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Tariff Authority for Major Ports

G. No. 84

New Delhi, 27th April 2011

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 Mormugao Port Trust for setting upfront tariff for mechanised handling of coal terminal with covered storage domes at Berth No.11 in pursuance of the guidelines for upfront tariff setting at Major Port Trusts which was notified 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/38/2010-MOPT

Mormugao Port Trust

Applicant

O R D E R

(Passed on this 18th day of February 2011)

This case relates to a proposal dated 21 June 2010 received from the Mormugao Port Trust (MOPT) for fixation of upfront tariff for coal handling terminal at Berth No.11 to be developed on Public Private Participation (PPP) basis in Mormugao Port.

2. This Authority had earlier fixed the upfront tariff cap for coal terminal at the Mormugao Port Trust vide Order No.TAMP/23/2008-MOPT dated 7 August 2008.

3.1. Clause 2.2 of the upfront tariff guidelines stipulates that once tariff caps are set for handling different commodities or providing various services for a port, they would apply to all terminals that are bid out subsequently in the same port during the next five years for handling identical commodity or for providing similar services.

3.2. The instant proposal of MOPT seeking upfront tariff for another coal terminal within five years period was found to be not in line with Clause 2.2 of the 2008 tariff guidelines. Bringing out the salient features of the Coal Terminal for which the upfront tariff was already fixed by this Authority vide Order No.TAMP/23/2008-MOPT dated 7 August 2008 and the current proposal of the MOPT, the following points were brought out to the Ministry vide our letter dated 14 July 2010:

- (i). The berth area, stacking area, optimal capacity and the handling facility envisaged for the additional coal terminal are almost identical to the new coal terminal for which the upfront rate is proposed afresh. The main difference is in capital cost. In the proposal earlier dealt with by this Authority, the port had proposed storage in open area whereas in the instant proposal the storage coal is proposed in covered domes estimated at ₹ 192 crores as against total civil cost at ₹ 37.80 estimated in earlier proposal. Dredging cost alongside the berth is estimated at ₹ 38.98 crores which was not proposed in the upfront tariff proposal earlier disposed by this Authority.
- (ii). Clause 2.2 of the upfront tariff guidelines stipulates that once tariff caps are set for handling different commodities or providing various services for a port, they would apply to all terminals that are bid out subsequently in the same port during the next five years for handling identical commodity or for providing similar services. Even the MOPT in the earlier proceedings vide its letter No.FA/Cost/125/2008-13 dated 25 April 2008 has acknowledged this point which is recorded in para 4(x) of the said Order.
- (iii). The upfront tariff guidelines require this Authority to fix of upfront tariff for handling different commodities or providing various services and such tariff should apply to all terminals that are bid out subsequently in the same port during the next five years for handling identical commodity or for providing similar services. If the upfront tariff is to be set for each of the projects of the port recognising projectwise parameters, then it may not be in tune with the clause 2.2. of the upfront tariff guidelines.

In the light of the above position, the Ministry of Shipping (MOS) was requested to examine and advise us whether the proposal dated 21 June 2010 filed by the MOPT for fixation of separate upfront tariff for coal terminal is to be taken up by this Authority. Highlighting the mismatch between the optimal quay and yard capacities assessed by the port, the Ministry was also requested to advise the port to explore the possibilities of improving storage capacity to reduce the mismatch between quay and yard capacities. If such an improvement becomes absolutely not possible, then the Ministry of Shipping may advise us accordingly to recognise the optimal capacity with the proposed mismatch.

4.1. In response, Ministry of Shipping (MOS) vide letter No.PD 25021/6/2010-MoPT dated 4 November 2010 has stated the following:

- (i). The project parameters and cost of the coal terminal at berth no.7 for which upfront tariff was fixed at ₹ 183.00/ PMT and coal terminal at berth no.11 are different. While the project cost of 4.61 MMTPA berth no.7 was only ₹ 255 crores, the cost of 4 MMTPA coal/ coke handling project at berth no.11 is around ₹ 442 crores. Berth no.7 had a relatively large open stacking area of 100000 sqm. as compared to limited stacking area of only 75000 sqm. in respect of berth no.11. The limited stackyard capacity has put a cap on the optimal capacity of 4.03 million tonnes which is far below the quay capacity of 7.2 million tonnes.
- (ii). The cost of the project is substantially higher vis-à-vis the project cost of berth no.7 mainly on account of storage and handling of coal cargo in completely covered domes and covered conveyor for transporting coal from Ship to the domes, in compliance with the directives of NEERI, Nagpur, Goa State Pollution Control Board and Hon'ble High Court of Bombay. The cost of dome storage facility alone is around ₹ 192.00 crores resulting in escalation in the cost of storage of coal. Further, berth no.11 has been proposed for handling capesize vessels with 85,000-1,05,000 DWT which requires extensive maintenance dredging with dredge level (-) 17 mtrs. and above.
- (iii). As regards the observation of TAMP that there is wide mismatch between the optimal quay and yard capacities assessed by the port and that the port may explore the possibilities of improving storage capacity to reduce the mismatch between the yard and quay capacities, it is submitted that in port like Mormugao, Goa there is severe limitation of land availability, hampering the growth of the port. The yard capacity can be increased only if the evacuation of the cargo is made faster by improved rail and road connectivity. However, the Western Ghat pose a severe constraint in the improvement of rail connectivity with MOPT. Impediments in the completion of the 4 lane road are also hampering good road connectivity to the port.
- (iv). Due to higher capital cost as well as maintenance cost, the revenue realization needs to be higher to make the project attractive. There is huge demand for coal/ coke cargo and the project has evoked interest amongst prospective PPP bidders despite the proposed higher upfront tariff.
- (v). A separate proposal to TAMP for considering the amendments to Clause 2.2. of the upfront tariff guidelines to provide for higher tariff for subsequent PPP projects for the same commodity, if the project parameters so justify, is being submitted.

4.2. Based on the above, and in view of the imminent need to develop the Mechanised Coal Terminal at Berth No.11, the MOS has directed TAMP to consider fixing separate upfront tariff for this coal terminal keeping in view the different parameters and cost components as well as different service conditions for the cargo, pending amendments to Clause 2.2. of the upfront tariff guidelines.

5. In compliance with the advice rendered by the MOS, the proposal of the MOPT dated 21 June 2010 for fixation of upfront tariff for coal terminal at Berth No.11 was taken up for processing on 18 November 2010.

6. The highlights of the proposal filed by the MOPT are given below for quick glance:

- (i). (a). The new berth no.11 will be 311 mtrs. length X 22 mtrs. wide. For this purpose the existing berth no.11 is proposed to be shifted forward parallelly by 22 metres, thereby creating a new quay capable of receiving capsize vessels in future.
- (b). The coal import terminal at the berth no.11 of the port envisages 4 covered domes within the limited area of 76000 sq. mtrs.

- (c). The terminal is to be built for importing coal/coke/limestones etc., for the Goa as well as Karnataka steel and power industries.
- (d). The proposed coal import terminal at Berth No.11 of Mormugao Port Trust will have facilities for loading the imported coal into railway wagons. No coal is expected to move by road.

(ii). Optimal Capacity:

(a). Optimal Quay Capacity:

- The optimal quay capacity is assessed at 7.92 Million Tonnes Per Annum (MTPA).
- The share of panamax vessel and handymax vessel is assumed at 80% and 20% respectively based on the enquiries from trade and the existing pattern of composition. No capsized vessels whether partly or fully loaded are expected to call at MOPT. Hence, the percentage of capsized vessels is taken as NIL.
- The ship day output for panamax and handymax vessel is considered at 35,000 tonnes per day and 15,000 tonnes per day as per the unloading norms prescribed in the guidelines.

(b). Optimal Stackyard Capacity:

- The optimal stackyard capacity is estimated at 4.03 Million Tonnes Per Annum (MTPA).
- The guidelines stipulate stacking factor of 3 tonnes of cargo per sq. mtr. and turnover ratio of 12 for assessing the optimal yard capacity. The port has deviated from the norms prescribed in the guidelines for calculation of optimal yard capacity.
- The MOPT has stated that the parameters prescribed in the guidelines cannot be directly applied to the proposed coal import terminal at berth no.11 as the storage is envisaged to be in the covered domes instead of open space as per norms fixed.
- MOPT has stated that Goa State Pollution Control Board (GSPCB) and NEERI, Nagpur have directed that at Berth Nos.10 and 11 of MOPT, Coal/coke must be stored only in covered spaces and handled by mechanical means. The High Court of Bombay at Goa has also asked MOPT to comply with the directions. Thus, to comply with the directions of the GSPCB the port has made the deviation from the guidelines in assessment of the optimal yard capacity.
- The optimal storage (stackyard) capacity calculated by the MOPT is as follows:

Capacity Utilisation level	70%
A: Storage in each Dome	80,000 Tonnes
U: No. of Domes	4 nos.
T: Turnover ratio of each Dome in a year	18 Times
Optimum Stackyard Capacity	4.03 MTPA

- Thus, the optimal capacity of the terminal is considered at 4.03 MTPA being lower of the two capacities.

(iii). Capital Cost:

The capital cost for the proposed terminal is estimated at ₹ 441.74 crores. The breakup thereon is as given below:

			(₹ in crores)
Sl. No.	Particulars as furnished by the MOPT		Capital cost estimation
A.	Coal Handling Activity		
(i).	Civil construction cost:	₹ in crores	
	(a). Coal storage domes	192.00	
	(b). Dismantling of warehouses	0.05	
	(c). Road connectivity	2.50	
	(d). Removing existing water lines	0.05	
	(e). Water supply arrangement	0.10	
	(f). Cut off wall	0.32	
	(g). Contingencies 5% of ₹ 195.03 crores	9.75	204.78
(ii).	Equipment, Plant and Machinery:		
	Details of equipment and no. of equipment proposed to be deployed by the BOT operator	No. of coal handling equipment prescribed in the guidelines for unloading terminal	₹ in crores
	(a). Ship unloaders - 2 nos.	2	88.00
	(b). Conveyor System (length 2320 mts)	--	43.15
	(c). Wagon Loader - 1 no.	1	9.00
	(d). Rail for ship unloader – in addition to above rails		0.15
	(e). Removal of existing electrical lines post etc.		0.05
	(f). Electrical works including sub-station		3.00
	(g). Contingencies 5% of ₹ 143.35 crores		7.17
			150.52
(iii).	Miscellaneous cost (5% of civil and equipment cost excluding the contingency cost)		16.92
	Total Capital cost for Handling Activity [(i) + (ii) + (iii)]		372.22
B.	Capital cost for construction of berth	₹ in crores	
(i).	Cost of the construction of berth	23.29	
(ii).	Providing pavement / redoing payment	1.00	
(iii).	Dredging & Reclamation	38.98	
(iv).	Filling with Dredged Material	0.96	
(v).	Stone pitching	0.84	
(vi).	Removing & relaying of existing channel buoy	0.05	
(vii).	Moorings	0.13	
(viii).	Fenders	0.96	
(ix).	Miscellaneous (5% of ₹ 66.21 crores)	3.31	69.52
C.	Total capital cost of the Project (A + B)		441.74

(iv). (a). The operating cost has been estimated at ₹ 62.26 crores for cargo handling activity for the optimal terminal capacity following the norms prescribed in the guidelines:

- Electricity cost is estimated assuming power consumption of 1.40 units / tonne as per the norms prescribed in the guidelines. Unit rate of power is adopted at ₹ 4.50.
- Repairs and maintenance cost is estimated @ 1% on civil cost and 7% on equipment cost.
- Depreciation is computed as per the Companies Act.
- Lease rentals is estimated for 83,000 sq. mtrs. of leased area @ 34.30 per sq. mtr. per month.
- Other expenses are estimated at 5% of gross value of fixed assets.

