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Tariff Authority for Major Ports

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New Delhi,

28 April 2010

NOTIFICATION

In exercise of the powers conferred by Sections 48, 49 and 50 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the application received from the Paradip Port Trust for review of the Order dated 19 January 2010 fixing upfront tariff for multipurpose berth to handle clean cargo including containers as in the Order appended hereto.

(Rani Jadhav)
Chairperson

Tariff Authority for Major Ports
Case No. TAMP/43/2009-PPT

The Paradip Port Trust

- - -

Applicant

ORDER

(Passed on this the 31st day of March 2010)

This case relates to an application dated 10 March 2010 received from the Paradip Port Trust (PPT) for review of the upfront tariff fixed for multipurpose berth to handle containers and clean cargo vide Order dated 19 January 2010.

2. This Authority had passed an Order on 19 January 2010 disposing of the proposal received from the Paradip Port Trust (PPT) for setting upfront tariff for multipurpose berth to handle clean cargo including containers. This Order was notified in the Gazette of India on 16 February 2010 under Gazette No.51.

3.1. With reference to the said tariff Order dated 19 January 2010, the PPT vide its letter dated 10 March 2010 has filed an application for review of the upfront tariff on the following points:

- (i). The handling rate for iron and steel products and other cargo to be retained at 4,000 tonnes per day and 10,000 tonnes per day respectively.
- (ii). The 10% increase considered while determining the capacity to handle iron and steel products and other cargo is not reasonable.
- (iii). Limiting the fuel consumption to 4 litres per TEU to handle containers is not reasonable.

3.2. Based on the above submissions, the PPT has stated that increase in optimal capacity and reduction of operating cost has impacted the cargo handling rates. According to PPT, the viability of the project under this tariff scheme is undermined and is detrimental to the interest of the PPT. The PPT has further submitted that the short-listed bidders for the project have also expressed their concern on the matter.

3.3. In the above backdrop, the PPT has requested to review the case and revise the notified tariff.

4. The points made by the PPT in its review application, the extract of the relevant paragraphs of the Order dated 19 January 2010 and analysis thereupon are discussed as under:

- (i). Handling rate for iron and steel products and other clean cargo:
 - (a). Upfront tariff Order of January 2010 {Paragraph No. 11(iv)}
 - “(iv) (a). *The output norm of 10,000 tonnes per day prescribed in the tariff guidelines of February 2008 is for handling food grains and fertilisers by deploying 3 numbers of 20 T electric level buffing cranes. The consortium of VOTL and EBTL has observed that categorisation of aluminum ingots and pig iron under bulk cargo may not be correct. In a related query in this regard posed to PPT, the port has clarified that the proposed multipurpose berth would be able to handle 10,000 tonnes of aluminium ingots and pig iron per day.*
 - (b). *The output norm of 10,000 tonnes per day and 4000 tonnes per day for iron and steel products is with reference to the operation of 3 numbers level luffing wharf cranes of 20 tonnes capacity each. Since the PPT has envisaged that the general cargo*

handling facility would operate with one HMC of 100 tonnes capacity, the normative handling rate prescribed in the guidelines of 2008 needs to be updated. Incidentally, in the proceedings concluded recently relating to fixation of ceiling rate for operation of HMC of 100 tonne capacity at PPT, it was reported by the Port that one of the three HMCs operating at the same port, which is reportedly 100 tonne capacity has performed in the range of 11319 tonnes to 12451 tonnes per day.

With reference to the handling rates for bulk cargo and iron and steel cargo, this Authority deliberated the issue of productivity norm for HMCs in the earlier proceedings relating to the PPT cited above. Keeping in view the higher handling capacity of HMC as compared to the aggregate capacity of wharf cranes and in the absence of any norms prescribed in the guidelines, it was decided to reckon with 25% increase over the handling rate of 10,000 tonnes per day. Since the HMC may handle iron and steel products without grabs, it was decided to reckon with 50% increase over the handling rate prescribed for iron and steel cargo. Based on the earlier decision, the handling rate of 12500 tonnes per day for bulk cargo and 6000 tonnes per date for iron and steel products is applied in this case also.”

