

**BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI  
Application No.68 of 2015 (SZ)**

In the matter of

Chaitanya Sravanthi

D.No.48-8/12, Dwarakanagar

Visakhapatnam, Andhra Pradesh

Rep. by its President

Dr. S..Shirin Rahman

.. Applicant

Vs.

1.Andhra Pradesh Pollution Control Board  
Rep by its Member Secretary, Hyderabad

2. The Environmental Engineer  
Andhra Pradesh Pollution Control Board  
Regional Office, Visakhapatnam

3. The Visakhapatnam Port Trust  
Rep by its Chairman, Visakhapatnam

.. Respondents

**Counsel appearing for the applicant:**

M/s. Suhrith Parthasarathy

P. Dinesh Kumar & S. Muthiah

**Counsel appearing for the respondents**

For respondent Nos.1 & 2 .. Mr. T. Sai Krishnan

For respondent No.3 .. Mr.P.Wilson, Senior Counsel for  
M/s. P. Wilson Associates

**ORDER**

Present

Hon'ble Justice Dr.P.Jyothimani, Judicial Member

Hon'ble Shri P.S.Rao, Expert Member

8<sup>th</sup> March, 2017

Whether judgment is allowed to be published on the Internet .. Yes/No

Whether judgment is to be published in the All India NGT Reporter .. Yes/No

The applicant, which is a Society registered under the Societies Registration Act, 1860 and a non political and non governmental organisation, has filed the present application for an injunction against the 3<sup>rd</sup> respondent – Visakhapatnam Port Trust from operating any coal cargo whether by way of import or export out of its unit at the Port Area and also for a direction against the 1<sup>st</sup> and 2<sup>nd</sup> respondents – Andhra Pradesh

Pollution Control Board (Board) to take action against the 3<sup>rd</sup> respondent – Port Trust for carrying on illegal operation of the unit.

2. According to the applicant, Visakhapatnam is one of the fastest growing cities in Asia and is the only place where natural harbour on the East Coast of India is situated and also one of the 100 fastest growing cities in the world. The developmental activities by using the Visakhapatnam Port has resulted in high air pollution in the city causing serious health hazards. The 3<sup>rd</sup> respondent – Port Trust which was established in the year 1933, is handling bulk cargo including iron ore, urea, sulphur and other raw materials. By virtue of bulk cargo handling, the people living in Kota Veedhi, Vada Veedhi and Soldierpet areas of the old city of Visakhapatnam have been experiencing health hazards for several decades. The applicant has also stated that as per the records 60 people died during the year 2011 – 2012 and during the year 2012 – 2013, 54 people died of which 44 were adults and 10 were children as a consequence of air pollution in the area.

3. According to the applicant, many of the reports given by Experts show that the 3<sup>rd</sup> respondent – Port is the major source of causing pollution in Visakhapatnam and there has been huge quantity of Respirable Suspended Particulate Matter (RSPM) and Total Suspended Particulate Matter (TSPM) which are causing lung disease. The data obtained under the Right to Information Act shows the steady increase of RSPM and TSPM concentration. As per the report of the 1<sup>st</sup> respondent – Board, the 3<sup>rd</sup> respondent – Port is presently handling 23 berths and notified stockyards for storage of cargo and is handling totally 68.04 MillionTonnes of cargo per annum against the consented capacity of 46.6 Million Tonnes. Out of 9,65,256 Sq.Mt of stockyard, only 3,03,818 Sq.Mt is covered under the Mechanical Dust Suppression System (MDSS). It is also apparent from the reports that the 3<sup>rd</sup> respondent – Port handles its iron ore close to the general cargo berth where coal is imported.

4. There was a writ petition filed in the High Court of Andhra Pradesh by the Citizens Welfare Association as far back as in 1997 and no one of the directions of the High Court has been complied with. Even after the passage of 15 years no steps have been taken by the 3<sup>rd</sup> respondent – Port in curtailing air pollution. There was another writ

petition filed in the year 2002 in the High Court of Andhra Pradesh by Jagarana Samakhya Swatchanda Seva Sangham where the High Court has directed the 1<sup>st</sup> respondent Board to conduct fresh enquiry and pass orders. In spite of the same, pollution level has not come down. Again, in the year 2009, W.P. No.9328 of 2009 was filed by the Kotaveedhi Residents Welfare Association wherein the High Court has directed the 1<sup>st</sup> respondent to monitor the 3<sup>rd</sup> respondent – Port by deputing its officials to minimise pollution. However, the air pollution level has been on the rise. The Public Information Officer, District TB Control Centre, Visakhapatnam has pointed out the high increase of Tuberculosis cases in the One Town area. Even though the applicant has also approached the Hon'ble Lokayuktha, Hyderabad, the proceedings were unable to be further proceeded with and ultimately there was no relief against air pollution. The recent cyclone Hudhud has made the situation further worse since many trees fell to the ground.

