

**MINUTES OF THE 137<sup>th</sup> MEETING (SPECIAL MEETING) OF THE  
GOA STATE POLLUTION CONTROL BOARD HELD ON 21<sup>ST</sup>  
FEBRUARY, 2019, AT 11.30 AM, IN THE CONFERENCE HALL OF  
THE GOA STATE POLLUTION CONTROL BOARD, SALIGAO.**

1. The 137<sup>th</sup> meeting (Special meeting) of the Goa State Pollution Control Board was held on 21<sup>th</sup> February, 2019 at 11.30 a.m. in the Conference hall of the Goa State Pollution Control Board.

The following members / officials attended the meeting:

1.	Mr. Ganesh Budhu Shetgaonkar, Chairman
2.	Director of Health Services was represented by Chief Medical Officer
3.	Mr. Shawn Brian Martins, Panch Member, Village Panchayat Calangute
4.	Mr. Rajsingh Rane, Councillor, Mapusa Municipal Council
5.	Mr. Savio Messias, President, Travel and Tourism Association of Goa
6.	Mr. Shubham Chodankar, Corporator, Corporation of the City of Panaji
7.	Dr. Shamila Monteiro, Member Secretary

II. At the outset, Member Secretary welcomed the Board members for the meeting. She informed that this special meeting has been called for discussions on the inspection report and the air monitoring reports before the Board for decision on the directions issued to M/s South West Port Ltd. and M/s Adani Mormugao Port Terminal Pvt. Ltd.

**Agenda item no. 01**

Confirmation of the minutes of the 136<sup>th</sup> meeting of the Board held on 13<sup>th</sup> February, 2019.

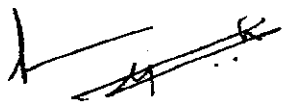
The minutes of the 136<sup>th</sup> meeting of the Board held on 13<sup>th</sup> February, 2019 duly signed forwarded vide this office letter no. 4/136/18-PCB/Adm./19736 dated 18/02/2018 were confirmed so as to enter in the minutes Book.

As regards to Table item no 01 - with regard to Order passed by the National Green Tribunal vide Order no 95/2018 and 1038/2018 with regard to enforcing the Polluter Pay Principle, the members desired that the penalty for violations is revised as follows:

1.	<b>Operating without the Consent of the Board</b>		
	Red Category	40% of fees/year	for score above 100
	Red Category	20% of fees/year	for score between 60 - 100

Orange Category	15% of fees/year	
Green Category	10% of fees/year	

2.	<b>Violations observed during inspection</b>	
	<b>a.</b>	<b>Discharge/Emission/Burning of Waste/Disposal of solid waste</b>
		Red Category
		20% of fees/incident or Rs. 40,000/- whichever is higher
		Orange Category
		15% of fees/incident or Rs. 20,000/- whichever is higher
		Green Category
		10% of fees/incident or Rs. 10,000/- whichever is higher
	<b>b.</b>	<b>Discharge + Emission /Discharge + Noise / Emissions + Disposal of Solid waste</b>
		Red Category
		30% of fees/incident or Rs. 50,000/- for small units, whichever is higher
		30% of fess or Rs. 1 lakhs for medium units, whichever is higher
		30% of fess/incident or Rs. 2 lakhs for large units, whichever is higher
		Orange Category
		25% of fees/incident or Rs. 25,000/- for small units, whichever is higher
		25% of fees/incident or Rs. 40,000/- for medium units, whichever is higher
		25% of fees/incident or Rs. 60,000/- for large units, whichever is higher
		Green Category
		20% of fees/incident
	<b>c.</b>	<b>Exceeding prescribed limits for Air / Water/ Noise</b>
		Red Category
		40% of fees or Rs. 1 lakh for small units, whichever is higher
		40% of fess or Rs. 5 lakhs for medium units, whichever is higher
		40% of fess or Rs. 10 lakhs for large units, whichever is higher
		Orange Category
		30% of fees or Rs. 25,000/- for small units, whichever is higher
		30% of fees or Rs. 50,000/- for medium units, whichever is higher
		30% of fees or Rs. 1 lakh for large units, whichever is higher
		Green Category
		20% of fees



**Agenda item no. 02**

Follow up action on the decision taken at the 136<sup>th</sup> meeting of the Board held on 13<sup>th</sup> February, 2019.