(b). Points made by PPT in its review application:

The handling rate of iron and steel products has been taken as 6,000 tonnes per day and for other clean cargo it has been taken as 12,500 per day instead of 4,000 tonnes and 10,000 tonnes per day respectively as proposed by PPT.

The handling rate of 4000 tonnes and 10,000 tonnes per day for the cargo described above is provided in the TAMP guidelines using 3 nos. of 20 tonne level luffing cranes. The same rate was also taken while using 2 nos. of 60 tonne HMC in earlier TAMP Orders. In our case 1 no. 100 tonne HMC has been proposed for handling miscellaneous clean cargo. Considering the wide variety of cargo to be handled in the multipurpose berth, the rate of handling may be retained as 4000 tonnes and 10000 tonnes per day for steel products and other clean cargo respectively. The comparison with 100 tonne HMC handling bulk cargo like iron ore and coal in Paradip vis-à-vis handling clean cargo including bagged cargo is not reasonable considering the different nature of cargo.

(c). Analysis:

- (i). The PPT appears to have referred to a tariff order passed by this Authority in February 2009 for upfront tariff setting for multipurpose cargo berth at Visakhapatnam Port Trust (VPT). In the said case, handling rates of 4000 tonnes and 10000 tonnes for Steel and coke, respectively, were considered for deployment of 60T MHC, whereas the cranes to be deployed at PPT are of 100 tonne capacity.

The upfront tariff case in reference pertaining to the PPT was decided much later, as later as in January 2010. Apart from this, in the intervening period, this Authority dealt with another tariff application filed by the PPT, for fixation of common ceiling tariff for 100 tonne HMC which was disposed of by this Authority vide Order dated 30 December 2009. In that order, the normative handling capacity of the 100 tonne HMC came to be considered at a level of 6,000 tonnes and 12,500 tonnes annually for handling of Iron & Steel products and other bulk cargo for the reasons recorded therein.

If the contention of PPT is acceded to i.e., to consider the handling levels at par with that of the levels considered for the upfront tariff case of VPT, it may turnout to be unreasonable since the prospective bidder of the PPP project will be expected to function at a lesser productivity level as compared to the existing HMC operators.

Prime facie, no error is apparent on the face of the Order in determining handling rates which warrants a review of the decision already taken. Therefore, the point made by the PPT is rejected.

(ii). Capacity to handle iron and steel products and other cargo:

(a). Upfront tariff Order of January 2010 {Paragraph No. 11(v)}

“(v). (a). *The terminal is envisaged to handle containers alongwith other cargo. The PPT has stated that two HMCs will handle containers and one HMC is intended for handling other cargo. The PPT has proposed to deploy all the 3 MHCs with a uniform capacity of 100 T. It is a common knowledge that a 100 T crane is not generally required for container operations, given the load factor of even a 40' container. It is relevant here to mention that the mobile cranes have flexibility, unlike quay cranes, having scope for handling containers and other cargos. The spare capacity of mobile cranes, which are earmarked to handle containers, can be utilised to handle other cargo. Significantly, the PPT has declared in the joint hearing that the facility is mainly envisaged to handle clean cargo. In view of the flexibility in operation and in order to promote standardisation, this Authority is inclined to consider deployment of 3 nos of 100 T mobile harbour cranes in this excercise. But, the higher level of capacity available in the handling equipment, which is expected to be channelised towards handling general cargo, should be reflected in the optimal capacity calculation of the general cargo handling facility. Since the two cranes earmarked for container operations could be at times diverted to handle general cargo, the optimal capacity otherwise determined as per the standard formula, can be increased atleast by 10%.*

(b). *Considering the share of iron and steel and other clean cargo at 21.70% and 31.70% in the overall cargo mix estimated by the PPT, the share of iron and steel and other clean cargo in the earmarked berth works out to 40.60% and 59.40% respectively. In that case, the cargo handling capacity works out to 25,19,485 tonnes $[0.7(6000 \times 40.60\% + 12500 \times 59.40\%) \times 365]$. After allowing an increase of 10% for the reasons given above, the total capacity for iron and steel products and other cargo put together works out to 27,71,433 tonnes. The share of iron and steel products will be 11,25,202 tonnes and other clean cargo will be 16,46,231 tonnes.”*

(b). Points made by PPT in its review application:

The optimal capacity determined for clean cargo has been further increased by 10% with the assumption that the cranes earmarked for container operation could be at times diverted to handle other clean cargo. This assumption is not reasonable since the optimal capacity of the container component has been done with two cranes leaving no scope for duplication its use to handle other clean cargo.