5. The applicant has raised various legal grounds stating that due to the conduct of the 3<sup>rd</sup> respondent the people's right to life under Article 21 of the Constitution of India is affected. Further, the 3<sup>rd</sup> respondent has not complied with the conditions given in the 'Consent to Establish' order as the pollution control and effluent treatment systems have not been installed. It is the further case of the applicant that the 1<sup>st</sup> and 2<sup>nd</sup> respondents – Board ought not to have granted 'consent to establish' since air pollution is caused and that the 1<sup>st</sup> respondent has failed to supervise the activities of the 3<sup>rd</sup> respondent – Port which cause damage to environment and ecology. It is the further case of the applicant that the financial commitments of any State should never outweigh the sovereign duty of the State under Article 21 of the constitution of India. The applicant states that the application has been filed within the period of limitation provided under the NGT Act. It is further stated that the respondents have not obtained mandatory clearances from the authorities and continue to disobey the order of the 1<sup>st</sup> respondent – Board. With the above averments and legal grounds the applicant has filed the above application.

6. In the reply filed by the 3<sup>rd</sup> respondent - Port Trust dated 25.9.2015 the maintainability of the application is questioned apart from replying on merits. The application filed for injunction, without challenging Environmental Clearance (EC) or

'consent' order issued in favour of 3<sup>rd</sup> respondent – Port Trust, is not maintainable and therefore the prayer for injunction is an abuse of process of the Tribunal and not maintainable. There cannot be any blanket injunction against the 3<sup>rd</sup> respondent - Port Trust. They are handling coal as there is no bar in law for such activity. In fact, the 3<sup>rd</sup> respondent – Port continues to take all necessary steps to ensure that coal handling does not adversely affect the environment and particularly ensure that it does not cause air pollution. Further, the application is barred by limitation and in the absence of challenging EC which is appealable under Section 16 of the NGT Act, the present application under Section 14 of the NGT Act should have been made within six months from the date of cause of action first arose. According to the 3<sup>rd</sup> respondent Visakhapatnam Port has been handling coal since its very inception and the filing of the present application is hopelessly barred by limitation under the NGT Act.

7. It is stated that Visakhapatnam Port is one of the 12 major ports in India and the only major Port in Andhra Pradesh and is also one of the largest Ports by volume of cargo handling. Further, Visakhapatnam is an ancient Port City which had trade relations with Middle East countries and Rome from 10<sup>th</sup> Century AD. Visakhapatnam Port is inseparable part of culture of the city and is found mentioned in the inscriptions of the temples such as Sri Beemeswara Swamy Temple in East Godavari District which became a fortified merchant town under the British rule in 1682. The port was vital to commerce under the British rule even in the year 1882. The goods moved were worth about Rs.83 Lakhs per year. The inner harbour of the Visakhapatnam Port was built between 1927 and 1933 at a cost of Rs.378 Lakhs and was inaugurated on 19.12.1933. The location of the port is ideal because it affords protection from cyclones which regularly strike the East Coast of India. During Second World War the Port was also used for military purposes and assumed strategic importance in the defence of Central India.

8. The port which was initially having 3 berths is now having 24 berths and its annual throughput of 58 Million Tonnes of cargo and is a lifeline for the State owned thermal power plants such as NTPC and TNEB. It is also the only Port to which raw materials for State owned steel plants such as SAIL and RNIL are handled, apart from handling petroleum products and LPG for public sector undertakings. The

Visakhapatnam Port is adopting Quality Management Systems, Environment Management Systems and Occupational Health and Safety System and it has a dedicated Environmental Cell. The 3<sup>rd</sup> respondent Port is a major Port in India to establish an Environmental Monitoring Committee with non government and government members for regular monitoring of air pollutants.

9. In the conventional coal handling, dust generation is mainly due to multiple handling like unloading coal from the ship and placing it on the berth, from berth loading to dumpers and from dumpers to transport to stockyards and from stockyard to railway wagons. To avoid the dust generation at various levels and improve the Port, mechanisation of coal handling system through BOT/PPP was introduced by which the coal unloaded from ship falls in a funnel from where it is taken to closed conveyor and from conveyor to stockyard to silo with bucket wheel reclaimer/conveyor arrangement, loading into railway wagons from silo etc. By this conduct the conventional work is avoided.

10. By way of further improvement in cargo handling by the 3<sup>rd</sup> respondent – Port the mechanised coal handling system at three terminals is operated by M/s. Vizag Seaports Ltd., M/s. Vedanta and M/s. Adani and during the year 2014 – 2015, 18 Million Tonnes of coal was handled at the Port out of which 12 Million Tonnes was handled at the above three terminals through mechanized handling. It is stated that the fourth terminal for mechanised handling viz, M/s SEW is under progress at a cost of Rs.320 Crores and expected to be operated soon.