Agenda item no. 2 - Follow up action on the decision taken at the 133<sup>rd</sup> meeting of the Board held on 29/06/2018 - Agenda item no. 05 - Application of M/s South West Port Ltd. (SWPL) for Consent to Operate under Air Act and Water Act -

In terms of the decision taken at the 136<sup>th</sup> meeting, the Member Secretary issued Directions under section 31 A of the Air (Prevention and Control of Pollution), Act, 1981 to M/s South West Port Limited (SWPL) and M/s Adani Mormugao Port Terminal Pvt. Ltd. (AMPTL). Vide the said directions, the units were directed to temporarily suspend handling of coal at their facilities and to appear before the Board today to show cause as to why the Consent to Operate orders issued to them under the Air Act should not be revoked, and action under the Air Act initiated against them.

These directions were issued after considering the reports of the CAAQMS data submitted by the companies and AAQM data from the Board air monitoring station, that indicated high levels of particulate matter on 06/02/2019, 07/02/19, 09/02/19 and 10/02/2019 to 12/02/2019. The directions were also issued as these units were carrying out coal handling operations during abnormally high windy conditions at Vasco City.

Both the units namely M/s SWPL and M/s AMPTL have submitted replies dated 15/02/2019 to the Board directions.

Officials of the Board have conducted a detailed site inspection of the coal handling facilities of M/s SWPL and M/s AMPTL on 19/02/2019. During this inspection the Board official have submitted that both the units have complied with all the conditions contained in the Consent orders issued to them by the Board. The report also indicated that the units had suspended operations in compliance with the Board directions. The report has further recommended monitoring of the dust fall in the Vasco city and surrounding habitations. The report has also recommended conducting trial of GRT liquid polymers for dust suppression to check effectiveness in dust control. The report also recommends stoppage of operations during gusty windy conditions.

The reports of AAQM of the Board monitoring station at Vasco at fuse call office and Fire station as well as CAAQMS reports from the Stations installed by both the units at Vasco and the report of AAQM monitoring from GSPCB's CAAQMS mobile van placed at Sada; for the period on 15<sup>th</sup> to 19<sup>th</sup>



February, 2019; was placed before the Board. The reports of the same are found to be within the permissible limits.

The Board has also received letters from Mr. Sherwin Correia and others residents of Mormugao and Vasco da Gama dated 18/02/2019 stating that there is gross deterioration of air quality in their locality due to coal handling operations at the Port. Vide the said letter, the complainants have also objected to resumption of coal handling activity at M/s Mormugao Port Trust (MPT) and have demanded to be heard before the Board today. A similar representation is also received from 'Goa First' dated 18/02/2019, containing similar allegations and demand. The Board also received from the Aam Admi Party dated 18/02/2019 requesting the Board to revoke the Consent to Operate issued by it to all the Coal handling units and M/s MPT on the ground that these companies do not have title of ownership on the land they are located upon. They have also requested to be heard before the Board today. A representation dated 12/02/2019 from Mr. Ashley Noronha, President 'Life is beautiful - NGO' has been received by the Board in which concerns regarding health of the people including minor children has been raised. Copies of these representations were placed before the Board for perusal.

Representatives of M/s SWPL and M/s AMPTL have remained present before the Board today in order to submit their say to the show cause notice and directions issued by the Board dated 14/02/2019.

The representative of M/s SWPL submitted as follows:

That have submitted a written reply to the directions issued by the Board that they have taken requisite measures to maintain the ambient air quality at their berth for prevention of pollution by implementing closed conveying system, in motion weigh loading and covering of all cargo, water sprinklers, deployment of missed cannons and road sweepers. The apparent incidences occurred during 6<sup>th</sup> to 9<sup>th</sup> February, 2019 were due to relatively high velocity and gusty wind conditions experienced in the State which were not in anybody's control. They have submitted that their berth are located at the far end of Mormugao Port and the gusty wind and source have caused dust emissions out of unpaved road and other civil constructions, vehicular traffic and all these external factors have influenced the air quality. They have further stated that the purported exceedances if any were intermittently and transient in nature and would subside with the subduing proactively taken required additional measures like sprinkling of additional quantity of water almost two and half times more than the ordinary to reduce the fugitive emissions. In abundant caution, they have intermittently halted / stopped the vessel discharging operations at their berths on the dates and timings for which they rely on the statement of facts and daily operation log sheet which were submitted along with the written reply. He

stated that the air quality at the fuse call station , Vasco city is affected by any activity at berth no. 5A and 6A, however, it is their submission that other fugitive emissions of dust from unpaved roads, construction activities, vehicle traffic and other Port operations effect the air quality at the Fuse call office. They also submitted that the CAAQM station at 5A and 6A is not as per the Central Pollution Control Board guidelines and Indian Standards Method for Measurement of Air pollution guidelines and the same does not reflect the ambient air quality but reflect the air quality at source. The representative has also submitted that their systems are in synchronisation with Environmental, health, and safety guidelines for Ports, Harbours and Terminals and with reports of the World Bank. It is their submission that IIT, Mumbai is conducting a Source Apportionment Study and until this Study is completed and findings thereof are arrived at, it would be incorrect to ascribe any pollution to Port operations alone. With this submissions they have requested the Board to visit the coal handling operations as already communicated vide their letter dated 15/02/2019 as the same is causing great prejudice and severe economic hardships on the dependent steel industries. They have also requested for revocation of the directions / suspension operations as the ephemeral contingencies (gusty winds) which then existed have now ceased.

