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TARIFF AUTHORITY FOR MAJOR PORTS

G.No.205 **New Delhi,** **18 May 2016**

NOTIFICATION

In exercise of the powers conferred under Section 48 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 Mormugao Port Trust (MOPT) for fixation of Reference tariff for Re-Development of Berth Nos.8, 9 and 9A (Barge Berths) at MOPT on PPP basis, as in the Order appended hereto.

(T.S. Balasubramanian)
Member (Finance)

Tariff Authority for Major Ports
Case No. TAMP/76/2015-MOPT

The Mormugao Port Trust - - - **Applicant**

QUORUM

(i). Shri. T.S. Balasubramanian, Member (Finance)
(ii). Shri. Rajat Sachar, Member (Economic)

O R D E R

(Passed on this 30 day of March 2016)

This case relates to a proposal dated 2 December 2015 received from Mormugao Port Trust (MOPT) for fixation of Reference tariff for Re-Development of Berth Nos.8, 9 and 9A (Barge Berths) at MOPT.

2.1. The main submissions made by the MOPT in its proposal dated 2 December 2015 are summarized below:

(i). (a). In the 1st phase, the Port intends to take up re-development of the existing Mechanical Ore Handling Plant (MOHP), Berth No. 8, 9 and 9A (Barge Berths) as multipurpose cargo berths on PPP basis. The total Berth front now available after shifting of liquid handling from berth no. 8 and dismantling MOHP from berth 9 and Barge berth (9A) area would be 950m.

(b). However, berth no.8 has been recommended for handling of capesize vessels for coal. The length of the proposed coal berth is estimated to be 350m. The berth length considered for General Cargo and Container handling shall be 260m and the balance 340m shall be utilised for an iron ore handling terminal at berth no.9A. The summary of this is as given below:

Sl. No.	Berth No.	Berth Length	Cargo/ Container
1.	8	350 metre	Coal, lime stone, gypsum.
2.	9	260 metre	General cargo and containers.
3.	9A	340 metre	Iron ore, Bauxite, other ores and minerals.

(c). The Board vide Resolution No.148 of 09.10.2015 has approved the Draft Concept Report submitted by M/s. Tata Consulting Engineer Ltd. for converting Berth No.8, Berth No.9 including MOHP, existing barge jetties and passenger launch jetty to handle a variety of cargo like Coal, Containers, Iron Ore and other general cargo.

(ii). Accordingly, MOPT seeks the approval of the Tariff Authority for Major Ports (TAMP) for setting Reference tariff for a Mechanised Coal / Limestone / Gypsum Terminal at Berth No.8, General Cargo Berth at Berth No. 9 and Mechanised Iron Ore / Bauxite / Other Ores & Minerals Berth at Berth 9A. The proposal is based upon the Guidelines of 2008 for Reference tariff setting as there is no comparable berth in this port nor in any other port due to the difference in optimal capacity and Capital Cost.

(iii). The PPP operator would have the freedom to handle any cargo of his choice, but this proposal envisages a mechanised Coal / Limestone / Gypsum /Other Cargo Handling Terminal, an Iron Ore / Bauxite / Other Ores & Minerals Handling

Terminal and a Multipurpose General Cargo Berth which would also handle containers for the purpose of Reference Tariff fixation.

A. Berth No.8 - Coal/Coke / Limestone / Gypsum Handling Terminal:

Coal has been recognised as one of the emerging cargo in the port. The area available for the storage is around 7.9 Ha. The Optimal capacity of the terminal is found to be 5.46 MTPA considering two Stacker cum Reclaimers and Grab Unloaders. It is assumed that coal will be evacuated by rail.

(i). **Optimal Capacity at Berth No.8:**

The optimal capacity has been worked out as the lesser of the optimal Quay capacity and the Yard capacity.

The optimal quay capacity is worked out as per norms using the formula:

Optimal Quay Capacity = 0.7 x { S1/100 x P1 + S2/100 x P2 + S3/100 x P3 } x 365

(a). **Optimal Quay Capacity:**

Vessel Type	% Share	Unloading Rate (Tonnes / Day)	Optimal Capacity	Optimal Quay Capacity
Capesize	70%	50000	70%	8942500
Panamax	30%	35000	70%	2682750
Handymax	0%	15000	70%	0
		45500		**11625250**

(b). **The Optimal Yard capacity works out to 5.46 MTPA as shown below:**

Optimal Yard Capacity	**Coal**	**Limestone**	**Gypsum**	**Others**
Total Area of the Yard available for Development (Hectares)	7.90	7.90	7.90	7.90
Optimal Yard Capacity	70%	70%	70%	70%
Optimal Area of the Yard available for Utilisation (Hectares)	5.53	5.53	5.53	5.53
Conversion Factor	10000	10000	10000	10000
Optimal Area of the Yard available for Utilisation (Sq.M)	55300	55300	55300	55300
Utilisation	75%	65%	65%	65%
Quantity that could be stacked per Sq.M of the Area (Tonnes)	5	7	7	7
Yearly Turnover Ratio of the Plot	25	25	25	25
	5184375	**6290375**	**6290375**	**6290375**
Percentage Share of Cargo	75%	10%	10%	5%
Optimal Capacity (Total Cargo to be Handled)	**3888281**	**629038**	**629038**	**314519**
Handling Rate per Day (Tonnes)	20291	24620	24620	24620
Optimal Capacity of B.No. 8	**5460875**			

Therefore the total optimal capacity of Berth No. 8 is 5.46 MTPA.

(ii). **Calculation of Capital Cost:**

The total capital cost of the Coal/Coke / Limestone / Gypsum Handling Terminal at Berth No.8 is **₹.472.96 crores** which broadly consists of the following:

A. Berth and Dredging:

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Dismantling of Existing Berth Deck	4050.24	4000	Sq.M	1.62
Capital Dredging	121911	220	Cu.M	2.68
Berthing Structure	12250	68000	Sq.M	83.30
Miscellaneous Cost		5%		4.38
Total Cost of Berth and Dredging				**91.98**

B. Civil and Structural Works:

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Civil and Structural Works for Stacker-Reclaimer JH, DH & RLS				14.18
Transition structure between berth and land	350.42	75000	Rm	2.63
Ground improvement	75567.67	150	Sq.M	1.13
Covered Dome Stackyard	75400	14000	Sq.M	105.56
Rail Line Construction	2	48000000	KM	9.60
Control Room / Substation / Buildings			LS	3.67
Road & Pavement - Internal	23707.41	5150	Sq.M	12.21
Junction Houses + Drive Houses	7	8417647	Nos.	5.76
Electrical, Control & Instrumentation, Utilities, Workshops			LS	8.00
Reclamation	1097196	220	Cu.M	24.14
Miscellaneous Cost		5.00%		9.34
Total Cost of Civil and Structural Works				**196.22**

C. Handling Equipment:

Item	Quantity	Rate (₹.)	Amount (₹. in Cr)
Grab Unloaders	2	450000000	90.00
Stacker cum Reclaimer	2	221000000	44.20
Pay Loaders and Dozers	4	5000000	2.00
Conveying System	2360	110000	25.96
Rapid Rail loading system	1	138000000	13.80
Miscellaneous Cost		5.00%	8.80
Total Cost of Handling Equipments			**184.76**

(iii). **Operating Cost:**

The norms for various items of operating cost and the amounts are given in the table below:

(₹. in Crores)

	Group	Norm	Amount
1.	Power	5460875 T x 1.4 Units/T x ₹ 6.50/Unit	4.97
2.	a) Repairs and Maintenance of Civil Assets. b) Repairs and Maintenance of Mechanical & Electrical equipments including spares.	1% of cost of all Civil Assets 5% of cost of all Mechanical and Electrical equipments	1.96 12.93

3.	Insurance	1% of Gross Fixed Assets value	3.81
4.	a) Depreciation (Civil Assets) b) Depreciation (Plant & Machinery)	As per Companies Act. Rate for Civil Assets-3.17 % and Equipments- 6.33 %	6.22 11.70
5.	License Fee (95.00 Thousand Sq.M @ ₹.578 (incl. Special Rate Levy of 9%) per 10 Sq.M per Month)	As per Scale of Rates	6.59
6.	Other Expenses	5% Gross Fixed Assets value	19.05
Annual Operating Costs			**67.23**

(iv). The return on capital employed is estimated at 16% on the gross block of assets.

(v). Accordingly, the Annual revenue requirement estimated by MOPT is as follows:

	%	₹ in Lakhs
Total Revenue Requirement(₹ in lakhs)	**100**	12818.68
Coal Handling Charges	**98**	12562.31
Storage Charges	**1**	128.19
Misc. Charges	**1**	128.19

(a). **Tariff cap per tonne of Cargo Handling Charges:**
The Cargo Handling Charges are arrived at as shown below:
Vessel Profile

Type of Vessel	Proportion	GRT	Parcel Size
Capesize	70%	90000	150000
Panamax	30%	50000	83333
Handymax	0%	25000	41667
	100%		
Foreign	95%		
Coastal	5%		

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Revenue Requirement	Cargo to be handled	Cargo to be handled	Rate in ₹. Per Tonne	Rate in ₹. Per Tonne
					₹. in Lakhs)	Foreign (Tonnes)	Coastal (Tonnes)	For foreign cargo	For coastal cargo
Coal/Coke	75.00%	20291	3888281	192	9,421.73	3693867	194414	247.26	148.36
Limestone	10.00%	24620	629038	26	1,256.23	597586	31452	203.78	122.27
Gypsum	10.00%	24620	629038	26	1,256.23	597586	31452	203.78	122.27
Others	5.00%	24620	314519	13	628.12	298793	15726	203.78	122.27
	100.00%		**5460875**	**256**	**12562.31**	**5187831**	**273044**		

(b). **Tariff cap per tonne of Storage Charges**
The Storage Charges have been arrived at as shown below:

(i). **Free Period**

Import Cargo	-	15 days
Export Cargo	-	25 days

(ii). **Storage Charges for balance cargo beyond free period**

Particulars	
Optimal Capacity	5460875

Percentage Share	100%
Revenue Requirement (₹ in lakhs)	**128.19**
% of Cargo Attracting Storage Charge	10%
Cargo Attracting Storage Charge beyond Free Period	546088
Storage Charges Proposed (₹ per Tonne per Day)	
1st 7 Days	3.35
8th to 14th Day	5.03
15th Day Onwards	6.70

(c). **Tariff cap per tonne of Miscellaneous Charges:**
Miscellaneous Charges will include all miscellaneous services such as Security Charges, Sweeping, Weighment and Dust Suppression and shall be chargeable as shown below:

Particulars	
Optimal Capacity	5460875
Percentage Share	100%
Revenue Requirement (₹. in lakhs)	128.19
Miscellaneous Charges (₹. per Tonne)	**2.35**

(vi). **Calculation of Berth Hire Charges**
Like the calculation of Cargo Handling Charges, the tariff cap for Berth Hire charges is also based upon revenue requirement. As per the 2008 Guidelines, the revenue requirement is the sum of operating cost and 16% return on capital employed. The Berth Hire charges are arrived at as follows:

(a). **Berth Hire Revenue Requirement:**

(₹ in Crores)

Total Capital Cost for Berth No. 8		**91.98**
ROCE @	16.00%	14.72
Repairs and Maintenance Cost @	1.00%	0.92
Depreciation @	3.17%	2.92
Insurance @	1.00%	0.92
Total Revenue Requirement for Berth No. 8		**19.48**

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

Particulars	
Handling Rate	45500
Average GRT of Vessel	78000
Average Parcel Size per Vessel	130000
Optimal Capacity	5460875
No. of Berth Days	120
No. of Berth Hours	2880
No. of Vessels	42

Particulars	
Total GRT Hours	224676000
% Foreign Cargo	95.00%
% Coastal Cargo	5.00%
Total GRT Hours (Foreign Vessels)	213442200
Total GRT Hours (Coastal Vessels)	11233800
Total Revenue Requirement (₹. in Lakhs)	**1948.00**
Rate per GRT per Hour (Foreign)	**0.88**
Rate per GRT per Hour (Coastal)	**0.53**

B. Berth No.9A - Iron Ore / Bauxite / Other Ores & Minerals Handling Terminal:

In view of the lifting of ban on iron ore exports, iron ore is once again expected to be a major component of the traffic throughput at MOPT. The area available for the storage is around 5.81 Ha.

(i). **Optimal Capacity at Berth No.9A:**

The optimal capacity has been worked out as the lesser of the optimal Quay capacity and the Yard capacity.
The optimal quay capacity is worked out as per norms using the formula:
Optimal Quay Capacity = 0.7 x { S1/100 x P1 + S2/100 x P2 + S3/100 x P3 } x 365

(a). Optimal Quay Capacity:

Vessel Type	% Share	Unloading Rate (Tonnes / Day)	Optimal Capacity	Optimal Quay Capacity
Capesize	70%	60000	70%	10731000
Panamax	30%	55000	70%	4215750
Handymax	0%	25000	70%	0
		58500		**14946750**

(b). The Optimal Yard capacity works out to 9.58 MTPA as shown below:

Optimal Yard Capacity	Iron ore	Bauxite	Other Minerals
Total Area of the Yard available for Development (Hectares)	5.81	5.81	5.81
Optimal Yard Capacity	70%	70%	70%
Optimal Area of the Yard available for Utilisation (Hectares)	4.07	4.07	4.07
Conversion Factor	10000	10000	10000
Optimal Area of the Yard available for Utilisation (Sq.M)	40700	40700	40700
Utilisation	75%	75%	75%
Quantity that could be stacked per Sq.M of the Area	13	10	10
Yearly Turnover Ratio of the Plot	25	25	25
	9920625	**7631250**	**7631250**
Percentage Share of Cargo	85%	10%	5%
Optimal Capacity (Total Cargo to be Handled)	**8432531**	**763125**	**381563**
Handling Rate per Day (Tonnes)	38828	29868	29868

Optimal Yard Capacity	Iron ore	Bauxite	Other Minerals
Optimal Capacity of B.No. 9A	**9577219**		

Therefore the total optimal capacity of Berth No. 9A is 9.58 MTPA.

(ii). **Calculation of Capital Cost:**

The total capital cost of the Iron Ore / Bauxite / Other Ores & Minerals Handling Terminal at Berth No. 9A is ₹.468.74 crores which broadly consists of the following:

(a). **Berth and Dredging:**

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Dismantling of Existing Berth Deck	9175.55	4000	Sq.M	3.67
Capital Dredging	121911	220	Cu.M	2.68
Berthing Structure	11900	68000	Sq.M	80.92
Construction of Barge Berths	5040	35000	Sq.M	17.64
Miscellaneous Cost		5%		5.25
Total Cost of Berth and Dredging				**110.16**

(b). **Civil and Structural Works:**

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Civil and Structural Works for Stacker-Reclaimer JH, DH & RLS				16.58
Transition structure between berth and land	339.76	75000	Rm	2.55
Ground improvement	75567.67	150	Sq.M	1.13
Reclamation of Barge Berth Area	783093	391	Cu.M	30.62
Control Room / Substation / Buildings	LS			3.67
Road & Pavement - Internal	17280.59	5150	Sq.M	8.90
Junction Houses + Drive Houses	10	8417647	Nos.	8.55
Electrical, Control & Instrumentation, Utilities, Workshops			LS	8.00
Reclamation	1097196	220	Cu.M	24.14
Miscellaneous Cost		5.00%		5.21
Total Cost of Civil and Structural Works				**109.35**

(c). **Handling Equipment:**

Item	Quantity	Rate (₹.)	Amount (₹ in Cr)
Barge Unloaders	4	110000000	44.00
Ship Loaders	2	420000000	84.00
Stacker cum Reclaimer	2	238000000	47.60
Pay Loaders and Dozers	4	5000000	2.00
Conveying System	3320	180000	59.76
Miscellaneous Cost		5.00%	11.87
Total Cost of Handling Equipment			**249.23**

(iii). **Operating Cost:**

The norms for various items of operating cost and the amounts are given in the table below:

(₹ in Crores)

	Group	Norm	Amount
1.	Power	9577219 T x 1.4 Units/T x ₹6.50/Unit	8.72
2.	a) Repairs and Maintenance of Civil Assets. b) Repairs and Maintenance of Mechanical & Electrical equipments including spares.	1% of cost of all Civil Assets 5% of cost of all Mechanical and Electrical equipments	1.09 17.45
3.	Insurance	1% of Gross Fixed Assets value	3.59
4.	a) Depreciation (Civil Assets) b) Depreciation (Plant & Machinery)	As per Companies Act. Rate for Civil Assets-3.17 % and Equipments- 6.33 %	3.47 15.78
5.	License Fee (85.00 Thousand Sq.M @ ₹.578 (incl. Special Rate Levy of 9%) per 10 Sq.M per Month)	As per Scale of Rates	5.90
6.	Other Expenses	5% Gross Fixed Assets value	17.93
Annual Operating Costs			**73.93**

(iv). Accordingly, the revenue requirement estimated by MOPT is as follows:

	%	**₹ in Lakhs**
Total Revenue Requirement(₹ in lakhs)	**100**	13130.28
Ore Handling Charges	**98**	12867.67
Storage Charges	**1**	131.30
Misc. Charges	**1**	131.30

(a). **Tariff cap per tonne of Cargo Handling Charges:**

The Cargo Handling Charges are arrived at as shown below:

Vessel Profile

Type of Vessel	Proportion	GRT	Parcel Size
Capesize	70%	90000	150000
Panamax	30%	50000	83333
Handymax	0%	25000	41667
	100%		
Foreign	95%		
Coastal	5%		

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Revenue Requirement (₹. in Lakhs)	Cargo to be handled Foreign (Tonnes)	Cargo to be handled Coastal (Tonnes)	Rate in ₹. Per Tonne For foreign cargo	Rate in ₹. Per Tonne For coastal cargo
Iron Ore	85.00%	38828	8432531	217	10,937.52	8010905	421627	132.35	79.41
Bauxite	10.00%	29868	763125	26	1,286.77	724969	38156	172.06	103.24
Other Minerals	5.00%	29868	381563	13	643.38	362484	19078	172.06	103.24
	100.00%		**9577219**	**256**	**12867.67**				

(b). **Tariff cap per tonne of Storage Charges:**

The Storage Charges have been arrived at as shown below:

(i). **Free Period:**

Import Cargo - 15 days

Export Cargo - 25 days

(ii). **Storage Charges for balance cargo beyond free period:**

Particulars	
Optimal Capacity	9577219

Percentage Share	100%
Revenue Requirement (₹. in lakhs)	**131.30**
% of Cargo Attracting Storage Charge	10%
Cargo Attracting Storage Charge beyond Free Period	957722
Storage Charges Proposed (₹. per Tonne per Day)	
1st 7 Days	1.96
8th to 14th Day	2.94
15th Day Onwards	3.92

(c). **Tariff cap per tonne of Miscellaneous Charges:**
Miscellaneous Charges will include all miscellaneous services such as Security Charges, Sweeping, Weighment and Dust Suppression and shall be chargeable as shown below:

Particulars	
Optimal Capacity	9577219
Percentage Share	100%
Revenue Requirement (₹. in lakhs)	131.30
Miscellaneous Charges (₹. per Tonne)	**1.37**

(v). **Calculation of Berth Hire Charges:**
Like the calculation of Cargo Handling Charges, the tariff cap for Berth Hire charges is also based upon revenue requirement. As per the 2008 Guidelines, the revenue requirement is the sum of operating cost and 16% return on capital employed. The Berth Hire charges are arrived at as follows:

(a). **Berth Hire Revenue Requirement:**

Total Capital Cost for Berth No. 9A		**110.16**
ROCE @	16.00%	17.63
Repairs and Maintenance Cost @	1.00%	1.10
Depreciation @	3.17%	3.49
Insurance @	1.00%	1.10
Total Revenue Requirement for Berth No. 9A		**23.32**

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

Particulars	
Handling Rate	58500
Average GRT of Vessel	78000
Average Parcel Size per Vessel	130000
Optimal Capacity	9577219
No. of Berth Days	164
No. of Berth Hours	3929
No. of Vessels	74
Total GRT Hours	306471000
% Foreign Cargo	95.00%
% Coastal Cargo	5.00%
Total GRT Hours (Foreign Vessels)	291147450
Total GRT Hours (Coastal Vessels)	15323550
Total Revenue Requirement (₹. in Lakhs)	**2332.00**
Rate per GRT per Hour (Foreign)	**0.78**
Rate per GRT per Hour (Coastal)	**0.47**

C. **Berth No.9 - General Cargo Berth:**

It is proposed to handle General Cargo including Containers at Berth No. 9. The Optimal capacity of the terminal is found to be 4.18 MTPA.

(i). **Optimal Capacity at Berth No.9:**
The optimal quay capacity is worked out as per norms using the formula:
Quay Capacity = 0.7 x {S1/100 x P1 + S2/100 x P2 + S3/100 x P3 +………} x 365

(a). Optimal Quay Capacity:

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Others	Containers	Total
Norms as per 2008 Guidelines (Tonnes / Day)	10000	4000	10000	10000	2500	480	
Handling Rate per 100T HMC considered by TAMP (Tonnes / TEU's Day)	12500	6000	10000	10000	7500	480	
No. of 100T HMC per Berth	2	2	2	2	2	2	
Handling Rate per Berth Considered (Tonnes / TEU's Day)	25000	12000	20000	20000	15000	960	
No. of Berths	1	1	1	1	1	1	
Total Handling Rate (Tonnes / TEU's Day)	25000	12000	20000	20000	15000	960	
Percentage Share	25.00%	20.00%	5.00%	5.00%	15.00%	30.00 %	**100%**
Total Optimal Capacity (Tonnes/TEU's) [0.70 x 365 x (6) x (7)]	**1596875**	**613200**	**255500**	**255500**	**574875**	**73584**	**4178958**

Therefore the total optimal capacity of the General Cargo Berth No.9 is 4.18 MTPA.

(ii). **Calculation of Capital Cost:**

The total capital cost of the General Cargo Berth at Berth No.9 is ₹. 203.65 crores which broadly consists of the following:

(a). **Berth and Dredging:**

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Dismantling of Existing Berth Deck	3450.21	4000	Sq.M	1.38
Berthing Structure	9100	68000	Sq.M	61.88
Miscellaneous Cost		5%		3.16
Total Cost of Berth and Dredging				**66.42**

(b). **Civil and Structural Works:**

Item	Quantity	Rate (₹.)	UoM	Amount (₹. in Cr)
Transition structure between berth and land	259.82	75000	Rm	1.95

Ground improvement	75567.67	150	Sq.M	1.13
Control Room / Substation / Buildings			LS	4.87
Stackyard pavement	54600	7000	Sq.M	38.22
Container Stackyard Acces Road	6460	5150	Sq.M	3.33
RCD Access Area	8400	5150	Sq.M	4.33
Terminal Gate House	800	15500	Sq.M	1.24
Security System	1	10000000	LS	1.00
Electrical, Control & Instrumentation, Utilities, Workshops			LS	5.70
Miscellaneous Cost		5.00%		3.09
Total Cost of Civil and Structural Works				**64.86**

(c). **Handling Equipment:**

Item	Quantity	Rate (₹.)	Amount (₹. in Cr)
Harbour Mobile Cranes 100T	2	300000000	60.00
Tractor Trailer	4	4400000	1.76
Reach Stacker	2	20000000	4.00
Fork Lift Trucks 5 Tons	4	2500000	1.00
Fork Lift Trucks 10 Tons	2	3300000	0.66
Pay Loaders 10 Tons	3	5000000	1.50
Miscellaneous Cost		5.00%	3.45
Total Cost of Handling Equipment			**72.37**

(iii). **Operating Cost:**

The norms for various items of operating cost and the amounts are given in the table below:

(₹. in Crores)

	Group	Norm	Amount
1.	**Fuel** Harbour Mobile Cranes 100T Tractor Trailer Reach Stacker Fork Lift Trucks 5 Tons Fork Lift Trucks 10 Tons Pay Loaders 10 Tons	 2 x 6132 x 70 x 60 4 x 6132 x 7 x 60 2 x 6132 x 12 x 60 4 x 6132 x 7 x 60 2 x 6132 x 10 x 60 3 x 6132 x 12 x 60	 5.15 1.03 0.88 1.03 0.74 1.32
2.	a) Repairs and Maintenance of Civil Assets. b) Repairs and Maintenance of Mechanical & Electrical equipments including spares.	1% of cost of all Civil Assets 5% of cost of all Mechanical and Electrical equipments	0.65 3.62
3.	Insurance	1% of Gross Fixed Assets value	1.37
4.	a) Depreciation (Civil Assets) b) Depreciation (Plant & Machinery)	As per Companies Act. Rate for Civil Assets- 3.17 % and Equipments- 6.33 %	2.06 4.58
5.	License Fee (70.00 Thousand Sq.M @ ₹.578 (incl. Special Rate Levy of 9%) per 10 Sq.M per Month)	As per Scale of Rates	4.86
6.	Other Expenses	5% Gross Fixed Assets value	6.86
Annual Operating Costs			**34.15**

(iv). Accordingly, the revenue requirement estimated by MOPT is as follows:

	%	₹ in Lakhs
Total Revenue Requirement(₹ in lakhs)	**100**	5610.68
Cargo Handling Charges	**90**	5049.61
Storage Charges	**5**	280.53
Misc. Charges	**5**	280.53

(a). Tariff cap per tonne of Cargo Handling Charges:

The Cargo Handling Charges are arrived at as shown below:

Vessel Profile

Type of Vessel	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Others	Containers	GRT	Parcel Size (Tonnes)
Capesize	-	-	-	-	-		105000	157000
Panamax	50%	50%	10%	10%	-	10%	45000	67000
Handymax	50%	50%	90%	90%	100%	90%	24000	36000
	100%	**100%**	**100%**	**100%**	**100%**	**100%**		
Foreign	100%	100%	90%	90%	95%	90%		
Coastal	0%	0%	10%	10%	5%	10%		

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes / TEU's)	Cargo Working Days	Revenue Requirement	Cargo to be Handled	Cargo to be Handled	Rate in ₹. Per Tonne	Rate in ₹. Per Tonne
					(₹. in Lakhs)	Foreign (Tonnes / TEU's)	Coastal (Tonnes / TEU's)	For foreign cargo	For coastal cargo
Minerals	25.00%	25000	1596875	64	1,262.40	1596875	0	79.05	47.43
Steel Coil & Products	20.00%	12000	613200	51	1,005.98	613200	0	164.05	98.43
Agro Products	5.00%	20000	255500	13	256.43	229950	25550	104.54	62.72
Fertilisers	5.00%	20000	255500	13	256.43	229950	25550	104.54	62.72
Others	15.00%	15000	574875	38	749.55	546131	28744	133.05	79.83
Containers	30.00%	960	73584	77	1,518.83	66226	7358	2150.08	1290.05
Total	**100.00%**		**3369534**	**256**	**5049.61**	**3282332**	**87202**		

(b). **Tariff cap per tonne of Storage Charges:**

The Storage Charges have been arrived at as shown below:

(i). **Free Period:**

Import Cargo - 15 days

Export Cargo - 25 days

(ii). **Storage Charges for balance cargo beyond free period:**

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Others	Containers	Total
Optimal Capacity	1596875	613200	255500	255500	574875	73584	**4178958**
Percentage Share	25%	20%	5%	5%	15%	30%	
Revenue Requirement (₹. in lakhs)	**70.13**	**56.11**	**14.03**	**14.03**	**42.08**	**84.16**	**280.54**
% of Cargo Attracting Storage Charge	20%	20%	20%	20%	20%	20%	
Cargo Attracting Storage Charge beyond Free Period	319375	122640	51100	51100	114975	14717	**673907**
Storage Charges Proposed (₹. per Tonne/TEU per Day)							
1st 7 Days	3.14	6.54	3.92	3.92	5.23	81.69	
8th to 14th Day	4.71	9.80	5.88	5.88	7.84	122.54	
15th Day Onwards	6.27	13.07	7.84	7.84	10.46	163.39	

(iii). **Tariff cap per tonne of Miscellaneous Charges:**

Miscellaneous Charges will include all miscellaneous services such as Security Charges, Sweeping, Weighment and Dust Suppression and shall be chargeable as shown below:

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Others	Containers	Total
Optimal Capacity	1596875	613200	255500	255500	574875	73584	**3369534**
Percentage Share	25%	20%	5%	5%	15%	30%	**100.00%**
Revenue Requirement (₹. in lakhs)	70.13	56.11	14.03	14.03	42.08	84.16	**280.54**
Miscellaneous Charges (₹. per Tonne/TEU)							**8.33**

(v). **Calculation of Berth Hire Charges:**

Like the calculation of Cargo Handling Charges, the tariff cap for Berth Hire charges is also based upon revenue requirement. As per the 2008 Guidelines, the revenue requirement is the sum of operating cost and 16% return on capital employed. The Berth Hire charges are arrived at as follows:

(a). **Berth Hire Revenue Requirement:**

Total Capital Cost for Berth No. 9		**66.42**
ROCE @	16.00%	10.63
Repairs and Maintenance Cost @	1.00%	0.66
Depreciation @	3.17%	2.11
Insurance @	1.00%	0.66
Total Revenue Requirement for Berth No. 9		**14.06**

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

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Others	Containers	Total
Handling Rate	25000	12000	20000	20000	15000	960	
Average GRT of Vessel	34500	34500	26100	26100	24000	26100	
Average Parcel Size per Vessel (Tonnes)	51500	51500	39100	39100	36000	39100	
Optimal Capacity	1596875	613200	255500	255500	574875	73584	**3369534**
No. of Berth Days	64	51	13	13	38	77	**256**
No. of Berth Hours	1533	1226	307	307	920	1840	**6132**
No. of Vessels	32	12	7	7	16	2	**76**
Total GRT Hours	52888500	42310800	8002260	8002260	22075200	48013560	**181292580**
% Foreign Cargo	100.00%	100.00%	90.00%	90.00%	95.00%	90.00%	
% Coastal Cargo	0.00%	0.00%	10.00%	10.00%	5.00%	10.00%	
Total GRT Hours (Foreign Vessels)	52888500	42310800	7202034	7202034	20971440	43212204	**173787012**
Total GRT Hours (Coastal Vessels)	0	0	800226	800226	1103760	4801356	**7505568**
Total Revenue Requirement (₹. in Lakhs)							**1406.00**
Rate per GRT per Hour (Foreign)							**0.79**
Rate per GRT per Hour (Coastal)							**0.47**

2.2. The tariff proposed for fixation Reference tariff for Re-Development of Berth No.8, 9 and 9A (Barge Berths) at MOPT to meet the estimated revenue requirement is as follows:

(i). For Berth hire:

Sl. No.	**Vessels**	**Rate per GRT per hour or part thereof (₹)**	
		Foreign Vessel	**Coastal Vessel**
1.	All Vessels at Berth No. 8	0.88	0.53
2.	All Vessels at Berth No. 9	0.79	0.47
3.	All Vessels at Berth No. 9A	0.78	0.47

(ii). For Cargo Handling Charges:

	Cargo	Cargo Handling Charges	
		Foreign (₹ per Tonne)	Coastal (₹ per Tonne)
	Mechanised Handling		
1	Coal / Coke	247.26	148.36
2	Limestone	203.78	122.27
3	Gypsum	203.78	122.27
4	Others	203.78	122.27
5	Iron Ore	132.35	79.41
6	Bauxite	172.06	103.24
7	Other Minerals	172.06	103.24
	Semi Mechanised Handling		
1	Minerals	79.05	47.43
2	Steel Coil & Products	164.05	98.43
3	Agro Products	104.54	62.72
4	Fertilisers	104.54	62.72
5	Others	133.05	79.83
6	Containers	2150.08 per TEU	1290.05 per TEU

3.1. Subsequently, at our request vide our letter dated 9 December 2015, the MOPT vide its letter dated 11 December 2015 has furnished the List of users/ prospective applicants, who are to be taken on consultation on the proposal. The other submissions made by the MOPT in its letter dated 11 December 2015 are as follows:

(i). There is already a reference tariff available for a mechanized coal handling terminal at MOPT Berth no.7, but the capital costs, optimal capacity and the cargoes proposed to be handled at the new berths are not comparable and as such the reference tariff has not been adopted.