- (b). The operating cost for providing berth service is estimated at ₹ 3.72 crores constituting of insurance and maintenance cost at 1% each of the total cost of berth and depreciation as per the Companies Act.
- (v). The return on capital employed is estimated at 16% on the gross block of assets.
- (vi). Accordingly, the revenue requirement is estimated as follows:

(₹ in crores)			
Sl. No.	Particulars	For coal handling activity	For berth hire
(i).	ROCE @ 16%	56.85 (*)	11.12
(ii).	Operating cost	62.26	3.72
(iii).	Total Revenue Requirement	119.11	14.84

- (*) In the calculation furnished by the MOPT, return is not computed on the miscellaneous capital cost of ₹ 16.92 crores.
- (vii). (a). The guidelines stipulate that the revenue requirement from cargo handling activity should be apportioned between handling charge, storage charge and miscellaneous charge at 98%, 1% and 1% respectively. The port has submitted that the storage is envisaged in modern storage domes due to shortage of area and to avoid pollution. This is expected to be expensive and therefore the entire revenue allocation is taken towards coal handling charge.
- (b). As regards storage charge, the port has made the following submissions:
- (i). In the proposal, MOPT has taken the turnaround factor at 18. This means that on an average, a parcel size of 56,000 tonnes (0.7 x 80,000) can remain in any storage dome for a period of 20 days (365/18). It has accordingly proposed free storage of 20 days.
- (ii). The MOPT has cited the ground rent / storage charges prescribed by the Authority for the Berth Nos. 5 A & 6A operated by M/s.SWPL at MOPT, vide notification No.19 dated 15th January 2007, follows the following pattern:
- Rate for 1st 5 days for balance cargo remaining after the free period – 10% of handling charges.
 - Rate for 6th day to 10th day – 25% of handling charges
 - Rate for 11th day to 20th day – 50% of handling charges
 - Rate for 21st day onwards for the balance cargo – 100% of handling charges
- (c). Following the above model, storage charges for the proposed coal terminal Berth No. 11 are proposed as follows :-
- (i). 1st 5 days after free period – ₹ 30 per tonne per day
- (ii). 6th to 10th day – ₹ 75 per tonne per day
- (iii). 11th day onwards – ₹ 150 per tonne per day
- (d). The MOPT in the proposal has stated that for parcel sizes in excess of 56,000 tonnes, the free days will be increased proportionately, i.e. 1 day for each additional 2800 tonnes. For parcel sizes of less than 56,000 tonnes, the free days will be only the number of days allowable for evacuation @ 2800 tonnes per day. (This condition is, however, not found to be included in the proposed SOR)

To summarize, upfront tariff caps proposed by MOPT for coal import terminal is as follows:

Particulars	Proposed upfront tariff cap (in ₹)
Cargo Handling Charges	295.41 per metric tonne
Storage Charges (beyond free period of 20 days)	First 5 days - ₹ 30 per tonne per day 6 th -10 th days - ₹ 75 per tonne per day 11 th day onward - ₹ 150 per tonne per day
Miscellaneous Charges	Not proposed
Berth Hire Charges	1.11 per GRT per hour

7. In accordance with the consultative procedure prescribed, the MOPT proposal dated 21 June 2010 was forwarded to the concerned users / user organisations and prospective bidders (as per the list provided by the MOPT with the proposal) seeking their comments. The proposal was also forwarded to list of additional bidders furnished by MOPT. We have not received any comments from users / user organisations or prospective bidders.

8. Based on a preliminary scrutiny of the proposal, the MOPT was requested to furnish additional information / clarifications vide letter dated 3 January 2011. The MOPT vide its e-mail dated 15 January 2011 has furnished its reply. A summary of the queries raised by us and the replies received from MOPT is tabulated below:

Sl. No.	Queries raised by us	Reply received from MOPT
(i).	Optimal Capacity:	
	(a). <u>Optimal Quay Capacity:</u> The port has not considered handling of capesize vessel while assessing the optimal quay capacity. Para 2.2. of the proposal, however, states that the proposed facility can handle capesize vessel (fully loaded) with expected deepening of the channel and also points out that the trade has shared this view. Bearing in mind that the upfront tariff to be fixed is for the time horizon of 30 years and also the dredging plans of the port, the port may examine whether handling of capesize vessel need to be considered in the upfront tariff fixation.	The port has not considered handling of capesize vessel in view of the present trend of vessels calling at the port to accommodate capesize vessel capital expenditure involved is over ₹ 800 crore and therefore no such action is contemplated in the near future nor any provision has been made in the plan expenditure. Therefore, handling of capesize vessel has not been considered.
	(b). <u>Optimal Yard Capacity:</u> (i). Out of the total area of 76,000 sq. mtrs. proposed to be allotted by the port, the area likely to be occupied by each of the domes may please be indicated. Land usage plan of the remaining area other than the proposed 4 domes, if any, may also be explained.	The footprint area likely to be occupied by each dome will be 5026 Mts. Sq. After assigning sufficient area for the proposed four domes, the remaining area is designated for the conveyor system, support infrastructure and vehicular movement.
	(ii). Furnish the basis of arriving at storage capacity of each dome at 80,000 tonnes along with calculation. Indicate the size of each dome along with the height of the dome.	The basis of arriving at a storage capacity of 80,000 tons for each dome is based on the fact that vessels of 75000 tons capacity are anticipated to call at the berth. The design measurements of the domes will be a diameter of 80 meters and a height of 20 meters.

	(iii). The feasibility report as well as the proposal does not contain any detailed analysis with reference to evacuation of cargo by rail while assuming four numbers of storage domes for the proposed coal terminal. Furnish the basis for assuming four number of storage domes. Examine whether technically it is possible to improve the number of domes/ storage capacity of each storage dome.	The Port design has considered direct transfer of coal from vessel to wagon completely by passing the storage domes. Four domes have been incorporated into the design primarily as a backup system in the anticipation that any eventuality with non availability of rakes or any related delays in evacuation is not a hindrance to unloading of vessels calling at the terminal. This system can also improve turnaround of vessels calling at the Port. 80000 tons capacity per dome is considered the optimal storage capacity and it will not be feasible to increase the number of domes at proposed terminal since there is constraint of space.
	(iv). Average evacuation of cargo by rail achieved in the port during the last three years may be furnished. Also, furnish the daily evacuation of cargo (by rail) assumed by the port in the current proposal along with the working.	Evacuation of cargo of 4.68 million tons by railway for the last year was 1262 rakes and for earlier year also it is in the range of 1200 rakes for similar quantity of cargo. This works out to 4 rakes per day carrying approx. 15000 tons. The evacuation of 4.0 million tons coal in the present situation will not be a constraint as on a continuous loading machine total of 4 rakes can be handled every day.
	(v). As per Para 5.10 of the Feasibility Report, a dedicated belt feeding a single transfer tower will convey coal to either a storage dome or to the railway wagon loaders and the second transfer tower will reclaim coal from storage dome and transfer it to the wagon loaders when ship unloading is not in operation. The MOPT has not considered this option in its proposal, but has formulated the proposal assuming the entire coal cargo will pass through the storage dome. The reasons for not considering the methodology proposed in the Feasibility Report may be explained.	Although provision will be made for dedicated belt feeding from the berth for wagon loading, this will not be used as normal practice. Loading rate will be drastically reduced if the cargo is loaded into rakes directly from the Shiploaders. This will result in long detention of rakes at the Port which will not be productive and not acceptable to Railways. Hence this methodology is not considered while working out the Tariff.
	(vi). Para 3.2.1. of the feasibility report mentions that plan is being prepared for expansion of rail infrastructure to provide improved rail service for iron ore and coal terminals at the port. Since the upfront tariff to be fixed will be applicable for the entire project period of 30 years the port may confirm there will be no improvement in the evacuation of cargo by rail during the project period of 30 years of the proposed coal terminal even with improvement in the rail infrastructure. If the port envisages evacuation of cargo by rail will improve in future, then suitable adjustment may be made in the proposal to reckon these factors.	The proposed development of berth No. 11, the augmentation of the entire railway network of the Port is considered. Berth No. 11 project cannot be implemented with the existing railway infrastructure set up of the Port. Hence, improvements are already considered in the proposal.
	(vii).(a). Clarify the basis for considering the turn over parameter at 18 days.	Turnover as per norms for Coal Terminal is 12 times whereas port has taken turnover of 18 times in accordance with turnover considered for berth No. 7.

	(b). The turn over parameter assumed by MOPT are found to be lower than the turn over level of 25.6 and 26.3 for the years 2006-07 and 2007-08 respectively achieved by the terminal operator South West Port Limited (SWPL) operating in the port with mechanised wagon loading operations. Justify the reasons for considering the turn over parameter lower than the level achieved by the SWPL.	Though the facilities provided at SWPL is common user facility, it is practically being used by only one user, whereas the proposal of MOPT at Berth No.11 is common user facility. Turnover for common user facility, where consignments of different users have to be handled throughout the year will always be lower than facility with single user. Similar, turnover criterion has been taken for berth No.7 proposal.
	(c). Justify the reasons for allowing 20 days free period when the yard capacity and the storage area are limiting factors in this proposal. The MOPT may examine the possibility of improving the turn over factor by reducing the free period.	Justification for allowing 20 days free period has been given in the proposal at page 16. It is stated that the facility is common user and at MOPT consignments come in smaller parcel sizes. Since the storage envisaged is in domes, till the cargo of a consignment is not fully evacuated, the dome cannot be used for the subsequent consignment. Further, in Goa there is inherent problem of availability of trucks for evacuation and therefore free period has to be increased to facilitate the trade.
	(d). Average dwell time of coal handled in MOPT and at SWPL may be indicated for the last three years.	(d) Average dwell time of coal handled in MOPT for the last three years is enclosed.
	(viii). The quay capacity is assessed at 7.91 Million Tonnes Per Annum but the optimal capacity is pegged at 4.03 Million Tonnes Per Annum as the yard capacity is the limiting factor leading to a wide gap between the two capacities and under-utilisation of the quay capacity by almost 50%. It has to be borne in mind that if at a later stage the storage yard area or any other parameters considered for determining yard capacity undergoes a change, it will result in significant increase in Terminal capacity and at the upfront tariff determined may result in unintended financial gain to the operator which will not be a result of the efficiency of the operator but may due to the parameters assumed at the planning stage. It is relevant to mention that the upfront tariff guidelines do not prescribe any norm nor does it place any restriction on the port on area to be allotted to the operator for storage purpose. The expectation is to consider area required to handle the anticipated capacity. In view of the wide gap observed between the optimal quay and optimal yard capacity, the port is advised to examine all the possibilities of improving the yard capacity by improving the other parameters i.e. number of storage domes, capacity of storage domes, improving the turnover parameter, reducing the free period, etc. considered in assessing the optimal yard capacity.	The quay and yard capacities have been calculated in accordance with the norms fixed by the guidelines. Even though the norm does not place any restriction on the area to be allotted, there is inherent shortage of area available for the project. The port has very limited space in general as compared to all the major ports and has limitation for berth no.11 project in particular as there are other structures and areas being utilised for other cargo, containers etc., The area carved out for Berth No.11 is optimal and no additional area can be allotted for the project. Resultantly, there is no scope for increasing the number of domes from four.
(ii).	Capital Cost:	

