposal are only indicative, and therefore, the tariff workings are also indicative. As the cost estimates are not based on Detailed Engineering, the capital cost cannot be accurately estimated at this stage. Therefore, we believe that the actual cost to completion and actual operating costs will be taken into account while fixing the final tariff. (b). The capital cost should take into account provision for escalation on account of inflation and price escalation of atleast 25% (as the project would be implemented over a period of 2-3 years).	(a). The tariff caps fixed are final. As per clause 2.8, the tariff caps will be indexed to inflation to an extent of 60% of the variation in WPI occurring between calendar year. Further, the tariff caps will be reviewed once in 5 years for any extraordinary events that could not have been foreseen by a prudent person as per clause 2.7.1. of the upfront tariff guidelines. (b). The guidelines on upfront tariff fixation does not provide any provision for escalation of capital cost during the implementation period.

	(c). The capital cost is based on estimates and is not backed by detailed engineering. Therefore, provision for contingency may be made in the capital cost at the rate of atleast 15% to provide for unforeseen situations and as margin for error in estimation. (d). The provision of 5% under the head "Miscellaneous" is quite low considering the fact that this includes costs such as pollution control, fire fighting equipment, upfront payments, Interest during Construction (IDC), working capital margin, miscellaneous equipment, power supply, lighting, etc. For example, considering a three year construction schedule, the IDC alone works out to over 20%. Therefore, in our view the provision under the head "Miscellaneous" should be atleast 30%. (e). The return on capital employed at 16% p.a. is quite low in the present context of investment slowdown, risk aversion and difficult credit outlook (non availability of finance). Return on capital employed may be enhanced to atleast 20% p.a. in order to make project attractive and bankable.	(c). The provision for contingencies at port of Visakhapatnam is adopted at 3% for all the projects. (d). Provision of 5% towards miscellaneous charges is as per guidelines. (e). ROCE at 16% is considered as per TAMP guidelines.
(ii).	Yard Capacity: (a). For calculation of optimal yard capacity, a stacking factor of 7.5 tonnes/sq. mtr. has been considered as against prescribed norm of 3 tonnes/sq. mtr. Sufficient justification for the deviation has not been provided. There are numerous other factors other than the soil improvement measures adopted that have a bearing on quantity that can be stacked per square meter like the angle of repose, the different grades of coal which will need to be segregated in the stackyard, the operating area required by the stackers and reclaimers, etc. It is, therefore, felt that the stacking factor of 7.5 tonnes/sq. mtr. is unachievable. Stacking factor should be considered at 3 tonnes/sq. mtr. as per the norms prescribed by TAMP. As per our calculation the yard capacity for two stackyard of dimension 650 x 50m as mentioned in VPT proposal will not exceed 2,60,000 tonnes.	(a). (i). The measures proposed to be taken for the stock pile area include soil improvement by installation of suitably designed PVC band drains or similar methods at suitable spacing and pattern and pre-consolidation by keeping the preload of sufficient height of gravel for designed preload period. Upon soil stabilization, the stock pile area will be provided with hard standing comprising of stone soiling and filling the gaps with stone spills. (ii). Moreover, the average stacking factor achieved for coking coal by M/s.VSPL is 5.57 MT per sq. mtr. who is handling and stacking multi cargoes. (iii). The proposal was further reviewed with reference to the unit weight of coal. As per the practice followed in the industry, the average quantity that can be stacked in a sq. mtrs. is 0.833 ton / cum. Considering a stack height of 7 meters, 6 tonnes of cargo per sq. mtr. can be stacked (7 mtrs. x 0.833 ton / cum). Accordingly, the proposal has been modified. (iv). As regards the point made by M/s.Vadinar Oil Terminal Limited that yard capacity will not exceed 260,000 tonnes, it is clarified that based on information ascertained from one of the prime user agency that 7 days cargo requirement (minimum inventory) is expected to remain in the port stockpile. Based on the design size of vessel proposed, a minimum receiving