(ii). The handling rates as per norms are based on 3 nos. of 20T Level Luffing Cranes, whereas the proposal has considered 2 nos. 100T Harbour Mobile Cranes.

(iii). Power has been taken as per norms and the average fuel rates have been taken instead of the current rates which are at its lowest and likely to increase in near future.

3.2. With regard to Feasibility Report, the MOPT vide its email dated 16 December 2015 has furnished the draft Feasibility Report. Subsequently, the MOPT vide its email dated 26 January 2016 has forwarded the Final Feasibility Report.

3.3. The Performance Standards proposed by the port are as follows:

Type of Cargo	Handling Rate at Berth 8
Coal/Coke	20291 Tonnes/day
Limestone	24620 Tonnes/day
Gypsum	24620 Tonnes/day
Others	24620 Tonnes/day
Type of Cargo	**Handling Rate at Berth 9**
Minerals	25000 Tonnes/day
Steel Coil & Products	12000 Tonnes/day
Agro Products	20000 Tonnes/day
Fertilisers	20000 Tonnes/day
Others	15000 Tonnes/day
Containers	20 moves/hr
Type of Cargo	**Handling Rate at Berth 9A**
Iron Ore	38828 Tonnes/day
Bauxite	29868 Tonnes/day
Other Minerals	29868 Tonnes/day

4. In accordance with the consultative procedure prescribed, a copy of the MOPT proposal dated 2 December 2015 alongwith the Feasibility Report was forwarded to the concerned

users/ user organisations/ prospective bidders (as per the list forwarded by MOPT) for their comments. The comments received from some of the users/ user organisations and Prospective bidders were forwarded to the MOPT as feedback information. The MOPT has responded to the comments of users / user organisations / prospective bidders vide its letter dated 28 January 2016.

5. Based on a preliminary scrutiny of the proposal, the MOPT was requested vide our letter dated 18 January 2016 to furnish additional information/ clarification. The MOPT has responded vide its letter dated 27 January 2016. The information sought by us and the response of MOPT thereon are tabulated as below:

Sl. No.	Information/ Clarification sought by us	Response furnished by MOPT
A.	**General**	
(i).	The MOPT in its letter dated 02 December 2015 has stated that its proposal in reference would be placed before the Board in its meeting scheduled on 21 December 2015 and that the MOPT would thereafter, forward the copy of the proceedings and Resolution to TAMP. We are not in receipt of the copy of the proceedings and Resolution. The MOPT to furnish the same immediately.	A copy of the proceedings and resolution is furnished by MOPT. (As per the document furnished by MOPT, it is seen that the Board of Trustees have approved the proposal for fixation of upfront tariff for a variety of cargo to be handled at Berth nos. 8, 9 and 9A).
(ii).	Out of the total length of the berth at 950 metres, the MOPT has stated that the length of the coal berth (Berth no. 8) would be 350 metres, length of the General cargo berth (Berth no. 9) would be 260 metres and the length of the iron ore berth (Berth no. 9A) would be 340 metres, thereby aggregating to 950 metres. In this regard, the MOPT to confirm, whether each of the berth would be bid out to different BOT operators or whether the entire project is envisaged to be bid out to a single BOT operator.	It is confirmed that the entire project is envisaged to be bid out to a single BOT Operator.
(iii).	As is seen from the proposal of MOPT, the yard capacity is the constraint for the berth no.8 and berth no. 9(A). In fact, there is a significant gap between the yard capacity and quay capacity. Therefore, the MOPT has proposed to consider the yard capacity for both the berths as the optimal capacity for tariff calculation. The berth no.8 and 9(A) would remain grossly underutilized. That being so, planning of berth no 8 and 9(A) with the quay capacity of 11.63 Million Tonnes and 14.95 Million Tonnes respectively should be fully justified. The MOPT to find ways and means to review the quay capacity if yard capacity cannot be improved. MOPT to also examine whether there is justification to have a length of 350 meters for the proposed berth no.8 and 340	Berth No.8 is a coal berth and berth No.9A is an iron ore berth. Both these berths are to be designed for handling of capesize vessels. The quay capacity of both the berths has been arrived at considering the handling rates as per norms given in the guidelines. MoPT has already commenced the work of Deepening of the Channel to -19.80m to cater to capesize vessels. Hence the proposed lengths of Berths 8 and 9A cannot be reduced as this is the minimum requirement for berthing Capesize vessels.

	meters for the proposed berth no. 9(A).	
(iv).	The proposal of MOPT envisages mechanised handling of Coal, (Limestone, Gypsum and Others) at Berth no. 8, mechanised handling of Iron Ore, (Bauxite, Other ores and Minerals) at Berth no. 9 and handling of multipurpose general cargo (viz., Minerals, Steel Coil & Products, Agro products, Fertilisers, Others) and Containers at Berth no. 9A by semi-mechanised means. The equipment deployment is proposed considering mechanised/ semi-mechanised handling of cargo listed for each of the three berths and reference tariff is arrived accordingly by the port. Further, for each berth the MOPT has already included a residual cargo i.e. "others" for which tariff is proposed. However, the MOPT in its proposal has stated that the PPP operator would have the freedom to handle any cargo of his choice. In this regard, it is presumed that "any other cargo of his choice" to be handled by the PPP operator would fall in the "Others" category, for which MOPT has already proposed reference tariff.	In the proposal it is stated that the PPP Operator would have the freedom to handle any cargo of his choice. This means that the operator would have the freedom to set up either a mechanised iron ore handling plant, a mechanized coal handling plant or a general cargo berth on any or all the 3 berths. The MOPT proposal has envisaged a mechanised Coal Handling Terminal at Berth No. 8, a General Cargo Berth at Berth No. 9 and a mechanised iron ore handling plant at Berth 9A. This was done in order to fix the reference tariff for the BOT Operator in case he chooses to handle any of these cargoes. Cargoes not specifically mentioned in the scale of rates would fall in the category of "others" and the corresponding rates would apply. If the BOT Operator wishes to set up a mechanised coal or iron ore handling plant on all the 3 berths, then the reference tariff as fixed by TAMP for the same would apply.
(v).	The Feasibility report of December 2015 furnished by MOPT under cover of its letter dated 2 December 2015 is a "Draft". The MOPT to furnish a copy of the "Final" Feasibility Report.	The soft copy of the final feasibility report has already been sent to TAMP. (The MOPT vide its email dated 26 January 2016 has furnished Final Feasibility Report).
2.	**Berth no. 8**	
(i).	The Berth no. 8 is envisaged to handle Coal, Limestone, Gypsum and Others. The share of each type of cargo is furnished by MOPT at 75 : 10 : 10 : 5. When the berth is envisaged to handle multipurpose cargo, the approach of adopting the norms prescribed in the Upfront guidelines as applicable for a Coal terminal instead of adopting the norms as prescribed in the Upfront guidelines as applicable for a multipurpose berth to be justified.	The Berth No. 8 is envisaged to handle coal, however, during the pre-bid meeting, the users expressed their desire to also handle limestone, gypsum and other cargoes albeit in lesser quantities through the same mechanized handling plant and requested that tariff also be fixed for the same. So the mechanized handling system will have to be designed to handle coal, as well as gypsum, limestone or other similar cargo. Hence the upfront guidelines as applicable for the coal terminal have been adopted instead of those applicable for a multipurpose berth as the major commodity would be coal.
(ii).	As regards the cargo envisaged to be handled as 'Others', MOPT to confirm that the nature of 'other' cargo, its handling rate and productivity parameters are same as the cargo for which reference tariff is proposed.	No specific cargo is envisaged to be handled as "others". However, in order to cater to any unforeseen demand for any cargo not specified in the above category, the "others" category has also been included. It is confirmed that its handling rate and productivity parameters would be the same as the cargo for which reference tariff is proposed.
(iii). a.	**Optimal Capacity** **Quay Capacity**	

(i).	The basis for considering the percentage share of Capesize Vessels and Panamax Vessels at 70 : 30 to be furnished.	Freight advantage to the users through deployment of Capesize vessels will encourage deployment of such vessels for Berth No.8. But this will be only in case of coal imports and not for other cargo like limestone and gypsum where predominantly Panamax vessels are deployed. In the tariff proposal we have considered 75% as coal traffic. Therefore the assumption that 70% vessels will be capesize is justified.
(ii).	The actual ratio of Capesize Vessels and Panamax Vessels with dry bulk cargo viz., Coal, Limestone, Gypsum and Others, visiting MOPT during the years 2012-13 to 2014-15 and upto December 2015, to be furnished.	Presently, the Port does not have the adequate infrastructure to handle capesize vessels at its berths. However, as stated earlier the Port has already awarded the contract for deepening of its channel and associated areas to handle capesize vessels. Hence, the BOT Operator shall also dredge the berth pockets to handle capesize vessels directly at the berth if he intends to set up a mechanised iron ore or coal handling plant. All the cargo handled by the Port during the years 2012-13 to 2014-15 has been through non capesize vessels. A few Capesize vessels have recently called at Berth No.6 and Berth No.7. But these were not fully loaded cape vessels.
(iii).	MOPT to confirm that the unloading rate of 50000 tonnes per day and 35000 tonnes per day in respect of Capesize Vessels and Panamax Vessels respectively, will be similar while handling all types of cargo viz., Coal, Limestone, Gypsum and Others.	It is confirmed that the unloading rate of 50,000 tonnes per day and 35,000 tonnes per day in respect of capesize vessels and panamax vessels respectively, will be similar while handling all types of cargo viz coal, limestone, gypsum and others. However, gypsum, limestone and other similar cargo would be handled through Panamax vessels.
b.	**Yard Capacity**	
(i).	The MOPT has proposed to hand over 79000 square metres of land for the envisaged project to stack coal, limestone, gypsum and others. The norms for estimation of yard capacity prescribes 70% of the total yard area that can be used for stacking cargo. As against the prescribed norm of 70%, the MOPT has considered 75% for coal, and 65% for other three cargo groups. The percentage of yard area that could be used for stacking other three cargo groups to be considered at 70% as stipulated in the guidelines.	For this project, 3 berths and back up area of about 65 acres is proposed to be handed over to one concessionaire. A lot of facilities like roads, dust suppression system, office, rail infrastructure etc will be common to all the 3 berths, therefore the entire area can be optimally used, effectively releasing additional space for cargo storage. Hence, the yard capacity can be considered as 75% as against the norm of 70%. The yard utilization for Limestone, Gypsum and others is accordingly being revised to 75%. The revised optimal capacity now works out to 5.70 MTPA and the revised workings and handling rates is furnished.
(ii).	The MOPT to furnish the Land use plan of the area of 79000 square metres of land proposed to be allotted.	The land used plan of MOPT is furnished.
(iii).	The stack height of 5 tonnes per sq. mtr in respect of coal as against 3 tonnes per sq. mtr. stipulated in the guidelines and 7 tonnes per sq. mtr in respect of each of the cargo item viz., limestone, gypsum and others, to be carefully examined by MOPT and supported with actuals achieved at MOPT during the years 2012 to 2015.	The stack heights of the cargo has been assessed considering the density of the cargo, plot size and angle of repose. These figures are in order. For the coal Terminal at berth No.7, stack height of 4.7 tons per sq.m was considered by TAMP. We had at that time produced the working details for arriving at a figure of 5 T/sq.m. The stack width considered at that time was 40 m whereas the stack width proposed now is 50m. Considering all these aspects, 5 T/sq.m is reasonable. As regards gypsum and limestone, the density of the material is about 2.3 T/cum compared to 0.8 T/cum for coal. However, the quantity of limestone and gypsum which will be handled will be significantly less compared to coal. Therefore the stack height for gypsum and limestone will be lesser compared to coal stacks. Considering all these aspects, stack height of

		7 T/sq.m has been considered for gypsum and limestone.
(iv).	While fixing upfront tariff for a coal terminal at Visakhapatnam Port Trust (VPT) a stack height of 6 tonnes per Sq. metre was considered as against the norm of 3 tonnes per Sq. metre prescribed in the guidelines. The MOPT to review the yard capacity by considering a stack height of 6 tonnes per Sq. metre in respect of coal.	Coal is proposed to be stacked in a shed which will be totally covered. Therefore there will be restrictions in the stack height. Therefore stacking capacity of 5 tons/sq.m is reasonable. It will be difficult to achieve stacking capacity of 6tons/sq.m under these conditions.
(v).	The turnover norm prescribed in 2008 guidelines for coal terminal is 12. The plot turnover ratio of 25 considered by MOPT for each of the cargo items at a higher level to be examined carefully and supported with actuals achieved at MOPT during the years 2012 to 2015.	The facility will take about 3 years for construction. In the meantime South Western Railways has taken up the doubling of the rail lines which will be completed in 4 to 5 years period. Once the doubling work is completed, cargo evacuation will be smooth and achieving plot turnover ratio of 25 is possible. At present the plot turnover of SWPL terminal is more than 25 times, since 100% evacuation is by rail.
(vi).	As can be seen from the proposal, there is a wide gap between the optimal quay capacity at 11.625 MMTPA and the optimal yard capacity at 5.461 MMTPA. The yard capacity is seen as a constraint. The availability of coal cargo alone for berth no.8 is estimated at 10.9 Million tonnes in the year 2019, which increases upto 39 Million tonnes in the year 2030 as per the Draft Feasibility Report. In such a scenario, there may be a possibility that in the event of allotment of more area of land at a later stage it may enable the operator to handle more cargo, thereby resulting in windfall gain to the operator. In view of the above position, the MOPT to improve the yard capacity and minimize the gap between quay capacity and yard capacity. If yard capacity cannot be improved, the berth having a quay capacity of 11.62 Million Tonnes is to be fully justified. The MOPT to also confirm that there would not be any scope for allotment of more area of land at a later stage to the BOT operator to cater to quay capacity or for any other reason.	In the context of Mormugao Port where availability of land is the single biggest constraint, it will be impossible to rectify the mismatch between quay capacity and yard capacity. There are already 2 dedicated coal berths under PPP operational at Mormugao Port. The tariff proposed for the coal berth is comparable to the existing tariff of coal berth No.7. We will not be able to reduce the gap between the quay capacity and the yard capacity as stated earlier. It is confirmed that there is no scope for allotment of additional area at a later stage to the BOT operator.
C. (i).	In the optimal yard capacity calculation, the MOPT has indicated the per day handling rate of Coal at 20291 tonnes and 24620 tonnes for each of Limestone, Gypsum and Others. The same is also considered in the calculation of handling rate (i.e. column 3 of the second table at page 6 of the proposal). In this regard, the MOPT to furnish detailed workings to arrive at the per day handling rate of Coal at 20291 tonnes and 24620 tonnes	The detailed workings to arrive at the per day handling rate of coal at 20,291 tonnes and 24,620 tonnes for each of limestone, gypsum and others are furnished**.** The details are also available on page 4 of the proposal. However, with the yard utilization for Limestone, Gypsum and Others now being revised to 75% from the earlier 65%, the per day handling rate now stands revised to 28408 tonnes instead of 24620 tonnes is furnished. (The document furnished by MOPT does not reflect the workings to arrive at the per day handling rate. The MOPT has again reproduced the calculation of optimal yard capacity, by taking into account the per day handling rate, as already available in its initial proposal).

	for each of Limestone, Gypsum and Others.	
(ii).	The handling rate considered for arriving the optimal quay capacity is 50,000 T/day for capesize vessel and 35000T/day for Panamax vessel. The handling rate to be considered while arriving at the cargo handling charge has to be the handling rate (i.e. the berth day productivity). The MOPT to, therefore, review the computation of handling charge in the light of the above observation. Consequently, the performance standard proposed are also to be modified.	The handling rates have been worked by computing the quay capacity and yard capacity as per the norms of TAMP. In this case yard capacity has been considered for the handling rates since it is lower than the quay capacity which is the optimal capacity as per TAMP's definition. The mismatch between quay capacity and yard capacity cannot be bridged since land availability is an inherent problem for MoPT.
(iv).	**Capital costs**	
A. (i).	The MOPT to furnish supporting documents to justify the unit rates considered for estimation of each item of civil cost and furnish workings to correlate it to the amount considered in the civil cost estimation.	The soft copy of the final feasibility report containing the unit rates considered for estimation of each item of civil costs has been forwarded to TAMP.
(ii).	MOPT to confirm that all the items listed in the guidelines are considered for estimates of civil construction cost.	Confirmed
b.(i).	The MOPT to furnish documentary evidence in support of the cost of each of the Handling Equipment and furnish workings to correlate it to the amount considered in the capital cost estimation.	------ same as (a) (i) above --------
(ii).	In respect of the handling equipment, the reason for not considering the following equipment prescribed in the guidelines to be furnished: (a). Wagon loader and Truck loaders, 1 No. each. (b). 2 Nos. Cranes.	Rapid in Motion wagon handling system has been considered for wagon loading. Truck loaders may not be necessary. This is because the existing Berth No.7 has truck loading facility which is adequate to cater to the local coal importers. Cranes do not form part of the handling equipment. For occasional use, such equipment can be hired.
(iii).	The purpose for considering Rapid Rail Loading System to be brought out with justification.	Rapid rail loading ensures fast and environment friendly operations and hence rake dispatch will be faster and heavier. This will be for loading of coal onto rakes. Each rake can carry about 4000 tons of cargo. One rake rail dispatch per day will result in handling of approx 1.4 million tons of coal per annum.
(iv).	The cost of work shop equipment and electrical control and instrumentation to be considered under the equipment category as stipulated in the guidelines instead of under civil construction cost.	Necessary rectifications have been made. The revised operating costs is furnished.
C.	As per the draft Feasibility Report, the berthing area in front of berth no.8 is required to be deepened. In this connection, MOPT to confirm that the capital dredging envisaged at ₹.2.68 crores is for the purpose stated in the Feasibility Report.	It is confirmed that the costs of deepening the berth area in front of berth No. 8 is estimated at ₹. 2.68 crores.
(v).	**Operating costs**	
A.	MOPT to furnish documentary	The documentary evidence in support of costs of per unit of

	evidence in support of cost of per unit of electricity of ₹6.50.	electricity of ₹.6.50 per unit is furnished. (The document dated 27 October 2015 is an inter-departmental document (from CME to FA & CAO) which states that overall average rate per unit for HT connection works out to ₹.6.50 per unit).
B.	The upfront guidelines for the coal terminal (which has been considered as base by MOPT) prescribe norm for repairs and maintenance cost on handling equipment at 7% of capital cost of equipment. The MOPT is seen to have considered repairs and maintenance cost on handling equipment at 5% of capital cost of equipment. The MOPT to furnish reasons for considering the said cost at a lower level.	MOPT has considered repairs and maintenance costs on handling equipment at 7% and not at 5% i.e. ₹.12.93 crores being 7% of ₹.184.76 crores which is the total cost of handling equipment. The 5% stated above is a typographical error and may be read as 7% with the figure of ₹.12.93 crores remaining unchanged.
C.	**Licence fee**: The MOPT has calculated the licence fee at ₹ 6.59 crores, as given below: [95000 sq.m x ₹ 578/- per 10 sq.m per month (incl. spl. Levy of 9%) x 12 months] In this regard, the MOPT to clarify/ furnish the following:	It is informed that the area of 79,000 m^2 is the total area of the yard available for storage of cargo whereas the area of 95,000 m^2 considered by MOPT in the calculations of licence fee also includes the berth and its associated areas.
(i).	The area proposed to be allotted for berth no.8 in the project is indicated at 79000 sq.m and the same has been considered in the calculation of the optimal yard capacity. Area of 95000 sq.m considered by MOPT in the calculation of the licence fee does not match with area considered in the optimal yard capacity calculation. The mismatch in area to be corrected / explained.	
(ii).	The MOPT to give reference to the Scale of Rates/ Estate Rental schedule and furnish a detailed working to arrive at the per sq.m rate of licence fee considered in the calculation.	The rates have been adopted from the SoR approved by TAMP. Rates are indicated under Part III, Estate Rentals, I(a). The relevant rate is ₹.500/- per 10 sq.m per month effective from June 2012. This has been escalated @ 2% per annum for 3 years and 9% special rate has been applied.
(iii).	The rate of ₹.578/- appears to have been considered by MOPT by taking into account the rate of ₹.500/- per 10 sq.m per month approved in June 2013 (towards occupation of Foreshore land for the purpose of carrying out launch/ barge repairs workshop or any other industry including Commercial/ Non-Commercial purpose at Vasco Da Gama bay at Land other than at surveyed under Chalta no. 3 of P.T Sheet no.7) as base and considering a cumulative escalation of 2% per annum for a period of 3 years and thereafter considering an escalation of 9% towards special levy. The special levy of 9% approved by this	The MOPT pension fund is under-funded to the extent of ₹. 1,000 crores and hence the special rate of 9% has been included towards meeting this liability.

	Authority in the General Revision of SOR of MOPT vide Order No.TAMP/43/2012-MOPT dated 14 June 2013 is for limited purpose to meet the pension liability and is subject to review during the next tariff revision. The MOPT to examine and justify inclusion of the special levy in the estimation of licence fee, recognising that the reference tariff to be approved is for a long horizon of 30 years.	
(iv).	The Upfront guidelines for a coal terminal prescribes a free period of 25 days. As against this, the MOPT has proposed free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo. The MOPT to prescribe the free days in line with the stipulation contained in the Upfront tariff guidelines.	We agree to this proposal. However rates will be kept unchanged.
(v).	In calculation of storage charges, the MOPT has considered that 10% of the optimal capacity will attract storage charge. It implies that the balance quantity of 90% cargo will be evaluated within the free period. The storage charges prescribed following such a proposition for general cargo berths at the Kandla Port Trust has run into problems. There are also issues in storage charges prescribed at the Visakhapatnam Port Trust for PPP Projects. Therefore, the MOPT is requested to review the position and propose storage charges based on the realistic pattern of evaluation of cargo from the storage yard after the proposed free period.	We have considered a plot turn-over of 25 times which will result in cargo dwell time of about 14 days. Since the free time is 25 days, the storage charges realization may not happen. However, for fixation of tariff, 10% of the cargo is considered for the purpose of storage charges.
(vi).	**Berth hire calculation**	
a.	The actual average GRT of the Vessels with dry bulk cargo viz., Coal, Limestone, Gypsum and Others during the years 2012-13 to 2014-15 and upto December 2015, to be furnished.	The actual average GRT of the vessels with dry bulk cargo during the years 2012-13 to 2014-15 and upto December, 2015 as follows: Avg. GRT & Avg. Parcel of Commodities Handled from 2012-13 to 2014-15 & upto Dec. 2015
b.	The actual average parcel size of the Vessels with dry bulk cargo viz., Coal, Limestone, Gypsum and Others during the years 2012-13 to 2014-15 and upto December 2015, to be furnished.	(table below)

Commodities	AVG GRT				AVG. PARCEL			
	2012-13	2013-14	2014-15	April to Dec 2015	2012-13	2013-14	2014-15	April to Dec 2015
Granite	10642	13683	13878	15421	10598	12681	11865	11185
Iron Ore	47521	0	37928	38953	83662	0	46264	71800
Bauxite	23859	31198	32950	37534	35198	51133	53440	69122
Steel Coils/ Stl. Prod.	20460	23796	19020	18408	18408	19494	18581	15587
Container	13384	13464	9019	11632	4725	4564	3700	3523
Wood Chips	0	40024	40510	41780	0	39450	34969	37525
Coal / Coke	41556	44029	42674	41600	61905	68448	64887	62447
Limesto	0	0	35445	31217	0	0	55263	50645

ne								
Fertilizer	18800	17740	19285	18710	19488	129942	15249	17888

c.	Considering the average unloading rate of 45500 tonnes per day in respect of capesize vessels and Panamax vessels and the optimal capacity, the MOPT has arrived at the no. of berth days at 120 days i.e. (5460875 tonnes / 45500 tonnes). Correspondingly, the no. of berth hours have also been worked out at 2880 hours (120 days x 24 hours). This does not match with 256 days considered in the quay capacity calculation at 70% utilisation (365 days X 70%) and in terms of berth hours at 6132 hours (i.e. 256 days x 24 hours). In other words, the berth would remain grossly underutilized. Underutilization of the berth arises because of the constraint of yard capacity. The MOPT to closely examine this issue and find ways and means to minimize the gap between the yard capacity and quay capacity.	It is difficult to bridge the gap between yard and quay capacity considering the bottlenecks at Mormugao Port. Dry bulk cargo like coal and iron ore can only be handled through fully mechanized means considering the impact on the environment.
d.	The basis for considering the ratio of foreign cargo/ vessels and coastal cargo/ vessels at 95: 5, to be explained.	The main cargo like coal, limestone and gypsum are imported cargo. Therefore the assumption of 95:5 is reasonable.
3.	**Berth no. 9A**	
(i).	The Berth no. 9A is envisaged to handle Iron Ore, Bauxite and Other Minerals. The share of each type of cargo is furnished by MOPT at 85 : 10 : 5. When the berth is envisaged to handle multipurpose cargo, the approach of adopting the norms prescribed in the Upfront guidelines as applicable for an Iron ore terminal instead of adopting the norms as prescribed in the Upfront guidelines as applicable for a multipurpose berth to be justified.	The Berth No. 9A is envisaged to handle Iron Ore, however, during the pre-bid meeting, the users expressed their desire to also handle bauxite and other cargoes albeit in lesser quantities through the same mechanized handling plant and requested that tariff also be fixed for the same. So the mechanized handling system will have to be designed to handle iron ore, as well as bauxite, or other similar cargo. Hence the upfront guidelines as applicable for the iron ore terminal have been adopted instead of those applicable for a multipurpose berth as the major commodity would be iron ore.
(ii).	As regards the cargo envisaged to be handled as 'Others', please confirm that the nature of 'other' cargo, its handling rate and productivity parameters are same as the cargo for which reference tariff is proposed.	No specific cargo is envisaged to be handled as "others", however, in order to cater to any unforeseen demand for any cargo not specified in the above category, the "others" category has also been included. It is confirmed that its handling rate and productivity parameters would be the same as the cargo for which reference tariff is proposed.
(iii). a.	**Optimal Capacity** **Quay Capacity**	
(i).	The basis for considering the percentage share of Capesize Vessels and Panamax Vessels at 70 : 30 to be furnished.	Freight advantage to the users through deployment of Capesize vessels will encourage deployment of such vessels for Berth No.9A. But this will be only in case of iron ore exports and may not be for other cargo like bauxite. In the tariff proposal we have considered 85% as iron ore traffic. Therefore the assumption that 70% vessels will be cape is justified.
(ii).	The actual ratio of Capesize Vessels and Panamax Vessels with cargo viz., Iron Ore, Bauxite and Other Minerals visiting MOPT	Presently, the Port does not have the adequate draft/infrastructure to handle capesize vessels at its berths. However, as stated earlier the Port has already awarded the contract for deepening of its channel and associated

	during the years 2012-13 to 2014-15 and upto December 2015 to be furnished.	areas to handle capesize vessels. Hence, the BOT Operator shall also dredge the berth pockets to handle capesize vessels directly at the berth if he intends to set up a mechanised iron ore. All the cargo handled by the Port during the years 2012-13 to 2014-15 has been through non capesize vessels. Capesize vessels handled for iron ore vessels were mostly loaded at outer anchorage.
(iii).	MOPT to confirm that the unloading rate of 60000 tonnes per day and 55000 tonnes per day in respect of Capesize Vessels and Panamax Vessels respectively will be similar while handling all types of cargo viz., Iron Ore, Bauxite and Other Minerals.	It is confirmed that the loading rate of 60,000 tonnes per day and 55,000 tonnes per day in respect of capesize vessels and panamax vessels respectively, will be similar while handling all types of cargo viz iron ore, bauxite and others.
b.	**Yard Capacity**	
(i).	The MOPT to furnish the Land use plan of the area of 58100 square metres of land proposed to be allotted.	The land used plan of MOPT is furnished.
(ii).	The upfront guidelines for the Iron ore terminal prescribe a stack height of 15 tonnes per sq. mtr in respect of Iron ore. The stacking parameter considered by MOPT at 13 for iron ore terminal is not as per the norms prescribed in the 2008 guidelines. In view of this position, the MOPT to review the yard capacity by considering a stack height of 15 tonnes per sq. metre in respect of iron ore as per the prescribed norms.	The iron ore handling facility will be close to the Vasco city. Goa being highly sensitive to environment concerns, we will have to restrict the stack height. So achieving 15 T/sq.m will not be possible. 13 T/sq.m is reasonable.
(iii).	The stack height of 10 tonnes per sq. mtr in respect of Bauxite and Other Minerals, considered by MOPT to be supported with actuals achieved at MOPT during the years 2012 to 2015.	Presently we do not have dedicated plots for handling such cargo. Therefore this information is not available with us.
(iv).	The turnover norm prescribed in 2008 guidelines for iron ore terminal is 12. The plot turnover ratio of 25 considered by MOPT for each of the cargo items at a higher level to be examined carefully and supported with actuals achieved at MOPT during the years 2012 to 2015.	So far as iron ore is concerned, the entire cargo will come by barges. Since rail and road transport will not be involved, higher turnover can be achieved.
(v).	As can be seen from the proposal, there is a wide gap between the optimal quay capacity at 14.946 MMTPA and the optimal yard capacity at 9.577 MMTPA. The yard capacity is seen to be a constraint. In such a scenario, there may be a possibility that in the event of allotment of more area of land to the operator at a later stage it may enable the operator to handle more cargo, thereby resulting in windfall gain to the operator. In view of the above position, the MOPT to improve the yard capacity and minimize the gap between the yard and quay	In the context of Mormugao Port where availability of land is the single biggest constraint, it will be impossible to rectify the mismatch between quay capacity and yard capacity. The tariff proposed for the iron berth is comparable to the existing tariff of berth No.9. We will not be able to reduce the gap between the quay capacity and the yard capacity as stated earlier. It is confirmed that there is no scope for allotment of additional area at a later stage to the BOT operator.