(a). The port has not furnished any documentary support of unit rate adopted in the estimation of civil cost particularly the cost the storage dome and equipment cost. The project Feasibility Report does not contain documents validating the estimates. Coal storage domes is a new item and the cost estimated for this item at ₹ 192 crores is to be supported with documentary evidence. Furnish copies of supporting documents/ calculation/ rate analysis/ budgetary quotations, market rates to justify the estimates of other civil items and equipment cost as well.	Cost of the domes is as per the Feasibility Report prepared by M/s. Mir Consultants and no budgetary quotes have been obtained by the port.
(b). The guidelines prescribe list of civil works for coal unloading terminal. The civil construction cost estimated by the MOPT does not include cost of berth apron and approach, transfer towers, wagon loading station, building, conveyor gallery and marshalling yard listed in the guidelines. The reasons for deviation from the list of items prescribed in the guidelines may please be explained.	The items listed are not envisaged in the project as the handling is not from the open storage but from the dome storage. Method of conveying the cargo from vessel to railway wagon has been brought out at para 5.9.2, 5.10 and 5.11 in the Feasibility Report.
(c). The list of coal handling equipment prescribed in the guidelines includes 2 numbers of reclaimers, 2 numbers of stackers, 2 cranes, 4 pay loaders and workshop equipment. The proposal of the MOPT does not considered cost estimates for the above mentioned equipment prescribed in the guidelines. The port may confirm that these equipment mentioned in the guidelines are not envisaged by the port.	Number of reclaimers, stackers, cranes, payloaders and workshop equipments as prescribed in the guidelines are not envisaged in the project.
(d). The estimate of ₹ 0.15 crore towards rail for ship unloader states that its "in addition to above rails". There is no other estimate of rails in the proposal. The correct position in this regard may be indicated.	It refers to rail arrangement for in motion wagon loader mentioned above the rail for ship unloader. There is no separate estimate for rails.
(e). The port has estimated contingency cost at 5% in the civil and equipment estimates. Please confirm and show that the base capital cost does not provide for any contingencies. The MOPT in its earlier proposals filed for determining the upfront tariff for iron ore terminal and coal terminal had not estimated the contingency cost in the civil and equipment estimates. The reasons for estimating the contingency cost in the current proposal may, therefore, please be explained. Justify the basis for estimating contingency at 5% of the capital cost.	Contingencies may be read as Miscellaneous cost that is provided as norm in the guidelines.
(f). The capital cost estimated for berthing service includes miscellaneous capital cost at 5% of the civil cost which is not as per the guidelines. Justify the basis and the reasons estimating this item which is not as per the norms prescribed in the guidelines.	Miscellaneous Capital cost has been considered for berthing service in line with miscellaneous cost for civil works and Plant & Machinery.
(g). Confirm that the capital cost estimated by the MOPT reflect the current market position.	Capital cost reflects the cost estimated at the time of submission of the proposal.

(iii).	Operating Cost:	
	(a). Copy of the Electricity Bill of the State Electricity Board, Goa furnished by the MOPT pertains to June 2009 and the unit rate works out to 4.04. Whereas the unit rate of power considered by MOPT in the upfront tariff fixation is ₹ 4.50. The unit rate of power considered at ₹ 4.50 may be substantiated with the copy of the recent electricity bill.	Latest electricity bill is furnished.
	(b). The license fee adopted by the MOPT for the proposed coal terminal as per its Scale of Rates may please be indicated. The escalation factor, if any, applied to the base license fees may be indicated. Furnish calculations to show how the license fee of ₹ 34.30 per sq. mtr. per annum is arrived applying the annual escalation to the base rate adopted from the Scale of Rates of the MOPT.	TAMP approved Scale of Rates prescribes licence fee at ₹ 292 per 10 sq. mtr. per month which has been escalated at 2% p.a. as per land policy guidelines 2004 and licence fee of ₹ 34.30 per square meter per annum is arrived at.
(iv).	The guidelines for coal terminal stipulate 98% of the revenue requirement to be apportioned to handling charge and 1% each to storage and miscellaneous charges for arriving at the upfront tariff. As against the above position, the port has apportioned the entire revenue requirement of ₹ 119.11 crores to determine the composite cargo handling charges of ₹ 295.41 per tonne. The port has also proposed storage charge for stay of cargo beyond the free period which is arrived independently based on the percentage of handling charge giving reference of the storage charge prescribed in the Scale of Rates of SWPL. In this regard the following points may be examined by the port:	
	(a). The reference drawn to SWPL is out of place as the upfront tariff fixation for proposed coal terminal is governed by 2008 guidelines. Even at SWPL the storage charge prescribed is not arrived as percentage of handling charge.	The reasons for deviating from the Guidelines of 2008 is brought out at para 12.4 in our proposal. Even though TAMP has not fixed storage charges as a percentage of handling charges, it works out to the percentages that are indicated. As the storage is not conventional, 1% prescribed as per guidelines may not be reasonable. Further, storage domes cannot be used as storage yards as is being done by the trade today as domes have to be evacuated faster to make way for the next consignment as it is common user facility. Only when charges are steep, there is pressure on the trade to evacuate the cargo faster.
	(b). The approach adopted by the MOPT of apportioning the entire revenue requirement for determining the handling charge and proposing the storage charge independently as a percentage of handling charge will result in annual revenue generation to the operator exceeding the total revenue requirement estimated. The port may modify the proposed handling charge as well as storage charge complying with the guidelines.	The reasons for deviation from the norms in the guidelines have been brought out in the proposal. As operations and equipments are not as per norms fixed in guidelines, the guidelines cannot be complied with in toto.

	(c). The MOPT may review and rework the storage charge taking into consideration the norms prescribed in the guidelines. Deviation, if any, from the guidelines in this regard, need to be justified. Expected stay of cargo beyond the proposed free period under each slab may be reckoned with while determining the storage charge to meet the expected revenue requirement from this tariff item. Please furnish detailed working in this regard. Also, furnish calculation to show that at the revised storage rate (to be) proposed, the expected revenue requirement from the storage charge will be realised by the operator.	Kindly refer reply furnished at (a) & (b) above.
	(d). The guidelines require 1% of the total estimated revenue requirement to be recovered from miscellaneous charge. The port has not proposed any miscellaneous charge. The port may explain the reasons for the deviation from the guidelines in this regard and confirm it does not envisage the operator to offer miscellaneous services at the proposed coal terminal.	The estimated revenue requirement has been entirely allocated for handling charges and no allocation is made as per guidelines for storage and miscellaneous charges. Activities for which miscellaneous charges are allocated as per guidelines are not envisaged in the current proposal.
(v).	Scale of Rates: (a). <u>Schedule 1.2.- General Terms and Conditions:</u> The note proposed at (v) states that the operator of the proposed terminal shall allow rebate in berth hire payable to the MOPT during the period of idling of vessel at the terminal. The proposed note is not found relevant as the berth hire charge for the proposed coal terminal are payable to the operator and not to the land lord port and hence may be deleted.	TAMP is correct to the extent that charges are not payable to MOPT. However, rebate in berth hire may have to be given by the terminal operator if the vessel idles on the berth due to break-down of machinery or facilities attributable to the terminal operator.
	(b). <u>Schedule 2 Cargo Handling Charge:</u> The note (i) proposed under this schedule may be elaborated defining the services covered in the composite handling rate. Since the port has not proposed any separate miscellaneous charges, the proposed note may state that it shall include all cost towards miscellaneous services not specifically prescribed in the Scale of Rates.	Yes. Clause will be suitably altered.
	(c). <u>Schedule 3 – Storage charge:</u> (i). The port in para 12 of the proposal has stated that for parcel sizes in excess of 56,000 tonnes, the free period of 20 days will be increased proportionately, i.e. 1 day for each additional 2800 tonnes per day and for parcel sizes less than 56,000 tonnes, the free period will be the number of days allowable for evacuation @ 2800 tonnes per day. In this regard, the following may be clarified:	

(a). The reason for the said condition may please be explained.	The reason has been brought out in para 12.4. The storage charges for overstays of any cargo has to be high so as to act as a strong deterrent for importers against using the valuable storage space for speculation/commercial advantage.
(b). The basis of arriving at the evacuation rate of 2600 tonnes per day in the said note may also be explained.	At para 12.4, evacuation rate is mentioned as 2800 tonnes per day and not 2600 tonnes per day. Further, basis of arriving at evacuation rate of 2800 tonnes per day has been brought out in the proposal in detail.
(c). Para 5.1. of the feasibility report states that for the proposed coal terminal push in pull out train movement will be required which can achieve around 2000 tonnes per hour on a sustained basis. With reference to the above position in the Feasibility Report, justify the basis and reasons for considering the evacuation @ 2600 tonnes per day in the said note.	Load in motion wagon loaders have capability of achieving 2000 tons per hour on sustained basis. This will also depend on the supply of rakes by Indian Railways over which port has no control. To consider 2000 tons per hour discharge there should be continuous discharge from ship and also import by the trade. However, evacuation of 2800 tonnes per day has been worked out on 70% of dome capacity being evacuated in 20 days.
(ii). The condition at (c). (i) above as well as the notes proposed in page 17 (para 12) of its proposal governing application of storage charge are not incorporated in the proposed Scale of Rates at Schedule 3 – Storage charge. The MOPT may modify the proposed SOR to incorporate these conditions governing the storage charge. The condition relating to the commencement of free period may also be incorporated.	It is felt that justification given at para 12 need not be part of schedule 3 of Scale of Rates for storage charges. However, condition for commencement of free period will be incorporated as follows: “Free period shall commence immediately on completion of the unloading of the cargo from the vessel. Period of Twenty days shall be reckoned from the time total discharge is complete.”
(iii). Incorporate a general condition stating that storage charge not to accrue for the period when the operator is not in a position to deliver/ ship import/ export cargo, etc. at the request of the user.	Yes

9. On examining the reply furnished by Mormugao Port Trust (MOPT), it was observed that reply furnished by the port did not adequately address some of the queries raised by us. The MOPT, therefore, vide our letter dated 18 January 2011 was requested to furnish further additional information/ clarifications on those points.