11. While explaining about the steps taken for managing dust generated by coal handling, it is stated by the 3<sup>rd</sup> respondent Port that the Mechanical Dust Suppression System (MDSS) was commissioned in 2002 and the said system provides sprinkling of water over the coal stacks when it is unloaded from the ship so that the coal stacks are wet to avoid dust. Water is also sprinkled over the stockyard and on the roads in the port to mitigate dust generation. To avoid forming of dust to the areas beyond the port a dust barrier was constructed in the East at a height of 7.5 m for a length of 500 m. Another dust barrier of 115 m height for a length of 1,000 Meter was constructed on the Eastern and Northern side of the area. Dry Fog System has been established at

various places such as the Hopper, Transfer Points, Wagon Loading System etc. The ambient air quality (AAQ) is being measured at six locations by the Board and Andhra University Development Centre (AUDC). The coal stock yards are provided with MDSS systems and water sprinkling is done at regular intervals. By rail 90% of coal is being evacuated thereby avoiding road movement to minimise dust emissions. However, the roads in Visakhapatnam are being wetted by water tankers to prevent emission of dust during movement of vehicles. The trucks are covered with tarpaulins. The height of the coal stacks are limited to 6 m as directed by the State Pollution Control Board apart from providing high rise enclosures and screens for coal stacks.

12. The Visakhapatnam Port has engaged the Andhra University to carry out monitoring of ambient air quality twice a week at three locations viz., St. John's Parish School, R & D Yard and DLB Canteen. The parameters for monitoring the AAQ are PM 2.5, PM 10, SO<sub>2</sub> and NO<sub>x</sub>. Apart from monitoring by Andhra University, Visakhapatnam Port has also engaged the Board to monitor AAQ three times a week in the old town area viz., St. Aloysius School, St. John's Parish School and AOB, Golden Jubilee Building. In addition to that the Port Trust has also developed green belt area by planting 4.3 lakh plants in about 650 acres of land adjacent to Port. Between 2012 and 2014 the Port Trust has planted 47,650 plants and the public-private partnership operators have planted a further 17,100 plants and trees in the port land. After the Hudhud cyclone on 12.10.2014 most of the green belt was lost. The Port has initiated replantation of 6,000 plants and trees during 2014 – 15. The port is set to plant 36,000 plants and trees during 2015-2016 and 21,000 plants and trees have been already planted. During 2016 – 2017 the Port has a plan to plant about 16,000 plants and trees.

13. Further, during 2014 – 2015 under CSR activities to improve quality of life of citizens the Port is running a general health check up clinic in association with Red Cross Society of India where 300 out patients are being treated every day. That apart, the Port Trust has supplied medical equipments to King George Government Hospital, Visakhapatnam at a cost of Rs.76 Lakhs, Digital Education System to Bharathiya Vidya Bhavan at a cost of Rs.14 Lakhs, medical equipments to Indian Red Cross Society at a cost of Rs.50 Lakhs, materials to the Backward Community Welfare Students Hostel at a cost of Rs.20 Lakhs and AU Engineering College for Women at a cost of Rs.17

Lakhs. The Port has also conducted medical camps in and around Visakhapatnam Port area spending Rs.6.6 Lakhs, and the Port has adopted Queen Mary's School for conducting medical camps at a cost of Rs.11 Lakhs. The Port has also supplied bio-toilets for female students in schools at the cost of Rs.80 Lakhs and has allocated Rs.50 Lakhs for skill development of unemployed youth, apart from allocating Rs.20.6 Lakhs for the development of AVN College and Rs.10 Lakhs towards its green vision policy, Rs.5 Lakhs for Solar Power System for old age orphanage near the port, Rs.10 Lakhs for procuring medical equipment for MOHSIN Eye Bank, Rs.15 Lakhs for parks in Central Revenue Quarters, Rs.6 Lakhs for the development of Port schools.

14. The Port has also taken measures to monitor and improve Environmental Management Systems. It has engaged the services of the Administrative Staff College of India, Hyderabad. It has also engaged the services of Jawaharlal Nehru Technological University, Kakinada for the assessment of effectiveness of existing air pollution management plan by public private partnership in Visakhapatnam Port area. The Port has also engaged the services of the National Environmental Engineering Research Institute (NEERI) for the preparation of Disaster Management Plan which was submitted in July, 2014 which continues to be in force. The ambient air quality monitoring of the surrounding areas of the Visakhapatnam Port has been entrusted to the Andhra University. The STP water quality and ambient air quality monitoring of the area around Visakhapatnam Port is entrusted to the Board. In addition to the above, the Port has also taken steps to contain oil spill by way of Oil Spill Contingency Management Plan as per the guidelines issued by the Indian Coast Guard.