	capacities. If yard capacity cannot be improved for justifiable reasons, the berth having a quay having a quay capacity of 14.946 MMTPA to be fully justified. The MOPT to also confirm that there would not be any scope for allotment of more area of land at a later stage to the BOT operator.	
c.	In the optimal yard capacity calculation, the MOPT has indicated the per day handling rate of Iron Ore at 38828 tonnes and 29868 tonnes for each of Bauxite and Other Minerals. The same is also considered in the calculation of handling rate (i.e. column 3 of the second table at page 12 of the proposal). In this regard, the MOPT to furnish detailed working to arrive at the per day handling rate of Iron Ore at 38828 tonnes and 29868 tonnes for each of Bauxite and Other Minerals. The handling rate considered for arriving at the optimal quay capacity is 90,000 T/day for capesize vessel and 50,000T/day for Panamax vessel. The handling rate to be considered while arriving at the cargo handling charge has to be the handling rate (i.e. the berth day productivity). The MOPT to, therefore, review the computation of handling charge in the light of the above observation. Consequently, the performance standard proposed may also have to be modified.	The handling rate considered for Cape and Panamax vessels are 60,000 and 55,000 respectively which translates into quay capacity of 14.95 MTPA. However, the yard capacity constraint limits the optimal capacity to 9.58 MTPA which translates into an annual average per day handling rate of iron ore at 38,828 tonnes and 29,868 tonnes for bauxite and others. The detail is furnished. The details are also available on page 10 of the proposal. (The document furnished by MOPT does not reflect the workings at arrive at the per day handling rate. The MOPT has again reproduced the calculation of optimal yard capacity, by taking into account the per day handling rate, as already available in its initial proposal).
(iv).	**Capital costs**	
a. (i).	The MOPT to furnish supporting documents to justify the unit rates considered for estimation of each item of civil cost and furnish workings to correlate it to the amount considered in the civil cost estimation.	The soft copy of the final feasibility report containing the unit rates considered for estimation of each item of civil costs has been forwarded to TAMP.
(ii).	MOPT to confirm that all the items listed in the guidelines are considered for estimation of civil construction cost	Confirmed
b.(i).	The MOPT to furnish documentary evidence in support of the cost of each of the Handling Equipment and furnish workings to correlate it to the amount considered in the capital cost estimation.	------ same as (a) (i) --------
(ii).	In respect of handling equipment, the reason for not considering the following equipment prescribed in the guidelines to be furnished. (a). Wagon tippler 2 Nos. (b). Cranes 2 Nos.	The existing terminal handled only Goan ore which was brought by barges. The Karnataka ore normally comes by rail to Sanvordem from where it is shifted to river loading jetties and transferred to barges. Therefore wagon tippling system is not required as the entire ore is handled through barges only. Cranes will not be required for iron ore handling since it will be a totally mechanized system.
(iii).	The consideration of 4 Barge	Barge unloaders will be necessary since 100% of the ore is

	unloaders to be justified with the purpose for considering the Barge unloaders.	barged to the Port. 4 barge unloaders are necessary to maintain the stock of ore in the yard. The barge unloaders proposed will be of 1200 TPH capacity each.
(iv).	The cost of work shop equipment and electrical control and instrumentation to be considered under the equipment category as stipulated in the guidelines instead of under civil construction cost.	Necessary rectifications have been made. The revised operating costs and handling charges is furnished.
c.	As per the draft Feasibility Report, the berthing area in front of berth no.9A is required to be deepened. In this connection, MOPT to confirm that the capital dredging envisaged at ₹.2.68 crores is for the purpose stated in the Feasibility Report.	It is confirmed that the costs of deepening the berth area in front of berth No. 9A is estimated at ₹. 2.68 crores.
(v).	**Operating costs**	
a.	MOPT to furnish documentary evidence in support of per unit of electricity of ₹.6.50.	The documentary evidence in support of costs of per unit of electricity of ₹. 6.50 per unit is furnished. (The document dated 27 October 2015 is an inter-departmental document (from CME to FA & CAO) which states that overall average rate per unit for HT connection works out to ₹6.50 per unit).
b.	The upfront guidelines for the iron ore terminal (which has been considered as base by MOPT) prescribe considering repairs and maintenance cost on handling equipment at 7% of cost of equipment. The MOPT is seen to have considered repairs and maintenance cost on handling equipment at 5% of cost of equipment. The MOPT to furnish the reasons for considering the said cost at a lower level.	MOPT has considered repairs and maintenance costs on handling equipment at 7% and not at 5% i.e. ₹.17.45 crores being 7% of ₹.249.23 crores which is the total cost of handling equipment. The 5% stated above is a typographical error and may be read as 7% with the figure of ₹.17.45 crores remaining unchanged.
c.	**Licence fee:** The MOPT has calculated the licence fee at ₹ 5.90 crores, as given below: [85000 sq.m x ₹ 578/- per 10 sq.m per month (incl. spl. Levy of 9%) x 12 months] In this regard, the MOPT to clarify/ furnish the following:	It is informed that the area of 58,100 m^2 is the total area of the yard available for storage of cargo whereas the area of 85,000 m^2 considered by MOPT in the calculations of licence fee also includes the berth and its associated areas.
(i).	The area proposed to be allotted for berth no. 9A in the project is indicated at 58100 sq.m and the same has been considered in the calculation of the optimal yard capacity. Area of 85000 sq.m considered by MOPT in the calculation of the licence fee does not match with area considered in the optimal yard capacity calculation. The mismatch in area may be corrected / explained.	
(ii).	The query raised at Serial No.2(v) (c) (ii) and (iii) above are reiterated for this berth as well.	The rates have been adopted from the SoR approved by TAMP. Rates are indicated under Part III, Estate Rentals, I(a). The relevant rate is ₹.500/- per 10 sq. m per month effective from June 2012. This has been escalated @ 2% per annum for 3 years and 9% special rate has been applied.

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<tr><td>(iii).</td><td>The Upfront guidelines for an iron ore terminal prescribes a free period of 25 days. As against this, the MOPT has proposed a free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo. The MOPT is requested to prescribe the free days in line with the stipulation contained in the Upfront tariff guidelines.</td><td>We agree to this proposal. However rates will be kept unchanged.</td></tr>
<tr><td>(iv).</td><td>In calculation of storage charges, the MOPT has considered that 10% of the optimal capacity will attract storage charge. It implies that the balance quantity of 90% cargo will be evaluated within the free period. The storage charges prescribed following such a proposition for general cargo berths at the Kandla Port Trust has run into problems. There are also issues in storage charges prescribed at the Visakhapatnam Port Trust for PPP Projects. Therefore, the MOPT is requested to review the position and propose storage charges based on the realistic pattern of evaluation of cargo from the storage yard after the proposed free period.</td><td>We have considered a plot turn-over of 25 times which will result in cargo dwell time of about 14 days. Since the free time is 25 days, the storage charges realization may not happen. However, for fixation of tariff 10% of the cargo is considered for the purpose of storage charges.</td></tr>
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<tr><td>b.</td><td>The actual average parcel size of the Vessels with cargo viz., Iron ore, Bauxite and Other Minerals during the years 2012-13 to 2014-15 and upto December 2015, to be furnished.</td><td>-------- same as above ---------</td></tr>
<tr><td>c.</td><td>Considering the average handling rate of 58500 tonnes per day in respect of capesize vessels and Panamax vessels and the optimal</td><td>It is difficult to bridge the yard and quay capacity considering the bottlenecks at Mormugao Port. Dry bulk cargo like iron ore can only be handled through fully mechanized means considering the impact on the</td></tr>
</table>

	capacity, the MOPT has arrived at the no. of berth days at 164 days i.e.(9577219 tonnes / 58500 tonnes). Correspondingly, the no. of berth hours have also been worked out at 3929 hours (164 days x 24 hours). This does not match with 256 days considered in the quay capacity calculation at 70% utilisation (365 days X 70%) and in terms of berth hours at 6132 hours (256 days x 24 hours). In other words, the berth would remain grossly underutilized. Underutilisation of berth arises because of the constraint of yard capacity. The MOPT to closely examine the issue and find ways and means to minimize the gap between the yard and quay capacity.	environment and the pattern of handling in this area.
d.	The basis for considering the ratio of foreign cargo/ vessels and coastal cargo/ vessels at 95 : 5, to be explained.	The main cargo namely iron ore and Bauxite are export cargo. Therefore the assumption of 95:5 is reasonable.
4.	**Berth no. 9**	
(i).	As regards the cargo envisaged to be handled as 'Others', please confirm that the nature of 'other' cargo, its handling rate and productivity parameters are same as the cargo for which reference tariff is proposed.	Confirmed
(ii).	The MOPT to furnish the Land use plan of the area of 70000 square metres of land proposed to be allotted.	(The MOPT has furnished the Land Use plan).
(iii).	**Optimal Capacity**	
a.	The basis for considering the percentage share of Minerals, Steel coil & Products, Agro Products, Fertilisers, Others and Containers at 25 : 20 : 5 : 5 : 15 : 30 to be furnished.	The percentage share of minerals have been arrived at after discussions with the Technical Consultants.
b.	In the calculation of optimal capacity of berth no. 9, the handling rate of 'Others' has been correctly indicated by MOPT at 2500 tonnes per day, as per norms prescribed in the Upfront guidelines of 2008. When the cargo is envisaged to be handled by a 100 tonne HMC, a 50% increase over the handling rate prescribed in the guidelines for other bulk cargo is reckoned with. Accordingly, updated handling rate of 3750 tonnes per day per HMC for other cargo ought to have been considered by MOPT. Thus, for deployment of 2 no. of HMCs, the handling rate works out to 7500 tonnes per day, instead of 15000 tonnes considered by the MOPT. The MOPT to, therefore, rectify the calculation of optimal capacity in	It is envisaged that the 'Others' shall include dry bulk cargoes like Coal, Limestone, Minerals, etc handled at Berth 9 using the HMC for which the norm as per the Guidelines is 7500 Tonnes/Day.

	respect of 'Others'.	
(iv).	**Capital costs**	
a.(i).	The MOPT to furnish supporting documents to justify the unit rates considered for estimation of each item of civil cost and furnish workings to correlate it to the amount considered in the civil cost estimation.	The soft copy of the final feasibility report containing the unit rates considered for estimation of each item of civil costs has been forwarded to TAMP.
(ii).	MOPT to confirm that all the items listed in the guidelines are considered for estimation of civil construction cost.	Confirmed
b.(i).	The MOPT to furnish documentary evidence in support of the cost of each of the Handling Equipment and furnish workings to correlate it to the amount considered in the capital cost estimation.	------ same as (a) (i) --------
c.	Explain the reasons for deviation from the normative list of equipment prescribed for multipurpose cargo berth in the 2008 guidelines. The MOPT to also furnish an analysis supported with workings to justify the number of each type of equipment envisaged to be used at the facility, to show that given the productivity of each type of the equipment, the numbers of different equipment commensurate with the optimal capacity of the multipurpose cargo berth.	Level luffing cranes have been replaced with 100 HMCs since HMC are more efficient and versatile compared with level luffing cranes. 2 HMCs are provided to take care of breakdowns and also to handle gearless vessels. Reach stackers and tractor trailers have been included so that containers also can be handled. Apart from these there are no deviations from the normative list.
(v). a.	**Operating costs** **Fuel Cost**	
(i).	MOPT to furnish documentary evidence in support of cost of fuel at ₹ 60/- per litre.	Due to the fluctuation in crude prices, fuel price undergoes constant variation**.** An average of ₹60/- per litre was considered. The HSD prices in Jan 2014, Jan 2015 and Jan 2016 are ₹66.37, ₹ 53.15 and ₹ 45.24 respectively
(ii).	The basis for considering fuel consumption of 7 litres per hour for Tractor Trailers and 12 litres per hour for Reach Stackers to be explained with justification.	Fuel consumption has been ascertained from the existing yard operations. In case of Tractor trailer, the consumption works out to 16 litres per hour. For the reach stacker it works out to 25 litres per hour. The revised operating costs and handling charges is furnished.
c.	**Licence fee**	
(i).	Queries raised at Serial No.2 (v) (c) (ii) and (iii) are reiterated for this berth as well.	It is informed that the area of 54600 m^2 is the total area of the yard available for storage of cargo whereas the area of 70,000 m^2 considered by MOPT in the calculations of licence fee also includes the berth and its associated areas. The rates have been adopted from the SoR approved by TAMP. Rates are indicated under Part III, Estate Rentals , I(a). The relevant rate is ₹.500/- per 10 sq.m per month effective from June 2012. This has been escalated @ 2% per annum for 3 years and 9% special rate has been applied. The MOPT pension fund is under-funded to the extent of ₹.1,000 crores and hence the special rate of 9% has been included towards meeting this liability.
(vi).	The basis for considering the ratio of foreign cargo/ vessels and Coastal cargo/ vessels at 100 : 0 in respect of Minerals and Steel Coil & Products, 90 : 10 in respect of	Based on the cargo and the origin/destination of import/export these ratios have been considered.

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<tr><td>(vii).</td><td>The Upfront guidelines for a multipurpose cargo berth prescribes a free period of 5 days for import cargo and a free period of 15 days for export cargo. As against this, the MOPT is seen to have prescribed a free period of 15 days for import cargo and a free period of 25 days for export cargo. The MOPT to prescribe the free days in line with the stipulation contained in the Upfront tariff guidelines.</td><td>We agree to this proposal. However rates will be kept unchanged.</td></tr>
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<tr><td>Iron Ore</td><td>47521</td><td>0</td><td>37928</td><td>38953</td><td>83662</td><td>0</td><td>46264</td><td>71800</td></tr>
<tr><td>Bauxite</td><td>23859</td><td>31198</td><td>32950</td><td>37534</td><td>35198</td><td>51133</td><td>53440</td><td>69122</td></tr>
<tr><td>Steel Coils/ Stl. Prod.</td><td>20460</td><td>23796</td><td>19020</td><td>18408</td><td>18408</td><td>19494</td><td>18581</td><td>15587</td></tr>
<tr><td>Container</td><td>13384</td><td>13464</td><td>9019</td><td>11632</td><td>4725</td><td>4564</td><td>3700</td><td>3523</td></tr>
<tr><td>Wood Chips</td><td>0</td><td>40024</td><td>40510</td><td>41780</td><td>0</td><td>39450</td><td>34969</td><td>37525</td></tr>
<tr><td>Coal / Coke</td><td>41556</td><td>44029</td><td>42674</td><td>41600</td><td>61905</td><td>68448</td><td>64887</td><td>62447</td></tr>
<tr><td>Limestone</td><td>0</td><td>0</td><td>35445</td><td>31217</td><td>0</td><td>0</td><td>55263</td><td>50645</td></tr>
<tr><td>Fertilizer</td><td>18800</td><td>17740</td><td>19285</td><td>18710</td><td>19488</td><td>129942</td><td>15249</td><td>17888</td></tr>
</table></td></tr>
<tr><td>b.</td><td>The actual average parcel size of the Vessels with cargo viz., Minerals, Steel coil & Products, Agro Products, Fertilisers, Others and Containers during the years 2012-13 to 2014-15 and upto December 2015, to be furnished.</td><td>--------- same as above ---------</td></tr>
<tr><td>5.</td><td><u>Reference Tariff Schedule</u></td><td></td></tr>
<tr><td></td><td>The MOPT has proposed general conditionalities prescribing criteria for categorization of a vessel as a foreign going vessel or coastal vessel. These proposed conditionalities to be modified in line with the amendments effected vide Order no. TAMP/53/2015-VOCPT dated 26 November 2015, wherein all the Major Port Trusts have been directed to amend their existing Scale of Rates by suitably incorporating the amended provisions.</td><td>This shall be complied with.</td></tr>
</table>

6. A joint hearing on the case in reference was held on 8 January 2016 at the MOPT premises. The MOPT made a brief power-point presentation of its proposal. At the joint hearing,

the MOPT and the concerned users/ organisation bodies/ prospective applicants have made their submissions

7. As decided during the joint hearing, the users/ prospective applicants were requested to furnish their comments. Accordingly, some of the users/ prospective applicants have furnished their comments. These comments were forwarded to MOPT. The MOPT has responded vide its letter dated 05 February 2016.

8.1. The MOPT vide its email dated 17 February 2016 has furnished the revised Scale of Rates (SOR) for prescription of storage charges irrespective of the three berths as given below:

		First 7 Days	**8th to 14th Day**	**15th Day Onwards**
	Cargo			
1	Coal / Coke	3.35	5.03	6.70
2	Limestone	3.35	5.03	6.70
3	Gypsum	3.35	5.03	6.70
4	Other Dry Bulk Cargo	3.35	5.03	6.70
5	Minerals	3.14	4.71	6.27
6	Steel Coil & Products	6.54	9.80	13.07
7	Agro Products	3.92	5.88	7.84
8	Fertilisers	3.92	5.88	7.84
9	Others	5.23	7.84	10.46
10	Containers (per TEU)	81.69	122.54	163.39
11	Iron Ore	1.96	2.94	3.92
12	Bauxite	1.96	2.94	3.92
13	Other Minerals	1.96	2.94	3.92

8.2. Vide the said e-mail, the MOPT has also requested to incorporate the latest guidelines on Priority berthing issued by the Ministry of Shipping as applicable to the existing Scale of Rates of all the Major Port Trusts.

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

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

(i). (a). The Mormugao Port Trust (MOPT), whose major cargo share in the past has been iron ore, has now decided to diversify and handle other commodities including containers at the port. In this connection, the Port has decided to convert its existing Berth No.8 (Liquid berth), Berth No.9 including Mechanical Ore Handling Plant (MOHP), existing barge jetties and passenger launch jetty, to handle a variety of multipurpose cargo like Coal, Containers, Iron Ore and other general cargo on PPP basis. Accordingly, the MOPT has approached this Authority for fixation of Reference tariff for handling Mechanised Coal/ Limestone/ Gypsum at Berth No.8, General Cargo viz. Minerals, Steel Coil & Products, Agro Products, Fertilisers, Other Dry Bulk Cargo and containers at Berth No. 9 and handling Mechanised Iron Ore/ Bauxite/ Other Ores and Mineral at Berth 9A. The proposal of the port has the approval of its Board of Trustees.

(b). After shifting of liquid handling from berth 8 and dismantling MOHP from berth 9 and Barge berth, the entire berth length is reported to be 950 metres. Out of which, the length of the proposed coal berth at berth no.8 is reported to be 350 metres, berth length for General Cargo berth no. 9 is 260 metres and the balance 340 metres is for the proposed iron ore berth at berth no.9A. The MOPT has confirmed that the entire project comprising of 3 berths would be bid out to a single BOT Operator. The Port has reported that the 3 proposed berths has been merged into a single project after taking into account the position that one full length of Railway rake requires a railway line with 720 mtrs. Length.

(ii). Clause 2.4 of the tariff guidelines of 2013 stipulates that if in the view of the Major Port Trust, the tariff determined for a particular commodity under 2008 guidelines at that Major Port Trust or any other Major Port Trust is not a representative Reference Tariff for that commodity, then the Major Port is free to approach this Authority with a proposal to fix Reference Tariff under 2008 guidelines for the project giving detailed and sufficient justification. On the ground that there is no comparable berth either in MOPT or in any other port on account of the difference in optimal capacity and Capital Cost, the MOPT has formulated the proposal following the 2008 Upfront tariff guidelines, in line with the stipulation contained in clause 2.4 of the Reference Tariff Guidelines.

(iii). The Goa Mineral Ore Exporters Association (GMOEA) in their comments have stated about MOPT not consulting or taking feedback of the iron ore exporters from Goa, being the main users, while finalising the proposal in reference. In this regard, as brought out by MOPT, though the views of Iron ore users were not taken into consideration while conceptualising the project, all Major stake holders including members of GMOEA have been consulted before finalizing the report. The MOPT has also stated that the Board of Trustees of the MOPT is also represented by the Port Users including Iron Ore exporters, and that the proposal of the port has the approval of its Board of Trustees.

(iv). The MOPT had initially filed the proposal in December 2015. Subsequently, while responding to the additional information/ clarification sought by us, the MOPT vide its letter dated 27 January 2016 has made some changes in the cost statements. The changes are to the extent of rectification of some calculation errors. The revised Cost statement furnished by MOPT in January 2016, along with the information/ clarification furnished by the MOPT during the proceedings of the case in reference is considered in the analysis.

(v). The proposal of MOPT envisages mechanised handling of Coal, Limestone, Gypsum and Other dry bulk cargo at Berth no. 8, mechanised handling of Iron Ore, Bauxite, Other ores and Minerals at Berth no. 9 and handling of multipurpose general cargo viz., Minerals, Steel Coil & Products, Agro products, Fertilisers, Others) and Containers at Berth no. 9A by semi-mechanised means. However, the MOPT in its proposal as well as during the joint hearing has stated that the PPP operator would have the freedom to handle any cargo of his choice. In this regard, the GMOEA have submitted that by offering the so called freedom to the operator, the scope of the project has been kept very vague and flexible by MOPT and that based on such vague project specification, the tariff setting would be premature, inaccurate and detrimental to the users. In view of his position, the GMOEA is of the view that the tariff should be determined only after the specific details of the project are known. The SWPL has also requested to consider the 1st Berth as general cargo berth, 2nd Berth as Mechanised Berth for Iron ore/ Bauxite and the 3rd Berth for Coal/ Coke/ Limestone and that the Berth hire charges is to be applied accordingly. In this regard, the MOPT has stated that to ensure terminals are not idle for want of cargo, it wants to give flexibility to the successful bidder to decide the actual configuration of the project. According to MOPT, it is the prerogative of the winning bidder to decide what mix or type of cargo he would handle. However, the MOPT has confirmed that the reference tariff as fixed under the case in reference would only be applicable. The MOPT has also confirmed that cargoes not specifically mentioned in the scale of rates would fall in the category of "others" and the corresponding rates would apply.

(vi). Given that the Port has decided to redevelop its existing Berth No.8 (Liquid berth), Berth No.9 including Mechanical Ore Handling Plant (MOHP), existing barge jetties and passenger launch jetty, the GMOEA is of the view that existing equipment at Berth No.9 or equipment ordered by the Port can be made use of for the new iron ore berth to reduce the cost and ultimately the tariff. Further, the GMOEA has also stated that income to be received from sale of existing equipment and scrap from the existing berth has not been captured in the cost projections. In this regard, it is relevant to mention here that the existing equipment, being the asset of the MOPT, gets reflected in the books of MOPT and in the event of sale such equipment, the sale proceeds would accrue to the MOPT. In the case in reference, a tariff is being fixed for an Operator who would be operating the said berths in future taking into account the capital costs and the operating costs for the project. In such a scenario, income to be received from sale of existing equipment would not find a place in the costing of the BOT operator, as confirmed by the MOPT.

(vii). (a). During the joint hearing held on 8 January 2016 in MOPT at the proposal in reference, the Adani Ports and Special Economic Zone Ltd. (APSEZL) made a request for holding one more joint hearing on the proposal in reference, on the ground that it requires some more time to offer its comments. In this connection, it has already been conveyed to the APSEZL during the joint hearing itself that given the time frame given by the Reference Tariff guidelines to process the proposal in reference in a time bound manner, it may not be possible to hold another joint hearing. However, the APSEZL was given an opportunity to submit its comments in writing on the subject proposal. Accordingly, the APSEZL has furnished its comments vide its letter dated 27 January 2016.

(b). Similarly, the South West Port Limited (SWPL) (one of the BOT operators at MOPT) vide its letter dated 14 March 2016 has, interalia, expressed its desire to participate in the joint hearing. In this regard, it is relevant to mention here that a joint hearing on the case in reference has already been held on 8 January 2016 at the MOPT premises. The SWPL was represented by its two officials. The submissions made by them during the joint hearing have been taken on record. The question of holding a joint hearing again, therefore, does not arise.

A. Berth no. 8:

(viii). Though, the proposed Berth no. 8 is envisaged to handle Coal, Limestone, Gypsum and Others in the ratio of 75 : 10 : 10 : 5, the MOPT is seen to have adopted the norms prescribed in the Upfront guidelines as applicable for a Coal terminal instead of adopting the norms as prescribed in the Upfront guidelines as applicable for a multipurpose berth. In this regard, the MOPT has stated that the major commodity handled would be coal and that limestone, gypsum and other cargoes would be handled only in lesser quantities. It is noteworthy that inclusion of handling of Limestone, Gypsum and Others is reported to be based on a suggestion to this effect expressed by the users at the pre-bid meeting. The MOPT has also stated that the envisaged mechanized handling system would be designed to handle coal, gypsum, limestone and other similar cargo. Even the prescription of a rate for 'Others' is reported to enable handle any unforeseen dry bulk cargo not specified in the cargo items listed above. Nevertheless, the MOPT has confirmed that the handling rate and productivity parameters in respect of 'Others' would be the same as the cargo for which reference tariff has been proposed by them.

(ix). Optimal Capacity:

(a). Optimal Quay Capacity:

(i). By considering the unloading rate of Capesize Vessel at 50000 tonnes per day and that of the Panamax Vessel at 35000 tonnes per day and the percentage share of Capesize vessels and Panamax vessels at 70:30, the MOPT has arrived at the optimal quay capacity at 11.63 Million Metric Tonnes Per Annum for an operation of 365 days at 70% utilisation.

(ii). The unloading rate of Capesize Vessel at 50000 tonnes per day and that of the Panamax Vessel at 35000 tonnes per day considered by the MOPT are as per the norms prescribed in the Upfront tariff guidelines of 2008 as applicable for a coal terminal. The MOPT has also confirmed that the unloading rate of 50,000 tonnes per day and 35,000 tonnes per day in respect of capesize vessels and panamax vessels respectively, will be similar while handling all types of cargo viz coal, limestone, gypsum and others. This position is relied upon.

(iii). The percentage share of Capesize vessels and Panamax vessels at 70:30 as considered by MOPT is reported to be based on the position that coal having a share of 75% would be brought in by Capesize vessels and other cargo viz., Limestone, Gypsum and Others, totally constituting a share of 25% would be predominantly brought in by Panamax vessels. Since the Port does not have the adequate infrastructure to handle capesize vessels at its berths at present, the share of capsize vessels in the current scenario couldn't be determined. Given that the percentage share of Capesize vessels and Panamax vessels at 70:30 is as per the Feasibility Report and since none of the users have raised any objection with regard to the percentage share of Capesize vessels and Panamax vessels, the ratio of 70:30 as considered by the MOPT is relied upon in the analysis.

(iv). Accordingly, the optimal quay capacity as determined by the MOPT at 11.63 Million Metric Tonnes Per Annum is considered in this analysis.

(b). Optimal Yard Capacity:

(i). The upfront tariff guidelines stipulate that the yard capacity is to be assessed for the area of the yard made available by the port for development. In its proposal, the port envisages allotment of 95000 sq.m of land. Out of the said area, 79000 sq.m of land has been earmarked to stack coal, limestone, gypsum and others and the balance 16000 sq.m of land is envisaged to be used for ancillary purposes.

(ii). The norms for estimation of yard capacity prescribes 70% of the total stack yard area for stacking cargo. In this regard, since the entire project of 3 berths along with the backup area would be handed over to one concessionaire, the MOPT is of the view that a lot of facilities like roads, dust suppression system, office, rail infrastructure etc. will be common to all the 3 berths. In view of this position, the MOPT, as against the prescribed norm of 70%, has considered 75% utilisation of the stack area.

(iii). (a). The guidelines for upfront tariff setting prescribe the stacking factor norm at 3 tonnes per square metre for stacking coal. The MOPT has considered the stacking factor at 5 tonnes per square metre. It is noteworthy that while fixing upfront tariff for coal terminal at Visakhapatnam Port Trust (VPT), a stack height of 6 tonnes per sq. metre was considered. In this regard, the MOPT has argued that in the project in reference, since the Coal is proposed to be stacked in a shed which will be totally covered, it would be difficult to achieve a stack height of 6 tonnes per sq. metre. The stack height of coal at 5 tonnes per sq. metre as considered by the port is relied upon.

(b). The guidelines for upfront tariff setting do not prescribe any stacking factor norm for cargo viz., limestone, gypsum and others. The MOPT in its proposal has considered a stack height of 7 tonnes per sq. metre in respect of limestone, gypsum and others, based on the operational factors. The stack height of limestone, gypsum and others as considered by the port is relied upon.