10.1. A joint hearing in this case was held on 24 January 2011 at the MOPT premises. The MOPT made a power point presentation of its proposal. At the joint hearing, MOPT and the concerned users / user organisations have made their submissions.

10.2. At the joint hearing, a number of gaps appearing in the proposal which were already pointed out earlier vide our letter dated 18 January 2011 particularly with reference to the storage capacity, etc., were specifically highlighted again to the Mormugao Port Trust (MOPT). The port was advised to review its proposal and file a revised proposal alongwith its response to our letter dated 18 January 2011 by 7 February 2011. While revising the proposal, the port was advised to address the following points:

- (i). The reasons why the direct delivery option given in the Feasibility Report is not considered in the tariff proposal, are not satisfactorily explained.
- (ii). The various parameters considered to assess storage capacity need to be relooked into, bearing in mind the fact that tariff is being set for a time horizon of 30 years.

- (iii). The port may consult Railways to find out their capacity augmentation plans which will have a bearing on the evacuation of cargo from the MOPT.
- (iv). The basis of estimating capital costs, particularly those of storage domes, needs to be explained with supporting calculations and documents.

10.3. The concerned users/ user organisations consulted in this case were allowed one week time to furnish their comments to MOPT with a copy endorsed to us. The MOPT was advised to examine the comments received from users / user organisations and furnish its views / remarks on their comments, if any, while filing the revised proposal.

11.1. With reference to the points discussed at the joint hearing, the MOPT vide letter dated 8 February 2011 has furnished additional information/ clarifications which are summarised below:

- (i). The Feasibility Report of the project takes into account the option of direct delivery of coal from vessel to wagon. However, considering the other factors such as non-availability of rakes or other hindrances that may delay evacuation of cargo and thereby disturb the unloading operations of cargo, direct delivery option in the four domes have been incorporated in the design primarily as a backup system. This system would improve turnaround of vessels calling at this Port and thereby increase the traffic.

It has been designed to install four domes and the optimal storage capacity of per dome is designed at 80,000 tonnes. It is reiterated that it would not be feasible to increase the number of domes at the proposed terminal on account of constraint of space. It is further submitted that in case the cargo is loaded from the shiploaders to the wagons, the loading rate would be drastically reduced. This will result in long detention of rakes at the Port which will not be productive and not acceptable to the Railways. Though, it is technically possible to load directly to wagons, it would not be practical to do the same considering the limited availability of wagons and lower productivity. Therefore, the methodology in the feasibility report was not considered while working out tariff.

- (ii). As already submitted to the TAMP and discussed in the joint hearing held on 24th January, 2011, the area earmarked for proposed terminal at Berth No.11 is optimal and because of space constraint, no additional area could be allotted for the project. The quay capacity has been calculated in accordance with the norms fixed in the guidelines. In view of the constraint of land area and direction of the High Court and Goa Pollution Control Board, new technology of dome storage is envisaged as against open storage as per the PPP guidelines.
- (iii). The Railways have already taken up the project of providing double lining. A letter dated 5 August 2010 from South Western Railway about the Railway Board sanctioning the capital cost for doubling of rail connectivity between Hospet-Vasco is furnished by MOPT.
- (iv). The calculation sheet/working of estimated capital cost is yet to be received from consultants.

11.2. The MOPT vide letter dated 8 February 2011 has furnished its response to the queries raised vide our letter dated 18 January 2011. A summary of the queries raised by us vide our letter dated 18 January 2011 and reply furnished by MOPT is tabulated below:

Sl. No.	Queries raised by us	Reply furnished by MOPT
(i).	Out of 76,000 sq. mtrs. of land proposed to be allotted, 20,104 sq. mtrs. of i.e. 26% land will be occupied by domes as per MOPT. Exact land usage plan of remaining 55,896 sq. mtrs of area proposed for conveyor system, support infrastructure, etc., may please be furnished as requested in our earlier query.	Out of 76,000 sq. mtrs. of land proposed to be allotted, 20,104 sq. mtrs. of land will be occupied by the domes alone. After considering statutory requirement of space between the dome, the area required for the domes alongwith conveyor system will be 47980 sq. mtrs. The remaining space is required for movement of machinery,

		vehicles deployed for maintenance of the plant and also office in the project area.								
(ii).	(a). The port admits that provision will be made for dedicated belt feeding from the berth to wagon by passing the storage domes but the same is not recognised in the determination of capacity. Please confirm whether the estimated capital cost includes the option of direct feeding from berth to wagon.	It is confirmed that the estimated capital cost, includes the option of direct feeding from berth to wagon. This can only be an alternative in case the storage system fails. This cannot be considered as an additional facility of evacuation for the purpose of calculation of yard capacity.								
	(b). Transfer of coal directly from ship to wagons will be in addition to optimal capacity determined by the MOPT at 4.03 MTPA. If this option is available as stated by the MOPT, then MOPT may make suitable adjustment in its proposal to capture the capacity so available from direct feeding.	This has been clarified vide our letter dated 15/1/2011. As stated above, direct feeding from berth to wagon is only an alternative in the case of failure of storage system. It cannot be regular delivery system to rework yard capacity.								
(iii).	(a). Based on evacuation details furnished by the MOPT in the last year, 1262 rakes (i.e. 4 rakes per day) carrying approximately 15000 tonnes/ day of cargo i.e. apprx 4.68 million tonnes of cargo has been evacuated by rail from the port. In this context, justify why the optimal capacity for the proposed coal terminal is restricted to 4.03 MTPA.	This has been clarified vide our letter dated 15/1/2011. We would like to reiterate once again that statistics given of 4.68 million tonnes is for existing coal terminal of SWPL which caters to a single customer whereas the proposed terminal at Berth No.11 is common user facility and therefore the same rate of evacuation cannot be expected. At present Berth No.11 caters to small foundries in and around Goa who take small parcel sizes. The nature of customer base being different, two projects cannot be compared on the same footing. Therefore, yard capacity proposed cannot be increased based on the performance of the presently operating terminal.								
	(b). The port has admitted that augmentation in entire railway network is in pipe line and stated that the same has been considered in the proposal. Please show how the impact of improvement in the rail infrastructure on the evacuation of cargo is considered for the proposed coal terminal in addition to 4.68 MTPA cargo presently evacuated by rail at the port.									
(iv).	Since yard capacity and storage area are limiting factor, our query is reiterated and the port is advised to examine the possibility of improving the turnover by reducing the free period.	It is reiterated that the facility proposed is "Common Users Facility". The turnover for common-user facility where the consignment of different users will have to be handled throughout the year will always be lower than the facility of single user. At our Port, the consignments come in smaller size. Since the storage envisaged is in domes, the domes cannot be used for subsequent consignment till the cargo in the consignment is not fully evacuated. Therefore, in our opinion allowing 20 days free period is appropriate to facilitate the Trade.								
(v).	Details of average dwell time of coal stated to have been furnished is not received. The port may furnish the requisite details.	The details of average dwell time of coal have been already furnished.								
(vi).	Capital cost of storage dome may please be substantiated with documentary support which was relied upon by the Consultants while preparing the Feasibility Report. Confirm that the capital cost for other items reflects the prevailing market price.	The break up of capital cost of storage dome is furnished below: <table><tr><td>Total cost for one dome (80m dia and 20m height)</td><td>₹ 48 crores</td></tr><tr><td>Foundation cost (pile with raft)</td><td>₹ 18 crores</td></tr><tr><td>Steel dome fabrication with erection</td><td>₹ 8 crores</td></tr><tr><td>Dome accessories and others</td><td>₹ 22 crores</td></tr></table>	Total cost for one dome (80m dia and 20m height)	₹ 48 crores	Foundation cost (pile with raft)	₹ 18 crores	Steel dome fabrication with erection	₹ 8 crores	Dome accessories and others	₹ 22 crores
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(vii).	(a). The basis for considering contingency at 5% of civil and equipment cost is not explained.	In our proposal, contingencies cost is provided at 5% of civil and equipment cost. In this regard, it is stated that technology of								

	(b). The port has requested to read contingencies cost estimated at 5% in civil and equipment cost as miscellaneous cost. Miscellaneous cost at 5% of the total civil cost and equipment cost is already estimated by the MOPT separately and hence will lead to duplication in the estimation of miscellaneous costs.	dome structure being very new and not available in the country, the cost is very volatile. The lead time for purchase of machinery goes upto 24 months. In the case of imported equipments, exchange rate also will have a direct impact in the cost of the equipments and considering this factor, 5% towards contingencies is provided in the proposal on civil and equipment costs.
(viii).	The reply furnished by the port does not address the specific query raised about the deviation from guidelines while arriving at storage charge. Our query is, therefore, reiterated.	TAMP desired that MOPT has deviated from the guidelines in fixation of storage charges. As against 1% of the total charges allocated to towards storage charges, MOPT has proposed separate storage rates. It is to be noted that as against conventional storage system, MOPT is deviating with construction of domes to comply with Court's direction of closed storage. If at all port was not directed by the Court to have closed storage for environmental reasons, port need not have gone for storage domes with huge cost. Further, storage in the domes cannot be equated with normal storage on yard. Therefore, port has allocated entire charges for handling as against 98%. Port has further given 20 free days to evacuate the cargo and proposes to levy storage charges only after free days to discourage longer duration of storage. This impacts throughput and if trade tends to use storage domes like normal yard, project will not be viable for the operator. Therefore, port has deviated from usual practice of 1% of total charges towards storage and has proposed heavy charges for storage beyond free period.
(ix).	The port has not proposed the modified note. The proposed note (i) may be elaborated defining the services to be covered in the composite handling rate.	In the note at para 2 of general terms and conditions, following sentence shall be incorporated. "The handling charge shall include all cost towards miscellaneous services and not specifically prescribed in the scale of rates."
(x).	(a). The evacuation rate indicated at 2800 tonnes per day from the storage done does not match with the evacuation @ 15000 tonnes per day reportedly achieved by the port during the last year. The correct position may be indicated.	Evacuation indicated by port of 15000 tonnes per day is in respect of SWPL where storage pattern is not identical to proposed storage system. Further, the entire cargo of SWPL goes to only one user i.e., JSW and therefore it is possible to achieve evacuation rate of 15000 tonnes per day. Since proposed terminal is for common user facility, the same rate of evacuation cannot be expected.
	(b). While replying our query at item (v) (c), the MOPT has stated that evacuation of 2800 tonnes per day has been worked out based on the dome capacity being evacuated in 20 days. When evacuation @ 15000 tonnes per day is achieved by the port in the past, the reasons for restricting evacuation at 2800 tonnes/ day from the storage dome to wagon is not clear which may please be explained.	Calculation of evacuation rate of 2800 tonnes per day has already been brought out at para 12.4 of our proposal.
(xi).	Since the storage and the yard capacity is a constraint, as advised earlier, the port is	

	again advised to explore all possible mechanism to improve the optimal capacity by improving all the parameters viz. reducing the free period and improving the turnover, improving the evacuation of cargo, explore the possibility of direct transfer of cargo from ship to wagon, etc., so as to improve the capacity of the proposed coal terminal.	
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12. As decided in the joint hearing, Mormugao Port Users Association (MPUA) has furnished their comments on the proposal of the MOPT with a copy endorsed to TAMP. We have not received any comments from MOPT.