(c). Analysis:

- (i). The PPT has no dispute over the optimum capacity determined for the berth earmarked for handling containers. The argument of PPT is that the optimal capacity of the container berth has been calculated with reference to two HMCs leaving no scope for engaging them at the cargo berth.
- (ii). The working time per annum for 1 HMC at the container berth at 70% utilization factor works out to 6132 hours ($0.7 \times 24 \times 365 = 6132$). The working time of a HMC at the cargo berth comes to 5363 hours per annum for the aggregate capacity of 27.71 lakh tonnes, (as recorded in paragraph No. 11 (ix) (b) (iii) of the Order dated 19 January 2010) which includes an increase of 10%. The annual working of the HMC at cargo berth, if considered in terms of utilization factor, works out to around 60% though the norms expect 70% utilisation. That being so, a square 10% cushion in terms of working hours is available at the cargo berth. As such the contention of the PPT that no leeway by way of spare capacity is available to the operator does not appear to have any force.
- (iii). Though not pointed out by the PPT, an error is observed in the Order dated 19 January 2010 with reference to apportionment of Annual Revenue Requirement to the Iron & Steel products and other Clean Cargo. In the Order dated 19 January 2010, the revenue requirement was apportioned to Iron & Steel products and other clean cargo in the ratio of their respective share in the total cargo (40.60 : 59.40).

It has been recorded in paragraph No. 11 (ix) (b) (iii) of the Order dated 19 January 2010, {which is reproduced subsequently under para (iii) (a) of this Order}, that the productivity of Iron & Steel products is 357.14 tonnes per hour whereas the same was 744.05 tonnes in respect of other clean cargo. The figures clearly put forth the fact that a unit load of Iron & Steel products engage the resources more compared to that of clean cargo. That being so, it is logical to reckon the productivity factor of the respective cargo group while apportioning the annual revenue requirement to individual cargo group.

Maintaining the Annual Revenue Requirement (ARR) of Rs. 2372.12 lakhs estimated in the Order dated 19 January 2010 unaltered and apportioning the ARR between Iron & Steel products and other clean cargo based on the productivity levels of the respective cargo group, the rate for foreign cargo and coastal cargo in respect of Iron & Steel products works out to Rs. 129.00 per tonne and Rs. 77.40 per tonne, respectively. With regard to other Clean Cargo, the rates will be Rs. 61.93 per tonne and Rs. 37.16 tonne, respectively for foreign cargo and coastal cargo. The statement detailing the revised calculations is attached as **Annex**.

(iii). Fuel consumption for equipment to handle containers

(a). Upfront tariff Order of January 2010 {Paragraph No. 11(ix)(b) (i, ii & iii)}

“(i). For estimation of fuel cost for operation of HMCs, the PPT has considered 100 litres per hour reportedly based on its experience in operation of such cranes. The consumption of 100 litres per hour appears to be on the higher side since recently, in the case relating to fixation of tariff for use of 100 tonnes HMC at PPT, the port reported consumption of fuel at 70 litres per hour. Consumption of fuel at 70 litres per hour is taken into account since no separate norms for fuel consumption for HMC is prescribed in the upfront tariff guidelines of February 2008.