(iv). The turnover norm prescribed in 2008 guidelines for coal terminal is 12. The MOPT has, however, considered the plot turnover ratio of 25 for each of the cargo taking into account the smooth evacuation of cargo anticipated by it in the next few years, owing to the doubling of the rail lines. The MOPT has also sought to justify its position by stating that the turnover ratio of an existing BOT operator at MOPT viz., South West Port Limited (SWPL) is more than 25 times, since its entire cargo is evacuated by rail.

(v). By considering 75% of the utilization of land for the purpose of stacking, the stacking factor and turnover ratio as discussed above, the total optimal yard capacity of the facility works out to 5.70 million tonnes per annum at 70% utilisation.

(c). Thus, the optimal capacity of the facility is considered at 5.70 million tonnes per annum, being the lower among the quay capacity (11.63 million tonnes per annum) and yard capacity (5.70 million tonnes per annum).

(d). As can be seen from the above, there is a wide gap between the optimal quay capacity at 11.63 MMTPA and the optimal yard capacity at 5.70 MMTPA. The yard capacity is seen as a constraint. In other words, though the quay has a capacity of 11.63 Million Tonnes to handle, the prospective BOT operator may not be in a position to handle more than what the yard can stack. In such a scenario, there may be a possibility that in the event of allotment of more area of land at a later stage it may enable the operator to handle more cargo, thereby resulting in windfall gain to the operator. When asked to improve the yard capacity and minimize the gap between quay capacity and yard capacity, the MOPT has expressed its inability to rectify the mismatch between quay capacity and yard capacity owing to constraints in availability of land. In this context, the MOPT has also confirmed that there is no scope for allotment of additional area at a later stage to the BOT operator.

(x). Capital Costs:

(a). The capital cost as estimated by the MOPT in its proposal is ₹472.96 crores of which ₹380.98 crores is towards cargo handling services and ₹ 91.98 crores is towards berthing activity. Further, out of the ₹380.98 crores estimated for the cargo handling activity, ₹187.82 crores is towards civil works and ₹ 193.16 crores is towards cost of Equipment.

(b). Cargo handling activity:

(i). Civil works:

(a). The upfront tariff guidelines broadly indicate the civil works involved for the coal berth and require the port to estimate civil cost. The items of civil works considered by MOPT are towards Civil and Structural Works for Stacker-

Reclaimer, Transition structure between berth and land, Ground improvement, Covered Dome Stackyard, Rail Line Construction, Control Room / Substation / Buildings, Internal Road & Pavement, Junction Houses & Drive Houses, cost of Reclamation and Miscellaneous cost @ 5% of civil costs. As confirmed by MOPT, the items of civil works generally adhere to normative list of items stipulated in the guidelines for the coal terminal.

(b). The cost of the civil works is reported to be as per the Feasibility Report and hence considered in the analysis.

(c). Under the civil capital cost, the MOPT has considered miscellaneous capital cost @ 5% of the estimated civil cost. Similarly, the MOPT has considered miscellaneous capital cost @ 5% of the estimated equipment cost. It may be relevant to mention here that the Upfront tariff guidelines of 2008 stipulate estimating Miscellaneous capital cost @ 5% of the total of the estimated civil and equipment. The MOPT, instead, has separately considered the Miscellaneous cost under the respective category.

(ii). Equipment cost:

(a). The capital cost under this head includes the cost of 2 nos. of Grab Unloaders, 2 nos. of Stacker cum Reclaimer, 4 nos. of Pay Loaders and Dozers, Conveying System (2360 mtrs.), Rapid Rail loading system, Electrical, Control & Instrumentation, Utilities, Workshops and Miscellaneous Cost @ 5% of total equipment costs.

(b). The equipment and their respective nos. generally adhere to list of equipment as prescribed in the 2008 guidelines for the coal terminal except for the deployment of Rapid Rail loading system which is not prescribed in the guidelines. The MOPT is also not seen to have considered deployment of 1 no. each of Wagon loader and Truck loaders and 2 Nos. Cranes.

In this regard, the MOPT has clarified that Rapid rail loading which ensures faster and heavier rake dispatch and environment friendly operations is considered for wagon loading, truck loaders may not be necessary and that for the occasional use of the cranes, it can be hired.

It is noteworthy that Clause 3.2. of the guidelines for upfront tariff setting gives flexibility to this Authority to make necessary adjustment in the norms based on the justification furnished by the port in view of the port's specific conditions having impact on the norms prescribed in the guidelines. In view of clarification furnished by the MOPT and also since none of the prospective bidders nor the users have raised any pointed objection to the proposed equipping plan, this Authority is inclined to consider the equipping plan as proposed by the port, which is also based on the Feasibility Report.

(c). The cost of the Equipment is reported to be as per the Feasibility Report and hence considered in the analysis.

(d). For the reasons stated earlier, miscellaneous capital cost @ 5% of the estimated equipment cost is also considered in the analysis.

(c). Berthing activity:

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

(ii). The capital cost under the berthing activity amounting to ₹91.98 crores is towards cost of Dismantling of existing berth, Capital Dredging, Berth structure and Miscellaneous Cost @ 5%. The items of civil works estimated by MOPT broadly adhere to list of civil works items stipulated in the guidelines.

(iii). The MOPT has confirmed that the cost of capital dredging is in respect of deepening the berth area in front of berth No. 8. The capital cost under the Berthing activity is reported to be as per the Feasibility Report and hence considered in the analysis.

(iv). The port has also estimated miscellaneous capital cost at 5% of the capital cost pertaining to the berthing activity. The 2008 upfront tariff guidelines do not specifically provide for estimation of miscellaneous capital cost under berthing service. However, in the case of fixation of upfront/ reference tariff for the various projects at various major port trusts, the miscellaneous capital cost at 5% under the berthing activity has been considered to meet contingencies under the Berthing Service. In view of this position, 5% miscellaneous capital cost is considered as proposed by the MOPT.

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

(xii). Operating costs:

(a). Power cost:

The power cost has been estimated by the MOPT based on the power consumption of 1.4 units per tonne for the optimal capacity and at the cost of electricity at ₹ 6.50 per unit.

The power consumption of 1.4 units per tonne is as per the norm prescribed in the upfront guidelines for the coal terminal. The MOPT has furnished documentary proof in support of the per unit cost of electricity.

(b). Repairs and maintenance cost is estimated by MOPT at 1% on the civil cost and 7% on equipment cost. Further, the MOPT has estimated Insurance and Other Expenses at 1% and 5% of the gross fixed assets respectively. These estimations are seen to be in line with the norms prescribed in the upfront guidelines for the coal terminal.

Owing to the high wear and tear on the equipment handling limestone, the SWPL has requested to consider Repair and Maintenance on Mechanical Equipment at 10% of Mechanical and Electrical equipment. In this regard, it is to state that the proposal of the MOPT envisages deployment of a fleet of equipment at Berth no. 8 to handle coal/ coke/ limestone/ gypsum and others. The proposal does not identify use of a particular equipment to handle limestone alone. Moreover, according to MOPT, the limestone constitutes only about 10% of the total optimal capacity envisaged to be handled at Berth no. 8. Further, the upfront tariff guidelines for a coal terminal, which has been taken as base by the MOPT for determining tariff for the Berth no. 8, stipulates considering Repair and Maintenance cost on Mechanical Equipment at 7% of Mechanical and Electrical equipment, which has been rightly considered by MOPT. In view of this position, there is no case to consider Repair and Maintenance on Mechanical Equipment at 10% of Mechanical and Electrical equipment.

(c). The upfront guidelines require estimation of depreciation based on the rates prescribed in the Companies Act. The MOPT has calculated depreciation at 3.17 % in respect of civil works and 6.33% in respect of equipment. The rates of depreciation adopted by MOPT are reported to be as per the Companies Act, 2013, and hence relied upon.

(d). The guidelines stipulate that the license fee for land is to be considered as per the rates prescribed in the Scale of Rates of the concerned major port trust. Considering the total area of 95000 sq.m and based on the rate of ₹578/- per 10 sq.m per month (incl. spl. Levy of 9%), the MOPT has calculated the licence fee at ₹ 6.59 crores per annum.

The rate of ₹ 578/- per 10 sq.m per month has been considered by MOPT by taking into account the rate of ₹ 500/- per 10 sq.m per month approved in June 2013 (towards occupation of Foreshore land for the purpose of carrying out launch/ barge repairs workshop or any other industry including Commercial/ Non-Commercial purpose at Vasco Da Gama bay at Land other than at surveyed under Chalta no. 3 of P.T Sheet no.7) as base and considering a cumulative escalation of 2% per annum for a period of 3 years and thereafter considering an escalation of 9% towards special levy.

As stated above, the unit rate considered by the MOPT includes the component of 9% pension fund levy on the prevailing base license fee. It is relevant to mention that the 9% Pension Fund Levy approved in the General Revision of Scale of Rates of MOPT vide Order No.TAMP/43/2012-MOPT dated 14 June 2013 is for specific purpose to augment the Pension Fund balance and is subject to review in the next tariff cycle. Since the upfront tariff determined here is for a long horizon of 30 years, it is not found appropriate to perpetuate pension fund levy which is an one-time special levy in the determination of upfront tariff. It is noteworthy that the MOPT had not considered Pension Fund levy in its earlier upfront tariff proposal relating to coal terminal (covered storage dome). Hence, there is no justification for considering this item only for this project.

In view of the above position, the license fee estimated by the MOPT is suitably modified excluding the component of 9% pension fund levy. Accordingly, the modified licence fee works out to ₹ 6.05 crores. Exclusion of pension fund levy in the computation of rental will, however, not put MOPT in any disadvantageous position because the computation for arriving at the said pension fund levy approved in the last tariff Order had not factored the income likely to accrue from the license fee of the proposed project.

(xiii). 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 @ 3.17% on the capital cost relating to the berthing activity while estimating the annual revenue requirement of berthing service apart from the prescribed norm of 1% towards maintenance.

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

In view of the position explained above, the element of insurance cost and depreciation cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service. However, while doing so, no insurance, depreciation and maintenance has been considered on the cost involved in the dismantling of the existing berth.

(xiv). 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)**.

(a). The annual revenue requirement for the Cargo handling activity which is the sum of the operating cost and return on capital employed is estimated at ₹128.62 crores as against ₹129.18 crores estimated by the port.

(b). As stipulated in the upfront guidelines for coal terminal, MOPT has apportioned 98% of the total revenue requirement towards handling charges and 1% each towards storage charges and miscellaneous charges.

(c). Since the main cargo like coal, limestone and gypsum are imported cargo, the MOPT has assumed the ratio of foreign cargo and coastal cargo in the ratio of 95:5.

(d). Generally, in the case of fixation of tariff for the Coal berth, the annual revenue requirement is envisaged to be recovered from the entire optimal capacity. Even in the case of Multipurpose berth, productivity of each cargo as considered in the optimal quay capacity calculation and the ratio of foreign and coastal cargo is taken into account to arrive at the per tonne handling rates in respect of various cargo items, so as to enable the operator to meet the estimated revenue requirement. In the case in reference, since the MOPT envisages handling of multipurpose cargo each with a different productivity, the MOPT has arrived at the per tonne handling charges based on the productivity of each cargo. For the purpose, the MOPT has arrived at the productivity of each cargo, by taking the total yard capacity at 5.70 MMTPA in the ratio of 75:10:10:5 for each cargo viz., Coal/Coke, Limestone, Gypsum and Others, as already discussed earlier. Thereafter, by considering 70% utilization for 365 days, the MOPT has arrived at the productivity for coal at 20291 tonnes per day and 28408 tonnes per day each in respect of each of Limestone, Gypsum and Others. Accordingly, based on the said productivity and taking into account the ratio of foreign and coastal cargo, the MOPT has arrived at the per tonne handling charges for the cargo envisage to be handled at the facility. Considering the appropriateness in the method adopted by MOPT and taking into account the slight change in the annual revenue requirement as discussed earlier, the per tonne handling charges works out to ₹. 248.10 per tonne in respect of coal and ₹. 177.21 per tonne in respect of Limestone, Gypsum and Others, instead of ₹. 249.17 per tonne in respect of coal and ₹. 177.98 per tonne in respect of Limestone, Gypsum and Others, as proposed by MOPT. A working sheet in this regard is attached as **Annex – I(b).**

The SWPL has made a request to rework the cargo handling charges for Limestone based on the type and nature of cargo so that charges for handling Limestone are more than that of Coal/ Coke. It is relevant to mention here that the Reference Tariff for all PPP projects at other major port trusts fixed under the 2013 Reference tariff guidelines, the per tonne handling charge is arrived based on the productivity of each cargo category to meet the estimated revenue requirement. The same approach has been adopted by MOPT to arrive at the per tonne handling charges for coal/ coke/ limestone/ gypsum and others. In other words, the per tonne cargo handling charges for Limestone is based on the type and nature of Limestone.

(e). As per policy direction of the Government, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets) and coastal vessels not exceeding 60% of the normal cargo/ vessel related charges. Accordingly, the MOPT has proposed concessional rates for handling Coal/Coke, Limestone, Gypsum and Others in line with the Government policy.

(f). The MOPT has stated that the handling charges is a composite charge for loading/ unloading of cargo, transferring the same upto the point of storage, storage at the stack yard upto the prescribed free period, reclaiming from stack yard and loading onto the ship/ train/ trucks as applicable.

(g). The Upfront guidelines for a coal terminal prescribes a free period of 25 days. As against this, the MOPT has proposed free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo. A free period of 25 days for all types of export cargo is seen to be as per the upfront guidelines. Considering that the MOPT has considered a plot turnover ratio of 25 as discussed earlier, it will result in cargo dwell time of about 15 days, which is proposed as the free days by the MOPT. Incidentally, a free period of 15 days was prescribed for the import coal cargo at Adani Mormugao Port Terminal Private Limited (AMPTL) (another BOT operator at MOPT, whose base tariff has been fixed following the stipulations contained in the 2008 upfront tariff guidelines) on account of considering a higher turnover ratio.

As stated earlier, the MOPT has apportioned 1% of the annual revenue requirement amounting to ₹ 1.29 crores, to be recovered from the levy of storage charges. For this purpose, the port has considered that 10% of the optimal capacity will attract storage charge, thereby implying that the balance quantity of 90% cargo will be evacuated within the free period. The MOPT has stated that with a plot turnover ratio of 25, it will result in cargo dwell time of about 15 days. Since the free period is 15 days for all types of import cargo and a free period of 25 days for all types of export cargo, the MOPT does not really anticipate any realization of the storage charges, but has nevertheless considered 10% of the cargo to attract storage charges. Considering 10% of the optimal capacity and the estimated revenue requirement of 1.29 crores and considering a slab period of 7 days, the storage rate works to ₹ 3.22 per tonne per day for the 1st slab, instead of ₹ 3.24 per tonne per day for the 1st slab, as proposed by the port. The rate for the 2nd and 3rd slab is prescribed at 1.5 times and 2 times the rate of the first slab, as proposed by MOPT.

(h). Considering 1% of the annual revenue requirement amounting to ₹ 1.29 crores to be recovered from the levy of miscellaneous charges, the rate works out to ₹ 2.26 per tonne instead of ₹ 2.27 per tonne proposed by the port. The charges is prescribed towards rendering all miscellaneous services such as sweeping, collecting, spillage from yard conveyors, galleries etc., moisturizing of cargo, dust separation services, environment, Security charges etc.

(i). The annual revenue requirement for the Berthing activity which is the sum of the operating cost and return on capital employed is estimated at ₹19.40 crores as against ₹19.48 crores estimated by the port.

The methodology followed by the MOPT for arriving at the berth hire is in general found to be in line with the approach followed in other upfront/ reference tariff cases. Based on the ratio of foreign vessels and coastal vessels at 95:5 and taking into account the revenue requirement from berthing service and considering the ratio of the GRT hours of the coastal vessels and GRT hours of foreign going vessels as per the details furnished by the MOPT, the berth hire rate works out to ₹ 0.84 per GRT per hour or part thereof for foreign going vessels and ₹ 0.50 per GRT per hour or part thereof for the coastal vessels, as against ₹ 0.85 per GRT per hour or part thereof for foreign going vessels and ₹ 0.50 per GRT per hour or part thereof for the coastal vessels, as proposed by the Port. The prescription of berth hire charges in Rupee denomination only is in line with the decision taken by this Authority while finalising the upfront/ reference berth hire at the other Major Port Trusts.

(xv). Since the MOPT has proposed a common Reference tariff Schedule to be applied commonly among all the three berths viz., 8, 9 and 9A, the conditionalities relating to the Reference tariff Schedule is being discussed commonly at the later part of the analysis.

B. Berth no. 9A

(xvi). Though, the proposed Berth no. 9A is envisaged to handle Iron Ore, Bauxite and Other Minerals in the ratio of 85 : 10 : 5, the MOPT is seen to have adopted the norms prescribed in the Upfront guidelines as applicable for an Iron ore terminal instead of adopting the norms as prescribed in the Upfront guidelines as applicable for a multipurpose berth. The major commodity would be iron ore and that bauxite and other minerals would be handled only in lesser quantities. It is noteworthy that inclusion of handling of Bauxite and Other Minerals is reported to be based on a suggestion to this effect expressed by the stakeholder at the pre-bid meeting. Even the prescription of a rate for 'Other minerals' is reported to enable handle any unforeseen cargo not specified in the cargo items listed above. Nevertheless, the MOPT has confirmed that the handling rate and productivity parameters in respect of 'Others' would be the same as the cargo for which reference tariff has been proposed by them.

(xvii). Optimal Capacity:

(a). Optimal Quay Capacity:

(i). By considering the unloading rate of Capesize Vessel at 60000 tonnes per day and that of the Panamax Vessel at 55000 tonnes per day and the percentage share of Capesize vessels and Panamax vessels at 70:30, the MOPT has arrived at the optimal quay capacity at 14.95 Million Metric Tonnes Per Annum for an operation of 365 days at 70% utilisation.

(ii). The unloading rate of Capesize Vessel at 60000 tonnes per day and that of the Panamax Vessel at 55000 tonnes per day considered by the MOPT are as per the norms prescribed in the Upfront tariff guidelines of 2008 as applicable for an Iron ore terminal. The MOPT has also confirmed that the unloading rate of 60,000 tonnes per day and 55,000 tonnes per day in respect of capesize vessels and panamax vessels respectively, will be similar while handling all types of cargo Bauxite and Other Minerals.

(iii). The percentage share of Capesize vessels and Panamax vessels at 70:30 as considered by MOPT is reported to be based on the position that iron ore having a share of 85% would be brought in by Capesize vessels and other cargo viz., Bauxite and Other Minerals totally constituting a share of 15% would be predominantly brought in by Panamax vessels. Since the Port does not have the adequate infrastructure to handle capesize vessels at its berths at present, the share of capsize vessels in the current scenario couldn't be determined. Given that the percentage share of Capesize vessels and Panamax vessels at 70:30 is as per the Feasibility Report and since none of the users have raised any objection with regard to the percentage share of Capesize vessels and Panamax vessels, the ratio of 70:30 as considered by the MOPT is relied upon in the analysis.

(iv). Accordingly, the optimal quay capacity as determined by the MOPT at 14.95 Million Metric Tonnes Per Annum is considered in this analysis.

(b). Optimal Yard Capacity:

(i). The upfront tariff guidelines stipulate that the yard capacity is to be assessed for the area of the yard made available by the port for development. In its proposal, the port envisages allotment of 85000 sq.m of land. Out of the said area, 58100 sq.m of land has been earmarked to stack Iron Ore, Bauxite and Other Minerals and the balance 26900 sq.m of land is envisaged to be used for ancillary purposes.

(ii). The norms for estimation of yard capacity prescribes 70% of the total stack yard area that can be used for stacking cargo. In this regard, since the entire project of 3 berths along with the backup area would be handed over to one concessionaire, the MOPT is of the view that a lot of facilities like roads, dust suppression system, office, rail infrastructure etc. will be common to all the 3 berths. In view of this position, the MOPT, as against the prescribed norm of 70%, has considered 75% utilisation of the stack area.

(iii). (a). As against the stacking factor norm at 15 tonnes per square metre for stacking iron ore as prescribed in the upfront tariff guidelines, the MOPT has considered the stacking factor at 13 tonnes per square metre. On a request to consider a stack height of 15 tonnes per sq. metre in respect of iron ore as per the prescribed norms, the MOPT has stated that given the iron ore handling facility would be close to the Vasco city and since Goa being highly sensitive to environment concerns, the stack height of 15 tonnes per sq. metre cannot be achieved. Based on the justification furnished by the port, a stacking factor at 13 tonnes per square metre, as proposed by the port is relied upon.

(b). The guidelines for upfront tariff setting do not prescribe any stacking factor norm for cargo viz., Bauxite and Other Minerals. The MOPT in its proposal has considered a stack height of 10 tonnes per sq. metre in respect of

Bauxite and Other Minerals, based on the operational factors, which is relied upon.

(iv). The turnover norm prescribed in 2008 guidelines for iron ore terminal is 12. The MOPT has, however, considered the plot turnover ratio of 25 for each of the cargo taking into account movement of the entire cargo by barges, without depending on the rail and road transport .

(v). By considering 75% of the utilization of land for the purpose of stacking, the stacking factor and turnover ratio as discussed above, the total optimal yard capacity of the facility works out to 9.57 million tonnes per annum at 70% utilisation.

(c). Thus, the optimal capacity of the facility is considered at 9.57 million tonnes per annum, being the lower among the quay capacity (14.95 million tonnes per annum) and yard capacity (9.57 million tonnes per annum). A minor rounding off error noticed in the calculation of MOPT is rectified.

(d). As can be seen from the above, there is a wide gap between the optimal quay capacity at 14.95 MMTPA and the optimal yard capacity at 9.57 MMTPA. The yard capacity is seen as a constraint. In other words, though the quay has a capacity to handle 14.95 Million Tonnes of cargo, the prospective BOT operator may not be in a position to handle more than what the yard can stack. In such a scenario, there may be a possibility that in the event of allotment of more area of land at a later stage it may enable the operator to handle more cargo, thereby resulting in windfall gain to the operator. When asked to improve the yard capacity and minimize the gap between quay capacity and yard capacity, the MOPT has expressed its inability to rectify the mismatch between quay capacity and yard capacity owing to constraints in availability of land. In this context, the MOPT has also confirmed that there is no scope for allotment of additional area at a later stage to the BOT operator.

(xviii). Capital Costs:

(a). The capital cost as estimated by the MOPT in its proposal is ₹468.74 crores of which ₹358.58 crores is towards cargo handling services and ₹ 110.16 crores is towards berthing activity. Further, out of the ₹358.58 crores estimated for the cargo handling activity, ₹100.95 crores is towards civil works and ₹ 257.63 crores is towards cost of Equipment.

(b). Cargo handling activity:

(i). Civil works:

(a). The upfront tariff guidelines broadly indicate the civil works involved for the iron ore berth and require the port to estimate civil cost. The items of civil works considered by MOPT are towards Civil and Structural Works for Stacker-Reclaimer, Transition structure between berth and land, Ground improvement, Reclamation of Barge Berth Area, Control Room / Substation / Buildings, Internal Road & Pavement, Junction Houses & Drive Houses, cost of Reclamation and Miscellaneous cost @ 5% of civil costs. As confirmed by MOPT, the items of civil works generally adhere to normative list of items stipulated in the guidelines for the coal terminal.

(b). The cost of the civil works is reported to be as per the Feasibility Report and hence considered in the analysis.

(c). Under the civil capital cost, the MOPT has considered miscellaneous capital cost @ 5% of the estimated civil cost. Similarly, the MOPT has considered miscellaneous capital cost @ 5% of the estimated equipment cost. It may be relevant to mention here that the Upfront tariff guidelines of 2008 stipulate estimating Miscellaneous capital cost @ 5% of the total of the estimated civil and equipment. The MOPT instead has separately considered the Miscellaneous cost under the respective category.

(ii). Equipment cost:

(a). The capital cost under this head includes the cost of 4 nos. of Barge Unloaders, 2 nos. of Ship Loaders, 2 nos. of Stacker cum Reclaimer, 4 nos. of Pay Loaders and Dozers, Conveying System (3320 mtrs.), Electrical, Control & Instrumentation, Utilities, Workshops and Miscellaneous Cost @ 5% of total equipment costs.

(b). The equipment and their respective nos. generally adhere to list of equipment as prescribed in the 2008 guidelines for the iron ore terminal except for the deployment of 4 nos. of Barge Unloaders which is not prescribed in the guidelines. The MOPT is also not seen to have considered deployment of 2 no. each of Wagon tipplers and Cranes.

In this regard, the MOPT has stated that since the entire iron ore is envisaged to be handled by barges only and since iron ore is envisaged to be handled by a totally mechanized system, the deployment of wagon tippling system and Cranes are not found necessary. Further, since 100% iron ore would be handled by barges, 4 nos. of (1200 TPH) barge unloaders would be necessary to maintain the stock of ore in the yard

It is noteworthy that Clause 3.2. of the guidelines for upfront tariff setting gives flexibility to this Authority to make necessary adjustment in the norms based on the justification furnished by the port in view of the port's specific conditions having impact on the norms prescribed in the guidelines. In view of clarification furnished by the MOPT and also since none of the prospective bidders nor the users have raised any pointed objection to the proposed equipping plan, this Authority is inclined to consider the equipping plan as proposed by the port, which is based on the Feasibility Report.

(c). The cost of the Equipment is reported to be as per the Feasibility Report and hence considered in the analysis.

(d). For the reasons stated earlier, miscellaneous capital cost @ 5% of the estimated equipment cost is also considered in the analysis.

(c). Berthing activity:

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

(ii). The capital cost under the berthing activity amounting to ₹110.16 crores is towards cost of Dismantling of existing berth, Capital Dredging, Construction of Barge Berths and Miscellaneous Cost @ 5%. The items of civil works estimated by MOPT broadly adhere to list of civil works items stipulated in the guidelines.

(iii). The MOPT has confirmed that the cost of capital dredging is in respect of deepening the berth area in front of berth No. 9A. The capital cost under the Berthing activity is reported to be as per the Feasibility Report and hence considered in the analysis.

(iv). The port has also estimated miscellaneous capital cost at 5% of the capital cost pertaining to the berthing activity. The 2008 upfront tariff guidelines do not specifically provide for estimation of miscellaneous capital cost under berthing service. However, in the case of fixation of upfront/ reference tariff for the various projects at various major port trusts, the miscellaneous capital cost at 5% under the berthing activity has been considered to meet contingencies under the Berthing Service. In view of this position, 5% miscellaneous capital cost is considered as proposed by the MOPT.

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

(xx). Operating costs:

(a). Power cost:

The power cost has been estimated by the MOPT based on the power consumption of 1.4 units per tonne for the optimal capacity and at the cost of electricity at ₹ 6.50 per unit.

The power consumption of 1.4 units per tonne is as per the norm prescribed in the upfront guidelines for the iron ore terminal. The MOPT has furnished documentary proof in support of the per unit cost of electricity.

(b). Repairs and maintenance cost is estimated by MOPT at 1% on the civil cost and 7% on equipment cost. Further, the MOPT has estimated Insurance and Other Expenses at 1% and 5% of the gross fixed assets respectively. These estimations are seen to be in line with the norms prescribed in the upfront guidelines for the iron ore terminal.

(c). The upfront guidelines require estimation of depreciation based on the rates prescribed in the Companies Act. The MOPT has calculated depreciation at 3.17 % in respect of civil works and 6.33% in respect of equipment. The rates of depreciation adopted by MOPT is reported to be as per the Companies Act, 2013, and hence relied upon.

(d). The guidelines stipulate that the license fee for land is to be considered as per the rates prescribed in the Scale of Rates of the concerned major port trust. Considering the total area of 85000 sq.m and based on the rate of ₹578/- per 10 sq.m per month (incl. spl. Levy of 9%), the MOPT has calculated the licence fee at ₹ 6.59 crores per annum.

For the reasons brought out earlier, the license fee estimated by the MOPT is suitably modified excluding the component of 9% pension fund levy. Accordingly, the modified licence fee works out to ₹ 5.41 crores. Exclusion of pension fund levy in the computation of lease rental will, however, not put MOPT in any disadvantageous position because the computation for arriving at the said pension fund levy approved in the last tariff Order had not factored the income likely to accrue from the license fee of the proposed project.

(xxi). 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 @ 3.17% on the capital cost relating to the berthing activity while estimating the annual revenue requirement of berthing service apart from the prescribed norm of 1% towards maintenance.

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

In view of the position explained above, the element of insurance cost and depreciation cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service. However, while doing so, no insurance, depreciation and maintenance has been considered on the cost involved in the dismantling of the existing berth.

(xxii). 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 – II(a)**.

(a). The annual revenue requirement for the Cargo handling activity which is the sum of the operating cost and return on capital employed is estimated at ₹131.56 crores as against ₹132.06 crores estimated by the port.

(b). As stipulated in the upfront guidelines for iron ore terminal, MOPT has apportioned 98% of the total revenue requirement towards handling charges and 1% each towards storage charges and miscellaneous charges.

(c). Since the main cargo like Iron ore, Bauxite and Other minerals are export cargo, the MOPT has assumed the ratio of foreign cargo and coastal cargo at 95:5.

(d). Generally, in the case of fixation of tariff for the Iron ore berth, the annual revenue requirement is envisaged to be recovered from the entire optimal capacity. Even in the case of Multipurpose berth, productivity of each cargo as considered in the optimal quay capacity calculation and the ratio of foreign and coastal cargo is taken into account to arrive at the per tonne handling rates in respect of various cargo items, so as to enable the operator to meet the estimated revenue requirement. In the case in reference, since the MOPT envisages handling of multipurpose cargo each with a different productivity, the MOPT has arrived at the per tonne handling charges based on the productivity of each cargo. For the purpose, the MOPT has arrived at the productivity of each cargo, taking the total yard capacity at 9.57 MMTPA in the ratio of 85:10:5 for each cargo viz., Iron ore, Bauxite and Other minerals, as already discussed earlier. Thereafter, by considering 70% utilization for 365 days, the MOPT has arrived at the productivity for Iron ore at 38828 tonnes per day and 29866 tonnes per day each in respect of Bauxite and Other Minerals. Accordingly, based on the said productivity and taking into account the ratio of foreign and coastal cargo, the MOPT has arrived at the per tonne handling charges for the cargo envisage to be handled at the facility. The approach adopted by MOPT is seen to be appropriate. However, due to a minor calculation error noticed in the calculation of optimal capacity as discussed earlier, the productivity for Iron ore is considered at 38800 tonnes per day and 29846 tonnes per day each is considered in respect of Bauxite and Other Minerals. A working sheet in this regard is attached as **Annex – II(b)**.