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

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

- (i). As has been brought out earlier, this Authority has fixed upfront tariff for coal handling at Mormugao Port Trust vide Order No.TAMP/23/2008-MOPT dated 7 August 2008. As per clause 2.2 of the upfront tariff guidelines, tariff caps once set for handling commodities or providing various services for a port, would apply to all terminals that are bid out subsequently in the same port during the next five years for handling identical commodity or for providing similar services. When the matter was referred to the Ministry of Shipping (MOS), in view of deviation from the said clause in the upfront tariff guidelines of 2008, the Ministry of Shipping (MOS) vide letter No.PD 25021/6/2010-MoPT dated 4 November 2010 has advised this Authority to consider fixing separate upfront tariff for the proposed coal terminal at MOPT citing that parameters and capital cost components involved for the proposed coal terminal are different from the parameters and cost components considered in the August 2008 Order. The current exercise of fixing upfront tariff for the proposed terminal at Berth no.11 of MOPT is undertaken in compliance with the advice received from the MOS in this regard.
- (ii). The proposal of MOPT dated 21 June 2010 in general complies with the guidelines issued for upfront tariff setting vide Notification No.TAMP/52/2007-Misc. dated 26 February 2008 except the following two major deviations from the guidelines:
 - (a). Computation of optimal yard capacity, which incidentally limits the optimal capacity of terminal, assessed by the MOPT is not in compliance with the norms prescribed in the guidelines which is applicable for open storage.

The MOPT has assessed optimal yard capacity with reference to four numbers of covered domes envisaged by the port for the proposed terminal in compliance with direction of the Goa State Pollution Control Board and the Hon'ble Bombay High Court for storing coal in covered space. It is noteworthy that the deviation proposed by the MOPT from the parameters prescribed in the guidelines in view of requirement to store cargo in covered domes is endorsed by the MOS also.
 - (b). The upfront tariff guidelines prescribe norms for apportioning 98% of the estimated revenue requirement for determining the handling charge and balance 1% each for determining the storage and miscellaneous charge. The norms prescribed in the guidelines have not been followed by the MOPT while proposing the upfront fee for composite handling charge and the storage charge.

The port has justified the reasons for deviations made from the guidelines in this regard. Deviations proposed in the norms/ parameters are, *inter alia*, discussed in the subsequent paragraphs.

(iii). Optimal Terminal Capacity:

(a). Optimal Quay Capacity:

- (i). The share of panamax vessel and handymax vessel is assumed at 80% and 20% respectively reportedly based on the enquiries from trade and the existing pattern of composition. The port has not considered handling of capesize vessel while assessing the optimal quay capacity. Para 2.2. of the proposal, however, states that the proposed facility can handle capesize vessel (fully loaded) with expected deepening of the channel and the trade has also shared this view. In view of the above position and bearing in mind that the upfront tariff fixed would ordinarily apply for the time horizon of 30 years and also the dredging plans of the port, the port was advised to examine the share of capesize vessel expected to call the proposed terminal during the project period. The port has clarified that dredging the channel will involve huge cost and it will not be viable for the port to undertake such expenditure to cater to small proportion of vessels and, therefore, the MOPT has maintained the share of vessel as per its original proposal.

It is notable that for the upfront tariff fixed by this Authority for coal terminal in August 2008, the port has proposed handling of cape size vessel with its share at 10%, handy max at 10% and panamax at 80% which was considered while approving the upfront tariff. During the processing of that case, the port stated that it has proposal to deepen the channel beyond 14.5 mtrs. and had confirmed that a cape size vessel can be safely handled at the coal terminal.

The position now maintained by the port contradicts its own proposal for setting upfront tariff for the other coal terminal.

It is notable that the Ministry of Shipping in its letter dated 4 November 2010, *inter alia*, has pointed out about handling of capesize vessel at the proposed berth no.11. That being so, the share of cape size vessel is assumed to be 10%, handy max vessel at 10% and the panamax vessel at 80%, which is the share of vessels assumed for determining the upfront tariff for coal terminal in the Order dated 7 August 2008.

- (ii). Considering the share of vessels as stated above and the ship day output for cape size vessel at 50,000 tonnes per day, panamax and handymax vessel at 35,000 tonnes per day and 15,000 tonnes per day respectively as per the unloading norms prescribed in the guidelines, the optimal quay capacity of the mechanised coal handling terminal is 8814750 [i.e. 8.81 Million Tonnes Per Annum (MTPA)] as against 7.92 MTPA assessed by the MOPT.

(b). Optimal Yard Capacity:

- (i). The upfront tariff guidelines stipulate specific norms for determining the yard capacity. As per the guidelines, the stacking norm is 3 tonnes per sq. metre, the turn over norm is 12 a year for 25 days free period and the optimal yard capacity is determined at 70% of the maximum stacking quantity in the yard.

As against the above norms prescribed in the guidelines, the MOPT has assessed the optimal yard capacity with reference to four covered storage domes. It has considered the storage capacity of each dome at 80000 tonnes, turn over factor of 18 and 70% utilisation factor (i.e. $80000 \text{ tonnes} / \text{dome} * 4 \text{ domes} * 18 \text{ turn over factor} * 70\%$) and the optimal yard capacity is assessed at 4.03 MTPA.

The MOPT has submitted the norms prescribed in the guidelines envisage conventional storage system on open stackyard. The deviation proposed from the guidelines is in view of storage proposed in covered domes to comply with court's direction of closed storage. It has stated that Goa State Pollution Control Board (GSPCB) and NEERI, Nagpur have directed that at Berth Nos.10 and 11 of MOPT, Coal/coke must be stored only in covered spaces and handled by mechanical means and the Hon'ble High Court of Bombay at Goa has also advised the MOPT to comply with these directions. Thus to comply with the directions of the GSPCB the port is constrained to deviate from the guidelines for assessment of the optimal yard capacity. In the light of the above position, and recognising that the MOS has also vide its letter dated 4 November 2010 endorsed the constrain expressed by the MOPT in this regard, the deviation proposed by the MOPT in assessing the optimal yard capacity based on storage of coal in covered storage dome is considered in this analysis subject to the modifications explained in the subsequent part of the analysis.

- (ii). The quay capacity is assessed by the MOPT is 7.92 Million Tonnes Per Annum but the optimal capacity is pegged at 4.03 Million Tonnes Per Annum. As the yard capacity is the limiting factor leading to a wide gap between the two capacities and under-utilisation of the quay capacity is almost 50%, the MOPT was advised to examine whether technically it is possible to improve the number of domes/ storage capacity of each storage dome and to explore all possible mechanism to improve the optimal capacity by improving all the parameters viz. reducing the free period, improving the turnover, improving the evacuation of cargo, explore the possibility of direct transfer of cargo from ship to wagon, etc., bearing in mind the fact that tariff is being set for a time horizon of 30 years.

The port after examining its proposal has clarified that storage capacity per dome considered at 80000 tonnes is the optimal storage capacity. It has confirmed that technically it is not feasible to increase the number of domes at proposed terminal in view of space constraints.

The port has assumed the turn over factor at 18 as against the prescribed norm of 12. When pointed out that the turn over parameter assumed by MOPT are lower than the turnover level of 25.6 and 26.3 for the years 2006-07 and 2007-08 respectively achieved by the terminal operator South West Port Limited (SWPL) operating in the port with mechanised wagon loading operations, the port has argued that SWPL is practically being used by only one user, whereas the proposed berth is a common user facility hence the parameters achieved by SWPL cannot be considered.

It is relevant to state that in the upfront tariff fixed for coal terminal at the MOPT, the turn over factor is assumed at 20. The port has also admitted that augmentation of the railway facilities, both in the port area as well as outside, has already been set in motion.

A communication from Railways confirming this position has also been produced. In view of the above position and bearing in mind the fact that tariff is being set for a time horizon of about 30 years, there is no reason to consider the turnover parameter lower than the level assumed while determining the upfront tariff of the coal terminal in the MOPT. That being so, in the instant case the turnover factor is considered at 20 as assumed in the August 2008 Order as against turnover parameter of 18 assumed by the MOPT.

Based on the above parameters, the optimal yard capacity of the proposed coal terminal works out to 4480000 tonnes per annum.

- (c). In the ordinary course, the optimal capacity for the coal handling terminal will be 4480000 tonnes per annum being lower of the two capacities i.e. quay and yard. It is notable that even the MOS vide letter 14 July 2010 has pointed out that the limited stackyard capacity due to space constraints puts a cap on the optimal capacity of the terminal at 4.03 MTPA as against the quay capacity assessed by MOPT at 7.92 MTPA.
- (d). The Feasibility Report furnished by the MOPT envisages an option of direct delivery of coal from vessel to wagon. The MOPT has also submitted that it is technically possible to transfer coal cargo directly from vessel to wagons by passing the storage dome. The estimated capital cost furnished by the port includes the cost of facilities required for direct transfer of cargo. But, this option is not considered by the port for determining optimal capacity on the grounds that the option of direct delivery is not envisaged as a normal practice but is only kept as an alternative arrangement in case the storage system fails. It has further stressed that direct loading will seriously affect productivity.

Though the point made by the MOPT about low productivity on account of direct delivery from vessel to wagon may be correct, it is not a significant issue in this case in view of the huge quay side surplus capacity available. Since it is technically feasible for direct transfer of coal from ship to wagons and also recognising that the capital cost estimated by the port includes the capital cost for this option, in our analysis, 10% of the difference between the optimal quay and yard capacity i.e. $8.81 \text{ MTPA} - 4.48 \text{ MTPA} = 4.33 \text{ MTPA}$ which is 0.43 MTPA is assumed on an adhoc basis to be the cargo that can move directly from ship to wagon. This volume will not be constrained by the available yard capacity since direct delivery is effected. Accordingly, 0.43 MTPA is added to the optimal capacity of the terminal which will be 4913475 tonnes/ annum (i.e. 4.91 MTPA). This to some extent will improve the optimal capacity of the terminal but still the wide gap between the two capacities cannot be bridged further. The MOS has also recognised that the wide gap between the two capacities is inevitable. In view of the constraints expressed by the port and the position endorsed by the MOS the optimal capacity for the proposed coal terminal is considered at 4.91 MTPA with mismatch between quay and yard capacities subject to the condition that if the yard capacity improves due to improvement in any of the parameters assumed in the exercise and the actual traffic handled exceeds the optimal capacity considered in this exercise, upfront tariff fixed by this Authority shall be reviewed. The port is, therefore, advised to incorporate an appropriate clause to this effect in the RFP documents to be issued and in the BOT agreement to be signed with the successful bidder. It is relevant to state that a similar approach was adopted in case of upfront tariff for dry bulk terminal off Tekra near Tuna at port of Kandla and the SPM at the Kandla Port Trust.