15. The 3<sup>rd</sup> respondent Port Trust further stated that it has proposed various measures to improve the environment management of Visakhapatnam Port by erecting another dust barrier of 7.50 Meter height and 1.70 KM long from the Sea Horse Junction to Convent Junction at the cost of Rs.9.75 Crores and the said work is in progress. A comprehensive Environment Management System is set up to remove the floating matter from Geddas, desilting of drains, manual sweeping of roads at the cost of Rs.6.38 Crores for which the work order has already been issued. Tenders have been floated for sweeping by mechanical sweeping machine at a cost of Rs.2.81 Crores. Tenders have been floated for upgradation and strengthening of BT and CC Blocks for

Operational Roads, Drains and Berths (East Zone) at a cost of Rs.16.31 Crores. In order to reduce the dust, agents are covering the coal stacks with tarpaulins. However, wherever the agents are not covering the stacks the Visakhapatnam Port itself is covering such stacks. Further, work orders were issued for construction and operation of Truck Tyre Cleaning System and tenders have been floated for supply and operation of Truck Mounted Fog Canons at the annual cost of Rs.1.13 Crores.

16. The 3<sup>rd</sup> respondent has also stated that the High Court of Andhra Pradesh in W.P.No.29115 of 1997 in the order dated 8.12.1999 directed the Board to conduct public enquiry after public notice and issued various directions to Visakhapatnam Port for Comprehensive Environmental Management. The Member Secretary of the Board has conducted a public enquiry on 4.2.2000 and issued various directions. The 3<sup>rd</sup> respondent has also categorised various directions issued by the Board as long term and short term measures and the compliance has been made by the Port in respect of the directions issued. It is also stated that the 11 directions of the Board dated 29.2.2000 has been followed from time to time viz., on 30.11.2004, 3.11.2006, 18.3.2008, 26.3.2009, 8.3.2010, 10.5.2010, 6.9.2010, 26.3.2011, 17.9.2011, 16.4.2012 and 12.12.2014. According to the Port, all directions of the Board have been complied with.

17. In W.P.No.9328 of 2009 the High Court has dealt with the issue of Management of Visakhapatnam Port once again. After hearing the claim of the Port Trust, the High Court directed the Senior Environmental Engineer, Task Force, Vijayawada to inspect the Port and suggest measures. Accordingly, the Senior Environmental Engineer inspected the Port on 28.5.2009 and suggested short term and long term measures which have been complied.

18. The main contention of the applicant is that the coal handling by the Visakhapatnam Port resulted in environmental pollution as the Visakhapatnam Port handles three types of coal viz., steam coal, thermal coal and coking coal. Presently there are three concessionaries through whom coal is handled at the Visakhapatnam Port viz., by the Vizag Sea Port Ltd., whose allocated capacity being 6 Million Tonnes and an average capacity of 6 Million Tonnes is being handled, by the Vedanta, as

against the allocated capacity of 10.19 Million Tonnes, an average capacity 7 Million Tonnes is being handled and by the Adani as against the allocated capacity of 6.7 Million Tonnes, an average capacity of 2 Million Tonnes is being handled. Apart from the above, there is another concessionaire viz., M/s. Southern Engineering Works (SEW) to whom a contract has been awarded to handle 7 Million Tonnes.

19. The concessionaires are handling coal from four berths of the Port out of which one is in the outer harbour and three are in the inner hub. Steps are being taken to shift all dusty cargo towards inside the inner harbour. In addition to the above figures the 3<sup>rd</sup> respondent has also stated that it is not open to the applicant to say either Visakhapatnam Port or Visakhapatnam Town is unnecessary. It is true that the development cannot be at the cost of environment. Therefore, the Visakhapatnam Port has taken several measures to ensure that the coal handling does not adversely affect environment. Further, when the commissioning of the Port was in the year 1933, settlements have come near the Port subsequently. By virtue of the introduction of mechanised method of coal handling, pollution problem has been reduced. Therefore, it is not correct to state that the three places viz., Kotaveedhi, Vadaeedhi and Soldierpeta have been experiencing serious health problems. The allegation that steps have not been taken to contain pollution is denied and there are absolutely no records to that effect. Further, the Ambient Air Quality is monitored by the AUDC and also by the Board at six locations and at no point the air pollution has reached an alarming level. That apart, as per the direction issued by the Board, an Environmental Monitoring Committee has been constituted under the Chairmanship of renowned Environmentalist Prof. S. Rama Krishna Rao, comprising of members of all stakeholders such as school, residents around Visakhapatnam Port, NGOs etc. The Committee issued various directions and they are carried out by the Visakhapatnam Port.