(e). As per policy direction of the Government, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets) and coastal vessels not exceeding 60% of the normal cargo/ vessel related charges. However, the MOPT has proposed concessional rates for handling Iron Ore also alongwith other cargo items.

(f). Rectifying this position, and taking into account the revised productivity and the slight change in the annual revenue requirement as discussed earlier, the per tonne handling charges works out to ₹130.06 per tonne in respect of iron ore and ₹ 172.52 per tonne each in respect of Bauxite and Other Minerals, instead of ₹ 133.12 per tonne in respect of Iron ore and ₹ 173.06 per tonne in respect of Bauxite and Other Minerals, as proposed by MOPT. A working sheet in this regard is attached as **Annex – II(b)**.

(g). The MOPT has stated that the handling charge is a composite charge for loading/ unloading of cargo, transferring the same upto the point of storage, storage at the stack yard upto the prescribed free period, reclaiming from stack yard and loading onto the ship/ train/ trucks as applicable.

(h). The Upfront guidelines for an iron ore terminal prescribes a free period of 25 days. As against this, the MOPT has proposed free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo. A free period of 25 days for all types of export cargo is seen to be as per the upfront guidelines. Considering that the MOPT has considered a plot turnover ratio of 25 as discussed earlier, it will result in cargo dwell time of about 15 days, which is proposed as the free days by the MOPT.

As stated earlier, the MOPT has apportioned 1% of the annual revenue requirement amounting to ₹ 1.32 crores, to be recovered from the levy of storage charges. For this purpose, the port has considered that 10% of the optimal capacity will attract storage charge, thereby implying that the balance quantity of 90% cargo will be evacuated within the free period. The MOPT has stated that with a plot turnover ratio of 25, it will result in cargo dwell time of about 15 days. Since the free period is 15 days for all types of import cargo and a free period of 25 days for all types of export cargo, the MOPT does not really anticipate any realization of the storage charges, but has nevertheless considered 10% of the cargo to attract storage charges. Considering 10% of the optimal capacity and the estimated revenue requirement of ₹ 1.32 crores and considering a slab period of 7 days, the storage rate works to ₹ 1.96 per tonne per day for the 1st slab, instead of ₹ 1.97 per tonne per day for the 1st slab, as proposed by the port. The rate for the 2nd and 3rd slab is prescribed at 1.5 times and 2 times the rate of the first slab, as proposed by MOPT.

(i). Considering 1% of the annual revenue requirement amounting to ₹1.32 crores to be recovered from the levy of miscellaneous charges, the rate works out to ₹ 1.37 per tonne instead of ₹ 1.38 per tonne proposed by the port. The charges is prescribed towards rendering all miscellaneous services such as sweeping, collecting, spillage from yard conveyors, galleries etc., moisturizing of cargo, dust separation services, environment, Security charges etc.

(j). The annual revenue requirement for the Berthing activity which is the sum of the operating cost and return on capital employed is estimated at ₹23.13 crores as against ₹23.32 crores estimated by the port.

The methodology followed by the MOPT for arriving at the berth hire is in general found to be in line with the approach followed in other upfront/ reference tariff cases. Based on the ratio of foreign vessels and coastal vessels at 95:5 and taking into account the revenue requirement from berthing service and considering the ratio of the GRT hours of the coastal vessels and GRT hours of foreign going vessels as per the details furnished by the MOPT, the berth hire rate works out to ₹ 0.77 per GRT per hour or part thereof for foreign going vessels and ₹ 0.46 per GRT per hour or part thereof for the coastal vessels, as against ₹ 0.78 per GRT per hour or part thereof for foreign going vessels and ₹ 0.47 per GRT per hour or part thereof for the coastal vessels, as proposed by the port. The prescription of berth hire charges in Rupee denomination only is in line with the decision taken by this Authority while finalising the upfront/ reference berth hire at the other Major Port Trusts.

(xxiii). Since the MOPT has proposed a common Reference tariff Schedule to be applied commonly among all the three berths viz., 8, 9 and 9A, the conditionalities relating to the Reference tariff Schedule is being discussed commonly at the later part of the analysis.

C. Berth no. 9

(xxiv). The proposed Berth no. 9 is envisaged to handle multipurpose cargo viz. Minerals, Steel Coil & Products, Agro Products, Fertilisers, Others and Containers in the ratio of 25:20:5:5:15:30 respectively. Since the berth no. 9 is envisaged to handle multipurpose cargo, the MOPT has followed the norms prescribed in the upfront tariff setting guidelines for the multipurpose berth, to arrive at the per tonne handling charge for each of the above mentioned cargo.

(xxv). In its proposal, the port envisages allotment of 70000 sq.m of land. Out of the said area, 54600 sq.m of land has been earmarked for stacking the cargo and the balance 15400 sq.m of land is envisaged to be used for ancillary purposes.

(xxvi). Optimal Capacity:

(a). By considering the percentage share of each type of cargo viz., Minerals, Steel Coil & Products, Agro Products, Fertilisers, Others and Containers and the handling rate of each of the above mentioned cargo based on deployment of 100 tonne Harbour Mobile Cranes (HMCs), the MOPT has determined the optimal capacity of the multipurpose berth.

(b). The ratio of each of the cargo is reported to have been arrived at by MOPT after discussions with the Technical Consultants.

(c). The MOPT has considered the handling rate of 12500 tonnes per day in respect of Minerals, 6000 tonnes per day in respect of Steel Coil & Products, 10000 tonnes per day each in respect of Agro Products and Fertilisers, 7500 tonnes per day in respect of Others and 20 moves per hour in respect of Containers, to arrive at the optimal capacity of the facility.

(d). In this regard, it is relevant to mention here that the tariff guidelines of 2008 prescribe a norm for cargo handling at multipurpose berth at a rate of 10,000 tonnes per day for dry bulk cargo comprising food grains &

fertilizer and coal, limestone, minerals etc., 4000 tonnes per day for steel & bagged cargo and 2500 tonnes per day for others with the deployment of 3 numbers of wharf cranes of 20 tonne capacity each.

Considering the higher handling capacity of HMC as compared to the aggregate capacity of the wharf cranes prescribed in the 2008 guidelines and in the absence of any other norms available, a 25% increase over the handling rate of 10,000 tonnes per day for dry bulk cargo and a 50% increase over the handling rate prescribed in the guidelines for steel and bagged cargo and other bulk cargo have been considered in the cases relating to fixation of hire charge of HMC at various major port trusts as well as in the upfront/ reference tariff fixation of multipurpose berth at various major port trusts where deployment of HMCs is envisaged. This results in an improved normative handling rate of 12500 tonnes in respect of dry bulk cargo, 6,000 tonnes per day for steel and bagged cargo and 3750 tonnes per day for other break bulk cargo. Similarly, this Authority vide its Order no. TAMP/25/2013-MOPT dated 04 August 2014 while fixing tariff for handling of containers by a 100 tonne HMC at MOPT, for the reasons mentioned in the said Order, has considered the handling rate of 20 moves per hour while calculating the normative capacity of handling containers by a 100 tonne HMC.

In view of the above position, the handling rate of dry bulk cargo viz., agro products and fertilisers is considered at 12500 tonnes per day instead of 10000 tonnes per day, as considered by the MOPT.

Further, in respect of 'Others', the MOPT has clarified that the 'Others' shall include dry bulk cargoes like Coal, Limestone, Minerals, etc. In view of the above position, the handling rate of 'Others' is also considered at 12500 tonnes per day instead of 7500 tonnes per day, as considered by the MOPT.

(e). Taking into account the cargo mix and the handling rate of each of the cargo as discussed above, the optimal capacity of the multipurpose berth with the deployment of 2 nos. of 100 tonne HMCs at 70% utilisation, works out to 4.69 Million Metric Tonnes Per Annum instead of 4.18 Million Metric Tonnes Per Annum, as assessed by the MOPT.

(xxvii). Capital Costs:

(a). The capital cost as estimated by the MOPT in its proposal is ₹203.65 crores of which ₹137.22 crores is towards cargo handling services and ₹ 66.42 crores is towards berthing activity. Further, out of the ₹137.22 crores estimated for the cargo handling activity, ₹58.87 crores is towards civil works and ₹ 78.35 crores is towards cost of Equipment.

(b). Cargo handling activity:

(i). Civil works:

(a). The upfront tariff guidelines broadly indicate the civil works involved for the multipurpose berth and require the port to estimate civil cost. The items of civil works considered by MOPT are towards Transition structure between berth and land, Ground improvement, Control Room/ Substation/ Buildings, Stackyard pavement, Container Stack yard Acces Road, RCD Access Area, Terminal Gate House, Security System and Miscellaneous Cost @ 5% of civil costs. As confirmed by MOPT, the items of civil works generally adhere to normative list of items stipulated in the guidelines for the multipurpose berth.

(b). The cost of the civil works is reported to be as per the Feasibility Report and hence considered in the analysis.

(c). Under the civil capital cost, the MOPT has considered miscellaneous capital cost @ 5% of the estimated civil cost. Similarly, the MOPT has considered miscellaneous capital cost @ 5% of the estimated equipment cost. It may be relevant to mention here that the Upfront tariff guidelines of 2008 stipulate estimating Miscellaneous capital cost @ 5% of the total of the estimated civil and equipment. The MOPT instead has separately considered the Miscellaneous cost under the respective category.

(ii). Equipment cost:

(a). The capital cost under this head includes the cost of 2 nos. of 100 tonne HMCs, 4 nos. of Tractor Trailers, 2 nos. of Reach Stackers, 4 nos. of 5 tonne Fork Lift Trucks, 2 nos. of 10 tonne Fork Lift Trucks, 3 nos. of 10 tonne Pay Loaders, Electrical, Control & Instrumentation, Utilities, Workshops and Miscellaneous Cost @ 5% of total equipment costs.

(b). Provision of Level luffing cranes have been replaced with 2 nos. of 100 HMCs since HMCs are reported by MOPT to be more efficient and versatile compared with level luffing cranes and that deployment of 2 HMCs is reported to take care of breakdowns and to enable handling of gearless vessels. On the ground that the multipurpose berth would also handle containers, the MOPT has envisaged deployment of Reach stackers and tractor trailers. The other equipment and their respective nos. generally adhere to list of equipment as prescribed in the 2008 guidelines for the multipurpose berth.

It is noteworthy that Clause 3.2. of the guidelines for upfront tariff setting gives flexibility to this Authority to make necessary adjustment in the norms based on the justification furnished by the port in view of the port's specific conditions having impact on the norms prescribed in the guidelines. In view of clarification furnished by the MOPT and also since none of the prospective bidders nor the users have raised any pointed objection to the proposed equipping plan, this Authority is inclined to consider the equipping plan as proposed by the port, which is based on the Feasibility Report.

(c). The cost of the Equipment is reported to be as per the Feasibility Report and hence considered in the analysis.

(d). For the reasons stated earlier, miscellaneous capital cost @ 5% of the estimated equipment cost is also considered in the analysis.

(c). Berthing activity:

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

(ii). The capital cost under the berthing activity amounting to ₹66.42 crores is towards cost of Dismantling of existing berth, Berthing structure and Miscellaneous Cost @ 5%. The items of civil works estimated by MOPT broadly adhere to list of civil works items stipulated in the guidelines.

(iii). The capital cost under the Berthing activity is reported to be as per the Feasibility Report and hence considered in the analysis.

(iv). The port has also estimated miscellaneous capital cost at 5% of the capital cost pertaining to the berthing activity. The 2008 upfront tariff guidelines do not specifically provide for estimation of miscellaneous capital cost under berthing service. However, in the case of fixation of upfront/ reference tariff for the various projects at various major port trusts, the miscellaneous capital cost at 5% under the berthing activity has been considered to meet contingencies under the Berthing Service. In view of this position, 5% miscellaneous capital cost is considered as proposed by the MOPT.

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

(xxix). Operating costs:

(a). Fuel costs:

The MOPT has considered the fuel costs in respect of the HMCs, Tractor Trailers, Reach Stackers, 5 tonne Fork Lift Trucks, 10 tonne Fork Lift Trucks and 10 tonne Pay Loaders.

The fuel consumption of 70 litres per hour per HMC, considered by the MOPT is in line with the fuel consumption considered while prescribing the hire charge for a 100 tonne HMC at the other Major Port Trusts.

The MOPT has considered the fuel consumption of trailers at 16 litres per hour per trailer and the fuel consumption of Reach Stackers at 25 litres per hour per stacker, reportedly based on the fuel consumption ascertained by it from the existing yard operations. The MOPT has not furnished any document in support to the fuel consumption considered by it in respect of trailers and Reach Stackers. Considering the annual fuel consumption of Reach Stackers and Trailers as proposed by port to handle the 14.71 lakh TEU's (being optimal capacity of containers), the fuel consumption works out to around 2 litres per TEU, as compared to the consumption norm of 4 litres per TEU prescribed in the 2008 upfront guidelines for the container terminal, for the relevant fleet of equipment. Therefore, the fuel consumption as relied upon by the MOPT is considered in the analysis.

The fuel consumption of 7 litres per hour per 5 tonne Forklift trucks, 10 litres per hour per 10 tonne Forklift trucks and 12 litres per hour per 10 tonne Payloaders is seen to be in line with the norms of fuel consumption prescribed in the upfront tariff guidelines for the multipurpose berth.

The consideration of fuel consumption for operation of each of the equipment is for 6132 hours. The unit rate of fuel at ₹ 60/- per litre considered by MOPT has been updated with the prevailing rate of fuel at ₹ 46.13 per litre, which has been considered in the estimation of fuel cost of all the equipment in the analysis.

(b). Repairs and maintenance cost is estimated by MOPT at 1% on the civil cost and 5% on equipment cost. Further, the MOPT has estimated

Insurance and Other Expenses at 1% and 5% of the gross fixed assets respectively. These estimations are seen to be in line with the norms prescribed in the upfront guidelines for the multipurpose berth.

(c). The upfront guidelines require estimation of depreciation based on the rates prescribed in the Companies Act. The MOPT has calculated depreciation at 3.17 % in respect of civil works and 6.33% in respect of equipment. The rates of depreciation adopted by MOPT is reported to be as per the Companies Act, 2013, and hence relied upon.

(d). The guidelines stipulate that the license fee for land is to be considered as per the rates prescribed in the Scale of Rates of the concerned major port trust. Considering the total area of 70000 sq.m and based on the rate of ₹578/- per 10 sq.m per month (incl. spl. Levy of 9%), the MOPT has calculated the licence fee at ₹ 6.59 crores per annum.

For the reasons brought out earlier, the license fee estimated by the MOPT is suitably modified excluding the component of 9% pension fund levy. Accordingly, the modified licence fee works out to ₹ 4.46 crores. Exclusion of pension fund levy in the computation of lease rental will, however, not put MOPT in any disadvantageous position because the computation for arriving at the said pension fund levy approved in the last tariff Order had not factored the income likely to accrue from the license fee of the proposed project.

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

The MOPT has considered insurance @ 1% and depreciation @ 3.17% on the capital cost relating to the berthing activity while estimating the annual revenue requirement of berthing service, apart from the prescribed norm of 1% towards maintenance.

Although the guidelines restrict the operating cost at 1% of the berth cost, the asset requires adequate insurance coverage and the fact that the value of the asset will depreciate due to wear and tear can also not be denied. While fixing upfront berth hire at the other Major Port Trusts, 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, insurance cost and depreciation cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service. However, while doing so, no insurance, depreciation and maintenance has been considered on the cost involved in the dismantling of the existing berth.

(xxxi). 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 – III(a)**.

(a). The annual revenue requirement for the Cargo handling activity which is the sum of the operating cost and return on capital employed is estimated at ₹55.54 crores as against ₹58.81 crores estimated by the port.

(b). As stipulated in the upfront guidelines for multipurpose berth, MOPT has apportioned 90% of the total revenue requirement towards handling charges and 5% each towards storage charges and miscellaneous charges.

(c). Based on the cargo and the origin/ destination of import/ export the MOPT has assumed the ratio of foreign cargo and coastal cargo at 90:10 in respect of Agro Products, Fertilisers and Containers and 95:5 in respect of Other dry bulk cargo. Incase of Minerals and Steel coils and products, the entire cargo is assumed to be foreign in nature.

(d). Taking into account the productivity of each cargo as considered in the optimal capacity calculation and the ratio of foreign and coastal cargo, the per tonne handling rates in respect of various cargo items has been arrived at by MOPT to enable meet the estimated revenue requirement. Based on the methodology followed by MOPT and taking into account the revised productivity and the slight change in the annual revenue requirement as discussed earlier, the per tonne handling charges works out to ₹ 78.26 per tonne in respect of Minerals, ₹ 162.40 per tonne in respect of Steel Coil & Products, ₹ 82.79 per tonne in respect of Agro Products, ₹ 82.79 per tonne in respect of Fertilisers, ₹ 79.02 per tonne in respect of Other dry bulk cargo and ₹ 2128.34 per Container. A working in this regard is attached as **Annex – III(b)(i)**.

With regard to the request of SWPL to revisit the rates for Fertilisers and Agro Products and of Containers, as they are on the lower side, it is stated that, as brought out earlier, the per tonne handling charge for Fertilisers and Agro Products and the per TEU rate for handling a Container is arrived based on the productivity of each cargo category to meet the estimated revenue requirement, in line with the approach adopted in other upfront/ reference tariff cases.

(e). As per policy direction of the Government, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets) and coastal vessels not exceeding 60% of the normal cargo/ vessel related charges. Accordingly, MOPT has prescribed concessional rates for handling all cargo at the multipurpose berth.

(f). The MOPT has stated that the handling charges is a composite charge for loading/ unloading of cargo, transferring the same upto the point of storage, storage at the stack yard upto the prescribed free period, reclaiming from stack yard and loading onto the ship/ train/ trucks as applicable.

(g). The Upfront guidelines for a multipurpose berth prescribes a free period of 5 days for import cargo and 15 days export cargo. As against this, the MOPT has proposed free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo. Considering that the MOPT has proposed a common Reference tariff Schedule, the free period of 15 days for all types of import cargo and a free period of 25 days for all types of export cargo, as discussed earlier, has been maintained by MOPT for the multipurpose berth also.

As stated earlier, the MOPT has apportioned 1% of the annual revenue requirement amounting to ₹ 2.78 crores, to be recovered from the levy of storage charges. For this purpose, the port has considered that 20% of the optimal capacity will attract storage charge, thereby implying that the balance quantity of 80% cargo will be evacuated within the free period. Considering 20% of the optimal capacity and the estimated revenue requirement of ₹ 2.78 crores and considering a slab period of 7 days, the MOPT has worked out different storage rates for each type of cargo. The approach adopted by MOPT is relied upon. The rate for the 2nd and 3rd slab is prescribed at 1.5 times and 2 times the rate of the first slab, as proposed by MOPT. A working in this regard is attached as **Annex – III(b)(ii)**.

(h). Considering 1% of the annual revenue requirement amounting to ₹2.78 crores to be recovered from the levy of miscellaneous charges, the rate works out to ₹ 7.16 per tonne instead of ₹ 8.73 per tonne proposed by the port. The charges is prescribed towards rendering all miscellaneous services such as sweeping, collecting, spillage from yard conveyors, galleries etc., moisturizing of cargo, dust separation services, environment, Security charges etc.

(i). The annual revenue requirement for the Berthing activity which is the sum of the operating cost and return on capital employed is estimated at ₹13.99 crores as against ₹14.06 crores estimated by the port.

The methodology followed by the MOPT for arriving at the berth hire is in general found to be in line with the approach followed in other upfront/ reference tariff cases. Based on the ratio of foreign vessels and coastal vessels and taking into account the revenue requirement from berthing service and considering the ratio of the GRT hours of the coastal vessels and GRT hours of foreign going vessels as per the details furnished by the MOPT, the berth hire rate works out to ₹ 0.78 per GRT per hour or part thereof for foreign going vessels and ₹ 0.47 per GRT per hour or part thereof for the coastal vessels, as against ₹ 0.79 per GRT per hour or part thereof for foreign going vessels and ₹ 0.47 per GRT per hour or part thereof for the coastal vessels, as proposed by the port. The prescription of berth hire charges in Rupee denomination only is in line with the decision taken by this Authority while finalising the upfront/ reference berth hire at the other Major Port Trusts.

(xxxii). Since the MOPT has proposed a common Reference tariff Schedule to be applied commonly among all the three berths viz., 8, 9 and 9A, the conditionalities relating to the Reference tariff Schedule is being discussed commonly hereinunder:

(xxxiii).Common Reference Tariff Schedule:

(a). In the proposed reference tariff schedule, the MOPT has proposed definitions for common terms like “foreign vessel” and “per day”. These definitions are found to be in line with the definitions prescribed for the respective terms in the other Reference tariff cases and Scale of Rates of other major ports and private terminals.

(b). The Government of India in the Ministry of Shipping (MOS) undercover of its letter No. PT-11033/51/2014-PT dated 11 November 2014 has forwarded a copy of the guidelines on priority berthing of coastal vessels at Major Port issued vide letter No.PT-11033/51/2014-PT dated 4 September 2014 to this Authority. Accordingly, this Authority vide its Order no. TAMP/52/2014-Genl. dated 28 November 2014 has, interalia, approved the replacement of definition of ‘Coastal Vessel’ prescribed in the existing SOR of all the Major Port Trusts as follows:

‘*“Coastal vessel” shall mean any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the Director General of Shipping/ Competent Authority.***’**

The definition of Coastal Vessel as proposed by the MOPT is also in line with the above mentioned definition of ‘Coastal Vessel’.

(c). The MOPT has not proposed general conditionalities prescribing criteria for categorization of a vessel as a foreign going vessel or coastal vessel. Accordingly, these conditionalities have been prescribed in line with the amendments effected vide Order no. TAMP/53/2015-VOCPT dated 26 November 2015, wherein all the Major Port Trusts have been directed to amend their existing Scale of Rates by suitably incorporating the amended provisions.

(d). The MOPT has proposed some general conditionalities like conditionalities prescribing 60% concessional tariff for coastal cargo/ vessels, governing levy of interest on delayed payments/ refunds, rounding off bills, flexibility provided to the terminal operator to levy charges lower than ceiling rates, non-levy of charges for delay beyond a reasonable level attributable to the terminal operator, which are found to be in line with the general conditionalities prescribed in the Upfront/ Reference tariff schedule of various major port trusts.

(e). In the Berth hire Schedule, the common conditionalities like the period of berth hire to be calculated from the time vessel occupies the berth, Berth hire includes charges for services rendered at the berth, such as occupation of berth, rubbish removal, cleaning of berths, fire watch, etc, and no berth hire to be levied for the period when the vessel idles at the 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, stoppage of berth hire after the vessel signaling readiness to sail, exclusion of the ship's waiting time for want of favorable tide conditions, inclement weather, and due to lack of night navigation in the time limit of 4 hours prescribed for the cessation of berth hire, Penal Berth hire to be equal to one-day's (24 hours) berth hire charge for a false signal, definition for “False signal”, are seen to be in line with the conditionalities prescribed at the Scale of Rates of the port and also in other upfront/ reference tariff Schedule.

(f). The MOPT has requested to incorporate the latest guidelines on Priority berthing issued by the Ministry of Shipping as applicable to the existing Scale of Rates of all the Major Port Trusts. In this regard, it is to state that the rate and conditions for granting ousting priority berthing / priority berthing will be governed by extant Government guidelines/ orders in the matter and the provisions prescribed in the Scale of Rates of MOPT. Accordingly, a note to the effect that for providing "Priority Berthing" to any vessel, a fee equivalent to Berth hire charges for a single day or 75% of the berth hire charges calculated for a total period of actual stay at the Berth whichever is higher, shall be levied, is prescribed under the Berth hire Schedule, in line with the prescription available in the Scale of Rates of MOPT.

(g). The MOPT has proposed a provision under the Schedule of Cargo handling charges to state that the handling charges prescribed above is a composite charge for loading/unloading of cargo transferring the same upto the point of storage, storage at the stackyard upto the prescribed free period, reclaiming from stackyard and loading onto the ship/train/trucks as applicable. The proposed note is approved.

(h). In the Storage charges Schedule, the common conditionalities like exclusion of Customs notified holidays and Terminal's non- working days for the purpose of calculation of free period, reckoning of free period for import cargo from the day following the day of completion of final discharge from the vessel and non-accrual of storage charge on cargo 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, are seen to be in line with the conditionalities prescribed at the Scale of Rates of the port and also in other upfront/ reference tariff Schedule.

(i). The note prescribed under the Miscellaneous Charges Schedule stating that the said charge is towards all miscellaneous services such as sweeping, collecting, spillage from yard conveyors, galleries etc., moisturizing of cargo, dust separation services, environment, Security charges etc., is approved.

(i). As per clause 2.8 of the upfront tariff Guidelines of 2008, the tariff caps will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January 2008 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year. In the instant case, since the estimation of capital cost and unit rate of operating cost considered in the reference tariff calculation are as of the year 2015, it is found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as on 1 January 2015, as proposed by the MOPT.

(xxxiv). Clause 2.2 of the revised tariff guidelines of 2013 requires this Authority to prescribe the Reference Tariff along with the Performance Standards. Though the revised guidelines of 2013 do not require this Authority to go into the Performance Standards proposed by the port it may not be unreasonable to assume that the ports would propose reasonable and achievable Performance Standard.

The MOPT has proposed the Common Performance Standard Schedule for all the three berths viz., Berth no. 8, 9 and 9A, by taking into account the handling rates of each cargo envisaged to be handled at the three berths, as discussed earlier. Recognizing that clause 2.2. of the revised guidelines of 2013 requires this Authority to notify the Performance Standards, the Performance Standards as proposed by the MOPT, is notified along with the Reference Tariff Schedule.

11.1. Subject to above, the Reference Tariff Schedule along with conditionalities governing the Reference Tariff has been modified.

11.2. The modified Reference Tariff Schedule is attached as Annex-IV and the Performance Standards as proposed by the MOPT is attached as Annex-V.

11.3. In the result, and for the reasons given above, and based on a collective application of mind, this Authority approves the modified Reference Tariff Schedule and notifies it alongwith the Performance Standards.

11.4. As per clause 2.5 of the Revised Tariff Guidelines 2013, the Reference Tariff and Performance Standards notified by this Authority shall be mentioned in the bid document and subsequently in the Concession Agreement in respect of PPP Projects. Accordingly, the MOPT is advised to incorporate the Reference Tariff and Performance Standards, in the bid document and subsequently in the Concession Agreement in respect of PPP Projects as agreed by the port.

12.1. From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire concession period.

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

12.2. The proposal shall be submitted to this Authority along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standards in the previous 12 months as incorporated in the Concession Agreement or for the actual number of months of operation, in the first year of operation as the case may be.

12.3. On receipt of the proposal, this Authority will seek the views of the MOPT on the achievement of Performance Standards as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.

12.4. In the event of Operator not achieving the Performance Standards as incorporated in the Concession Agreement in previous 12 months, this Authority will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Operator shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.

12.5. After considering the views of the MOPT, if this Authority is satisfied that the Performance Standards as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.

12.6. While considering the proposal for Performance Linked Tariff, this Authority will look into the Performance Standards and its adherence by the Operator. This Authority will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the operator. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.

12.7. From the third year of operation, the Performance Linked Tariff proposal from the PPP operator shall be automatically notified by this Authority subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The PPP operator, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and this Authority shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

12.8. In the event any user has any grievance regarding non-achievement by the PPP operator of the Performance Standards as notified by this Authority, he may prefer a representation to this Authority which, thereafter, shall conduct an inquiry into the representation and give its finding MOPT. The MOPT will be bound to take necessary action on the findings as per the provisions of the respective Concession Agreement.

12.9. Within 15 (fifteen) days of the signing of the Concession Agreement, the concerned operator will forward the Concession Agreement to this Authority which will host it on its website.

12.10. The PPP operator shall furnish to this Authority quarterly reports on cargo traffic, ship berth day output, average turnaround time of ships, average pre-berthing waiting time as well as the tariff realized for each berth. The quarterly reports shall be submitted by the PPP operator within a month following the end of each quarter. Any other information which is required by this Authority shall also be furnished to them from time to time.

12.11. This Authority shall publish on its website all such information received from PPP operator. However, this Authority shall consider a request from any PPP operator about not publishing certain data/ information furnished which is commercially sensitive. Such requests should be accompanied by detailed justification regarding the commercial sensitiveness of the data/information in question and the likely adverse impact on their revenue/ operation of upon publication. Authority's decision in this regard would be final.