- (iv). Capital Cost:

The capital cost for the coal terminal with covered storage estimated by the MOPT is ₹ 441.74 crores for cargo handling services and berthing services as explained hereunder:

(a). 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 civil construction cost estimated by the MOPT does not include cost of berth apron and approach, transfer towers, wagon loading station, building, conveyor gallery and marshalling yard listed in the guidelines. The port has clarified that items listed in the guidelines are not envisaged in the project as the handling is proposed in the covered domes and not open storage. It has estimated the cost of 4 storage domes at ₹ 192 crores apart from other civil works envisaged for the proposed coal terminal. The MOPT has clarified that capital cost of domes is estimated by its consultants. In response to our repeated requests, the port has expressed inability to produce any documentary support justifying the estimated cost of the covered domes. The upfront tariff guidelines require to consider the civil cost as estimated by the port. The civil cost estimated by the port which are based on the estimates furnished in the Feasibility Report relied upon in this analysis for determining the upfront tariff.

(b). Equipment cost:

- (i). The number of ship unloaders, wagon loader, conveyor system, electrical works etc., is in line with the list of items prescribed in the upfront tariff guidelines.
- (ii). The normative list of equipment prescribes 2 nos. of reclaimers and 2 stackers, 2 cranes, 4 pay loaders and workshop equipment amongst other equipment. The port has stated that reclaimers, stackers, cranes, payloaders and workshop equipments prescribed in the guidelines are not envisaged for the proposed coal terminal.

The port was requested to explain the basis of estimating capital costs and to substantiate the estimates with supporting documents/ calculation/ rate analysis/ budgetary quotations, market rates, etc. The port has not furnished any such documents. When advised the port to confirm whether the estimates of capital cost reflect the current market price, the port has confirmed that the estimates reflect the price prevailing at the time of submission of the proposal.

Recognising that the estimates of equipment cost are comparable to the total equipment cost considered for the upfront tariff fixation of coal terminal and also recognising that all the estimates are based on estimates considered in the feasibility report prepared in June 2010, the estimates of capital cost furnished by the MOPT are fully relied upon for determining the upfront tariff. It is notable that none of the users or bidders have raised any objection on the civil and equipment cost estimated by the MOPT.

- (c). The estimates of capital cost includes provision for contingency at 5% under the heads of civil and equipment costs. It has subsequently requested to read contingencies cost estimated as miscellaneous cost. The MOPT has clarified that technology of dome structure being very new and not available in the country, the cost is very volatile. In the case of equipment, variation in the exchange rate will have a direct impact in the estimation on equipment cost. Hence, 5% on the civil and equipment cost is provided to meet such contingencies.

It is relevant to state, that even in case of the upfront tariff proposals determined for various projects of Visakhapatnam Port Trust and in case of coal terminal at TPT the civil and equipment cost estimates prepared by the port included provision for contingencies cost to take care of any contingency requirement as well as engineering / supervision charge which was accepted by this Authority in the upfront tariff determination. Assuming that the provision estimated by the MOPT covers the contingency as well as engineering and supervision cost which is not separately shown in the estimates, the same is considered.

- (d). The MOPT has estimated miscellaneous capital cost at 5% on the civil and equipment cost excluding the contingencies cost which is found to be in line with the norm prescribed in the guidelines.
- (e). The return on capital employed is estimated at 16% of the estimated capital cost. This works out ₹ 59.55 crores for cargo handling services and ₹ 11.12 crores for berth hire services.

(v). Operating Cost:

- (a). The upfront tariff guidelines for coal ore terminal prescribe power consumption at 1.40 units per tonne. The MOPT has estimated the power cost adopting the consumption norm prescribed in the guidelines.

The unit cost of power considered by the MOPT is ₹ 4.50 at the level considered in the last upfront tariff of coal terminal. The unit cost of power is updated to ₹ 4.81 based on the weighted average unit rate of power derived from copies of electricity bills of November 2010 and December 2010 furnished by the MOPT.

- (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. While estimating insurance cost and other expenses on gross asset value, the port has not factored the miscellaneous capital cost which is recognised in our analysis in line with the approach followed in the other upfront tariff cases.
- (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 83000 sq. mtrs. of total area proposed to be allotted by the port. The unit rate adopted by MOPT is ₹ 34.30 per sq. mtr. per month. The port has clarified that the unit rate of ₹ 34.30 per sq. mtr. per month is based on the rate prescribed in its Scale of Rates of MOPT at ₹ 292 per 10 sq mtr. per month with escalation @ 2% p.a. as per land policy guidelines of 2004. Based on the clarification furnished by the MOPT, the lease rental estimated by the MOPT is accepted.
- (e). The guidelines requires the operating cost for berthing service to be estimated at 1% of the berth cost.

The MOPT has considered insurance @ 1% and depreciation @ 3.34% on the aggregate capital cost relating to construction of berth 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, and depreciation 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.

(vi). The statement for fixing upfront tariff submitted by the MOPT 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 ₹ 123.60 crores which is an aggregate of operating cost of ₹ 64.05 crores and Return on a capital cost of ₹ 59.55 crores.
- (b). Strictly 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 against the above norms prescribed, the MOPT has apportioned the entire revenue requirement of ₹ 119.11 crores to determine the composite cargo handling charges of ₹ 295.41 per tonne.

As the port does not envisage any miscellaneous services to be offered at the proposed terminal, it has not apportioned any revenue requirement towards for determining the miscellaneous charge. Based on the clarification furnished by the MOPT, the norm of 1% prescribed for determining the miscellaneous service is clubbed with the composite handling charge. This approach was also followed for the upfront determined for the coal terminal at MOPT in August 2008 Order.

As regards storage charge, the port has proposed free period of 20 days based on annual turn over of 18 assumed by the port. In our analysis, the turnover is increased to 20. Consequently, the free period is reduced and prescribed at 15 days in line with the prescription made in the case of the other coal terminal at the MOPT.

The MOPT has explained that since storage in the domes cannot be equated with normal storage on yard and involves huge capital cost it has deviated from the norms prescribed in the guidelines for apportioning 1% of the estimated revenue requirement storage charge are proposed substantially high to discourage use of storage domes like normal yard.

It is notable that the approach adopted by the MOPT of apportioning the entire revenue requirement for determining the handling charge and proposing the storage charge independently as a percentage of handling charge is not in compliance with the norms prescribed in guidelines and will result in annual revenue generation to the operator exceeding the total revenue requirement estimated. As regards the point made by the MOPT

about the huge capital cost for covered of domes, it is notable that the capital cost related to storage facility and the operating cost thereon form part of the estimated revenue requirement from the cargo handling service. In our analysis, 99% (i.e. 98% plus 1% towards miscellaneous service) of estimated revenue requirement as per the norms prescribed in the guidelines is considered to derive the composite handling charge and 1% of the estimated revenue requirement i.e. ₹ 1.24 crores is apportioned to storage charge as per the norms prescribed in the guidelines.

Accordingly, composite cargo handling charge is arrived at ₹ 249.03 per tonne as against ₹ 295.41 proposed by MOPT. The upfront tariff approved for coal terminal at MOPT in the Order dated 7 August 2008 is ₹ 183.00 per tonne. The difference in the rate is mainly on account of the capital cost of covered storage domes in the instant proposal.

The storage charge proposed by the MOPT is ₹ 30 per tonne per day or part thereof for the first five days beyond the free period, ₹ 75 per tonne per day for 6th day to 10th day and ₹ 150 per tonne for the period thereafter. The rates proposed by the MOPT are found to be significantly high. The storage charge is arrived by the MOPT independently based on the percentage of handling charge giving reference of the storage charge prescribed in the Scale of Rates of SWPL. The reference drawn to SWPL is out of place as the upfront tariff fixation for proposed coal terminal is governed by 2008 guidelines.

It is relevant to state that considering the cargo turnover of 20 and the evacuation @ 15000 tonnes per day reportedly achieved at the MOPT, a rough calculation shows that the entire cargo can be evacuated within the 15 days free period prescribed in this case. However, in order to act as a deterrent and ensure a tariff arrangement is prescribed for cargo availing storage facility beyond prescribed free period, the storage charges are prescribed at the level prescribed for the other coal terminal in August 2008 Order i.e. ₹ 12 per tonne per day or part thereof for the first five days beyond the free period i.e. ₹ 24 per tonne or part thereof for the next five days and ₹ 48 per tonne or part thereof the period thereafter.

- (d). The revenue requirement from berthing service works out to ₹ 14.84 crores as 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 methodology followed by the MOPT 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. Since the optimal terminal capacity is modified and due to considering the share of capesize vessels, the berth hire works out to 0.89 per GRT per hour for foreign going vessel and ₹ 0.53 per GRT per hour for coastal vessel. It is notable that the rate for coastal vessel does not factor any impact of coastal concession as the port has not indicated any coastal vessel for the proposed coal terminal.

- (vii). The upfront tariff schedule proposed by the MOPT does not specify concession in the handling charge for coastal movement of cargo for ship to shore transfer, transfer from / to quay, to / from yard including wharfage though it has proposed concessional vessel related charge for coastal vessel.

During the processing of upfront tariff for the coal terminal in August 2008, it was understood that there may not be any coastal vessel unloading coal at Mormugao Port. Thus prescribing concessional rate to coastal vessel/ cargo may not have

any impact on the revenue realization. The concessional rate for coastal category is, however, prescribed to comply with the Government guidelines in case of any such eventuality. Accordingly, concession in the composite handling rate is prescribed for coastal movement of coal other than thermal coal at 60% of the rate prescribed for normal cargo i.e. ₹.149.42 per tonne.

- (viii). The note (i) proposed under the schedule composite handling charge states that handling charge is a composite rate for unloading of cargo through unloading facilities, storage at coal storage domes upto free period of 20 days. The proposed note is elaborated to state that the rate prescribed is a composite rate for unloading of cargo from vessel, transfer of the same upto the point of storage, storage at covered dome upto a free period of 15 days, reclaiming from the storage dome and loading onto wagons, wharfage and all other miscellaneous services not specifically prescribed in the Scale of Rates.
- (ix). One of the main contentions of the Mormugao Port Users Association (MPUA) is that the proposed coal terminal does not provide for evacuation of cargo by road. It is understood that port has informed the MPUA that road borne coal cargo can shift to berth no.7 which is already under construction and has a provision for truck loading of cargo. The MPUA apprehends that if the construction of the proposed berth No.11 commences before commissioning of berth no.7, then the present users will have no means of importing the cargo. It is notable that the proposed coal terminal at Berth No.11 is for loading the imported coal into railway wagons only and no coal is expected to move by road. The MOPT is, however, advised to address the concerns expressed by the MPUA and provide for an alternative arrangement for coal traffic moving by road.
- (x). The MOPT has proposed a note that stating that the operator of the proposed terminal shall allow rebate in berth hire payable to the MOPT during the period of idling of vessel at the terminal. The proposed note is not found relevant as the berth hire charge for the proposed coal terminal are payable to the operator and not to the land lord port and hence MOPT was requested to examine and delete the same. The port has explained that rebate in berth hire may have to be given by the terminal operator if the vessel idles on the berth due to break-down of machinery or facilities attributable to the terminal operator and hence the proposed note is in order. A condition to the effect of not levying berth hire for the period of idling of vessels due to breakdown of shore based installations, power failure, etc. is included. Therefore, the question of allowing rebate on berth hire which is not to be collected does not arise. Generally rebate in berth hire in such cases is prescribed when berth hire is levied by some person other than the terminal operator.
- (xi). The definition of terms coastal vessel and foreign going vessel are included in the Scale of Rates in line with the definition commonly prescribed in the Scale of Rates.