20. It is also stated that for the effective implementation of Environment Management Systems, various awards have been given to the Port which include the Paryavarana Parirakshak Award, 2000, National Safety Award, 2001 and 2002, Green Tech Award 2002 – 2003 for the outstanding contribution to the development of the Green Belt, Green Tech Environment Excellence Award 2003 – 2014 and Green Tech Safety Awards 2006 – 2015 for the outstanding achievement in Safety Management. It

is also stated by the 3<sup>rd</sup> respondent that in the consent order issued by the Board dated 26.12.2014 permissible levels of pollutants/suspended particulate matter have been prescribed and the monitoring data of AAQ for the months between January to April, 2015 were found to be mostly within the permissible limit exceeding the levels on rare occasions. Air pollution being a burning issue in India, particularly in urban areas even where there is no handling of coal, attributing Visakhapatnam Port alone for the air pollution in Visakhapatnam is unjustifiable. Therefore, the 3<sup>rd</sup> respondent – project proponent has prayed for dismissal of the application.

21. In its further reply filed by the 3<sup>rd</sup> respondent – Port Trust dated 22.12.2015 after rejoinder was filed by the applicant, while reiterating the stand taken by the 3<sup>rd</sup> respondent in the original reply, it is stated that the report of NEERI was in the year 2012, while mechanisation of coal handling and other improvements were carried out at the Port, including the establishment of additional green belt and those works were completed in 2013. The AAQ data gathered after the implementation of the above steps show significant decrease in particulate matter of pollution. In so far as the allegation of the applicant that in July and August 2015 there has been significant increase, it is stated that on one day i.e., on 13.7.2014 it shows some abnormal pollution level which was due to improper collection of sample data. According to the 3<sup>rd</sup> respondent it's stand is vindicated by the fact that before and after the said date, the monitoring shows significant reduction of pollution level. In so far as it relates to the allegation that the Port has handled cargo beyond the consented capacity, the same is denied. In the tabular column the consented capacity of the Port as well as other BOT/PPT operators are shown. The total consented capacity of the 3<sup>rd</sup> respondent along with other BOT/PPT operators is 67.11 Million Tonnes, while in the year 2014 – 2015 the Port has handled only 58 Million Tonnes and in the year 2013 – 2014 it was 58.5 Million Tonnes and therefore the cargo handled by the 3<sup>rd</sup> respondent was below the consented capacity.

22. The delay in implementing the project for mitigating air pollution is due to the reason that the project requires prior Environmental Clearance (EC) and subject to the proceedings of PPP Appraisal Committee consisting of the officials of various Ministries. Therefore, the timeline of the projects were delayed. However, the project will be

completed by 2016 and a major portion of the project has already been completed and the results have shown the reduction of pollution level. In addition to that, the Port Trust is taking several CSR activities and all the directions issued by the Board have been complied with apart from the directions of the Board. In the latest direction, the Andhra Pradesh High Court in W.P.No.9328 of 2009 directed the Task Force of the Board to inspect the Port and take further measures and recommendations have been made by the Board which have been complied with. The deaths which are stated to have occurred, cannot be attributed to the Visakhapatnam Port, especially when there are many industries around the City which emit pollution. The EIA report of 1997 referred by the applicant itself shows that various other factors like age, housing, smoking have contributed to such deaths. The further allegation that the green belt area is not developed, is denied reiterating the statement made by the Port Trust in the original reply that it has planted about 4.3 Lakh trees in about 650 Acres of Port Land during the year 2015 – 2016. The Port Trust is set to plant 36,000 more trees and plants at the cost of Rs.3.12 Crores out of which 25,000 trees and plants have already been planted. The stockyard height has been made only as permitted in the 'consent to operate' by the Board and the height would depend upon the factors such as evacuation process and mechanization method.

23. The 1<sup>st</sup> respondent – Board in its reply dated 30.12.2015 while stating that the application is not maintainable as the prayer is beyond the scope of the power of this Tribunal, has submitted that the Ambient Air Quality (RSPM) values are exceeding the standards due to the dust pollution prevailing in Visakhapatnam City because of the industrial growth, activities of the 3<sup>rd</sup> respondent – Port, apart from increase of traffic in the City due to the increase in population which is about 394% during the period from 1970 to 2000. It is stated by the 1<sup>st</sup> respondent that the Visakhapatnam is the City located in the North Eastern portion of Andhra Pradesh and the entire City lies within the two major hill ranges viz., Yarada and Adaviaram (Simhachalam). These two hill ranges cause inversion conditions particularly during the winter season and major habitation and industries co exist in the bowl area which were established during 1970 – 1980. It is stated that the 1<sup>st</sup> respondent is regularly reviewing the status of the air

pollution control measures taken by the 3<sup>rd</sup> respondent – Port in the Task Force Committee meetings and issued various directions.