(T.S. Balasubramanian)
Member (Finance)

			Annex - I (a)
COST STATEMENT FOR FIXATION OF REFERENCE TARIFF FOR FOR HANDLING COAL, GYPSUM, LIMESTONE & OTHERS AT RE-DEVELOPED BERTH NO. 8 AT MORMUGAO PORT TRUST (MOPT)			
			(₹ In Crores)
Sr. No.	**Particulars**	**Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016**	**As considered by TAMP**
I	**Optimal capacity**		
(i)	**Optimal Quay Capacity**		
	Unloading rate of Capesize Vessel (in tonnes) (P1)	50,000	50,000
	Unloading rate of Panamax Vessel (in tonnes) (P2)	35,000	35,000
	Percentage share of Capacity of Capesize Vessel (S1)	70%	70%
	Percentage share of of Capacity of Panamax Vessel (S2)	30%	30%
	Optimal Quay capacity [(P1 x S1) + (P2 x S2)] x 365 x 70%	**11625250**	**11625250**
(ii).	**Optimal yard capacity**		
A)	**For Coal**		
	Area of land available (in sq. metres) (A)	79000	79000
	Percentage of yard area to be used for stacking (Q)	70%	70%
	Utilization Factor (75% of Optimal yard Area) (U)	75%	75%
	Stacking factor (tonnes per sq. metre) (B)	5	5
	Turnover ratio (C)	25	25
	Optimal Yard Capacity for Coal (A * Q * U * B * C)	**5184375**	**5184375**
B)	**For Limestone, Gypsum & Others**		
	Area of land available (in sq. metres) (A)	79000	79000
	Percentage of yard area to be used for stacking (Q)	75%	75%
	Utilization Factor (75% of Optimal yard Area) (U)	70%	70%
	Stacking factor (tonnes per sq. metre) (B)	7	7
	Turnover ratio (C)	25	25
	Optimal Yard Capacity for Limestone, Gypsum & others (A * Q * U * B * C)	**7258125**	**7258125**
C)	**Total Optimal Yard Capacity [(A) x 75%) + (B) x 25%)]**	**5702813**	**5702813**
(iii).	**Total Optimal capacity of the facility (in tonnes)** *(lower of optimal quay capacity and optimal yard capacity)*	**5702813**	**5702813**
II	**Capital Cost**		
(a).	**Berth cost**		
(i).	Dismantling of existing berth	1.62	1.62
	(4050.24 sq mts x Rs. 4000/ sq mtr = Rs. 1.62 Cr)		
(ii).	Capital Dredging	2.68	2.68
	(121911 Cubic mtr x Rs. 220 per Cu.M = Rs. 2.68 Cr)		
(iii).	Berth structure	83.30	83.30
	(12250 sq mtr x Rs.68000 per sq.mtr = Rs.83.30 Cr)		
(iv).	Miscellaneous Cost @ 5%	4.38	4.38
	Total Berth cost	**91.98**	**91.98**
(b).	**Civil Cost**		
(i).	Civil and Structural Works for Stacker-Reclaimer JH, DH & RLS (lumpsum)	14.18	14.18
(ii).	Transition structure between berth and land	2.63	2.63
	(350.42 running mtrs x Rs.75000/mtr = Rs. 2.63 Cr)		
(iii).	Ground improvement	1.13	1.13
	(75567.67 sq m xRs150/sq m) = Rs.1.13 cr		
(iv).	Covered Dome Stackyard	105.56	105.56
	(75400 sq mtrs x Rs.14000/sq mtrs) = Rs.105.56 Cr		
(v).	Rail Line Construction	9.60	9.60
	(2 km x Rs.48000000/km)= Rs.9.60 Cr		
(vi).	Control Room / Substation / Buildings (lumpsum)	3.67	3.67
(vii).	Road & Pavement - Internal	12.21	12.21
	(23707.41 sq mtrs x Rs.5150/ sq mtrs = Rs.12.21 cr)		
(viii).	Junction Houses + Drive Houses	5.76	5.76
	(6.84 Units x Rs.8417647 per unit = 5.76 Cr.)		
(ix).	Reclamation	24.14	24.14
	(1097196 Cu Mtrs x Rs.220/Cu Mtr = Rs.24.14 Cr)		
(x).	Miscellaneous Cost @ 5%	8.94	8.94
	Total Civil Cost	**187.82**	**187.82**

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	As considered by TAMP
(c).	**Equipment Cost**		
(i).	Grab Unloaders	90.00	90.00
	(2 Nos x Rs.450000000/unit = Rs.90.00 Cr)		
(ii).	Stacker cum Reclaimer	44.20	44.20
	(2 Nos x Rs.221000000/unit = Rs.44.20 Cr)		
(iii).	Pay Loaders and Dozers	2.00	2.00
	(4 Nos x Rs.5000000/unit = Rs.2 Cr)		
(iv).	Conveying System	25.96	25.96
	(2360 mtrs x Rs.110000/mtr = Rs.25.96 Cr)		
(v).	Rapid Rail loading system	13.80	13.80
	(1 No x Rs.138000000/unit = 1380 Cr)		
(ix).	Electrical, Control & Instrumentation, Utilities, Workshops (Lumpsum)	8.00	8.00
(vi).	Miscellaneous Cost @ 5%	9.20	9.20
	Total Equipment cost	**193.16**	**193.16**
	Total Capital Cost (a + b + c)	**472.96**	**472.96**
III	**Operating Cost for Cargo handling activity**		
(i).	Power cost	5.19	5.19
	MOPT - 1.4 units/tonne * 5702813 Tonnes * Rs.6.50/unit TAMP - 1.4 units/tonne * 5702813 Tonnes * Rs.6.50/unit		
(ii).	Repair & Maintenance		
	- Civil Assets (1% of Civil assets)	1.88	1.88
	- Mechanical & Electrical Equipment (7% on Equipment cost)	13.52	13.52
(iii).	Insurance (1% on Gross fixed assets)	3.81	3.81
(iv).	Depreciation		
	- Civil assets (3.17% of cost of civil assets)	5.95	5.94
	- Mechanical Work (6.33% of cost of Equipment)	12.23	12.23
(v).	Other Expenses (5% of Gross Fixed Assets)	19.05	19.04
(vi).	License Fee	6.59	6.05
	MOPT - 95000 sq mtrs * 578 per 10 sq mtrs * 12 months TAMP - 95000 sq mtrs * 530.60 per 10 sq mtrs * 12 months		
	Total Operating Cost	**68.22**	**67.66**
IV	**Revenue Requirement & Reference tariff for Cargo Handling Activity**		
(i).	**Estimated Revenue Requirement**		
	(a). Total Operating Cost	**68.22**	**67.66**
	(b). Return on capital Employed @ 16%	**60.96**	**60.96**
	(c). Total Revenue requirement from cargo handling activity (a + b)	**129.18**	**128.62**
	Apportionment of Revenue Requirement		
	(a). Cargo Handling Charges (98% of ARR) (Rs. in crores)	126.60	126.05
	(b). Storage Charges (1% of ARR) (Rs. in crores)	1.29	1.29
	(c). Miscelleneous Charge (1% of ARR) (Rs. in crores)	1.29	1.29
	(d).Total Revenue requirement from cargo handling activity	**129.18**	**128.62**
(ii).	**Cargo Handling charge**		
	(a). Cargo Handling Charge		
	- Revenue Requirement (₹ in Cr)	126.60	126.05
	- Optimal Capacity	5702813	5702813
	- Cargo Handling charge (per tonne) (Foreign cargo)		
	- Coal/ Coke	**249.17**	**248.10**
	- Limestone	**177.98**	**177.21**
	- Gypsum	**177.98**	**177.21**
	- Others	**177.98**	**177.21**
	(b). Storage Charge		
	- Revenue Requirement (₹ in Cr)	1.29	1.29
	- % of Cargo Attracting Storage Charge	10%	10%
	- Cargo Attracting Storage Charge beyond Free Period	570281	570281
	- Storage Charges (Rs. per Tonne per Day)		
	- 1^{st} 7 Days	**3.24**	**3.22**
	- 8^{th} to 14^{th} Day	**4.86**	**4.83**
	- 15^{th} Day Onwards	**6.48**	**6.44**
	(c). Miscellaneous charge		
	- Revenue Requirement (₹ in Cr)	1.29	1.29
	- Optimal Capacity	5702813	5702813
	- Miscellaneous charge (per tonne)	**2.27**	**2.26**

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	As considered by TAMP
V	**<u>BERTH HIRE CHARGES</u>**		
(i).	**<u>Revenue Requirement</u>**	**₹ in crores**	
(a).	Repairs & Maintenance Charge (1% on captial cost for berth)	0.92	0.90
(b).	Depreciation	2.92	2.86
(c).	Insurance (1% on total cost for berth hire service)	0.92	0.90
	Subtotal (i)	**4.76**	**4.67**
(ii).	Return on capital Employed @ 16%	**14.72**	**14.72**
	Total Revenue requirement from Berthing services (i + ii)	**19.48**	**19.40**
(iii).	**Berth hire calculation**		
	Average Handling Rate	45500	45500
	Average GRT of Vessel	78000	78000
	Average Parcel Size per Vessel	130000	130000
	Optimal Capacity	5702813	5702813
	No. of Berth Days	125	125
	No. of Berth Hours	3008	3008
	No. of Vessels	44	44
	Total GRT Hours	234630000	234630000
	% Foreign Cargo	95.00%	95.00%
	% Coastal Cargo	5.00%	5.00%
	Total GRT Hours (Foreign Vessels)	222898500	222898500
	Total GRT Hours (Coastal Vessels)	11731500	11731500
	Total Revenue Requirement (Rs. in Lakhs)	1948.26	1939.89
	Rate per GRT per Hour (Foreign)	**0.85**	**0.84**
	Rate per GRT per Hour (Coastal)	**0.51**	**0.50**

ANNEX - I(b)

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Percen-tage of Cargo Working days	Revenue Requirement (Rs. in Lakhs)	Cargo to be handled Foreign (Tonnes)	Cargo to be handled Coastal (Tonnes)	Rate in Rs. Per Tonne For foreign cargo	Rate in Rs. Per Tonne For coastal cargo
Coal/Coke	75.00%	20291	3888281	192	75.00%	9,494.50	3693867	194414	249.17	149.50
Limestone	10.00%	28408	725813	26	10.00%	1,265.93	689522	36291	177.98	106.79
Gypsum	10.00%	28408	725813	26	10.00%	1,265.93	689522	36291	177.98	106.79
Others	5.00%	28408	362906	13	5.00%	632.97	344761	18145	177.98	106.79
	100.00%		**5702813**	**256**	**100.00%**	**12659.33**	**5417672**	**285141**		

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS - Considered bt TAMP

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Percentage of Cargo Working days	Revenue Requirement (Rs. in Lakhs)	Cargo to be handled Foreign (Tonnes)	Cargo to be handled Coastal (Tonnes)	Rate in Rs. Per Tonne For foreign cargo	Rate in Rs. Per Tonne For coastal cargo
Coal/Coke	75.00%	20291	3888281	192	75.00%	9,453.85	3693867	194414	248.10	148.86
Limestone	10.00%	28408	725813	26	10.00%	1,260.51	689522	36291	177.21	106.33
Gypsum	10.00%	28408	725813	26	10.00%	1,260.51	689522	36291	177.21	106.33
Others	5.00%	28408	362906	13	5.00%	630.26	344761	18145	177.21	106.33
	100.00%		**5702813**	**256**	**100.00%**	**12605.14**	**5417672**	**285141**		

Annex-II(a)

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	As considered by TAMP
	COST STATEMENT FOR FIXATION OF REFERENCE TARIFF FOR HANDLING IRON ORE/ BAUXITE/ OTHER ORES & MINERALS AT RE-DEVELOPED BERTH NO. 9A AT MORMUGAO PORT TRUST (MOPT)		
			(₹ In Crores)
I	**Optimal capacity**		
(i)	**Optimal Quay Capacity**		
(a).	Parcel size per Capesize Vessel (in tonnes) (P1)	60,000	60,000
(b).	Parcel size per Panamax Vessel (in tonnes) (P2)	55,000	55,000
(d).	Percentage share of Capacity of Capesize Vessel (S1)	70.00%	70.00%
(e).	Percentage share of of Capacity of Panamax Vessel (S2)	30.00%	30.00%
(g).	**Optimal Quay capacity [(P1*S1) + (P2*S2)] * 365 days * 70%]**	**14946750**	**14946750**
(ii).	**Optimal yard capacity**		
(a).	**For Iron ore**		
	Area of land available (in Square Metres)	58100	58100
	Perecntage of yard area to be used for stacking	70%	70%
	Utilization Factor (75% of Optimal yard Area)	75%	75%
	Stacking factor (tonnes per sq. metre)	13	13
	Turnover ratio	25	25
	Total Yard Capacity	9920625	9913313
	Percentage Share of Cargo	85%	85%
	Optimal Capacity (Total Cargo to be Handled)	8432531	8426316
(b).	**For Bauxite**		
	Area of land available (in Square Metres)	58100	58100
	Perecntage of yard area to be used for stacking	75%	75%
	Utilization Factor (70% of Optimal yard Area)	70%	70%
	Stacking factor (tonnes per sq. metre)	10	10
	Turnover ratio	25	25
	Total Yard Capacity	7630875	7625625
	Percentage Share of Cargo	10%	10%
	Optimal Capacity (Total Cargo to be Handled)	763088	762563
(c).	**For Other Minerals**		
	Area of land available (in Square Metres)	58100	58100
	Perecntage of yard area to be used for stacking	70%	70%
	Utilization Factor (75% of Optimal yard Area)	75%	75%
	Stacking factor (tonnes per sq. metre)	10	10
	Turnover ratio	25	25
	Total Yard Capacity	7631250	7625625
	Percentage Share of Cargo	5%	5%
	Optimal Capacity (Total Cargo to be Handled)	381563	381281
(iii).	**Optimal Yard Capacity for Iron ore, Bauxite and Other Minerals**	**9577181**	**9570159**
(iv).	**Total Optimal capacity of the facility (in tonnes)** *(lower of optimal quay capacity and optimal yard capacity)*	**9577181**	**9570159**
(v).	**Optimal Capacity (in Million Tonnes per Annum)**	**9.58**	**9.57**
II	**Capital Cost**		
(i).	**Berth cost**		
	Dismantling of existing berth (9175.55 sq mts x Rs.4000/ sq. mtr)	3.67	3.67
	Capital Dredging (121911 Cu.M. x Rs.220 per Cu.M)	2.68	2.68
	Berthing structure (11900 sq mtr x Rs.68000/sq.mtr)	80.92	80.92
	Construction of Barge Berths (5040 sq.mtr. * 35000/sq.mtr.)	17.64	17.64
	Miscellaneous Cost @ 5%	5.25	5.25
	Total Berth cost	**110.16**	**110.16**

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	As considered by TAMP
(ii).	**Civil Cost**		
	Civil and Structural Works for Stacker-Reclaimer JH, DH & RLS (lumpsum)	16.58	16.58
	Transition structure between berth and land (339.76 mtrs x Rs.75000/mtr)	2.55	2.55
	Ground improvement (75567.67 sq m x Rs.150/sq m)	1.13	1.13
	Reclamation of Barge Berth Area (783093Cu.M.*391Cu.M.)	30.62	30.62
	Control Room / Substation / Buildings (lumpsum)	3.67	3.67
	Road & Pavement - Internal (17280.59 sq mtrs x Rs.5150/ sq mtr)	8.90	8.90
	Junction Houses + Drive Houses (10.15 Nos x Rs.8417647 per unit)	8.55	8.55
	Reclamation (1097196 Cu Mtrs x Rs220/Cu Mtr)	24.14	24.14
	Miscellaneous Cost @ 5%	4.81	4.81
	Total Civil cost	**100.95**	**100.95**
(iii).	**Equipment Cost**		
	Barge Unloaders (4 Nos xRs110000000/unit)	44.00	44.00
	Ship Loaders (2 Nos x 420000000/unit)	84.00	84.00
	Stacker cum Reclaimer (2 Nos. * Rs. 238000000 / unit)	47.60	47.60
	Pay Loaders and Dozers (4 Nos x 5000000/unit)	2.00	2.00
	Conveying System (3320 Nos. x Rs.180000/unit)	59.76	59.76
	Electrical, Control & Instrumentation, Utilities, Workshops	8.00	8.00
	Miscellaneous Cost @ 5%	12.27	12.27
	Total equipment cost	**257.63**	**257.63**
III	**Operating Cost**		
(a).	Power cost	8.72	8.71
	MOPT - 1.4 units/tonne * 9577219 Tonnes * Rs.6.50/unit TAMP - 1.4 units/tonne * 9570159 Tonnes * Rs.6.50/unit		
(b).	Repair & Maintenance		
	- Civil Assets (1% on civil costs)	1.01	1.01
	- Mechanical & Electrical Equipment (7% on mechanical costs)	18.03	18.03
(c)	Insurance (1% on Gross fixed assets)	3.59	3.59
(d)	Depreciation		
	- Civil Work (3.17% on Civil capital costs)	3.20	3.20
	- Mechanical Work (6.33% on mechanical work cost)	16.31	16.31
(e)	License Fee	5.90	5.41
	MOPT - 85000 sq mtrs * 578 per 10 sq mtrs * 12 months TAMP - 85000 sq mtrs * 530.60 per 10 sq mtrs * 12 months		
(f)	Other Expenses (5% on Gross fixed assets)	17.93	17.93
	Total Operating Cost	**74.69**	**74.19**
IV	**Estimated Revenue Requirement & upfront tariff for Cargo Handling Activity**		
(i).	**Estimated Revenue Requirement**		
	(a). Total Operating Cost	**74.69**	**74.19**
	(b). Return on capital Employed @ 16%	**57.37**	**57.37**
	(c). Total Revenue requirement from cargo handling activity (Rs. in Lakhs)	**132.06**	**131.56**

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	As considered by TAMP
(ii).	**Apportionment of Revenue Requirement**		
	(a). Cargo Handling Charges (98% of ARR) (Rs. in lakhs)	**129.42**	**128.93**
	(b). Storage Charges (1% of ARR) (Rs.in lakhs)	**1.32**	**1.32**
	(c). Miscelleneous Charge (1% of ARR) (Rs. in lakhs)	**1.32**	**1.32**
	(d).Total Revenue requirement from cargo handling activity	**132.06**	**131.56**
(iii).	**Cargo Handling charge**		
	(a). Cargo Handling Charge		
	- Revenue Requirement (Rs. in crores)	**129.42**	**128.93**
	- Capacity (Metric Tonnes per annum)	9577181	9570159
	- Cargo Handling charge (per tonne) (Foreign cargo)		
	- Iron Ore	**133.12**	**130.06**
	- Bauxite	**173.07**	**172.52**
	- Other Minerals	**173.06**	**172.52**
	(b). Storage Charge		
	- Revenue Requirement (₹ in Cr)	1.32	1.32
	- % of Cargo Attracting Storage Charge	10%	10%
	- Cargo Attracting Storage Charge beyond Free Period	957718	957016
	- Storage Charges (Rs. per Tonne per Day)		
	- 1st 7 Days	**1.97**	**1.96**
	- 8th to 14th Day	**2.96**	**2.95**
	- 15th Day Onwards	**3.94**	**3.93**
	(c). Miscellaneous charge		
	- Revenue Requirement (₹ in Cr)	1.32	1.32
	- Optimal Capacity	9577181	9570159
	- Miscellaneous charge (per tonne)	**1.38**	**1.37**
V	**BERTH HIRE CHARGES**		
(i).	**Revenue Requirement**	₹	**in crores**
(a).	Repairs & Maintenance Charge (1% on captial cost for berth)	1.10	1.06
(b).	Depreciation (3.17% on captial cost for berth)	3.49	3.38
(c).	Insurance (1% on total cost for berth hire service)	1.10	1.06
	Subtotal (i)	**5.70**	**5.51**
(ii).	Return on capital Employed @ 16%	**17.63**	**17.63**
	Total Revenue requirement from Berthing services (i + ii)	**23.32**	**23.13**
(iii).	**Berth hire calculation**		
	Average Handling Rate	58500	58500
	Average GRT of Vessel	78000	78000
	Average Parcel Size per Vessel	130000	130000
	Optimal Capacity	9577181	9570159
	No. of Berth Days	164	164
	No. of Berth Hours	3929	3926
	No. of Vessels	74	74
	Total GRT Hours	306469800	306245100
	% Foreign Cargo	95.00%	95.00%
	% Coastal Cargo	5.00%	5.00%
	Total GRT Hours (Foreign Vessels)	291146310	290932845
	Total GRT Hours (Coastal Vessels)	15323490	15312255
	Total Revenue Requirement (Rs. in Lakhs)	2332.04	2313.07
	Rate per GRT per Hour (Foreign)	**0.78**	**0.77**
	Rate per GRT per Hour (Coastal)	**0.47**	**0.46**

ANNEX - II(b)

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Percen-tage of Cargo Working days	Revenue Requirement (Rs. in Lakhs)	Cargo to be handled Foreign (Tonnes)	Cargo to be handled Coastal (Tonnes)	Rate in Rs. Per Tonne For foreign cargo	Rate in Rs. Per Tonne For coastal cargo
Iron Ore	85.00%	38828	8432531	217	85.00%	11,000.62	8010905	421627	133.12	79.87
Bauxite	10.00%	29866	763088	26	10.00%	1,294.19	724933	38154	173.07	103.84
Other Minerals	5.00%	29868	381563	13	5.00%	647.10	362484	19078	173.06	103.84
	100.00%		**9577181**	**256**	**100.00%**	**12941.90**	9098322	478859		

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes)	Cargo Working Days	Percen-tage of Cargo Working days	Revenue Requirement (Rs. in Lakhs)	Cargo to be handled Foreign (Tonnes)	Cargo to be handled Coastal (Tonnes)	Rate in Rs. Per Tonne For foreign cargo	Rate in Rs. Per Tonne For coastal cargo
Iron Ore	85.00%	38800	8426316	217	85.00%	10,958.97	8005000	421316	130.06	-
Bauxite	10.00%	29846	762563	26	10.00%	1,289.29	724434	38128	172.52	103.51
Other Minerals	5.00%	29846	381281	13	5.00%	644.65	362217	19064	172.52	103.51
	100.00%		**9570159**	**256**	**100.00%**	**12892.91**	9091651	478508		

ANNEX - III(a)

COST STATEMENT FOR FIXATION OF REFERENCE TARIFF FOR HANDLING MULTIPURPOSE CARGO AT RE-DEVELOPED BERTH NO. 9 OF MORMUGAO PORT TRUST (MOPT).

₹ in crores

Sr. No.	Particulars		Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	Estimates modified by TAMP
I	**Optimal capacity**			
	Optimal Quay Capacity			
(a)	Share of capacity of different cargo items			
	Percentage share of capacity of Minerals	(S1)	25.00%	25.00%
	Percentage share of capacity of Steel Coil & Products	(S2)	20.00%	20.00%
	Percentage share of capacity of Agro Products	(S3)	5.00%	5.00%
	Percentage share of capacity of Fertilisers	(S4)	5.00%	5.00%
	Percentage share of capacity of Others	(S5)	15.00%	15.00%
	Percentage share of capacity of Containers	(S6)	30.00%	30.00%
(b)	Handling rate of a 100 tonne Harbour Mobile Crane (HMC)			
	- Handling rate of Minerals per day	(P1)	12500	12500
	- Handling rate of Steel Coil & Products per day	(P2)	6000	6000
	- Handling rate of Agro Products per day	(P3)	10000	12500
	- Handling rate of Fertilisers per day	(P4)	10000	12500
	- Handling rate of Other Dry Bulk Cargo per day	(P5)	7500	12500
	- Handling rate of Containers per day	(P6)	480	5760
				(20 moves per hour x 24 hours x 12 tonnes (weight of a container considered by MOPT)
(c)	Optimal Capacity of a Berth with 1 no. of HMC 0.7*((S1*P1)+(S2*P2)+(S3*P3)+(S4*P4)+(S5*P5)+(S6*P6))*365		Not worked out	2344979
(d)	Optimal Capacity of a Berth with 2 no. of HMCs		**4178958**	**4689958**
	Optimal Capacity of one Berth with 2 HMCs in million tonnes / annum		**4.18**	**4.69**
II	**Capital Cost**			
A.	**Cargo Handling Activity**		₹	**in crores**
(i).	**Civil Cost**			
	Transition structure between berth and land (259.82 running meters x 75000/mtr = Rs.1.95 Cr)		1.95	1.95
	Ground improvement (75567.67 sq. mtrs x Rs. 150/sq mtr = Rs.1.13 Cr)		1.13	1.13
	Control Room/ Substation/ Buildings (Lumpsum)		4.87	4.87
	Stackyard pavement (54600 sq. mtrs x Rs.7000/sq mtr = Rs.38.22 Cr)		38.22	38.22
	Container Stackyard Acces Road (6460 sq. mtrs x Rs.5150/sq mtr = Rs.3.33 Cr)		3.33	3.33
	RCD Access Area (8400 sq. mtrs x Rs.5150/sq mtr = Rs.4.33 Cr)		4.33	4.33
	Terminal Gate House (800 sq. mtrs x Rs.15500/sq mtr = Rs.1.24 Cr)		1.24	1.24
	Security System (1 No x Rs.10000000 = Rs. 1.00 Cr)		1.00	1.00
	Miscellaneous Cost @ 5%		2.80	2.80
	Total		**58.87**	**58.87**
(ii).	**Equipment Cost per berth**			
	Harbour Mobile Cranes 100T (2 Nos x Rs.300000000/no. = Rs.60.00 Cr)		60.00	60.00
	Tractor Trailer (4 Nos x Rs.4400000/no = Rs.1.76 Cr)		1.76	1.76
	Reach Stacker (2 Nos x Rs.20000000/no = Rs. 4.00 Cr)		4.00	4.00
	Fork Lift Trucks 5 Tons (4 Nos x Rs.2500000/no = Rs.1.00 Cr)		1.00	1.00
	Fork Lift Trucks 10 Tons (2 Nos x Rs.3300000/no = Rs.0.66 Cr)		0.66	0.66
	Pay Loaders 10 Tons (3 Nos x Rs.5000000/no = Rs.1.50 Cr)		1.50	1.50
	Electrical, Control & Instrumentation, Utilities, Workshops (Lumpsum)		5.70	5.70
	Miscellaneous Cost @ 5%		3.73	3.73
	Total		**78.35**	**78.35**
	Total capital cost for Cargo handling Activity (A)		**137.22**	**137.22**
B.	**Berth Hire Activity**			
	Dismantling of exisitng berth (3450.21 sq.m x Rs.4000/sq.m = Rs.1.38 cr)		1.38	1.38
	Berthing structure (9100 sq mtrs x Rs.68000/sq mtrs = Rs.61.88 Cr.)		61.88	61.88
	Miscellaneous cost @ 5%		3.16	3.16
	Total capital cost for Berth hire Activity (B)		**66.42**	**66.42**
	Total Capital Cost	**(A + B)**	**203.65**	**203.65**

Sr. No.	Particulars	Estimates furnished by MOPT in its proposal dated 02 December 2015 alongwith subsequent clarification dated 27 January 2016	Estimates modified by TAMP
III	**Operating Cost for Cargo Handling Activity**	**₹ in crores**	
(a).	Fuel Cost		
	- Harbour Mobile Crane (MOPT - 70 ltrs/ hour/ crane* Rs.60 per litre * 6132 hours pa * 2 HMCs) (TAMP - 70 ltrs/ hour/ crane* Rs.46.13 per litre * 6132 hours pa * 2 HMCs)	5.15	3.96
	- Tractor Trailers (MOPT - 16 ltrs/ hour/ trailer * Rs.60 per litre * 6132 hours pa * 4 trailers) (TAMP - 16 ltrs/ hour/ trailer * Rs.46.13 per litre * 6132 hours pa * 4 trailers)	2.35	1.81
	- Reach Stacker (MOPT - 25 ltrs /hour/ stacker * Rs.60 per litre *6132 hours pa * 2 stackers) (TAMP - 25 ltrs /hour/ stacker * Rs.46.13 per litre *6132 hours pa * 2 stackers)	1.84	1.41
	- Forklift trucks (5 tonnes) (MOPT - 7 ltrs /hour/ truck * Rs.60 per litre * 6132 hours pa * 4 trucks) (TAMP - 7 ltrs /hour/ truck * Rs.46.13 per litre * 6132 hours pa * 4 trucks)	1.03	0.79
	- Forklift trucks (10 tonnes) (MOPT - 10 ltrs /hour/ truck * Rs.60 per litre * 6132 hours pa * 2 trucks) (TAMP - 10 ltrs /hour/ truck * Rs.60 per litre * 6132 hours pa * 2 trucks)	0.74	0.57
	- Pay Loaders (10 tonnes) (MOPT - 12 ltrs /hour/pay loader * Rs.60 per litre * 6132 hours pa * 3 pay loaders) (TAMP - 12 ltrs /hour/ pay loader * Rs.46.13 per litre * 6132 hours pa * 3 pay loaders)	1.32	1.02
(b).	Repair & Maintenance		
	- Civil Assets (1% on civil work)	0.59	0.59
	- Mechanical & Electrical Equipment including spares (5% on equipment cost)	3.92	3.92
(c).	Insurance (1% on Gross fixed assets)	1.37	1.37
(d).	Depreciation		
	- Civil Work @ 3.17%	1.87	1.87
	- Mechanical Work @ 6.33%	4.96	4.96
(e)	License Fee MOPT - 70000 sq mtrs * 578 per 10 sq mtrs * 12 months) TAMP - 70000 sq mtrs * 530.60 per 10 sq mtrs * 12 months)	4.86	4.46
(f).	Other Expenses (5% on gross value of assets)	6.86	6.86
	Total Operating Cost	**36.86**	**33.58**
IV	**Estimated Revenue Requirement & upfront tariff for Cargo Handling Activity**		
A.			
(i).	**Estimated Revenue Requirement**		
	(a). Total Operating Cost	36.86	33.58
	(b). Return on capital Employed @ 16%	21.96	21.96
	(c). Total Revenue requirement from cargo handling activity	**58.81**	**55.54**
(ii).	**Apportionment of Revenue Requirement**		
	(a). Cargo Handling Charges (90% of ARR)	52.93	49.99
	(b). Storage Charges (5% of ARR)	2.94	2.78
	(c). Miscelleneous Charge (5% of ARR)	2.94	2.78
	(d).Total Revenue requirement from cargo handling activity	**58.81**	**55.54**
(iii).	**Cargo Handling charge**		
	(a). Cargo Handling Charge		
	- Revenue Requirement (₹ in crores)	52.93	49.99
	- Capacity (Tonnes per annum)	4178958	4689958
	- Per Tonne rate for handling of Minerals	**82.87**	**78.26**
	- Per Tonne rate for handling of Steel Coil & Products	**171.97**	**162.40**
	- Per Tonne rate for handling of Agro Products	**109.59**	**82.79**
	- Per Tonne rate for handling of Fertilisers	**109.59**	**82.79**
	- Per Tonne rate for handling of Others	**139.47**	**79.02**
	- Per Tonne rate for handling of Containers	**2253.87**	**2128.34**
	(b). Storage Charge		
	- Revenue Requirement (₹ in crores)	2.94	2.78
	- % of Cargo to attract storage charge	20%	20%
	(i) Storage Charge for Minerals	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First seven days	**3.29**	**3.11**
	-8th day to 14th day	**4.93**	**4.66**
	-15th day onwards	**6.58**	**6.21**
	(ii) Storage Charge for Steel coil & Products	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First seven days	**6.85**	**6.47**
	-8th day to 14th day	**10.28**	**9.70**
	-15th day onwards	**13.70**	**12.94**
	(iii) Storage Charge for Agro Products & Fertilisers	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First seven days	**4.11**	**3.11**
	-8th day to 14th day	**6.16**	**4.66**
	-15th day onwards	**8.22**	**6.21**
	(iv) Storage Charge for Others	**Rate Per tonne per day or part thereof**	**Rate Per tonne per day or part thereof**
	-First seven days	**5.48**	**3.11**
	-8th day to 14th day	**8.22**	**4.66**
	-15th day onwards	**10.96**	**6.21**
	(iv) Storage Charge for Containers	**Rate Per container per day or part thereof**	**Rate Per container per day or part thereof**
	-First seven days	**85.63**	**80.87**
	-8th day to 14th day	**128.45**	**121.30**
	-15th day onwards	**171.27**	**161.74**
	(c). Miscelleneous Charge		
	- Revenue Requirement (₹ in lakhs)	2.94	2.78
	- Capacity (Tonnes/ TEUs per annum)	3369534	3880534
	- Miscellenous Charge for Coal & Other dry bulk cargo (₹ per tonne)	**8.73**	**7.16**