(b). Turnover ratio of 30 has been considered as against prescribed norm of 12. Sufficient justification for this deviation has not been provided. The turnover ratio depends upon the timely evacuation of coal from the stackyard by rail and to a lesser extent by road. Due to poor connectivity of Indian ports a comprehensive study covering timely and sufficient availability of wagons, locomotives and trucks needs to be carried out taking into consideration a holistic view of the port's present and future evacuation requirements. As no study has been done with regard to cargo evacuation through rail and road, availability of rakes, etc. and understanding of connectivity constraints, we feel to be on the safe and conservative side, TAMP prescribed turnover ratio of 12 shall be considered. Moreover the VSPL turnover for last 3 years given by VPT in their reply to queries of TAMP has not exceeded 10.37. The average ratio is just 5.25 which is way below the TAMP prescribed norm. This itself justifies adopting a lower turnover ratio for determining the Yard Capacity. (c). Furthermore, the ship-day output rate has been considered at higher levels viz. (a) 70,000 tonnes for capesize vessels as against TAMP norm of 50,000 tonnes; (b) 42,000 tonnes for panamax vessels as against TAMP norm of 35,000 tonnes; and (c) 27,000 tonnes for handy size and handy max vessels as against TAMP norm of 15,000 tonnes. Again no justification has been provided for considering such higher ship-day output rate. It is suggested to consider that the ship-day output as per the norms prescribed and no deviation must be allowed.	capacity for one large ship of 200,000 DWT and average parcel load of 72000 tonnes, a dwell time of 10 days for the cargo at the port has been considered for estimation of stock pile requirement. (b). As per TAMP guidelines, the dwell time is 25 days which gives 12 turn round of the cargo. However, the dwell time as ascertained from VSPL for coking coal is 10.7 days and hence a dwell time of 10 days is considered reasonable and on this basis, the number of turn rounds of cargo at the port stockpile works out to 30. (c). As the present proposal envisages handling of 200,000 DWT vessels with a ship length of about 300 mtrs., three Gantries are recommended for faster turnaround of vessels. Three such unloaders of 40 tonne capacity of 4500 tonnes / hour (1500 tonnes x 3 unloaders) will be able to achieve an average output rate of 70,000 TPD (4500 tonnes / hour x 70% x 22 hours = 69,300 or say 70,000 per day) The equipment proposed by VPT for achieving 70000 tonnes per day and the equipment envisaged in the guidelines for achieving 50000 tonnes per day is tabulated below: <table><tr><th>As per TAMP guidelines</th><th>As per VPT's proposal</th></tr><tr><td>Ship unloader - 2 nos.</td><td>Ship unloading grab gantries - 3 nos.</td></tr><tr><td>Reclaimers - 2 nos. Stackers - 2 nos.</td><td>Stacker - 1 no. Bucket wheel reclaimer - 1 no. BWR cum stacker - 1 no.</td></tr><tr><td>Wagon loader truck loader - 1 no.</td><td>Wagon loader - 1 no.</td></tr><tr><td>Belt conveyors</td><td>Belt conveyor</td></tr><tr><td>Cranes - 2 nos.</td><td>Mobile Hoppers - 3 nos.</td></tr><tr><td>Payloaders & dozers - 4 nos.</td><td>Dozers & front end loaders - 4 nos.</td></tr></table> As seen from the above, the equipment proposed by VPT is more than the equipment norms suggested in the	As per TAMP guidelines	As per VPT's proposal	Ship unloader - 2 nos.	Ship unloading grab gantries - 3 nos.	Reclaimers - 2 nos. Stackers - 2 nos.	Stacker - 1 no. Bucket wheel reclaimer - 1 no. BWR cum stacker - 1 no.	Wagon loader truck loader - 1 no.	Wagon loader - 1 no.	Belt conveyors	Belt conveyor	Cranes - 2 nos.	Mobile Hoppers - 3 nos.	Payloaders & dozers - 4 nos.	Dozers & front end loaders - 4 nos.
As per TAMP guidelines	As per VPT's proposal														
Ship unloader - 2 nos.	Ship unloading grab gantries - 3 nos.														
Reclaimers - 2 nos. Stackers - 2 nos.	Stacker - 1 no. Bucket wheel reclaimer - 1 no. BWR cum stacker - 1 no.														
Wagon loader truck loader - 1 no.	Wagon loader - 1 no.														
Belt conveyors	Belt conveyor														
Cranes - 2 nos.	Mobile Hoppers - 3 nos.														
Payloaders & dozers - 4 nos.	Dozers & front end loaders - 4 nos.														