24. It is further stated by the 1<sup>st</sup> respondent that Visakhapatnam Port is one of the major Ports in India started its operation in 1933 by developing three multi commodity berths to cater multi cargo on East Quay at Inner Harbour with an annual capacity of 1.3 Lakh Tonnes of cargo. Subsequently few more berths were added and as of now there are 18 berths in Inner Harbour and 5 berths in Outer Harbour. The handling capacity is increased from 1.3 Lakh Tonnes per annum to 92.0 Million Tonnes per annum. The Port is operating 23 berths and notified stockyards for the storage of dusty cargo such as GCB (Coal)/East Yard (coal), R-4 & R-10 area (coal) S-4 conveyor area (coal), Ore Handling Complex (Iron Ore), West Ore Berth (coal) in port area. The total area of the stockyard is 9,65,256 m<sup>2</sup> and they are provided with Mechanical Dust Suppression System (MDSS) covering an area of 4,75,000 m<sup>2</sup> and 3,58,116 sq.m<sup>2</sup> developed in East Yard. The total area covered is nearly 8,33,116 m<sup>2</sup>. The cargo imported is stacked at the stockyard which is lifted by the concerned parties and the cargo exported is also stacked in the stockyard until it is loaded into ships. The iron ore received through railway wagons is unloaded at the ore handling complex and transported through conveyor belt to ore berth located at Outer Harbour and loaded into the ships for export. The existing conveyor belt is of 4.2 KM length carrying iron ore from ore handling area to the ore berth located at the outer harbour consisting of 10 junction points out of which three are close to thickly populated residential area and others are within the port area.

25. After complaints were received from the residents, the Port Trust completed the modernisation of two berths and modernisation of the other three berths are in progress. The modernization of general cargo berth with an investment of Rs.444 Crores is completed and commissioned in April, 2013. The modernization of EQ – 1 with an investment of Rs.323 Crores is completed in December, 2014. The modernization of WQ – 6 with an investment of Rs.272 Crores has started. The modernization of EQ – 1A with an investment of Rs.313 Crores is in progress and modernization of EQ – 7 with an investment of Rs.217.5 Crores is in progress. Under modernization/mechanization, the dusty cargo is handled through closed conveyors and

MDSS at stockyards to reduce dust emission. After mechanization of outer harbour with M/s. Vedanta General Cargo Berth, no coal is stacked at outer harbour and it is being transported to East Yards through conveyor system followed by stacking and wagon loading. MDSS is provided at coal stacking areas to control dust pollution. The Port has wall at 7.5 MT height with a length of 900 MT and on the Eastern Yard the wall is at the height of 4.5 MT which ensure that fugitive emissions do not affect the residential area. That apart, the Port Trust has developed green belt in an extent of 630 Acres. Even though the trees were damaged in the Hudhud cyclone in October, 2014, works are in progress for replantation.

26. The Port Trust is treating the sewage generated in the city entering into Gangulagedda, Yerrigedda and Chakaligedda. The treated water from STP of 2.49 MLD is being used for water sprinkling purpose. The cargo handling for the period from April, 2009 to March, 2010 was 65.5 MTPA, from April, 2010 to March, 2011, it was 68.04 MTPA, from April, 2011 to March, 2010 it was 67.2 MTPA, from April, 2012 to March, 2013 it was 59.04 MTPA and from April, 2013 to March, 2014 it was 58.50 MTPA. Further, it is stated that the Port Trust is not properly cleaning the roads in the Port area including the flyovers, bulb area, Ramakrishna Area and road connecting the convent junction to Naval Dock Yard. The Port connectivity road is maintained by NHAI while the road from parallel bridge to Naval Dockyard is maintained by Navy. The two road sweeping machines which were put in service earlier have been withdrawn and only manual sweeping is going on.

27. The Board has taken various initiatives in respect of Visakhapatnam Port like Ambient Air Quality Monitoring Stations in various locations viz., (1) St. Aloysius School (2) St. John Parish School (3) MCV Kalyanamandapam (4) Police Barracks (5) Gananapuram (6) Mindi (7) Industrial Estate (8) ESI – Hospital and (9) Seethammadhara. The Ambient Air Quality Monitoring Stations located at the places 1 to 5 above, are close to the Visakhapatnam Port and have been recording high RSPM values than the National Ambient Air Quality Standards but declining in trend. The Board has also given the yearly average RSPM value at various locations. The Board has issued directions to the Visakhapatnam Port Trust on various dates regarding handling of cargo in an environmental friendly manner. The Central Pollution Control

Board (CPCB) has evolved a Comprehensive Environmental Pollution Index (CEPI) for 88 study areas in India in 2009 and Visakhapatnam was identified as Critically Polluted Area (CPA) with a score of 70.82 and moratorium on establishment and expansion of industries, was imposed on 13.1.2010. The Port Trust has also worked out a comprehensive plan for taking remedial measures by appointing Local Committee with Experts and stakeholders for monitoring the implementation of Action Plan under CEPI programme. Frequent visits were made for monitoring apart from review meetings having been held regularly. The Action Plan under CEPI programme was submitted to the CPCB by the Andhra Pradesh State Pollution Control Board after implementing the stringent standards.