They have submitted that they have adopted all the best practices as per World Bank guidelines and their extend of mechanisation is categorically coal and they have submitted an application for Environmental clearance to erect a shed / dome for storage of coal which is pending before the Ministry of Environment, Forests and Climate Change. They have admitted in their submission that there were almost cyclonic winds ranging from 4 to 8.5 m/sec (14.4 to 30.6 km/hr) were experienced predominantly from the North of the Terminal. Whilst the high wind at the terminal was natural phenomenon beyond the of influence of the terminal, everything possible as done to ensure arresting / minimisation of fugitive emissions

They have stopped their activity from the following date and time:

07/02/2019 from 17.30 hrs. to 23.00 hrs.  
07/02/2019 from 23.00 hrs. to 04.15 hrs  
08/02/2019 from 17.30 hrs. to 20.35 hrs.  
09/02/2019 from 18.15 hrs. to 19.30 hrs.

It was further submitted that M/s SWPL terminal is more than 2 kms from Vasco with thick vegetation in between and is not in the line of sight. Also typical attenuation distances in cases of undulating terrain and heavy vegetation are 500 – 800 m. as concurred by IIT, Mumbai in their Source apportionment Study – February, 2019.

The representative of M/s AMPTL submitted as follows:



That during the period from 7<sup>th</sup> to 8<sup>th</sup> February, 2019 the climatic conditions was windy and the coal was handled taking all required precautionary measures. Further, operations were suspended during these days during the duration when the wind speed was observed on a higher side as part of the Standard operating procedure to avoid dust generation. The frequency of engaging dust suppression system was also increased from 2 hours to 1 hour interval, covering of stack with tarpaulin is followed as standard operating procedure at all the times. He further informed that during this calibration for gaseous component was undertaken from 8<sup>th</sup> to 12<sup>th</sup> February, 2019 and the instrument was under observation. During this calibration work on account of some technical fault PM10 sensors became faulty and started showing ambiguous reading. Service Engineers undertook a fresh re-calibration work for PM10 unit and issued fresh certificate on 13<sup>th</sup> February, 2019 Therefore the PM10 readings from 9<sup>th</sup> to 12<sup>th</sup> February, 2019 shows ambiguous values and hence should not be considered.

They further informed that apart from them handling coal at the Port at MPT, M/s South West Port is handling coal at berth no. 5A and 6A. In addition MPT is also handling iron ore, wood chips, lime stone, bauxites and various other bulk cargos. The four lane constriction is going on close to AAQM station, further the Sada road is busy during the day and late evening, A cement mixing plant is situated in Sada and construction of market complex is going on in Sada. In this context he submitted that air quality deterioration cannot be attributed solely to the operations of M/s AMPTL.

M/s AMPTL has stated with the above submissions it is clear that they have not violated any of the conditions of the Consent at Berth no. 7, by taking all mitigation measures so that there is no coal dust pollution.

Dr. Virendra Sethi, Professor, Centre for Environmental Science and Engineering, made a presentation before the Board on the Report submitted by him on 'Particulate Source Apportionment Study for Air Quality in Vasco da Gama, as follows:

- a. Based on the modelling results for the meteorological conditions, the measurements, the contribution of Port activities (coal handling) to the air pollution in Vasco is not significant.
- b. This is supported by the GSPCB NAMP data and CAQMS data on MPT premises.
- c. Road dust in the Port area needs to be controlled to prevent re-suspension by moving vehicles.
- d. The PM10 sampling does not include the potential nuisance value due to the settling of large sized particles. These have not been measured in the

present study and would require a separate study with different protocols. The acceptable levels of such dry deposition are not articulated and would need to be investigated.

- e. From the historical data provided by GSPCB, the air pollution levels in Vasco are similar to those in other parts of Goa.
- f. The Source Apportionment Study which is in progress would be useful to identify OTHER sources that are contributing significantly to the PM air pollution at the selected receptor locations in Vasco. The Port activities do not explain the levels of PM as observed in the GSPCB historical datasets.