B.	BERTH HIRE CHARGES		
(i).	**Revenue Requirement**	₹ in crores	
	(a). Repairs & Maintenance Charge (1% on captial cost for berth)	0.66	0.65
	(b). Depreciation	2.11	2.06
	(c). Insurance (1% on total cost for berth hire service)	0.66	0.65
	Subtotal (i)	**3.43**	**3.36**
(ii).	Return on capital Employed @ 16%	10.63	10.63
	Total Revenue requirement from Berthing services (i + ii)	**14.06**	**13.99**
	Berth hire Charge		
	Foreign going vessel (Rate per GRT per hour) in ₹	**0.790**	**0.780**
	Coastal vessel (Rate per GRT per hour) in ₹	**0.474**	**0.470**

Berth Hire Charges (As per MOPT)

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Other dry bulk	Containers	Total
Handling Rate (tonnes/ TEUs per day)	25000	12000	20000	20000	15000	960	
Average GRT of Vessel	34500	34500	26100	26100	24000	26100	
Average Parcel Size per Vessel (Tonnes)	51500	51500	39100	39100	36000	39100	
Optimal Capacity (Tonnes)	1596875	613200	255500	255500	574875	73584	**3369534**
No. of Berth Days	64	51	13	13	38	77	**256**
No. of Berth Hours	1533	1226	307	307	920	1840	**6132**
No. of Vessels	32	12	7	7	16	2	**76**
Total GRT Hours	52888500	42310800	8002260	8002260	22075200	48013560	**181292580**
% Foreign Cargo	100.00%	100.00%	90.00%	90.00%	95.00%	90.00%	
% Coastal Cargo	0.00%	0.00%	10.00%	10.00%	5.00%	10.00%	
Total GRT Hours (Foreign Vessels)	52888500	42310800	7202034	7202034	20971440	43212204	**173787012**
Total GRT Hours (Coastal Vessels)	0	0	800226	800226	1103760	4801356	**7505568**
Total Revenue Requirement (Rs. in Lakhs)							**1406.17**
Rate per GRT per Hour (Foreign)							**0.79**
Rate per GRT per Hour (Coastal)							**0.47**

Berth Hire Charges (As per TAMP)

Particulars	Minerals	Steel Coil & Products	Agro Products	Fertilisers	Other dry bulk	Containers	Total
Handling Rate	25000	12000	25000	25000	25000	960	
Average GRT of Vessel	34500	34500	26100	26100	24000	26100	
Average Parcel Size per Vessel (Tonnes)	51500	51500	39100	39100	36000	39100	
Optimal Capacity	1596875	613200	319375	319375	958125	73584	**3880534**
No. of Berth Days	64	51	13	13	38	77	**256**
No. of Berth Hours	1533	1226	307	307	920	1840	**6132**
No. of Vessels	32	12	9	9	27	2	**91**
Total GRT Hours	52888500	42310800	8002260	8002260	22075200	48013560	**181292580**
% Foreign Cargo	100.00%	100.00%	90.00%	90.00%	95.00%	90.00%	
% Coastal Cargo	0.00%	0.00%	10.00%	10.00%	5.00%	10.00%	
Total GRT Hours (Foreign Vessels)	52888500	42310800	7202034	7202034	20971440	43212204	**173787012**
Total GRT Hours (Coastal Vessels)	0	0	800226	800226	1103760	4801356	**7505568**
Total Revenue Requirement (Rs. in Lakhs)							**1399.04**
Rate per GRT per Hour (Foreign)							**0.78**
Rate per GRT per Hour (Coastal)							**0.47**

ANNEX - III(b)(i)

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

Cargo Group	Cargo Share	Handling Rate Per Day	Cargo to be handled (Tonnes / TEU's)	Cargo Working Days	% of Cargo Working days	Revenue Requirement	Cargo to be Handled	Cargo to be Handled	Rate in Rs. Per Tonne	Rate in Rs. Per Tonne
						(Rs. in Lakhs)	Foreign (Tonnes / TEU's)	Coastal (Tonnes / TEU's)	For foreign cargo	For coastal cargo
Minerals	25.00%	25000	1596875	64	25%	1,323.34	1596875	0	82.87	49.72
Steel Coil & Products	20.00%	12000	613200	51	20%	1,054.54	613200	0	171.97	103.18
Agro Products	5.00%	20000	255500	13	5%	268.80	229950	25550	109.59	65.75
Fertilisers	5.00%	20000	255500	13	5%	268.80	229950	25550	109.59	65.75
Others	15.00%	15000	574875	38	15%	785.73	546131	28744	139.47	83.68
Containers	30.00%	960	73584	77	30%	1,592.15	66226	7358	2253.87	1352.32
Total	**100.00%**		**3369534**	**256**	**100%**	**5293.37**	**3282332**	**87202**		

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

AS PER TAMP

Minerals	25.00%	25000	1596875	64	25%	1,249.64	1596875	0	78.26	46.96
Steel Coil & Products	20.00%	12000	613200	51	20%	995.81	613200	0	162.40	97.44
Agro Products	5.00%	25000	319375	13	5%	253.83	287438	31938	82.79	49.67
Fertilisers	5.00%	25000	319375	13	5%	253.83	287438	31938	82.79	49.67
Others	15.00%	25000	958125	38	15%	741.97	910219	47906	79.02	47.41
Containers	30.00%	960	73584	77	30%	1,503.47	66226	7358	2128.34	1277.00
Total	**100.00%**		**3880534**	**256**	**100%**	**4998.56**	**3761394**	**119140**		

ANNEX - III(b)(ii)

Storage Charges computed on the basis of Revenue Requirement

Particulars	Minerals	Steel Coil & products	Agro Products	Fertilizers	Others	Containers	Total
Optimal Capacity	1596875	613200	255500	255500	574875	73584	**3369534**
Percentage Share	25%	20%	5%	5%	15%	30%	
Revenue Requirement (Rs. in lakhs)	**73.52**	**58.82**	**14.70**	**14.70**	**44.11**	**88.22**	**294.07**
% of Cargo Attracting Storage Charge	20%	20%	20%	20%	20%	20%	
Cargo Attracting Storage Charge beyond Free Period	319375	122640	51100	51100	114975	14717	**673907**
Storage Charges Proposed (Rs. per Tonne/TEU per Day)							
1st 7 Days	3.29	6.85	4.11	4.11	5.48	85.63	
8th to 14th Day	4.93	10.28	6.16	6.16	8.22	128.45	
15th Day Onwards	6.58	13.70	8.22	8.22	10.96	171.27	

Storage Charges computed on the basis of Revenue Requirement As per TAMP

Particulars	Minerals	Steel Coil & products	Agro Products	Fertilizers	Others	Containers	Total
Optimal Capacity	1596875	613200	319375	319375	958125	73584	**3880534**
Percentage Share	25%	20%	5%	5%	15%	30%	**100%**
Revenue Requirement (Rs. in lakhs)	**69.42**	**55.54**	**13.88**	**13.88**	**41.65**	**83.31**	**277.70**
% of Cargo Attracting Storage Charge	20%	20%	20%	20%	20%	20%	
Cargo Attracting Storage Charge beyond Free Period	319375	122640	63875	63875	191625	14717	**776107**
Storage Charges Proposed (Rs. per Tonne/TEU per Day)							
1st 7 Days	3.11	6.47	3.11	3.11	3.11	80.87	
8th to 14th Day	4.66	9.70	4.66	4.66	4.66	121.30	
15th Day Onwards	6.21	12.94	6.21	6.21	6.21	161.74	

Annex - IV

MORMUGAO PORT TRUST

REFERENCE TARIFF SCHEDULE FOR THE RE-DEVELOPED BERTH NOS. 8, 9 AND 9A

1.1 DEFINITIONS:

In this Scale of Rates unless the context otherwise requires, the following definition shall apply.

(i). "Coastal vessel" shall mean any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the Competent Authority / Director General of Shipping.

(ii). "**Foreign 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, shall be the deciding factor for its classification as 'coastal' or 'foreign-going' for the purpose of levying vessel related charges; and, the nature of cargo or its origin will not be of any relevance for this purpose.

(ii). System of classification of vessel for levy of Vessel Related Charges (VRC)

(a). A foreign going vessel of Indian flag having a General Trading Licence can convert to coastal run on the basis of a Customs Conversion Order. Such vessel that converts into coastal run based on the Customs Conversion Order at her first port of call in Indian Port, no further custom conversion is required, so long as it moves on the Indian Coast.

(b). A Foreign going vessel of foreign flag can convert to coastal run on the basis of a Specified Period Licence issued by the Director General of Shipping and a custom conversion order.

(iii) Criteria for levy of Vessel Related Charges (VRC) at Concessional Coastal rate and foreign rate

(a). In cases of such conversion, coastal rates shall be chargeable by the load port from the time the vessel starts loading coastal goods.

(b). In cases of such conversion coastal rates shall be chargeable till the vessel completes discharging operations at the last call of Indian Port; immediately thereafter, foreign going rates shall be chargeable by the discharge ports.

(c). For dedicated Indian coastal vessels having a Coastal licence from the Director General of Shipping, no other document will be required to be entitled to coastal rates.

(iv). Criteria for levy of Cargo Related Charges (CRC) at Concessional Coastal rate

(a). Foreign going Indian Vessel having General Trading License issued for 'worldwide and coastal' operation should be accorded applicable coastal rates with respect to Handling Charges (HC) i.e. ship to shore transfer and transfer from/ to quay to/ from storage yard including wharfage in the following scenario:

(i). Converted to coastal run and carrying coastal cargo from any Indian Port and destined for any other Indian Port.

(ii). Not converted* to coastal run but carrying coastal cargo from any Indian Port and destined for any other Indian Port.
* The Central Board of Excise and Customs Circular no.15/2002-Cus. dated 25 February 2002 allows carriage of coastal cargo from one Indian port to another port in India, in Indian flag foreign going vessels without any custom conversion.

(b). In case of a Foreign flag vessel converted to coastal run on the basis of a Specified Period License issued by the Director General of Shipping, and a Custom Conversion Order, the coastal cargo/ container loaded from any Indian Port and destined for any other Indian Port should be levied at the rate applicable for coastal cargo/ container.

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

(b). The cargo /container related charges for all Coastal cargo/containers, other than thermal coal, POL including crude oil, Iron Ore and Iron Ore Pellets, should not exceed 60% of the normal cargo/container related charges.

(c). In case of cargo related charges, the concessional rates should be levied on all the relevant handling charges for ship-shore transfer and transfer from / to quay to / from storage yard including wharfage.

(d). Cargo from a foreign port, which reaches an Indian Port ‘A’ for subsequent transhipment to Indian Port ‘B’ will be, levied the concessional charges relevant for its coastal voyage. In other words, cargo from / to Indian ports carried by vessel permitted to undertake coastal voyage will qualify for the concession.

(vi). 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.

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

(viii). (a). The rates prescribed in the Scale of Rates are ceiling levels, likewise, rebates and discounts are floor levels. The operator may, if they so desire, charge lower rates and/or allow higher rebates and discounts.

(b). The operator may also, if they so desire rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation gives relief to the users in the rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling level.

(c). The operator should notify the public such lower rates and/ or rationalisation of the conditionalites 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

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

2. 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 Vessel	Coastal Vessel
1.	All Vessels at Berth No. 8	0.84	0.50
2.	All Vessels at Berth No. 9	0.78	0.47
3.	All Vessels at Berth No. 9A	0.77	0.46

(i). The period of berth hire shall be calculated from the time vessel occupies the berth.

(ii). Berth hire includes charges for services rendered at the berth, such as occupation of berth, rubbish removal, cleaning of berths, fire watch, etc.

(iii). No berth hire shall be levied for the period when the vessel idles 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.

(iv). (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.

(v). 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.”

(vi). For providing "Priority Berthing" to any vessel, a fee equivalent to Berth hire charges for a single day or 75% of the berth hire charges calculated for a total period of actual stay at the Berth whichever is higher, shall be levied.

3. CARGO HANDLING CHARGES:

No.	Cargo	Foreign (₹ per Tonne)	Coastal (₹ per Tonne)
	Mechanised Handling		
1	Coal / Coke	248.10	148.86
2	Limestone	177.21	106.33
3	Gypsum	177.21	106.33
4	Other dry bulk cargo	177.21	106.33
5	Iron Ore	130.06	130.06
6	Bauxite	172.52	103.51
7	Other Minerals	172.52	103.51
	Semi Mechanised Handling		
1	Minerals	78.26	46.96
2	Steel Coil & Products	162.40	97.44
3	Agro Products	82.79	49.67
4	Fertilisers	82.79	49.67
5	Others	79.02	47.41
6	Containers	2128.34 Per TEU	1277.00 per TEU

Notes:

The handling charges prescribed above is a composite charge for loading/unloading of cargo transferring the same upto the point of storage, storage at the stack yard upto the prescribed free period, reclaiming from stack yard and loading onto the ship/train/trucks as applicable.

4. STORAGE CHARGES:

Free Period

Import Cargo - 15 days
Export Cargo - 25 days

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

No.	Cargo	Rate in ₹ per tonne per day or part thereof		
		First 7 Days	8^{th} to 14^{th} Day	15^{th} Day Onwards
1	Coal / Coke	3.22	4.83	6.44
2	Limestone	3.22	4.83	6.44
3	Gypsum	3.22	4.83	6.44
4	Others	3.22	4.83	6.44
5	Minerals	3.11	4.66	6.21
6	Steel Coil & Products	6.47	9.70	12.94
7	Agro Products	3.11	4.66	6.21
8	Fertilisers	3.11	4.66	6.21
9	Other dry bulk cargo	3.11	4.66	6.21
10	Containers (per TEU)	80.87	121.30	161.74
11	Iron Ore	1.96	2.95	3.93
12	Bauxite	1.96	2.95	3.93
13	Other Minerals	1.96	2.95	3.93

Notes:

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

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

(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.

5. MISCELLANEOUS CHARGES:

Charges for all miscellaneous services such as sweeping, collecting, spillage from yard conveyors, galleries etc., moisturizing of cargo, dust separation services, environment, Security charges etc.

The following miscellaneous charges are applicable:

Sr. No.	Particulars	Rate per Tonne/TEU or part thereof (₹)
1	Miscellaneous Charges at Berth No. 8	2.26 per Tonne
2	Miscellaneous Charges at Berth No. 9	7.16 per Tonne
3	Miscellaneous Charges at Berth No. 9A	1.37 per Tonne

GENERAL NOTE TO SCHEDULE (2) TO (5) ABOVE:

(i). The tariff caps will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January 2015 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year.

(ii). From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire licence period.

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

(iii). The proposal shall be submitted to TAMP along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standard in the previous 12 months as incorporated in the Licence Agreement or for the actual number of months of operation in the first year of operation as the case may be.

(iv). On receipt of the proposal, TAMP will seek the views of the Major Port Trust on the achievement of Performance Standard as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.

(v). In the event of Licensee not achieving the Performance Standard as incorporated in the Licence Agreement in previous 12 months, TAMP will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Licensee shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.

(vi). After considering the views of the Major Port Trust, if TAMP is satisfied that the Performance Standard as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.

(vii). While considering the proposal for Performance Linked Tariff, TAMP will look into the Performance Standard and its adherence by the Licensee. TAMP will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standard by the Licensee. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.

(viii). From the third year of operation, the Performance Linked Tariff proposal from the Licensee shall be automatically notified by TAMP subject to the achievement of Performance Standard in the previous 12 months period as certified by the Independent Engineer. The Licensee, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and TAMP shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

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Annex - V

MORMUGAO PORT TRUST

PERFORMANCE STANDARDS FOR THE RE-DEVELOPED BERTH NOS. 8, 9 AND 9A

Type of Cargo	**Handling Rate at Berth 8**
Coal/Coke	20291 Tonnes/day
Limestone	28408 Tonnes/day
Gypsum	28408 Tonnes/day
Others	28408 Tonnes/day
Type of Cargo	**Handling Rate at Berth 9**
Minerals	25000 Tonnes/day
Steel Coil & Products	12000 Tonnes/day
Agro Products	25000 Tonnes/day
Fertilisers	25000 Tonnes/day
Others	25000 Tonnes/day
Containers	20 moves/hr
Type of Cargo	**Handling Rate at Berth 9A**
Iron Ore	38800 Tonnes/day
Bauxite	29846 Tonnes/day
Other Minerals	29846 Tonnes/day

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SUMMARY OF THE COMMENTS RECEIVED FROM THE CONCERNED USERS / USER ORGANISATIONS AND PROSPECTIVE BIDDERS AND REPLY OF MORMUGAO PORT TRUST (MOPT) MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY

F. No.TAMP/76/2015 - MOPT - Proposal from the Mormugao Port Trust (MOPT) for fixation of Reference Tariff for Re-Development of Berth No. 8, 9 and 9A (Barge Berths) at MOPT.

1. A summary of comments received from the users/ user organisations and Prospective Bidders and the comments of MOPT thereon are tabulated below:

Sl. No.	Comments of the users/ user organisations/ prospective bidders	Comments of MOPT
1.	**Adani Ports and Special Economic Zone Ltd.**	
(i).	The project of MOPT which is of importance, is still in the tendering stage of RFQ and we are interested in participating in the project of MOPT. Till date we did not get any information from MOPT or by TAMP regarding the criteria and details of the project and methodology used for arriving at upfront tariff.	It is informed that the address/ contact details of M/s. Adani Mormugao Port Terminal Pvt. Ltd. (AMPTPL) was shared with the Authority as one of the interested parties. TAMP forwarded the proposal as well as the intimation of the joint hearing to M/s. AMPTPL which is one of the Adani Group Companies and operating in Mormugao Port Trust. TAMP to kindly note the change in the name and address/ contact details which has to be changed from AMPTPL to M/s. Adani Ports and Special Economic Zone Ltd., (AP&SEZ) Adani House, Nr. Mithakhali Circle, Navrangpura, Ahmedabad – 380 009, Gujarat, India.
(ii).	As such, we require time to offer our comments and also request the Authority for one more consultation for finalisation of upfront tariff for the project which may be after consideration of RFQ by MOPT.	
(iii).	Considering the premature status of the project we await your favourable response and grant of sufficient time and one more consultation in this regard.	One more consultation before finalization of upfront Tariff for the project, TAMP may kindly decide.
2.	**Goa Mineral Ore Exporters' Association (GMOEA)**	
(i).	We had received a proposal from TAMP on the above subject only on 29/12/2015 seeking our comments by 31/12/2015. As it was essential to submit a reasoned reply, we promptly requested for additional time for our response apart for soft copy of the same, which was sent on 4th January 2016. It was additionally informed that the date of Joint Hearing was also slated for 8th January 2016, which coincided with the additional time afforded to us. Needless to mention, it appears as if there is a rush in ensuring completion of the process, which while good from the point of view of reducing time for implementation, should also not hinder a thorough examination and proper decision on such an important project which will have large impact on the future of the port. At this juncture, it is pointed out that iron ore had been the main stay of Mormugao Port since long, often subsidizing other traffic commodities. The	No specific comments given by MOPT.

	complementary usage of Transhippers also ensured that Cape Size vessels called upon the Port. The Mechanical Ore Handling Plant (MOHP) at Berth No. 9 operated directly by the Port, which was commissioned in late 1979 has been the mainstay of the port since long. The Port and the iron ore industry have been interdependent on each other. By virtue of an ex-parte Order passed by the Hon'ble Supreme Court in Writ Petition No. 435 of 2012, all mining in Goa was summarily suspended. On April 21, 2014, the final judgment was passed with regard to this petition, wherein mining was permitted to re-commence and post obtaining such clearances as required, mining is set for resumption. However, the resumption has occurred where the iron prices have dropped, amongst other concerns. In the current situation, it is imperative that any port facility is able to ensure competitive tariffs.	
(ii).	<u>No feedback taken from existing stakeholder</u> None of the iron ore exporters from Goa who were the main users of Berth No.9 were consulted by the project consultants Tata Consulting Engineers Ltd. While preparing the project report, the consultants, M/s. Tata Consulting Engineers Ltd. have not discussed and consulted with existing Goan Exporters. Major members of GMOEA have indicated that no interaction had taken place on the traffic projections and proposed projects. Further even the GMOEA was not contacted between January 2015 till date on this subject. Port has communicated their intention to re-develop the existing MOHP, B.No.8 and Barge berth as Multipurpose cargo berth on PPP basis. While making the major conceptual change in the objective, the major revenue contributor i.e. Iron ore users views were not taken into consideration.	The Project report has been prepared by the Consultants M/s. Tata Consulting Engineers Ltd., and as per the scope of work, the Consultant has consulted the all Major stake holders including members of GMOEA before finalizing the report. The Board of Trustees of the Port of Mormugao has decided to take up the development of the existing berth Nos. 8, 9 (MOHP) and Barge Berths as Multipurpose Cargo Berths on PPP basis. The Port Board is also represented by the Port Users including Iron Ore exporters.
(iii).	<u>Costs involved and their basis</u> ➢ The proposed tariff rate per unit is a function of the project costs which is also dependent on the quantities available for handling. The project consultant has not explained on what basis these have been determined. The members need detailed supporting to these quantities, costs and rates. The basis for cost escalations i.e. Civil (4.45%) and Handling equipment (12.85%) over the estimated project costs has not been explained. The difference between the project cost initially estimated at ₹ 1,145 crore and the project cost then estimated with escalations.	The proposed tariff has been arrived at as per the fixation of upfront tariff guidelines 2008 in the absence of reference tariff under the 2013 guidelines. Capital Expenditure in (i) & (ii) that is Civil & Plant & Machinery are as per the feasibility Report. - Power cost per unit is the Govt. of Goa rate for HT consumers. - Repairs & Maintenance and insurance expenses are considered as per Tariff Guidelines.

	i. <u>Civil works</u> Total costs for civil work with escalations is ₹637.06 crore (Total amount for year 2017, 2018 & 2019 - Refer page 148 of Feasibility report) Total costs for civil works originally considered with escalations – ₹608.58 crore (Sum of all the civil works for three berths – 8, 9 and 9A as included in the project cost) The difference between the above is ₹28.48 crore which is 4.45% of ₹608.58 crore. ii. <u>Plant and Machinery</u> Total costs for civil work with escalations – ₹544.16 crore (Total amount for year 2017, 2018 & 2019- Refer page 148 of Feasibility report) Total costs for civil works originally considered with escalations – ₹482.24 crore (Sum of all the civil works for three berths – 8, 9 and 9A as included in the project cost) The difference between the above is ₹61.92 crore which is 12.85% of ₹482.24 crore. ➢ Optimal capacity for Berth 9A considered at 9.58 MTPA in the proposal, while the feasibility report states it to be 8.00 MTPA, which is a large discrepancy. ➢ The basis for setting the norms for the operating costs has not been explained, especially • Power cost per unit at 6.50 per unit seems high • Repairs and maintenance particularly when the project is new. • Insurance and other expenses. • Data on the past trends needs to be provided and examined. Port to also explain how the current norms considered in the proposal compare with the past trends/actual experience of the port.	
(iv).	<u>Detailed tariff calculation has not been presented:</u> The tariff calculation is based on Return on Capital invested considering the entire project cost for the initial year, which is over-simplification of the calculation. In fact projections should be done for the life of the terminal and the depreciation discounted to NPV. As the project is paid for, the capital invested will decrease and the ROI will accordingly reduce. The cash flows over the life of the project are to be discounted to present value and the average tariffs calculated over the life of the project.	Tariff Calculations are as per the upfront Tariff Guidelines 2008.
(v).	<u>Miscellaneous charge and storage charges</u>. Besides the handling charge, a miscellaneous charge and storage charges are also planned. This is not as per the present tariff structure at Berth.	

(vi).	<u>Tariff should be based on actual configuration and costs of the berth.</u> The port initially specified that the project was construction of general cargo berths and now has projected setting up of a mechanised coal handling plant as also a mechanized iron ore plant. The proposal of the port has mentioned that <u>*"The PPP Operator would have the freedom to handle any cargo of his choosing, but this proposal envisages on mechanized coal / limestone / gypsum / other cargo handling terminal, an iron ore / bauxite / other ores and minerals handling terminal and a multipurpose general cargo berth, which would also handle containers for the purpose of upfront tariff fixation"*</u>. From the above, it is clear that the scope of the project has been kept very vague and flexible, wherein the bidder is not obliged to set up any specific terminal but can change the configuration of the facilities to be provided. With such a vague scope, the capital and operational cost of the project cannot be clearly defined as needed for tariff setting. Setting any tariff based on such vague project specification would be pre-mature, inaccurate and detrimental to the users. After tariff setting, the successful bidder may set up an entirely different facility. The tariff should be determined only after the specific details of the project are known.	The actual configuration of the project would be decided by the successful bidder. However, the tariff as fixed under the 2008 guidelines in the absence of reference tariff under 2013 guidelines would be applicable. The project of redevelopment of Berth Nos. 8, 9 and barge berths are taken up as PPP projects. Fixation of upfront tariff is one of the pre-requisites for selection of bidder. The Tariff proposal envisages Mechanised coal terminal at Berth No. 8, Multipurpose Cargo Terminal at Berth No.9 and Mechanised Ore Handling at Berth No.9A. Flexibility to the bidder is to ensure terminals are not idle for want of cargo.
(vii).	<u>Port Users should know the actual configuration and facilities to be provided.</u> It is extremely vital that the port users know the actual configuration of the handling facilities to be provided, particularly when it is replacing existing facilities as it will have large impact on the future of their trade.	------ Same as above -----
(viii).	<u>Oil vessels at berth No. 8 will be shifted to Berths 10 & 11 which are already congested.</u> The oil vessels shifting from Berth No.8 will add to the congestion at general cargo berths 10 & 11 and likely reduce the general cargo handled at these berths. While in future some of this cargo may shift to the new Berth No.9, the lack of storage space at the berth and layout of the storage space in narrow corridors will hinder operations. The adverse impact of shifting of Berth No.8 on port revenues has not been considered.	The re-development of the berths 8, 9 and Barge Berths has been taken up taking into consideration all the factors.
(ix).	<u>Earlier Tariff at MOHP Berth No. 9 already charged users for revamping the plant – but now scrapped</u>. The earlier revisions of tariff rates of MOHP B.No.9 were made by assuming and to ensure revamping of the plant. As eight barge unloaders, three stackers have been replaced at a substantial cost, a large amount of revenue was already collected from the users via the increased tariff, it would have been prudent to retain the B.No.9 as the iron ore berth and continue with the revamping. If necessary, a portion of B.No.9 stock piling area could be provided to the new B.No.8. Thereafter, pushing through the new project in a hurry which requires scrapping the existing project cannot be	The earlier tariff at MOHP Berth No.9 was based fixation was on cost plus basis. Hence, the revenue collected from the Users was based on the cost of equipment used and not on future investments. It is no longer prudent to retain the Berth No.9 as the Iron ore berth and continue with the revamping as this would entail investments to the tune of hundreds of crores of rupees. If the GMOEA is upbeat about the traffic projects of iron ore, its members could also bid for the project for setting up of a

	done particularly at a time when iron ore is due to revive.	Mechanised Iron Ore Handling Plant. It is also pertinent to note that even after lifting of the ban in April, 2014 by the Supreme Court, export of iron ore from Goa is yet to start. Hence, GMOEA cannot expect the Port to keep all its facilities idle for future resumption of iron ore exports.
(x).	<u>Tariff at B. No.9 already existing for Iron Ore hence revised charges is to be questioned</u>. It may be noted that TAMP has already set tariff for the PPP project at the coal terminal at Berth No.7. Similarly, there is an existing tariff for the iron ore terminal at Berth No. 9 set as per the 2008 guidelines. As per TAMP's 2013 guidelines, there is, therefore, no need to set fresh tariffs for these commodities. While the port has mentioned that the projects are not comparative, the 2013 guidelines specify that the existing tariffs for the commodity should apply to these new terminals.	It is informed that the existing tariff for iron ore at Berth No.9 was fixed under the 2005 guidelines and not under the 2008 guidelines, whereas, the upfront tariff fixation for the current project is being fixed under the 2008 guidelines in the absence of reference tariff under the 2013 guidelines.
(xi).	<u>Use of Existing equipment</u> Since the Port has proposed a new mechanical iron ore and other mineral terminal at Berth 9A, existing equipment at Berth No.9 or equipment ordered by the Port can be made use of for the new iron ore berth to reduce the cost and ultimately the tariff. Scrapping the same while constructing a new iron ore plant will add to cost. However, no mention is made in this proposal about utilization of this machinery. Substantial part of existing Berth No. 9, i.e. 8 barge unloaders of 750TPH, conveyor system & 3 stackers have been recently replaced. Replacing these with new unloaders of 850 TPH and other equipment is wasteful expenditure. Further, incomes received towards sale of existing equipment and scrap from the existing berth seem to be missing in the cost projections.	The existing equipment will be disposed by Port separately. The decision to use the existing equipment at Berth No.9 or not will be made by the successful bidder. Sale of capital asset is a sale of capital receipt and not income. Moreover, the proposal is for fixation of upfront tariff, and such capital receipts cannot be considered as income for the PPP Operator with the winning Price Bid.
(xii).	<u>Iron ore handling at Berth 9A</u>. Clause 10.1 – We are not aware how the traffic projections have been considered, particularly without interaction with the industry. While the cap on mining in Goa is presently 20 million tonnes, a substantial portion of this could be immediately attracted to a competitive iron ore terminal. The same is likely to be enhanced to at least 30 million tonnes as per the recommendation of the committee appointed by the Supreme Court. 10.4.2 mentions that the optimum yard capacity is calculated as 70% of maximum quantity of coal that can pass through the yard, though the project is for iron ore. Further, in 10.4.1, it talks about unloading of vessels. Thus, it seems obvious that the project envisaged is actually a coal unloading terminal, but subsequently is being projected as an iron ore terminal with flexibility to the bidder to change the project.	Feasibility study is made after interaction with all Major stake holders. If the present cap of mining of iron ore in Goa is likely to be enhanced to 30 million tonnes, then it is all the more necessary for members of GMOEA to participate in the bidder for setting up of a dedicated mechanized iron ore handling plant. The optimal yard capacity will decide the upfront tariff which in turn shall decide the success of failure of the project.