28. As on date, Visakhapatnam has been lifted from the CPA by the MoEF & CC as per its Office Memorandum dated 17.9.2013. The CEPI score came down from 70.82 to 52.3 for Visakhapatnam. The Task Force directions were issued by the Board on 16.4.2012 for compliance by the Port Trust. The Board has also given the particulars about various compliances. Thereafter the Board has reviewed the status after issuing notice dated 12.12.2014. The Parliamentary Standing Committee on Science & Technology, Environment & Forests visited Visakhapatnam on 1.2.2015 and 2.2.2015 and the Port Trust has submitted an action plan for containment of dust by taking both long term and short term measures. It is stated that the 1<sup>st</sup> respondent – Board is conducting continuous Ambient Air Quality Monitoring at four locations and the air pollution in terms of AAQ value varies from 31 ug/m<sup>3</sup> to 196 ug/m<sup>3</sup>.

29. Modernization process was submitted by the Port Trust at a cost of Rs.2,569 Crores relating to the extension of container terminal and modernization of iron ore handling complex and WQ – 1 berth and mechanization of WQ – 7 & WQ- 8 berths in respect of which public hearing was conducted on 10.4.2015 and submitted to MoEF. The Board has also stated that on inspection of Port, various observations were noted and the Port is taking measures to control air pollution and the Board is continuously monitoring the activities of the 3<sup>rd</sup> respondent – Port and issuing appropriate directions for compliance. In addition to the reply, the 2<sup>nd</sup> respondent - Environmental Engineer of the Board has filed Status Report dated 27.4.2015 and 6.5.2016.

30. Mr. Suhrith Parthasarathy, learned counsel appearing for the applicant – Society has referred to various portions of the latest status report filed by the 1<sup>st</sup> respondent – Board dated 6.5.2016 to show that many of the measures prescribed by the Board have not been complied with. He has also referred to the annual average RSPM (PM<sub>10</sub>) level in five locations as given by the Board in its report which are beyond the standard limit of 60 Mg/m<sup>3</sup>. He has also referred to the value on 28.4.2016 when the RSPM (PM<sub>10</sub>) level has gone upto 131 at St. John's Parish School as against the standard 100 Mg/m<sup>3</sup> and therefore it is his submission that the pollution level has not come down inspite of the statement made by the 3<sup>rd</sup> respondent – Port Trust that various steps have been taken. The 3<sup>rd</sup> respondent – Port being a major Port which is surrounding the entire Visakhapatnam City, the pollution level is attributable to the conduct of the 3<sup>rd</sup> respondent. He has also referred to the Inspection Report and also RTI information obtained from the Government of Andhra Pradesh 23.2.2016 and 31.3.2016 respectively to show that Pulmonary Tuberculosis and lung cancer have been in the increasing trend which according to the learned counsel show inadequate steps taken by the Port Trust in curtailing air pollution and movement of vehicles loaded with coal, apart from coal being kept in the open place.

31. He also has pointed out a report on air pollution in selected areas of One Town, Visakhapatnam given by Dr. S. Balaprasad, Professor of Environmental Engineering, Andhra University, Visakhapatnam wherein the report clearly shows that Visakhapatnam Port Trust is handling bulk cargo other than coal, iron and manganese ore and suggested long term and short term measures to be taken and therefore according to the learned counsel there should be restraint order against the 3<sup>rd</sup> respondent – Port and in the alternative he would contend that this being one of the major Ports in India, stringent measures to be taken for the purpose of maintaining environment with pollution control measures to curtail pollution and bring down to the permissible limit.

32. On the other hand, Mr. P. Wilson, learned Senior Counsel appearing for the Port Trust has taken efforts to refer to various steps taken by the Port Trust including the increase in green cover by raising plantations, covering of coalstack with tarpaulin, operating Truck Tyre Cleaning System, sprinkling of water on the roads, erecting high rise walls to the extent of 7.5 MT height and 10.8 KM long to show that steps are continuously taken by the Port Trust. It is his submission that the Port is situated in 10,000 acres of land and there is an Airport and industries are situated in large numbers and arterial roads are passing through. He has also submitted that the coal is being handled by mechanised means which has shown continuous lowering of pollution level. He has also submitted that the High Court of Andhra Pradesh has given various directions which have been complied with. In fact, the Port Trust has obtained EC for upgradation of iron ore handling facility at Outer Harbour on 29.11.2006 with specific and general conditions and the conditions are being complied with. He has also stated that the Port Trust has obtained EC and CRZ Clearance for construction of three berths on 31.8.2009 with special and general conditions. Apart from CRZ clearance and EC for installation of mechanised handling facilities various developmental projects have been taken up in the port area. He has also submitted that when the Board in addition to the conditions imposed by the High Court has been continuously monitoring and imposing various conditions and the same are being complied with, it is not open to the applicant – Society to raise objection about the very existence of the Port.