Some of the common conditions stipulated in the guidelines of 2005 and the conditions uniformly prescribed in the Scale of Rates of other major ports / private terminals about status of the vessel for the purpose of vessel related charges, criteria for conversion of foreign to coastal vessel, conditions relating to concession to coastal vessel and cargo, users should not be required to pay charges for delays beyond reasonable level attributable to the private terminal operator, berth hire shall not accrue 4 hours after the time of vessel signaling its readiness to sail, free days to exclude Customs holidays and terminal's non-operating days, storage charge shall not be levied if the terminal operator is not in a position to deliver/ ship the cargo when requested by user for reasons attributable to the operators proposed are incorporated in the upfront tariff schedule for the proposed coal terminal.

15.1. 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 it is found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2011.

15.2. 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.

15.3. 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.

15.4. 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.

15.5. 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 Mormugao Port Trust. If any action is to be taken against the private operators, the Mormugao Port Trust shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement.

15.6. 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 Mormugao Port Trust a report containing the terminal's physical and financial performance during the preceding three months.

15.7. The upfront tariff fixation has been carried out for the optimal capacity of the coal terminal arrived at 4.91 MTPA with wide mismatch between the quay and the yard capacities for the reasons explained earlier. This Authority makes it clear once again that the upfront tariff caps fixed now will be subject to review any time during the concession period, if it is found that the actual traffic handled exceeds the optimal capacity determined in this exercise and accordingly advise MOPT to monitor the position and file a suitable proposal for resetting the tariff at the appropriate time.

16. In the result, and for the reasons given above and based on a collective application of mind, this Authority approves the tariff caps for mechanised handling of coal terminal with covered storage domes at Mormugao Port Trust attached as **Annex - II**.

(Rani Jadhav)
Chairperson

FORMULATION OF UPFRONT TARIFF FOR COAL TERMINAL WITH COVERED STORAGE DOMES AT MORMUGAO PORT

Sr. No.	Particulars	As proposed by MOPT	As considered by TAMP
I	Optimal capacity		
(i).	Optimal Quay Capacity		
	(a). Ratio of Vessel Size to be handled	% of vessels	% of vessels
	Share of capacity of cape size (S1)	0%	10%
	Share of capacity of Panamax vessels (S2)	80%	80%
	Share of capacity of Handy size/ max vessels (S3)	20%	10%
	(b). Ship day Output (in tonnes per day)		
	- Capesize vessels (P1)	0	50000
	- Panamax vessels (P2)	35000	35000
	- Handy size/ max vessels (P3)	15000	15000
	(c). Quay Capacity = $0.7 * [(S1 * P1) + (S2 * P2) + (S3 * P3)] * 365$	7920500	8814750
	Optimal Quay Capacity in million tonnes	7.92	8.81
(ii).	Optimal Yard Capacity		
	Storage capacity of each covered dome	80000	80000
	Area available for stacking (%)	70%	70%
	No. of domes	4.00	4.00
	Annual Turnover Ratio of the plot	18	20
	Optimal Yard Capacity (in tonnes)	4032000	4480000
	Optimal Yard Capacity (in million tonnes)	4.03	4.48
(iii).	Optimal capacity of the Terminal - lower value of the optimal quay capacity and optimal stack yard capacity (in Million tonnes)	4.03	4.48
(iv).	10% of the differential between the quay and the yard capacity is assumed to be direct delivery from ship to wagon (in tonnes)	0	433475
	10% of the differential between the quay and the yard capacity is assumed to be direct delivery from ship to wagon (in tonnes)	0	0.43
(v).	Optimal capacity of the Terminal - considered in the upfront tariff determination (in tonnes / per annum) (iii + iv)	4032000	4913475
	Optimal capacity of the Terminal (in million tonnes / annum)	4.03	4.91
II	Capital Cost		
(i).	Cargo Handling Activity	Rs. in crores	Rs. in crores
	(a). Civil Cost		
	- Coal storage domes	192.00	192.00
	- Dismantling of warehouses	0.05	0.05
	- Road connectivity	2.50	2.50
	- Removing existing water lines	0.05	0.05
	- Water supply arrangement	0.10	0.10
	- Cut off wall	0.32	0.32
	- Contingencies 5% of Rs.195.03 crores	9.75	9.75
	Subtotal (a)	204.78	204.78
	(b). Equipment Cost		
	- Ship unloaders - 2 nos.	88.00	88.00
	- Conveyor System (length 2320 mts)	43.15	43.15
	- Wagon Loader (12,000 TPH) - 1 no.	9.00	9.00
	- Rail for ship unloader – in addition to above rails	0.15	0.15
	- Electrical works including sub-station	3.05	3.05
	- Contingencies 5% of Rs.143.35 crores	7.17	7.17
	Subtotal (b)	150.52	150.52
	(c). Miscellaneous [5% on (a) and (b)]	16.92	16.92
	Total Capital Cost for Handling Activity (a +b + c)	372.22	372.22
(ii).	Capital Cost for Berthing Services		
	(a). Cost of the construction of berth	23.29	23.29
	(b). Providing pavement / redoing payment	1.00	1.00
	(c). Dredging & Reclamation	38.98	38.98
	(d). Filling with Dredged Material	0.96	0.96
	(e). Stone pitching	0.84	0.84
	(f). Removing & relaying of existing channel buoy	0.05	0.05
	(g). Moorings	0.13	0.13
	(h). Fenders	0.96	0.96
	(i). Miscellaneous (5% of Rs.66.21 crores)	3.31	3.31
	Total Capital cost for berthing services	69.52	69.52
(iii).	Total Capital Cost of the Project (i + ii)	441.74	441.74

Sr. No.	Particulars	As proposed by MOPT	As considered by TAMP
III	Operating Cost		
	Cargo Handling Activity	Estimates (Rs. in crores)	Rs. in crores
	(a). Power and Fuel Cost (1.4 units per tonne @ Rs.4.50 per unit). In our calculation unit rate considered at Rs. 4.81 based on wighted average rate of recent electricity bills	2.54	3.31
	(b). Repair & Maintenance		
	- Civil Assets (1% on Civil cost)	2.05	2.05
	- Mechanical & Electrical Equipment (7% on Mechanical and Electrical Assets)	10.54	10.54
	(c). Insurance (1% on Gross fixed asset value)	3.55	3.72
	(d). Depreciation (As per the companies Act)	22.40	22.40
	(e). Lease Rentals	3.42	3.42
	(f). Other Expenses (5% of Gross fixed assets)	17.76	18.61
	Total Operating Cost	62.26	64.05
IV	Revenue Requirement & proposed tariff		
(i).	Cargo Handling charge		
	Revenue Requirement		
	(a). Total Operating Cost	62.26	64.05
	(b). Return on capital Employed @ 16%	56.85	59.55
	(c). Total Revenue requirement from cargo handling activity	119.11	123.60
	Apportionment of Revenue Requirement		
	(a). Coal Handling Charges (MOPT - 100%, TAMP 99%)	119.11	122.36
	(b). Storage Charges (MOPT - 0, TAMP - 1% of revenue requirement)	0.00	1.24
	Total Revenue requirement from cargo handling activity	119.11	123.60
	Proposed tariff per tonne rate		
	(a). Coal Handling Charge (Composite) - Foreign	295.41	249.03
	Coal Handling Charge (Composite) - Coastal other than thermal coal		149.42
	(b). Storage Charge		
	(i). Free period	20 days	15 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 - Rs. 30	First five days - 12
		6th day to 10th day - Rs. 75	6th day to 10th day - 24
		11th day onwards - Rs. 150	11th day onwards - 48
(ii).	BERTH HIRE CHARGES		
	Revenue Requirement		
	Total Operating Cost		
	(a). Maintenance (1% of the capital cost)	0.70	0.695
	(c). Depreciation (3.34% on capital cost)	2.32	2.322
	(d). Insurance (1% on capital cost)	0.70	0.695
	Total Operating Cost	3.71	3.71
	Return on capital Employed @ 16%	11.12	11.12
	Total Revenue requirement from Berthing services	14.84	14.84
	Berth hire Charge per GRT per hour in Rs. (Foreign-going vessel)	1.11	0.89
	Berth hire Charge per GRT per hour in Re. (Costal vessel)	0.67	0.53

BERTH HIRE COMPUTATION

Sr. No.	Particulars	Unit	As furnished by MOPT			As moderated by TAMP			
			Panamax	Handymax	Total	Capesize	Panamax	Handymax	Total
a	Ratio	%	80%	20%	100%	10%	80%	10%	100%
b	Tonnage to be handled	Tonnes	3225600	806400	4032000	491348	3930780	491348	4913475
c	Ship day Output	Tonnes per day	35000	15000		50000	35000	15000	
d	No of berth days (b / c)	berth days	92	54		10	112	33	155
e	No. of berth hours (d*24 hrs)	hours	2222	1280		235.85	2695.39	786.16	3717.39
f	Average Parcel size	tonnes	60000	40000		75000	60000	40000	
g	No. of vessels (b / f)	nos.	54	20		7	66	12	84
h	Average GRT	tonnes	45000	27000		105000	45000	27000	
i	Total GRT hours (e * h)	tonne hours	99970200	34560000	134530200	24763914	121292640	21226212	167282766
j	Revenue Requirement (Rs. in crores)	Rs. in crores			14.84				14.84
k	Berth hire per GRT per hour (j / i)	In Rs. per GRT/ hour			1.11				0.89

MORMUGAO PORT TRUST

UPFRONT TARIFF SCHEDULE FOR COAL HANDLING WITH COVERED STORAGE DOMES

1.1. DEFINITIONS:

In this Scale of Rates unless the context otherwise requires, the following definition 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 license issued by the competent authority.
- (ii). **“Foreign Vessel”** means any vessel other than a coastal vessel.
- (iii). **“Per Day”** means per calendar day unless otherwise stated.