		guidelines for a OSBD of 50000 tonnes. In view of this, shipday output of 70000 tonnes is considered reasonable.												
(iii).	Capacity utilisation: Cargo handling charges are worked out based on 70% utilisation which applies to all the years. However, it is pertinent to note that the capacity utilisation cannot be ramped upto 70% from the very first year itself. Past experience shows that the capacity utilisation ramp up happens over a period of time. Moreover, the operations face teething problems, and take time to stabilize. Therefore, in our view, the capacity utilisation shall be kept at lower levels in the initial years (say 30% in the first year ramping upto 40% in second year, 50% in third year, 60% in fourth year and thereafter at 70%).	Optimal capacity has been considered at 70% of maximum capacity as per the TAMP guidelines.												
(iv).	Coastal vessels rebate: A rebate of 40% is provided in the Scale of Rates (both cargo handling charges and berth hire charges) for coastal vessels, whereas the tariff calculations are worked out based on composition of 100% foreign vessels, and 0% coastal vessels. It is suggested that the factor of 40% rebate for coastal vessels is taken into account while fixing the charges, and therefore, the charges worked may be enhanced accordingly.	Cargoes envisaged viz. coking coal and steam coal are 100% overseas cargoes. Hence, composition for coastal vessels was not considered and rates for foreign vessels has been arrived keeping in view revenue requirement. The rates for coastal vessels are indicated as per the Government policy for concession / rebate to coastal vessels towards vessel related charges and cargo related charges except iron ore, thermal coal and POL.												
(v).	Details for the break up of cost of strengthening the GCB berth and dredging i.e. Appendix IIIA and IIIB have not been sent by TAMP to us and hence we are unable to comment on the same.	Appendix IIIA and IIIB have already been sent to TAMP. However, the same is enclosed.												
(vi).	Berth hire charges: The average GRT of the vessels used for calculating berth hire charges appear to be inappropriate. As per the attached working sheet covering data of over 300 actual vessels (for which GRT has been determined by classification society and as mentioned in the tonnage certificates) average GRT should be as given below: <table border="1" data-bbox="295 1451 922 1624"> <thead> <tr> <th>Vessel Size (DWT)</th><th>Avg. GRT given by VPT</th><th>Avg. GRT as per data of actual vessels</th></tr> </thead> <tbody> <tr> <td>80000</td><td>48800</td><td>42000</td></tr> <tr> <td>140000</td><td>85400</td><td>75000</td></tr> <tr> <td>175000</td><td>106750</td><td>89000</td></tr> </tbody> </table> The GRT for a 80,000 DWT vessel carrying either Coking or Steam coal will be the same i.e. 42,000 and not different as quoted in VPT proposal for berth hire charges. The berth hire charges based on the above GRTs will be Re.0.70 per GRT per hour instead of Re.0.60 per GRT per hour as worked out by VPT.	Vessel Size (DWT)	Avg. GRT given by VPT	Avg. GRT as per data of actual vessels	80000	48800	42000	140000	85400	75000	175000	106750	89000	The observation is under examination and necessary modifications will be incorporated in the revised upfront proposal along with other observations.
Vessel Size (DWT)	Avg. GRT given by VPT	Avg. GRT as per data of actual vessels												
80000	48800	42000												
140000	85400	75000												
175000	106750	89000												
(vii).	The area proposed for Stock Pile, Loader and Railway tracks is 1,22,000 sq. mtrs. Whereas, the cost for ground improvement is considered only for 103,600 Sqm (75,600 + 17,500 + 10,500). Ground improvement needs to done for the total area or else the uplift pressure will act and uproot the structures if any in the balance area, hence cost needs to be	The area of 122,000 sqm proposed for lease is inclusive of the area for ground improvement which is 103,600 sqm as well as other operational areas where exclusive ground improvement is not required. It may also be noted that once ground improvement is done and												