	In table 10-4, on the turnover ratio, as against 12 times suggested by TAMP, the present study indicates 20 times turnover ratio which is unpractical for a multi-user facility. Subsequently, in MoPT's projection, a turnover ratio of 25 times has been considered. It may be noted that the earlier MOHP Berth No. 9 turnover ratio was around 12 times. Further, based on TAMP guidelines, the optimal yard capacity is only 1.04 million tons as against 8 million tons being projected with 20 times turnover, which is a huge mismatch. The height of 13 m. considered for arriving at 8 million tons is too high. This is against an optimum quay capacity of 14.95 million tons calculated, which makes it clear that the stockyard area is inadequate as compared to the quay capacity. Additionally, 300 working days have been considered for barge berth capacity as against 365 for quay capacity. As iron ore is generally not handled during the monsoon except for small quantity of lumps, 200-240 days working is more realistic. Cargo handling equipments in Clause 10.6 seem unrealistic. i.e. 365 working days with 20 hours running. This may be relooked. There appears to be no base for such calculations which are highly inconsistent which have been prepared to pass the project through under incorrect assumptions.	
(xiii).	<u>Dust suppression</u>. Iron ores having higher specific density that other commodities such as coal and containing higher moisture content in ore from Goa would not require the same level of dust suppression measures and systems as for coal, and therefore these may be reviewed. This can be seen from experience at MOPT.	The dust suppression measures and systems are more relevant for coal and also to a lesser extent for iron ore. As per the Tariff Guidelines, 1% of total revenue to be charged under Miscellaneous Chargeable Head. Therefore, this charge is proposed.
(xiv).	<u>Contamination of Cargo</u>. The proposed berth 9A is proposed for handling Iron Ore, Bauxite and other minerals. Practically, it is difficult to handle these minerals from the same plot due to possibility of contamination and leftover cargo remaining on the plot after shipment of one of the cargo. This will greatly reduce the optimum utilization of the plot as it will require provision of separate storage areas during handling and evacuation/cleaning of the area. This has not been taken into consideration while making the tariff projections from Berth No.9A. Similarly, handling of coal and limestone/gypsum at the same terminal will have operational difficulties.	It is the prerogative of the winning bidder to decide what mix or type of cargo he would handle. The bidders could bid for the project taking into account all these factors. The GMOEA envisages existence of a mechanized iron ore handling plant which may or may not be realized as the type of cargo to be handled would depend on the winning PPP bidder and the availability of cargo.
(xv).	<u>Hampering navigational channel</u>. Clause 6.7.1 suggests that the turning circle in front of proposed 9A of radius 240 m. will require relocation. Also in the last para it points out that the relocation of the turning circle is likely to interfere with MD1, apart from the fact that MD3 and MD4 will have to be discontinued (to verify).	All these factors would be taken into account by the prospective bidder before submitting their bids.

	As such, the project seems to have additional concerns.	
(xvi).	Inadequate storage area. In addition to the limitation on storage area pointed out above, there appears to be serious shortage of space for Berth 9, where the storage area has been shown spread out in a narrow oddly shaped configurations, which will reduce the effective utilization of space.	The bid would be for all the berths. Thus the storage area available to the winning PPP Operator could be efficiently and optimally used by the successful bidder.
(xvii).	Technical feasibility Report w.r.t. deepening of draft. Clause 5.4.1 proposes that area in front of proposed berth 8, 9, 9A will have to be deepened for the maneuvering of Capesize vessels. In contrast, clause 5.6 (Dredging Quantities) indicates that it is assumed that the rock is not encountered up to – 19.8 m CD in the inner Channel. However the rock level has to be confirmed based on seismic survey and geo technical investigation. As such this may affect project estimation and the report has to be first obtained.	All these factors would be taken into account by the prospective Bidders before submitting their bids.
(xviii).	Reduction in Dredging Cost It may be noted that in the recently held bid for deepening of the approach channel to 19.8 m, the port has received a substantially lower bid of ₹193.5 crores from DCI against the projected estimate of ₹363 crores by the Port. This large reduction in dredging cost needs to be factored into the current project estimates.	The deepening project of the Approach Channel has no relation with the project for re-development of berth No.8, 9 & barge berths.
(xix).	Doubling of Rail line from MoPT yard to Castle Rock Clause 8.7.1 – Cargo Evacuation – Cargo evacuation is already a bottleneck at the port and increase in capacity is dependent on capacity increase by doubling of the rail line from the Port to Castle rock. The details of this key element are not considered/discussed in the present report. The availability of rakes for one way movement in the absence of cargo coming towards the port by rail is also to be considered which is likely to constrain the capacity of the project.	The present bottle neck for cargo evacuation at the port and the subsequent capacity increase by doubling of the railway line is already well known to the prospective PPP Bidders.
(xx).	Justification for scrapping B. No. 9 and setting up a new terminal not consistent While deciding to scrap the existing MOHP Berth No.9, it was earlier projected to be unfeasible and requiring capital cost of 400 crores for revamping of just the balance portion, even after large part of the revamping project had already been completed. Now the project report shows that only around 350 crores for setting up an entirely new plant at B.No.9A.	It is no longer financially feasible for the Port to maintain the existing MOHP Berth No.9 without further investments and in the absence of guaranteed iron ore throughput. Hence, the decision has been taken for scrapping of the MOHP at Berth No.9. However, setting up of a new mechanized iron ore handling terminal would be the decision of the successful bidder.
(xxi).	Retaining the existing Berth No. 9 needs to be re-examined. The Port need to seriously re-examine the feasibility of retaining the existing Berth No.9 including reducing the stock piling area and providing it for development of Berth No.8, until clarity on Iron Ore exports emerges.	------ Same as above -----
(xxii).	Whether the 3 proposed berths can be separated into individual projects to increase competition and reduce	The Port has merged the 3 proposed berths into a single project after

	risk. The project proposes three separate and distinctive facilities linked only by the fact that the 3 berth will be contiguous. It would be preferable to tender out and operate the 3 projects individually to ensure wider participation, more competitive bids and reduced risk of the projects being implemented. Prima Facie, since the turnover ratio of the plot has been considered at a high rate of 25 times, it appears that use of the plot can be by one user only. This will in effect make the facility into a single user facility. This would be contrary to the primary objective of the port, to provide the facilities to maximum number of users and increase trade.	careful consideration of all the factors. (i). One full length of Railway rake requires 720 mtrs. Length railway line. Therefore, all 3 berths are considered as a single project.
(xxiii).	Clarification on applicability of Special Levy: Port would require to clarify whether the special levy 9% will be additionally collected on the tariffs or on the revenue share and if so, whether the same will be passed on the users.	The proposal for the upfront tariff fixation has been formulated under the 2008 guidelines in the absence of reference of tariff under the 2013 guidelines, whereas the special levy of 9% is applicable only for the Ports scale of rates. Hence, it is clarified that the special levy of 9% will not be applicable for the upfront tariff or the revenue share.

2. At the joint hearing, the MOPT and the concerned users/ organisation bodies/ prospective applicants have made the following submissions:

Mormugao Port Trust (MOPT)

(i). We have decided to develop the existing MOHP, Berth no. 8, 9 and Barge berths, to enable handle multipurpose cargo berths on PPP basis.

(ii). For the purpose, the existing MOHP is proposed to be dismantled, the existing liquid handling is proposed to be shifted from berth no. 8 and the barge berths are proposed to be reclaimed.

(iii). This will lead to a continuous berth measuring about 950 mrts to 95 mtrs barge berth i.e. 1050 mtrs.

(iv). A present, evacuation of cargo is a constraint. We are looking into the matter. By the time the project is operational, the evacuation of cargo by rail and road will be in place.

(v). Makes a brief power point presentation of the proposal.

Adani Ports and Special Economic Zone Ltd.

(i). The Adani SEZ has not received the communication regarding the joint hearing. We therefore, request for holding one more joint hearing on the proposal.

JSW

(i). In the existing scenario, about 10 rakes are handled in a day. Only if the handling of rakes increases to 16, the proposed project is feasible. Nevertheless, we are bidding for the project.

(ii). The rates proposed by MOPT are okay.

(iii). We will give our comments on the subject proposal.

Goa Mineral Ore Exporters' Association (GMOEA)

(i). Iron ore has been the main cargo handled at MOPT since the port's inception. The existing MOHP at berth no. 9 has catered uninterruptedly towards handling iron ore till 2012, when handling of iron ore was banned by the Supreme Court. Nevertheless, the iron ore mining is set for resumption based on the judgment of the Supreme Court in 2014.

(ii). Though the cap on mining in Goa is presently 20 million tonnes, it is likely to be enhanced to at least 30 million tonnes as per the recommendation of the Committee appointed by the Supreme Court.

(iii). The consultant engaged by MOPT while recommending for replacement of the MOHP at berth no. 9 with a general cargo berth has not consulted the primary MOHP iron ore users.

(iv). There is no clarity on how the traffic projections have been made. Though the project envisaged is a coal unloading terminal, subsequently, it is being projected as an iron ore terminal with a flexibility to the bidder to change the project.

(v). We are not in a position to verify the costs. We find some mismatch in the projections, as already explained in our written submissions.

(vi). The turnover ratio of 25 considered in the proposal is not possible for a multi user facility. The turnover ratio of earlier MOHP berth no. 9 was around 12 times.

(vii). With a flexibility offered by the MOPT to the PPP operator to handle any cargo of his choice, there is no sanctity towards fixing tariff as after tariff setting, the PPP operator may set up an entirely different facility. It is essential that the port users know the actual configuration of the facility being provided, as it will have an impact on the future of their trade.

(viii). Now, the MOHP at berth no. 9 is proposed to be scrapped. The revamping of the earlier MOHP at berth no. 9 has already been charged to the users. We want that berth no. 9 is retained as iron ore berth.

(ix). The port has said no comparable tariff is available. An upfront tariff for handling coal at Berth no. 7 is already available with MOPT. Tariff of Adani Coal Terminal is quite comparable. Similarly, an upfront tariff for handling iron ore at Berth no. 9 is already available with MOPT. Therefore, there is no need to fix fresh tariff for these commodities.

(x). There is a shortage of storage space for berth no. 9. The oddly shaped configuration of storage space will reduce the effective utilization of space.

(xi). The entire berth length of 950 metres cannot be fully utilized, if both coal and iron ore are envisaged to be handled at the facility.

(xii). The existing general cargo berth nos. 10 and 11 are already congested. Shifting of liquid cargo from the existing berth no. 8 to 10 and 11 will further add to the congestion.

Mormugao Steam Ship Agents Association

(i). Though the rates proposed are based on some studies conducted by the Port, the rates proposed are on a higher side. For cheap cargo like limestone especially the rates are high. The ports should not lose cargo due to high rates. The MOPT may review the rates proposed.

(ii). Repairs & Maintenance cost has been estimated at 5%, but the Guidelines prescribe 7%.
[MOPT : The estimates are as per norms.]

(iii). Is performance linked Tariff available ?
(MOPT: Performance linked tariff has been proposed.)

Mormugao Port Trust (MOPT)

(i). A lot of thought has gone into giving shape to the proposal.

(ii). Though the quay has a capacity to handle about 30 MMTPA, the optimal capacity has been restricted keeping in mind the constraint in storage and evacuation of cargo.

(iii). We will look into the concerns of the users/ prospective applicants.

Mormugao Steam Ship Agents Association (MSAA)

(i). We expect to get coastal coal.

(ii). These should be minimum of one dedicated berth to handle iron ore.

Goa Mineral Ore Exporters' Association (GMOEA)

(i). Iron Ore moves by barges only, thereby putting no strain on road or rail.

(ii). It will take around 3 years for the project to become operational. Continuity in the handling of iron ore in the interim is essential, in the interest of the trade.
[MOPT Chairman : We will examine the matter. We will also examine whether the project can be developed in a phased manner].

3. The comments of APSEZL and reply furnished by MOPT thereon are tabulated below:

Sl. No.	Comments of users/ user organisations	Comments of MOPT
1.	**Adani Ports and Special Economic Zone Ltd.**	
(i).	A logical practice at all Major Ports is that tariff hearings are conducted only after receipt of the RFQ applications giving all interested parties chance to provide comments and attend tariff hearing. Joint Tariff Hearing meeting for the aforesaid Project was carried out before the submission date of the re-invited RFQ. We would request you to arrange Joint Hearing again to follow the same practice and allow our senior management to attend the Joint Hearing for the Project. However, we are keen to participate in the project and need sufficient time to evaluate the project.	AP&SEZ have themselves agreed that the turnover ratio should be in the range of 20-25 and they have suggested considering the average turnover ratio of 22.5. As informed earlier, South Western Railways has taken up the doubling of the railway lines which will be completed in 4-5 years and the proposed facilities at Berths 8, 9 & 9A will take about 3 years for construction. Once the doubling work is completed, cargo evacuation will be smooth and achieving a plot turnover ratio of 25 would be possible. At present, the plot turnover of SWPL terminal is more than 25 times since 100% evacuation is by rail. Hence, the Port has considered a plot turnover ratio of 25 times in its proposal.
(ii).	Berth No. 8 for Coal Handling (a). Turnover Ratio Turnover Ratio of 25 has been considered for deriving the optimal capacity of the yard. We understand that this	A free period of 25 days would be considered.

is slightly on higher side. We understand that turnover ratio should be in the range of 20-25. Hence, we suggest considering the average of 22.5 times per year. Based on the suggested turnover ratio, our suggestion for capacity and tariffs for cargo handling charges would be as follows:

Optimal Yard capacity	Unit	Coal	Limestone	Gypsum	Others
Total Yard Area Avaliable	Ha	7.9	7.9	7.9	7.9
Optimal factor	%	70%	70%	70%	70%
Optimal Area	Ha	5.53	5.53	5.53	5.53
Square Meters per Ha	Sqm	10000	10000	10000	10000
Optimal Area	Sqm	55300	55300	55300	55300
Utilization Area for stacking	%	75%	70%	70%	70%
Stacking Factor	MT/Sqm	5	7	7	7
Turnover Ratio	Time/yr	22.5	18	18	18
Total Optimal Yard capacity for Each cargo Share of each cargo.	Sqm	4665938	4877460	4877460	4877460
Share of each cargo type	%	75%	10%	10%	10%
Optimal Yard Capacity for Each cargo	MMTPA	3.50	0.49	0.49	0.49
Total Optimal Yard Capacity of Berth 8		**4.72**			

Cargo Handling Charges					
Commodities	Coal/Coke	Limestone	Gypsum	Others	Total
Cargo Share	75%	10%	10%	5%	100%
Handling/Day	18262	19090	19090	19090	
Cargo volume	3499453	487746	487746	243873	4718818
Working days	191.6	25.6	25.6	12.8	256
Rev. Reg.	93.75	12.50	12.5	6.25	125.00
Foreign Q	3324480	463359	463359	231679	4482877
Coastal Q	174973	24387	24387	12194	235941
Tariff for foreign Cargo in INR/MT	273.36	261.50	261.50	261.50	
Tariff for Coastal Cargo in INR/MT	164.01	156.90	156.90	156.90	

(b). Storage Charges – Assumption for Free Period has been assumed at 15 days for imports and 25 days for Export. However, for coal, coke and other import commodities, it should be considered 25 days of Free Period. It is pertinent to mention here that Upfront tariff Guidelines 2008 for Coal terminal considered 25 days as free period. We request TAMP to modify the proposed Free Period in line with TAMP Guidelines 2008.

(iii). Berth No. 9 for General Cargo Handling

(a). Optimal Capacity and yard capacity

We observe that fixation of optimal capacity of Quay only has been calculated. Optimal yard capacity has not been found. If the Optimal yard capacity is lower than Quay capacity, the same should be considered, Hence the proposal for general cargo berth should be modified accordingly as per TAMP guidelines 2008 and should

The Optimal capacity has been calculated as per the TAMP Guidelines. For calculation of optimal capacity, the containers to be handled have been calculated in terms of TEU's and not in terms of

<table>
<tr>
<td></td>
<td>calculate the optimal yard capacity also for tariff fixation. Further, for calculation of optimal capacity, containers to be handled appear to have been calculated in terms of Container Nos. However, the number of optimal capacity has been added with Optimal capacity tonnage for all other general cargo. This, possibly an inadvertent error, should be rectified.

(b). Storage Charges – Commodity wise

Storage charges of the Berth No. 9 have been proposed for each of the commodities. We understand that it has to be prescribed separately for containers. However, the charges for all other commodities can be clubbed together which is a widely used practice for fixation of storage charges.
Further, it should also be noted that the proposed storage charges' slabs are ranging from ₹3-6 per Day/ MT to ₹5-10 per Day/ MT which is very high. Such a high storage charges shall make the project unviable from commercial point of view.
Specially, the storage charges prescribed for Containers are proposed very high. If the same rates are referred from Scale of Rates of Mormugao Port Trust itself, they are found to be ranging from ₹15-18 per contaioner per day and double the same for dwell time beyond three months while proposed charges ranges from ₹81 to 163 per container per day for dwell time from 7 days to 15 days and onwards.
Again, we are of the view that relatively lower percentage assumed for cargo to be stored beyond free period is the key reason behind the high storage charges. We also do not see any basis for assuming the percentage of cargo to be stored beyond the free period. In view of above, we request to consider the revisiting of the proposed tariffs for storage charges for Berth No.9 also.</td>
<td>container numbers. However, for calculation of optimal capacity in terms of tonnage handled, each TEU has been considered as equivalent to 12 tonnes and the optimal capacity in terms of tonnage is calculated accordingly. There is no inadvertent error to be rectified.

As regards clubbing of all other commodities for storage charges, TAMP may advise accordingly.
The plot turn over of 25 times will result in cargo dwell time of about 14 days. Since the free time is 25 days, the Storage Charge realization may not happen, however, for fixation of Tariff, 10% of the cargo is considered for the purpose of Storage Charges.</td>
</tr>
<tr>
<td>(iv).</td>
<td>Common Points
(a). License Fee
We have referred that the Rate of License Fee has been derived as given below:
<table>
<tr><th>Particulars</th><th>Values</th><th>Unit</th></tr>
<tr><td>Basic Rate of License Fee as per SOR as on 2012</td><td>500</td><td>₹/10/Sqm/Month</td></tr>
<tr><td>Special Duty 9%</td><td>45</td><td>₹/10/Sqm/Month</td></tr>
<tr><td>Escalation per year</td><td>2%</td><td>Every year on above two items</td></tr>
<tr><td>Total Rate for 2015-16 (Basic + Duty) escalated from 2012 to 2016 i.e. for four years.</td><td>578</td><td>₹/10/Sqm/Month</td></tr>
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However, we understand that the special duty has been prescribed till 2015-16 as per SOR Part V – Sr. 1
Hence, carrying the special duty as a rate to be fixed in 2016-17 is not in line with the SOR. Hence, we request to remove the application of 9% of special duty from the basic rate and revise the rate of License Fee and tariffs proposed in accordance with the same. Considering this, revised rate of License fee works out at ₹541.21/10 Sqm/ Month.

(b). High Storage Charges – Assumption for Cargo</td>
<td>At present, the Scale of Rates (SOR) has a provision of 9% Special rate for funding the pension liabilities which is applicable for license fees. It is also informed that the MOPT Pension Fund is under funded to the extent of ₹1,000 crores and hence the special rate of 9% has been included towards meeting this liability.

As regards clubbing of all other commodities for storage charges, TAMP may advise accordingly.</td>
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<td></td>
<td>attracting storage charges
It has been assumed that only 10% of the cargo shall be stored beyond free period. However, it is not the case as per the prevailing market conditions. Large part of the volume remains in the stack yard beyond the free period. We are of the view that percentage of cargo stored beyond the free period is observed around 50% for coal and other dry bulk items, 30% for iron ore and other mineral cargoes. Further, the same percentage for general cargo may be considered at 50% to 70%.
Consideration of very low volume to be stored beyond free period has led the storage charges fixed at very high rate. It should be noted that many PPP terminals at many of the Major Ports (like Kandla, Paradip, etc) have faced issues of high storage charges leading to complications / disputes after the bid is awarded. So, the storage charges should be fixed very carefully. We request Authority to consider this.
Here, we would also like to refer that SOR Rates of storage of dry bulk cargo in the rental plots ranges from ₹0.70 per MT/Day (for Coal and Coke) to ₹1.05 per MT/ Day (for other dry bulk). So, proposed charges are almost five to ten times of the rates prevailing as per SOR of MPT.
Hence, in view of this, percentage of cargo stored beyond free period should be revisited and accordingly the storage charges should be reworked at appropriate level so as the rates of the proposed project and those of MPT are competitive with each other.
Considering our suggestions on Storage Charge calculation, following tariffs for storage activity may be fixed for the Berth No. 8 and Berth 9A.
<table>
<tr><th>Storage Charges</th><th>Units</th><th>Values</th><th>Units</th><th>Values</th></tr>
<tr><td>Optimal Capacity</td><td>MMTPA</td><td>4.72</td><td>MMTPA</td><td>9.58</td></tr>
<tr><td>Revenue Requirement</td><td>₹ Crores</td><td>1.28</td><td>₹ Crores</td><td>1.31</td></tr>
<tr><td>Share of Cargo to be stored after free period</td><td>%</td><td>50%</td><td>%</td><td>30%</td></tr>
<tr><td>Cargo Volumes to be stored</td><td></td><td>2.36</td><td></td><td>2.87</td></tr>
<tr><td>Storage Charges beyond Free period</td><td></td><td></td><td></td><td></td></tr>
<tr><td>1-7 Days</td><td></td><td>0.77</td><td></td><td>0.65</td></tr>
<tr><td>8-14 Days</td><td></td><td>1.16</td><td></td><td>0.98</td></tr>
<tr><td>15th Day Onwards</td><td></td><td>1.54</td><td></td><td>1.31</td></tr>
</table>
</td>
<td>The plot turn over of 25 times will result in cargo dwell time of about 14 days. Since the free time is 25 days, the Storage Charge realization may not happen, however, for fixation of Tariff, 10% of the cargo is considered for the purpose of Storage Charges.</td>
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4. The GMOEA has furnished its comments, as given below:

(i). The members of GMOEA were not consulted by the consultants M/s. Tata Consultants Engineers Ltd., despite being the major users of the existing Berth No.9 since its inception in 1979. Thus GMOEA members' views on the need for scrapping the existing facility, the configuration of the new facility and the traffic projections have not been taken into consideration. It is obvious that the low traffic projections by the consultants for iron ore export on which they have based their recommendations is erroneous.

(ii). While GMOEA is represented on the board, the projects have been put for approval piecemeal and the consultant's report presented at a very late stage and without adequate time for study. Some of the issues/ objections raised were not taken on record or set aside. Even the board's approval for upfront tariff fixation was scheduled after sending the proposal to TAMP.

(iii). GMOEA agrees that Port cannot keep its facilities idle for resumption of iron ore exports. GMOEA is also happy to see the Port widen its base of cargo handled by it in recent years.

(iv). While GMOEA or its members may not be interested in bidding for the project in its present configuration but look forward to supply of cargoes to such facilities available which are not only efficient but also price competitive, being in the handling of ores for long, apart from setting up MOPT's 1st Mechanized ore handling plant by GMOEA member M/s. Chowgule & Co. in 1960's onwards. The MOHP commissioned in the 1979 were patronized by GMOEA members. Till 2012 when iron ore mining was suspended, the MOHP as well as other operations in MOPT were largely supported by GMOEA members. Post the resumption of mining, GMOEA therefore believes that there is potential of increased iron exports from the State. The stoppage period should therefore not be used to rush through the new project.

(v). GMOEA had indicated to the MOPT, that the commencement/ resumption of any enhanced quantities is subject to the decision of the Hon'ble Supreme Court. Further even though the suspension was lifted by the Hon'ble Supreme Court in April 2014, there had been various approvals that were required from various State Government as well as from MOEF&CC, Indian Bureau of Mines, etc. for compliance, which takes time. Surely, we hope that MOPT realizes such needs of the iron ore industry.

(vi). While the scrapping of the existing berth no.9 despite investment being done, is being justified as it will require hundreds of crores, it is difficult to understand how an entirely new facility will be set up at a cheaper cost.

(vii). As pointed out during the hearing, there are discrepancies in the consultant's report where the iron ore berth seems to have been added as an after-thought to preclude objections from iron ore exporters while possibly actually intending a coal berth. This may be inferred from the consultant's report mentioning "coal" at some instances instead of "iron ore" and "cranes" / "discharging" instead of "shiploader" / "loading" in the projections for the iron ore terminal.

(viii). That the project gives the flexibility to the successful PPP bidder to change the configuration to handle any cargo, further strengthens the above apprehensions.

(ix). We reiterate that tariff cannot be set on a hypothetical project which can be changed by the project proponent during actual setting up of the facility. The tariff is based on the costs involved which in turn depend on the project configuration, and thus cannot be determined unless the project configuration is fixed.

(x). It is also in the interest of the port and trade to determine upfront the facility to be set up and its use in order to service the envisaged cargoes. Allowing blanket flexibility to the project proponent may serve their own interests and perhaps also enhance revenue to the port. However, it will come at a cost of other users and particularly the role of the port to service the trade at large.

(xi). We wish to caution the MOPT that it should not permit overdependence on coal handling at the cost of other cargoes. The port is already facing pollution issues related to coal handling and its proximity to Vasco city makes it vulnerable to local opposition. Chennai port has already faced this issue of stoppage of coal handling due to pollution.

(xii). While the Port has clarified that the existing tariff at MOHP Berth No.9 has been fixed under the 2005 guidelines and not the 2008 guidelines, it has not explained why the existing tariff at Berth No.5 & 6 and at Berth No.7 which have been fixed under the PPP model, and pertain to similar coal handling facilities, has not been considered.

(xiii). The Port has at the TAMP hearing and in their letter clarified that the project of 3 separate terminals has been tendered as one project mainly to ensure that a continuous stretch is available under control of a single users to place a full rake. Such an important part of the project however finds no special mention in the project report. It also points to framing the project to the needs of a set of users evacuation the cargo by rail. This is despite the known bottlenecks in increasing the capacity of rail evacuation.

(xiv). During the hearing, we mentioned that the 3 terminals should be tendered separately which would bring wider participation and better bids.

(xv). As stated during the TAMP hearing, the general cargo terminal located between the proposed coal and iron ore terminals has inadequate backup storage space and the space available is in an odd-shaped configuration. Since the general cargo is envisaged to the loaded in supramax vessels which do not require the deep draft at the proposed new berths, it can be separately developed as extensions of berths 10 and 11.

(xvi). In regard to disposing existing equipment separately, GMOEA would only like to point out that certain equipment which were introduced more recently than others may still have an operating life and hence can be reused. However, the MOPT and their Consultants may decide best as needed.

(xvii). We are not in concurrence that the deepening of the approach channels having no relation with the redevelopment of the Berth 8, 9 and 9A, when actually the report of the Consultant does point out certain concerns, which have been mentioned, especially on the turning circle. It is also a fact that the deepening of the approach channels solely facilitate the existing terminals at berths 5 & 6 as well as 7 to load capesize vessels besides the redeveloped Berth 8, 9 and 10. Despite this the port has taken the onus of the project on itself without insisting on any commitment from such users for guaranteeing cargoes in capesize vessels.

5. The comments of SWPL are given below:

(i). There is a huge difference between the characteristics of group of Coal/ Coke/ Gypsum and Limestone. Limestone's density and aggregate size is almost double of coal/ coke. While handling Limestone through mechanized systems, it transmits high impact at all transfer points and as a result generates very high wear and tear on equipment. The transfer chutes, gates, skirting, liners, structures etc., have to be designed considering such behavior and nature of the cargo. This increases the capital cost as well as the Repairs and Maintenance cost. Also, due to the high wear prone nature, the handling system availability is less and down time and maintenance time for limestone is more as compared to Coal/ Coke handling. Because of this specific nature, the norm for Operating cost for the Repair and Maintenance on Mechanical Equipment be reviewed and revised to 10% of Mechanical and Electrical equipment.

(ii). Presently, the cargo handling charges are proposed to be at ₹ 247/- per MT for Coal/ Coke and ₹ 203.78 per MT for Limestone. It is requested that the same may be revisited and reworked based on the type and nature of cargo so that charges for handling Limestone are more than that of Coal/ Coke.

(iii). We propose the 1st Berth as general cargo berth, 2nd Berth as Mechanised Berth for Iron ore/ Bauxite and the 3rd Berth for Coal/ Coke/ Limestone and hence the Berth hire charges be applied accordingly.

(iv). The proposed cargo handling charge for Fertilisers and Agro Products at ₹ 105.54 per MT is very much on the lower side, as presently the same cargo is handled at higher charges.

(v). The rate for Container handling charge (Loading/ unloading from the ship + shifting to the storage yard and receiving or loading on the despatch trailor) at ₹ 2150/- per TEU is also on the lower side. The same may also be revisited.

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