- (ii). *The PPT has considered fuel consumption of 100 litres per hour for HMCs, 20 litres per hour for RTGs and Reach Stackers and 8 litres per hour for Tractor Tractor for handling containers reportedly based on information collected by the port from the Tuticorin Port Trust. A norm of 4 litres per TEU has been prescribed for fuel consumption in the guidelines for fixation of upfront tariff for the container terminal. Considering the annual capacity of 2,55,091 TEUs and taking into account the norm of 4 litres per TEU, the fuel consumption works out to 10,20,364 litres per annum which is considered for estimation of fuel cost for handling container.”*
- (iii). *The guidelines prescribe a norm of 4000 hours of working of Electrical Level Luffing cranes in a year for estimation of fuel cost. As far as the capacity of working of the HMC at the multipurpose berth is concerned, the capacity of iron and steel products and other clean cargo is not restricted with reference to 4000 hours of cranes. As stated earlier, the increase of 10% over the respective share of iron and steel products and other clean cargo has also been considered to estimate the cargo capacity. That being so, the hours of HMC working needs to be updated. Considering the updated per day output of 6000 tonnes and 12,500 tonnes of the respective cargos and taking into account 16.80 working hour (24X70%) per day, the productivity per hour works out to 357.14 tonnes and 744.05 tonnes respectively. For the cargo capacity of 11,25,202 tones for iron and steel products and 16,46,231 tonnes for other clean cargo, the aggregate annual working comes to 5363 hours, which is considered for estimation of fuel cost of HMC.*
- (iv). *The fuel consumption to operate Fork Lift Trucks and the Pay Loaders to handle other cargo are found to be in line with the norms prescribed in the upfront tariff guidelines for multipurpose cargo berth.*

The estimate of fuel cost is modified updating the unit rate of fuel Rs. 35.21 per liter prevailing at the time of analysis of this case as against Rs. 40 per litre considered by PPT.

b). Points made by PPT in its review application:

Fuel consumption has been taken as 4 litres per TEU for the container component. When quay cranes and other ancillary equipment are to be utilised, the consumption of 4 litres per TEU together with power consumption of 8 KWH per TEU has been prescribed in the guidelines. Since only Harbour Mobile Crane has been considered in PPT case, the fuel consumption would be more and limiting it to 4 litres per TEU is not reasonable.

(c). Analysis:

- (i). With reference to equipment requirement for a container terminal, the upfront tariff guidelines 2008 prescribe quay crane and other ancillary equipment like rail mounted gantry crane, rubber tyred gantry crane, reach stacker and tractor trailers.
- (ii). With reference to operating cost of these equipment the norms envisage estimation of power cost for operation of quay crane and fuel cost for operation of ancillary equipment.

- (iii). In the case of PPT, the port proposed deployment of Harbour Mobile Cranes, apart from deployment of the ancillary equipment. Since deployment of quay cranes was not envisaged by PPT, it did not estimate power cost; but, the port estimated fuel cost for operation of Harbour Mobile cranes.
- (iv). As already recorded in the Order dated 19 January 2010, the PPT estimated fuel consumption separately for Harbour Mobile Cranes and ancillary equipment. The fuel consumption estimate of PPT was moderated by considering the norm of 4 liters per TEU for the entire fleet of container handling equipment, including Harbour Mobile Cranes. Since the fuel consumption for operation of Harbour Mobile Cranes was not considered in the Order dated 19 January 2010, the estimate of fuel consumption considered in the Order dated 19 January 2010 requires review.
- (v). As stated earlier, the working time per annum for 1 HMC at 70% utilization works out to 6132 hours. Taking into account the consumption of fuel at 70 liters per hour and applying the unit rate of Rs. 35.21 per litre considered in the Order dated 19 January 2010, the cost of fuel for two HMCs works out to Rs. 302.27 lakhs (70 liters X 6132 hours X Rs. 35.21 X 2). Since the fuel consumption relates to handling of containers by HMCs, the cost of fuel of Rs. 302.27 lakhs is added to the apportioned revenue requirement from handling charges of Rs. 4228.62 lakhs estimated in the Order dated 19 January 2010. Thus, the revised revenue requirement from container handling works out to Rs. 4530.89 lakhs. The said increase in ARR in handling activity warrants a corresponding increase of 7.148% in the handling rates notified vide Order dated 19 January 2010. That being so, earlier notified handling rates are increased by 7.148%. The revised calculations are shown in the statement attached as **Annex**.
- (iv). Berth hire Charges
- (a). The upfront berth hire for foreign-going vessels and coastal vessels was prescribed at Rs. 0.68 and 0.41 per GRT per hour, respectively, in the Order dated 19 January 2010. An error in the calculation of berth hire leviable at the proposed standard terminal is noticed. The calculation of berth hire takes into account, among other factors, handling rate of cargo per day at the berth. Since container handling also is envisaged in the terminal, the handling rate of containers was taken into account alongwith handling rates of Iron & Steel products and other clean cargo to achieve the estimated ARR of Rs. 3460.49 lakhs. The handling rate considered for containers in terms of tonnage was 9085 tonnes per day in the Order dated 19 January 2010.
- (b). In the capacity calculations for container berth considered in the Order dated 19 January 2009, the handling rate of containers is taken at 500 TEUs per day per crane. In tonnage terms, the per day output per crane worked out to 6500 tonnes. Since deployment of two HMCs are envisaged in the container berth, the per day output of 13,000 tonnes should have been considered in the calculation of berth hire instead of 9085 tonnes. Therefore, berth hire calculation needs to be reviewed. Accordingly, the berth hire calculation is reworked maintaining the revenue requirement of Rs. 3460.49 lakhs. The berth hire rate works out to Rs. 0.82 per GRT per hour for foreign going vessels and Rs. 0.49 per GRT per hour for coastal vessels as against the notified rate of Rs. 0.68 per GRT per hour and 0.41 per GRT per hour for foreign vessels and coastal vessels, respectively. The revised calculations are shown in the statement attached as **Annex**.