	considered for the total area of 1,22,000 sq. mtr.	loading operations are commenced, there will not be any effect of these areas over the adjacent areas.																
(viii).	Rail Track for Stacker and Reclaimer – 1 No. Stacker, 1 No. Reclaimer and 1 No. Bucket Reclaimer are proposed in the Stack Yard whereas the cost of Track is considered for 650 mts only. The same needs to be considered for 3 line i.e. 3 x 650 mts. In addition, the 650 mts. length of track needs to be increased by about 80 - 90 mts., for machine length and the cost towards the same also needs to be considered.	Though 3 lines of 650 m. each are proposed, the cost of one line only was considered as providing additional length is not possible due to limitation on available land.																
(ix).	Cost of laying railway tracks is considered as Rs.1.16 crores per Km, which is very low. The present running rate for the same is in the range of Rs.1.7 to 2.0 crores per Km.	Cost of laying railway track considered is as per existing VPT Schedule of Rates and the same is still valid as on date and as per the rates of on-going railway works which are in progress.																
(x).	Cost of Roads is also considered as Rs.1.16 crores per Km, which is very low. The present market rate based on the recent tenders issued for minor Asphalt Roads by PWD / R & B in and around Vizag works out to be about Rs.1.8 crores per Km.	Cost of roads considered are based on rates of the on-going road works taken up by VPT.																
(xi).	Capital cost of Operations buildings is considered as Rs.11,631 per Sqm. This cost does not include cost for facilities such as finishing, fixtures, A/C, Electricity etc. Taking into account cost of these additional facilities, the cost should be enhanced to atleast Rs.20,000 per Sqm.	Capital cost of operations buildings is inclusive of cost of other facilities such as finishing, fixtures, A/C, electricity, etc, which are required for operational buildings and the estimates are based on the recent on-going works of VPT.																
4.	M/s. Bhushan Power and Steel Limited																	
(i).	The rates proposed for Coking Coal as well as Steam Coal are on very higher side.	Storage charges have been arrived considering 1% of total revenue requirement as per the upfront tariff guidelines.																
(ii).	Additional cost to be paid as demurrage charges @ Rs.10/- for 5 days, Rs.20/- for 6 th day to 10 th day and Rs.40/- for 11 th day onwards for balance cargo remaining after the free period seems to be really very exorbitant.																	
(iii).	It is not understood how a capsized vessel can be fully discharged within 10 days from the port keeping in view of the non-availability of railway rakes frequently.																	
(iv).	The expenses proposed by the port may be reconsidered in the interest of industrialisations.																	
5.	M/s.S.K. Sarawagi & Co. (P) Ltd.																	
	We are not directly involved in Coking and Steam Coal operations at Visakhapatnam Port and hence no comments to offer.	--																
6.	Gammon Infrastructure Projects Ltd.																	
(i).	Optimal Yard Capacity Calculation: <table><tr><th>Particulars</th><th>As per upfront tariff guidelines</th><th>Assumptions by VPT</th><th>Our suggestion</th></tr><tr><td>Total area made available by VPT for development of storage yard</td><td>81250 Sqm</td><td>81250 Sqm</td><td>81250 Sqm</td></tr><tr><td>Cargo storage area (2x650x50)</td><td>65000 Sqm</td><td>65000 Sqm</td><td>65000 Sqm</td></tr><tr><td>Less: Area for</td><td>6500 Sqm</td><td>6500 Sqm</td><td>6500 Sqm</td></tr></table>	Particulars	As per upfront tariff guidelines	Assumptions by VPT	Our suggestion	Total area made available by VPT for development of storage yard	81250 Sqm	81250 Sqm	81250 Sqm	Cargo storage area (2x650x50)	65000 Sqm	65000 Sqm	65000 Sqm	Less: Area for	6500 Sqm	6500 Sqm	6500 Sqm	
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	(a). Stack height of 9 m is sure to raise environmental issues of dust and defeat the very purpose of promoting the GCB. (b). Further, for thermal coal our experience shows maximum quantity stackable is approximately 4 Tons/ Sqm at 10m high. Same is the case with coking coal where the cargo per sqm. can be slightly higher but not 7.50 Tons / Sqm. in any case. (c). As per page 63 of the Techno economic feasibility report of IPA, the soil condition in Eastern yard where the stockpile is proposed, the sub-soil is of different nature from that of GCB and based on several boreholes data the soil strata is mostly soft clay and permanent structure cannot be built without soil improvement. Hence, it suggests various measures of soil improvement by installation of suitably designed PVC band drains. However, the effectiveness of these has to be tested for some period of time at least. (d). The dwell time as per TAMP guidelines is 25 days. In the VPT proposal reference is drawn to “one of the prime user agency’s” assertion that 7 days requirement is expected to remain in the Port stockpile and therefore the dwell time has been considered at 10 days. Our experience shows that different grades to coal have variation in the dwell time between 15 to 35 days. This can be justified based on the actual facts and figures if required by TAMP. Hence dwell time should be taken at a minimum of 15 days.	As per the practice followed in the industry, the average quantity that can be stacked is 0.833 ton/cum per sq. mtrs. It is proposed to construct 7 mtrs. high compound wall as dust barrier at East Yard Dumps where the proposed stackyard is located. Considering a stack height of 7meters, 6 tonnes of cargo per sq. mtr. is considered for stacking (7 mtrs x 0.833 ton / cum). Accordingly, the modification will be made in the upfront tariff proposal. The soil is expected to be improved by installation of suitably designed PVC band drains and enabling the stabilization of soil at the back up area which in turn results in improvement of the soil bearing capacity to the extent of 10 tons per sqm. With this configuration, the stacking capacity assumed as 7.5 tons per sqm. is valid which has a bearing on the material stacking as well as efficiency parameters including optimal utilisation of yard capacity. The dwell time as ascertained from M/s.Vizag Sea Port Limited, a BOT operator handling coal at VPT is 10.7 days and hence dwell time of 10 days is considered reasonable.																																
(ii).	Traffic Forecast: The expected cargo to be handled at the berth is assumed to be 9 million tonnes per annum right from first year of operation.	The volumes proposed to be handled may be corrected as coking coal and steam coal instead of coking coal and thermal coal.																																