1.2. GENERAL TERMS AND CONDITIONS:

- (i). The status of the vessel, as borne out by its certification by the Customs or the 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 vessel related 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 concessional charges relevant for its coastal voyage. In other words, cargo from / to Indian ports carried by vessel permitted to undertake coastal voyage will qualify for the concession.
- (iii). Interest on delayed payments / refunds.
 - (a). The user shall pay penal interest on delayed payments 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 in refunds will be counted only 20 days from the date of completion of services or on production of all the documents required from the users, whichever is later.
 - (d). The delay in payment 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 this Scale of Rates.
- (iv). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.

- (v). (a). The rates prescribed in the Scale of Rates are ceiling levels, likewise, rebates and discounts are floor levels. The terminal operators 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 rationalize the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation gives relief to the users in the rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling level.
- (c). The terminal operator should notify the public such lower rates and/ or rationalisation of the conditionalities governing the application of such rates and continue to notify the public any further charges in such lower rates and/or in the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rate notified by the TAMP.
- (vi). Users will not be required to pay charges for delays beyond reasonable level attributable to the operator.

2. COMPOSITE CARGO HANDLING CHARGES:

Sl. No.	Commodity	Unit	Rate in Rupees	
			Foreign	Coastal
1.	Composite Coal handling charge:			
(a).	Thermal coal	Per Metric Tonne	249.03	249.03
(b).	Other than Thermal coal	Per Metric Tonne	249.03	149.42

Note:

The handling charges prescribed above is a composite charge for unloading of the cargo from the vessel and transfer of the same upto the point of storage, storage at the covered dome upto a free period of 15 days reclaiming from storage dome and loading onto railway wagons, wharfage and all other miscellaneous services provided.

3. STORAGE CHARGES:

The storage charge for the cargo stored in the coal storage dome beyond the free period allowed shall be as below:

(Rate in ₹ per tonne per day or part thereof)				
Sl. No.	Commodity	Rate for five days for the balance cargo remaining after the free period	Rate for sixth day to tenth day for the balance cargo	Rate for Eleventh day onwards for the balance cargo
1.	Coal (all types)	12	24	48

Notes:

- (i). Fifteen free Days shall be commenced immediately on completion of unloading of cargo from the vessel. For the purpose of calculation of free period, Customs 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 charge on cargo shall not accrue for the period when the terminal operator is not in a position to deliver / ship the cargo when requested by the user due to reasons attributable to the terminal operator.

4. BERTH HIRE:

The Berth Hire charges payable by masters/owners/agents of the vessel shall be as per rates below:

Sl. No.	Vessels	Rate per GRT per hour or part thereof	
		Foreign Going Vessel (in ₹)	Coastal Vessel (in ₹)
1.	All vessels	0.89	0.53

Notes:

- (i). No berth hire shall be levied for the period when the vessel idles at its berth for continuous one hour or more due to breakdown of terminal operator's equipment or power or for any other reasons attributable to the terminal operator.
- (ii).
 - (a). Berth hire shall stop 4 hours after the time of vessel signaling its readiness to sail.
 - (b). The time limit of 4 hours prescribed for the cessation of berth hire shall exclude the ship's waiting time for want of 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 favorable tidal and weather conditions.
- (iii). The Penal Berth hire shall be equal to one-day's (24 hours) berth hire charge for a false signal.

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

5. GENERAL NOTE TO SCHEDULE (2) TO (4) 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 2011 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.

**SUMMARY OF THE ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING
BEFORE THE AUTHORITY**

F. No.TAMP/38/2010 -MOPT - Proposal from Mormugao Port Trust for fixing upfront tariff cap for a coal handling terminal at Berth No.11 by a private terminal operator on DBFOT basis in Mormugao Port.

1. A joint hearing in this case was held on 24 January 2011 at the MOPT premises. The MOPT made a power point presentation of its proposal. At the joint hearing, MOPT and the concerned users / user organisations or prospective bidders have made the following submissions:

Mormugao Port Trust

- (i). Mismatch of yard and quay capacity can't be fully addressed due to scarcity of land.
- (ii). Capesize vessels will not be handled as dredging the channel will involve huge cost. It will not be viable for the port to undertake such expenditure to cater to small proportion of vessels.
- (iii). Capital cost of domes is not independently assessed. Our consultants have estimated the cost of domes. No documentary support for estimates is available.
- (iv). We have proposed steep increase in storage charges, as the tariff should prohibit long storage of coal in the terminal.
- (v). Cost of civil works and equipment are based on the Feasibility Report. No budgetary quotations are available.
- (vi). Railway network within the port area is being strengthened to handle 30 to 35 rakes per day
- (vii). Pollution Control Board has set a dead line of June 2012 to discontinue open storage at Berth No.11. Even otherwise, we won't handle coal at Berth 11 after this time limit.

Mormugao Port Users Association

- (i). Since most of the steel mills in the hinterland are not connected with railway, about 90% of the existing traffic of coal may have to be evacuated by road.
- (ii). The facility created is rail oriented. It may not help majority of the existing users, who primarily evacuate their cargo by road.
- (iii). The huge cost terminal proposed will only push up the cost of the existing users who provide about 1.2 million tonnes.
- (iv). The railway network is a constraint. Even if new development projects are sanctioned by Railways now, it will take 5 to 6 years to develop the railway network.

- (v). If Berth No.7 handles the road bound cargo, we don't need another coal berth at all.
- (vi). The cost increase for the existing users because of new facility is very steep. It should be smoothened.
- (vi). During construction period of this project, the existing operations at Berth No.11 will be affected. Port should provide alternate arrangement.

2. As decided in the joint hearing, Mormugao Port Users Association (MPUA) has furnished their comments (**page no.241-243/c**) on the proposal of the MOPT with a copy endorsed to TAMP. We have not received any comments from MOPT. A summary of comments received from MPUA are given below:

Sl. No.	Comments of MPUA
(i).	TAMP observed that there is a vast difference between available quay capacity and actual capacity indicated in the feasibility report for the purpose of calculating tariff. It was explained by MOPT that there is severe shortage of space available for storage of cargo and therefore capacity of the terminal has to be limited to optimal stackyard capacity. TAMP observed that it is essential to increase the capacity further to minimise the tariff. It was explained by MOPT that out of 76000 sq. mtrs. of stacking space available, four proposed coal storage domes would occupy an area of 20000 sq. mtrs. It was suggested by TAMP to examine whether more storage domes could be installed to increase the capacity of the terminal.
(ii).	TAMP observed that even in case of berth 5A and 6A where cargo is stacked in open, terminal is able to achieve a turnover of 27 times. In the present proposal cargo will be stacked in the domes and a turnover ratio of only 20 has been assumed. TAMP requested MOPT to reexamine whether this ratio can be increased to augment capacity of terminal.
(iii).	TAMP observed that inspite of having severe stacking space constraint, dwell time of 20 days has been allowed. TAMP suggested that dwell time and penalty rates for overstay can be re-examined for further increasing the terminal capacity.
(iv).	Regarding cost estimates, TAMP observed that ₹ 192 INR crore provided for construction of coal storage domes appear to be on the higher side and enquired about the basis of estimation. MOPT explained that domes are of special civil structure and estimate is based on figures given by the consultant. TAMP suggested that estimate may be independently verified.
(v).	TAMP observed that even though the berth will be constructed for accommodating cape size vessels, feasibility report indicates that cape size vessels are unlikely to ply for coal in the near future. MOPT informed that in order to cater to cape size vessel substantial dredging has to be undertaken costing approx. ₹ 800 INR crores and they have no plans at present to do so. Hence TAMP enquired whether it would be advisable to block the capital for constructing a berth capacity of handling cape size vessels and actually not doing so in the near future. TAMP requested MOPT to reexamine the issue.
(vi).	MPUA explained that presently on berth no.10 and 11, approx. 1.5 million tonnes of coal and coke per annum is handled. Out of various importers, 4 parties are importing coal and coke for their own consumption. Two of these factories are located in Goa, one at the border of Goa and 4 th near Hospet in Karnataka. Rest of the importers are all traders and import coal for meeting requirements of local steel units in Goa and partly in Karnataka. Except one party Kirloskar Ferrous, no other direct consumers as well as users have any rail connectivity. Even for Kirloskars it is not feasible for them to evacuate entire cargo by rail on account of limited capacity, multiple users and multiple cargo handled at Munirabad, their nearest rail link. As such presently almost 90% of

	cargo has necessarily to be evacuated by road transportation. Even though it has been stated that the facility is being provided as per direction of Goa State Pollution Control Board, it is observed that facility does not provide for cargo evacuation by Road. Hence present users for whom infact Goa State Pollution Control Board has directed to provide the facility will not be able to import their cargo for want of facility for loading of trucks. MOPT informed that those parties who require facility for road evacuation can shift to berth no.7 which is already under construction and has a provision for truck loading of cargo. MPUA requested MOPT to examine technical feasibility of providing truck loading facility on berth no.11 which will allow them to either come on berth no.7 or berth no.11 depending on availability of berth and stacking space.
(vii).	Proposed rates indicated by MOPT are highly exorbitant and almost 200% more than the present cost at berth no.10 and 11. Most of the industries who import coal and coke for direct consumption will be severely affected and almost crippled. Traders may to some extent succeed in passing on the burden to the buyers. Of course it will have chain effect of increasing cost of their product. Tariff indicated is higher than at berth no.5A and 6A and proposed berth no.7. As it is coal/ coke transported through the State of Goa has been burdened with increase of road cess from ₹ 50 to ₹ 250 per tonne recently. Therefore there is utmost need for reduction of tariff at proposed facility.
(viii)	MPUA indicated that if declared capacities of 5A and 6A, berth no.7 and proposed berth no.11 are taken into account, Indian Railways will have to make available atleast 15 rakes daily for evacuation of cargo. Presently on an average five rakes are made available by railways. Main constraint for increase in the rake availability is single rail line from Hospet to Goa. Even though there are plans for doubling the line, most critical would be 26 km of Ghat section between CastleRock to Collem station. Hence even if railways undertake this work in right earnest, completion of the work might take atleast 4 to 5 years. In such a scenario berth no.11 as well berth no.7 may remain underutilised. Situation is further compounded by recent ban on export of iron ore from Karnataka Government. This ban if continued will necessitate Railways to dispatch empty rakes for evacuation of cargo. TAMP suggested that MOPT should get clear commitment from railways in writing regarding number of rakes which can be made available per day.
(ix).	MPUA informed that MOPT's proposal indicates that quantity of cargo that can be stacked per sq. mtr. of area is 3 tonne. Since stacking is in storage domes and not in open area it should be possible to get more than 3 tonne per sq. mtr. which can be examined by MOPT.
(x).	MPUA informed that once the work on the project commences, the entire berth no.11 will be occupied for construction of domes, conveyor system etc. In such a scenario it is apprehended that present users will not be able to make use of berth 11 for want of berth as well as stacking space. If the construction of this berth commences before commissioning of berth no.7, then the present users will have no means of importing the cargo. Therefore this situation must not be allowed to occur and MOPT should work out proper plan of action to handle cargo of present users during the construction stage.