6. In the result, and for the reasons given above, and based on collective application of mind, the Tables given under Section 1.3, 1.4 (A) and 1.5 (A) in the upfront tariff schedule of PPT prescribed vide Order dated 19 January 2010 are replaced with the following respective Tables:

1.3. BERTH HIRE CHARGES:

S. No.	Vessels	Rate per GRT per hour	
		Foreign Going Vessel(Re)	Coastal Vessel (Re)
1	All vessels	0.82	0.49

1.4. CONTAINER RELATED CHARGES

(A). HANDLING CHARGES

NORMAL AND REEFER CONTAINERS

S. NO.	Particulars	Foreign Going (In Rs)			Coastal (In Rs)		
		Container not exceeding 20' in length	Container exceeding 20' but up to 40' in length	Container exceeding 40' in length	Container not exceeding 20' in length	Container exceeding 20' but up to 40' in length	Container exceeding 40' in length
(i)	Loaded Container	1850.18	2775.27	3700.36	1110.10	1665.15	2220.20
(ii)	Empty Container	1480.14	2220.21	2960.28	888.08	1332.12	1776.16

1.5. MULTIPURPOSE CARGO RELATED CHARGES

(A). HANDLING CHARGES:

S. No.	Commodity	Unit	Rate in Rupees (Foreign)	Rate in Rupees (Coastal)
1	Iron and Steel products	Ton	129.00	77.40
2	Aluminum ingots, pig iron, finished fertilizers, food grains, sugar	Ton	61.93	37.16

(Rani Jadhav)
Chairperson

Annex

I. REVISED STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

Cargo Group	Handling Rate Per Hour	Cargo to be handled (tonnes)	Cargo Working Hours	Percentage of Cargo Working Hours	Revenue Requirement	Cargo to be handled	Cargo to be handled	Rate in Rs.	Rate in Rs.
			(iv / iii)		(Rs.)	(Foreign) in tonnes	Coastal (in tonnes.)	For foreign cargo	For coastal cargo
Iron and Steel	357.14	1125202	3151	58.74	139,338,329.00	1012682	112520	129	77.40
Other Cargo	744.05	1646231	2212	41.26	97,873,671.00	1481608	164623	61.93	37.16
Total	---	2771433	5563	100.00	237,212,000.00	2494290	277143	---	---