	As per the feasibility report of IPA the following volumes of Coking and Thermal Coal are expected at Visakhapatnam Port: <table><tr><th>Year</th><th>Expected Volume (in million tons)</th></tr><tr><td>2011-12</td><td>6.6</td></tr><tr><td>2012-13</td><td>6.7</td></tr><tr><td>2013-14</td><td>7</td></tr><tr><td>2014-15 onwards</td><td>13.7</td></tr></table> As per these numbers, the volumes are only increasing after 2015. Further, the operations at the existing coal handling facilities at VSPL as well as the VPT's WQ's (ABG Cranes) will also continue. In such a situation, GCB berth will not be able to perform 9 million tons per annum. Hence the expected traffic available for handling at GCB has to be reduced to 6 million tons in the at least in the initial 3 years of operations.	Year	Expected Volume (in million tons)	2011-12	6.6	2012-13	6.7	2013-14	7	2014-15 onwards	13.7	As per guidelines, the terminal capacity has to be considered for arriving at the upfront tariff. Accordingly, VPT has considered 9 million tonnes as terminal capacity (lower of yard capacity and quay capacity) for arriving at handling and storage charges. Further, terminal capacity of 9 million tonnes cannot be considered as projected throughput.		
Year	Expected Volume (in million tons)													
2011-12	6.6													
2012-13	6.7													
2013-14	7													
2014-15 onwards	13.7													
(iii).	Average discharge rate: Ship day output assumed in the VPT proposal are different from those prescribed by the TAMP guidelines for fixation of upfront tariff. <table><tr><th>Type of Vessel</th><th>TAMP Unloading Rate</th><th>VPT Proposal</th></tr><tr><td>Capesize</td><td>50,000 tons/day</td><td>70,000 tons/day</td></tr><tr><td>Panamax</td><td>35,000 tons/day</td><td>42,000 tons/day</td></tr><tr><td>Handysize & Handy Max</td><td>15,000 tons/day</td><td>N.A.</td></tr></table> - As per our understanding, it is not possible to achieve an average discharge rate of 70,000 tons/day throughout the vessels discharge for Capesize vessels and 42,000 tons/day for Panamax vessels. The reason being that the entire plant would not be operating at 100% capacity at all times. - There is time lost during changing of hatches, cargo aggregation in the hatches as well as deployment of mobile equipments in the ships hold, during change of operators, during ballasting for vessel stability etc. Therefore, the discharge rates may be suitably revised as per norms prescribed in the guidelines.	Type of Vessel	TAMP Unloading Rate	VPT Proposal	Capesize	50,000 tons/day	70,000 tons/day	Panamax	35,000 tons/day	42,000 tons/day	Handysize & Handy Max	15,000 tons/day	N.A.	It has reiterated its reply furnished on the comments of M/s.Vadinar Oil Terminal Limited for adopting the ship day output higher than the prescribed norms. It has further clarified that the output considered is arrived after considering the time lost during operation. For this purpose, only 70% of the capacity is considered while arriving at the optimal quay capacity.
Type of Vessel	TAMP Unloading Rate	VPT Proposal												
Capesize	50,000 tons/day	70,000 tons/day												
Panamax	35,000 tons/day	42,000 tons/day												
Handysize & Handy Max	15,000 tons/day	N.A.												
(iv).	Power Cost: The power consumption assumed at 1.4 units/ton may be reviewed in light of the following facts: (a). Fully mechanised coal handling facility with (ship unloaders OR MHC's, conveyors, stacker - reclaimers, wagon loading system etc.) all of which will be of high rated capacity (in order to achieve the productivity norms) and will be electrically powered. (b). Long lead of shipping conveyor from Jetty to stackyards. (c). Power cost would form the single largest element of the operating costs and hence it is requested that a proper analysis specific to the BOT project in question is done.	1.4 units/ton is considered in the upfront tariff calculation as per TAMP guidelines. In this context it is pertinent to mention that the power consumption per tonne in case of mechanized loading of iron ore at VPT is less than one unit per tonne. As such, the consumption considered is reasonable. However, this issue may be deliberated in the joint hearing to be held by TAMP.												