The members on perusal of the presentations made by M/s SWPL, M/s AMPTL and of (Dr. Sethi of IIT, Mumbai,) and on perusal of the monitoring reports have concluded as follows:

1. It is an admitted fact that there were very gusty / cyclonic winds at MPT Vasco Port area during the period from 6<sup>th</sup> February to 9<sup>th</sup> February, 2019. This is indicated by the data submitted by M/s SWPL and M/s AMPTL themselves during today's hearing. The wind speeds have ranged from 39.2 kms / hr. to 60.9 kms /hr. It is also an accepted fact that the wind during this period has been from the sea to the land i.e Sada and Vasco city area.
2. It is also an established fact from the submissions of both the coal handlers that they have continued to carry out coal handling operations at MPT during the afforested period even though gusty / cyclonic winds of such high velocity were blowing towards Sada and Vasco City. Though the units have submitted that they have stopped coal handling operations and attempted pollution control measures during this period, it is clear that they have mainly suspended operations intermediately and have used inadequate measures to control dust pollution. In fact, what was required was a complete suspension of coal handling operations during this period, which has not been done by the units
3. The Boards recording of high alarming values of particulate matter at its monitoring stations at the Fire station and high values at fuse call at Vasco and high values of particulate matter observed from the CAAQMS located at Sada by M/s AMPTL and the CAAQMS located at M/s SWPL; is clearly on account of coal dust from the coal handling operations at MPT ( i.e was carried out during this period) being blown towards the city by the cyclonic winds.
4. The Board members were of the clear and firm opinion that the coal handling units have acted negligently in continuing to carry out coal handling operations at their facilities as above, inspite of the cyclonic winds. This negligent act by the handlers has added to the deteriorating of the ambient air quality of the Vasco City during the said period.
5. The Board members have considered the fact that the windy conditions at Vasco have settled post 14/02/2019, in terms of weather monitoring data

submitted to the Board by MPT. The members have also considered the ambient air quality monitoring conducted by the Board at its NAMP station in Vasco and the data for the mobile CAAQMS of the Board and the CAAQMS installed by the coal handlers for the period from 15/02/19 to 19/02/2019. ( the detailed site inspection report conducted by the Board officials of the facilities of M/s SWPL, M/s AMPTL and MPT have also been considered by the members)

6. The members have observed that after the normalisation of the windy conditions in the Port area, the ambient air quality in the City area has stabilised. Further, the Board members have observed that M/s SWPL and M/s AMPTL have both satisfactorily complied with the conditions as contained in the Consent orders issued to them by the Board.
7. Members also perused the Report submitted by Dr. Sethi which concluded that Port activities do not contribute significantly to the particulate air pollution at the selected receptor. Further, it was also observed that Dr. Sethi's Report of the wind directions during the winter season was usually from land to the Port terminal. However, in the present condition the wind direction changed from the normal conditions, and were from Port terminal towards the land. (NEE to WSW). This fact has also been admitted by M/s SWPL and M/s AMPTL.

In view of the above, the Board members have decided as follows:

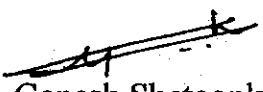
1. M/s SWPL and M/s AMPTL have negligently carried out coal handling operations at their facilities at MPT during almost cyclonic wind conditions from 6<sup>th</sup> to 13<sup>th</sup> February, 2019, thereby causing deterioration in the ambient air quality of the Vasco city.  
For this default, the Board members have decided that both the coal handling units i.e M/s SWPL and M/s AMPTL be directed to deposit a penalty of an amount of Rs. 10 lakhs to the Board, in terms of the Polluter pays Principle as approved above.
2. As the ambient air quality of the Vasco city has now stabilised, and as both the units are found to be satisfactory complying with the conditions as contained in Consent orders issued to them; it is decided that the coal handlers be now permitted to commence coal handling operations and the show cause notice issued to them dated 14/02/2019 be discharged, subject to the following conditions:
  - a. Payment of the afore stated penalty amount of Rs. 10 lakhs in terms of the Polluter Pays Principle.
  - b. Issue of an amendment to Consent to Operate orders of both the handlers to incorporate the following conditions:
    - MPT should share the weather forecast to the handlers at the Port immediately on receipt.



- Port handlers to install cameras at the stacking premises, which could be accessed by the Board and MPT.
  - The Port handlers shall not carry out activities when the wind speed is more than 10 kms/hr.
  - Stacks should be covered and sprinkling should be carried out when loading / unloading activity of coal is in progress.
- c. Issue a specific condition in the Consent order issued to M/s AMPTL by way of amendment to the present Consent issued to submit a Bank Guarantee amounting to Rs. 1 Crore with a validity period in line to the Consent issued towards satisfactory compliance of the Consent conditions.

III. The meeting ended with thanks to the Chair.

  
(Dr. Shamila Monteiro )  
Member Secretary

  
(Mr. Ganesh Shetgankar )  
Chairman