1 Iron and Steel Products	
Cargos to be handled	1125202 tonnes
Foreign Cargo	1012682 tonnes
Coastal Cargo	112520 tonnes
Revenue Requirement	139,338,329.00
Rate for foreign Cargo	x
Rate for coastal cargo	0.6x
1012682x+112520*(0.6x)=	139,338,329.00
1012682x+67512x=	139,338,329.00
1080194x=	139,338,329.00
x=	129
0.6x=	77.40

2 Other Cargo	
Cargos to be handled	1646231
Foreign Cargo	1,481,608.00
Coastal Cargo	164,623.00
Revenue Requirement	97,873,671.00
Rate for foreign Cargo	x
Rate for coastal cargo	0.6x
1481608x+164623x*(0.6x)=	97,873,671.00
1481608x+98774x=	97,873,671.00
1580382x	97,873,671.00
x=	61.93
0.6x=	37.16

3. Containers	
Containers to be handled	255091 TEUs
Coastal containers	25509 TEUs
Foreign Containers	229582 TEUs
Total	255091 TEUs
Revenue requirement for handling (Rs.)	453089000
Rate for foreign container (Rs.)	X
Rate for coastal container (Rs.)	0.6X
229582X + 25509(0.6x)=	453089000
229582X+15305.4X	453089000
244887.4X	453089000
Rate for foreign container (Rs.)	1850.18
Rate for coastal container (Rs.)	1110.10

II. REVISED STATEMENT SHOWING THE CALCULATIONS OF BERTH HIRE CHARGE

A	As furnished by the PPT	Unit	Containers	Iron and Steel	Other Cargo	Total
Sr. No	Particulars					
i	Ratio	%	46.6%	21.7%	31.7%	100%
ii	Handling Rate	Tonnes per day	9984	4000	10000	
iii	Average GRT per vessel	tonnes	35000	25000	35000	
iv	Average parcel size	tonnes	30000	22000	30000	
v	Tonnage expected to be handled	Tonnes	2069444	851800	1407755	4440868
vi	No of berth days	days	207	241	141	
vii	No of berth hours {24 x (vi)}	hours	4975	5782	3379	
viii	Expected number of vessels	No of vessels	31	27	37	95
ix	Total GRT hours	Tonne hours	174111915.40	144550252.9	118251432.7	436913601
x	Revenue Requirement	Rs. in crores				346840000.00
xi	Berth hire proposed by the PPT (xi / x)	per GRT per hour or part thereof				
(a)	Foreign Vessels	0.83				
(b)	Coastal Vessels	0.50				
B	As considered by TAMP					
Sr. No	Particulars	Unit	Containers	Iron and Steel	Other Cargo	Total
i	Ratio	%	46%	22%	32%	100%
ii	Handling Rate	* Tonnes per day	13000	6000	12500	27585
iii	Average GRT	tonnes	35000	25000	35000	
iv	Average parcel size	tonnes	30000	22000	30000	
v	Tonnage expected to be handled	Tonnes	3316183	1125202	1646231	6087616
vi	No of berth days (v/ii)	days	255	188	132	-
vii	No of berth hours {24 x (vi)}	hours	6120	4512	3168	-
viii	Total GRT hours (vii x iii)	Tonne hours	214200000	112800000	110880000	437880000
ix	Revenue Requirement	Rs. in crores				3460.49
x	Modified Berth hire					
(a)	Foreign Going vessel	per GRT per hour or part thereof				0.82
(b)	Coastal vessel					0.49
Workings:		With reference to revenue requirement as per norms				
i.	Revenue requirement for 90% foreign going vessels + 10% coastal vessels (Rs)	3460.49				
ii.	GRT hours of foreign going vessels (437880000* 90%)	394092000				
iii.	GRT hours of coastal vessels (437880000 * 10%)	43788000				
iv.	Total GRT hours	=	437880000			
v.	394092000x + 43788000x 0.6	=	3460.49			
vi.	394092000x + 26272800x	=	3460.49			
vii.	420364800x	=	3460.49			
viii.	X (foreign going) (Rs.)	=	0.82			
ix.	0.6 * 0.67 (coastal) (Re.)	=	0.49			

* 16 Moves per hour*24 Hours*1.3* 2HMCs*13 tonnes per TEUs =13000 Tonnes