(d). As an example, the power cost calculations from one of the other similar project is furnished below to substantiate its contention:

Power / Energy bill	Specs	Unit	Nos.	KWH per m/c	Connected KWH
Material Handling System					
Rapid loading system	4000	TPH	1	300	300
Rail loading conveyor	2000	TPH	2	210	420
Reclaimers	2000	TPH	2	400	800
Stackers	2000	TPH	2	200	400
Jetty to stockyard conveyor	4000	TPH	1	1000	1000
Ship un-loaders	2000	TPH	2	1800	3600
Total connected load					6520
Utilities - water supply, fire fighting					800
Dust suppression					
Lighting	25	Lux			750
Office building workshop etc.	3000	Sqm			375
Total Connected Load	KW				8445

At 75% capacity, the material handling capacity will be $4000 \times 75\% = 3000$ Tonnes Per Hour (TPH).

Particulars	
Cargo handling capacity that can be achieved	3000 TPH
No. of hours of operations in a day	20 Hrs.
No. of days of operations in a year	360 days
Maximum cargo handling capacity	21600000 Tons
Total Peak Load	8445 KW
Total units consumed (expected to consume 85% of the connected load at 75% capacity utilisation)	51683400 KW
Power Tariff assumed	Rs.6
Total Power cost	Rs.364824000
Power cost per ton	Rs.16.89 / Ton
Units consumed per ton	2.393 units / Ton

As against 1.4 unit / Ton considered in the proposal.

(v). To summarise, the following modifications are suggested with reference to the VPT's proposal:

Particulars	As per upfront tariff guidelines	VPT Proposal	Our suggestion
Optimal Yard capacity	1,719,900 Tons	9,213,750 Tons	5,847,660 Tons
Cargo dwell time	25 days	10 days	15 days
Traffic forecast	-	As per Clause II	6 MMTPA for first 3 years of operation
Average discharge rate for Capesize vessels	50,000 tons / day	70,000 tons / day	50,000 tons / day
Power Cost	1.4 unit / Ton	1.4 unit / Ton	2.393 units / Ton

It is requested to take a note of all these issues before fixing upfront tariff for handling Coking and

	Steam Coal at General Cargo berth at Visakhapatnam Port.	
7.	Steel Authority of India Limited	
	it is observed that the storage charges proposed by VPT are on the higher side. Kindly look into the same for fixing lower storage charges.	Storage charges has been arrived and considered 1% of total revenue requirement based on the normative level prescribed in the TAMP guidelines. The rates are at ceiling level.

2. A joint hearing in this case was held on 22 October 2009 at the Visakhapatnam Port Trust premises. The VPT made a power point presentation of its proposal. At the joint hearing, VPT and the concerned users / organisation bodies and prospective applicants have made the following submissions:

Visakhapatnam Port Trust

- (i). Power point presentation of the proposal explaining salient features of the proposal.
- (ii). We have proposed deviations from the equipment norms, in order to improve the productivity and hence competitiveness. Norms prescribed for stacking factor and cargo turnover are also improved to increase the yard capacity.
- (iii). We have provided adequate provisions and cushions in each of the factors going into the determining capacity.
- (iv). We have already drawn up parallel investment plans to improve the general infrastructure in and around the port area which will generally help faster evacuation of cargo from the port including this proposed terminal. We will circulate the plans to all concerned.

Gammon Infrastructure Projects Ltd.

- (i). The estimate of dredging cost considered needs to be reviewed since the unit rate obtaining in a large dredging project cannot be imported to a small work.

Vizag Seaport Private Limited

- (i). Given the infrastructure available, the proposed evacuation of coal by 9 rakes in a day is highly optimistic. The existing terminal VSPL does not achieve such level of cargo clearance.
- (ii). Excess quay capacity is a concern. It involves idle investment and cost.
- (iii). Revision of norms considered by the port to determine yard capacity - particularly the plot turnover of 30 times - is not realistic.

M/s.IL & FS Maritime Infrastructure Co. Ltd.

- (i). The load bearing capacity of the existing berth is doubtful. The cost of revamping is not considered in the capital estimates. (VPT says, 180 mtrs. is given on trial basis. We are confident that the berth can withstand the designed load. We have allowed additional 5 mtrs. so that the terminal operator can use the additional space to strength the structure.)
- (ii). Equipment considered is inadequate to handle the unloading rate of 70,000 Tonnes / day.

M/s. Steel Authority of India Limited

- (i). What will be the impact of cost overrun of the project ? Will there be review of tariff to factor the actual capital cost incurred by the developer?

3. With reference to the decision taken at the joint hearing, M/s.IL & FS Maritime Infrastructure Co. Ltd. have furnished their comments to TAMP with a copy to VPT. M/s.Mundra Port & Special Economic Zone Limited have also furnished their comments. The VPT has stated that it has also received comments from M/s.Gammon Infrastructure Projects Ltd. The VPT has given its comments on the comments made by the bidders. A summary of comments received from the above prospective applicants and the comments received from VPT thereon is tabulated below:

Sl. No.	Comments of users / user organisations and prospective applicants	Comments of VPT
1.	IL & FS Maritime Infrastructure Co. Ltd.	
(I).	Berth Output per Day	
(a).	The average handling rate per day for capsized vessels has been assumed as 70,000 TPD with 3 Ship Unloaders of 1500 TPH capacity each. However, as per the UNCTAD guidelines (Article 236 of UNCTAD Port Development, a handbook for port planner), the efficiency of the equipment is recommended to be as 50%. Considering this and the standard industry practices, it is proposed that the equipment efficiency be considered as 55% and accordingly it works out to 54,450 TPD [i.e. 3 x 1500(TPH) x 22(hrs) x 55%].	The norm of 50% referred to by the Operator reckons non-working period during night and week ends whereas the Port works round the clock (24 x 7). As such the comparison is not proper.
(b).	In the event the berth norms cannot be modified, it is requested that the rating of the Ship Unloaders be revised from 1500TPH to 2000 TPH in order to achieve berth output of 70,000 TPD and the Capital Cost be revised suitably.	Private Ports with 2 unloaders is targeting an output of 60,000 TPD. As such, the norm of 70,000 TPD with 3 unloaders is in order.
(II)	Berth Construction and Capital Cost	
(a).	The project scope constitutes the existing berth of 22.2m width (commissioned in 1985) and construction of an additional width of 18m such that total width of the berth is 40.2m. It may be noted that Ship Unloaders of such high capacity normally have a gauge of at least 20m. In this case, when the ship unloader is installed at the berth, the front legs of the Ship Unloaders will be on the new	The point made by the bidder is addressed in the revised proposal dated 13 November 2009. The width of the berth is proposed to be extended from 18 mtrs. to 21 mtrs. Owing to this, the capital cost has been revised Rs.461.57 crores and tariff has been revised accordingly considering the terminal capacity based on the revised

	construction and rear legs will be on existing berth.	yard capacity.
(b).	Due to operation and movements of the Ship Unloaders, vibrations and non uniform load distribution will take place that can lead to incompatibility in the structural stability of the new and old berth construction leading to a possible structural failure. It is therefore proposed that the width of new constructed berth be increased from 18m to 23m such that the rear and front legs of the Ship Unloaders can rest on the newly constructed facility.	
(c).	Further the existing berth is not being utilized for any berthing operations. Therefore, upfront fee of the existing structure (Rs.33.32 crores) be excluded from the Capital Cost of the Berth and the area of the existing structure (22.2m x 356m) be included in the calculation of Operating Cost as Rental for land and other Port Assets.	The upfront fee fixed is the residual value of replacement cost of reassessed value as per Asset's Valuation Report duly considering the life of the berth as 50 years as per UNCTAD norms. As such, it is not possible to exclude the upfront fee from the capital cost, as it is a fully operational berth which is in huge demand.
(III)	Yard Capacity	
(a).	The tariff proposal considers the yard capacity of 9 MTPA. To achieve this turnover at least 9 loaded rakes need to be evacuated per day from the project facility. Therefore, the ideal time for shunting, loading and de-shunting of 1 rake is required to be a maximum of 2.44 hrs seems impossible to achieve.	Observation of TAMP regarding the mis-match between yard capacity and quay capacity has been examined and it is decided to allot 5.0 Acs. of additional land to increase the yard capacity. The revised yard capacity now stands at 10 MTPA.
(b).	It is requested to consider an ideal and practical time of 3 hrs per rake and yard capacity of 7 MTPA can be achieved.	Regarding the concern of M/s. IL & FS on the evacuation of 9 loaded rakes, it is to state that it is possible to evacuate at the rate of 9 to 10 loaded rakes per day, as the port is proposing to introduce Engine on load operation, which facilitates reduction of time required for placement of wagons. Electrification of sidings is also planned.
(c).	It is further requested to consider cost of an in-motion wagon loader instead of conventional wagon loader which can load the above numbers of rakes with minimal pollution.	
(d).	In view of the existing environmental issues that are of major concern for VPT, it is requested that the stacking density and consequently.	
2.	M/s.Gammon Infrastructure Projects Ltd.	
(I)	Capacity	
(a).	Assumption of the stack height of more than 6 m is sure to raise environmental issues of dust and defeat the very purpose of promoting the GCB which originated to address the environmental objection by APPCB.	It is proposed to construct 7 mtrs. high compound wall as dust barrier at East Yard Dumps where the proposed stack yard is located.
(b).	Assumption of evacuation of 9 rake load of cargo needs careful consideration given the following: (i). Availability of rakes from Indian Railways (ii). Location of the Railway sidings at the fag end of the Port, processes involved in drawing in and drawing out the wagons like wagon cleaning, wagon leveling, postering etc.	The port proposes/introduces engine on load operation which facilitates reduction of time required for placement of wagons. Port is also planning for electrification of sidings. In view of this, it is felt that clearance of 9 rakes is possible.
(c).	Currently, the Port is handling more than 2 million tonnes of steam coal and the volumes are likely to grow. Most of this type of coal is trading (stock and sale) coal for which the turntimes are very high. The Port current data on turntimes can be checked. It is not possible to turnaround this coal within 10 days time.	The dwell time as ascertained from existing BOT operator for handling coal at VPT is 10.7 days and hence a dwell time of 10 days is considered reasonable.
(d).	The TAMP prescribed norm for turnaround times is 12 whereas it has been assumed in the current proposal at 30 which is a very aggressive norm.	On the basis of 10 days dwell time, the number of turn rounds works out to 30 which is considered reasonable.

(II)	Productivity Norms	
	The discharge rates assumed in the proposal are very high when compared to the TAMP norms from an operational perspective and even after taking into account the material handling systems proposed for this project. Average discharge rate of 70000 TPD for capsized vessels is aggressive considering that even if this rate was to be achieved on the 1st day of vessel operation after that as the cargo starts reducing, the productivity starts reducing. This is a global fact with bulk vessel operations and needs to be considered.	In order to have a competitive edge over neighbouring private ports, achievement of higher level of efficiency is prerequisite. The average discharge rate of 70000 TPD considered is based on 70% utilization of the 3 ship unloaders of 1500 TPH each (1500 TPH x 3 x .70 x 22 hrs.). As such, 70000 TPD considered for capsized vessels is reasonable.
(III)	Upfront fees for existing berth	
	The upfront fee of Rs.33.33 crores fixed for utilizing the existing berth during construction needs resetting in view of the structural inadequacy of the existing berths to handle normal cargo throughput during construction as pointed out by trade.	During construction stage, the existing method of cargo handling operation will continue. As no change in the method of handling operations is envisaged, there is no need for resetting the existing berth.
3.	M/s.Mundra Port & Special Economic Zone Limited	
	The comments made by M/s.Mundra Port & Special Economic Zone Limited are mostly reiteration of points made by other bidders. They have stated that the unloading rate assumed at 70,000 TPD is high and will not match the equivalent evacuation rate and hence the storage quantum will be higher. In order to maintain the turnover ratio of 30 proposed by the port, the operator will be required to load at least 10 rakes a day which depends upon the supply of Railway Department which is beyond the control of the BOT operator. It has further submitted that import of steam coal being a mix of trader and end user cargo, each cargo interest would require separate storage heaps and will have separate schedule for evacuation. Hence evacuation of the cargo may not be as quick as in the case of cargo tied up by a manufacturing unit. It has requested to factor the aforesaid points before fixing up the optimal yard capacity.	The VPT has not furnished any separate comments. The VPT has, however, furnished its comments on the points made by other bidders which deals on similar issues.