33. He has also stated that after the mechanised process was started in 2010, the pollution level has come down and that has been confirmed by the State Pollution Control Board as well as the CPCB. He would also submit that as a responsible and one of the biggest organisations in the country, the Port Trust is willing to abide by further conditions that may be imposed by the Board or by the Tribunal. He submitted that in such circumstances, it is certainly not open to the applicant to pray for restraining the Port from operating coal cargo. He would also insist that the application as such is not maintainable in law. Even on merit, the 3<sup>rd</sup> respondent – Port Trust has been complying with various conditions and prepared to comply with further conditions which according to the learned Senior Counsel show the involvement of the 3<sup>rd</sup> respondent –

Port Trust in maintaining proper environment in the said area and therefore he submitted that the application is devoid of merit.

#### DISCUSSION & CONCLUSION:

34. We have heard the learned counsel appearing for the applicant as well as the respondents, including the learned counsel appearing for the Board at length, referred to the pleadings and voluminous documents filed by both the parties and given our anxious consideration to the issue involved in this case. On a proper appraisal of the entire issue, we are of the view that the following are the main issues to be decided on the factual matrix of this case:

- (1) Whether the application as such is maintainable?
- (2) Whether the applicant is entitled to maintain its claim for the purpose of issuing permanent injunction against the 3<sup>rd</sup> respondent – Port Trust from operating coal cargo?
- (3) Whether any further direction is to be given against the 3<sup>rd</sup> respondent – Port?

35. Issue No.1: The prayer in the application filed by the applicant is for an injunction against the 3<sup>rd</sup> respondent – Visakhapatnam Port Trust from operating any coal cargo whether by import or export out of its unit at Port Area, Visakhapatnam and also for a direction to the 1<sup>st</sup> and 2<sup>nd</sup> respondent – Board to take action against the 3<sup>rd</sup> respondent for carrying on illegal operation of the unit. The 3<sup>rd</sup> respondent has raised the issue of maintainability on two grounds viz. on the point of limitation and also on the point of granting permanent injunction and as to whether the activity of the 3<sup>rd</sup> respondent is illegal. According to the 3<sup>rd</sup> respondent it is operating the port in an extent of 281.8 Million cu. ft. area which was inaugurated in the year 1933 and handled traffic 1.3 Lakh Tonnes out of which 1.2 Lakh Tonnes were exports and 0.1 Lakh Tonnes were imports. The Port which was initially having three berths, has developed as on date with 24 berths and therefore the export and import of cargo including coal and iron ore operated from 1933 onwards, are continued as on date and the Visakhapatnam Port being one of the major Ports in India, has been operating the export and import of coal cargo with all necessary permissions from the authorities concerned, including EC etc and therefore the activity cannot be branded as illegal activity and therefore the prayer

as such is not maintainable. Further, it is the case of the 3<sup>rd</sup> respondent that the application having been filed under Section 14 of the NGT Act, 2010 in accordance with the specific terms of Section 14 of the Act, is hopelessly barred by limitation

36. In so far as it relates to the first slap of maintainability viz., limitation, while it is not in dispute that the 3<sup>rd</sup> respondent Port has been carrying on its activities from 1933, it is also clear from the judicial pronouncements that by virtue of the term used in Section 14 of the NGT Act viz., “cause of action first arose” by strictly applying the same, it would appear as if the present application is barred by limitation. By a reading of Section 14 of the NGT Act, it is clear that there is no continuous cause of action but at the same time if the cause of action reoccurs which is a recurring cause of action, certainly from the date of such cause of action the limitation can be triggered.

37. The case of the applicant is that by handling the coal cargo which is admittedly taking place on regular basis by the 3<sup>rd</sup> respondent – Port, dust pollution and air pollution occur, thereby affecting the people living in the surrounding areas. It is also the case of the 3<sup>rd</sup> respondent, as it is seen in the reply filed by them dated 25.9.2015, that the 3<sup>rd</sup> respondent is taking continuous efforts for improving cargo handling by mechanised coal handling system at three terminals and the fourth terminal for coal handling by another operator M/s. Southern Engineering Works is also under progress and even though it is stated in the reply that it is likely to be completed in March, 2016 admittedly, the said fourth terminal for coal handling has not been completed and is likely to be completed in March, 2017. It is specifically stated in the reply that after functioning of the fourth terminal, the 3<sup>rd</sup> respondent assured that coal will be handled through the fourth terminal through mechanised handling and coal will not be handled at other terminals. It is admitted that MDSS is installed and 90% of coal is being evacuated by rail as stated in the reply filed by the Board dated 30.12.2015 including yearly average of RSPM values recorded at various locations in Visakhapatnam City particularly at St. Aloysius School, St. John Parish School, Gnanapuram RSPM level even in 2014 is found out to be 90.80 Mg/m<sup>3</sup> 132.78Mg/m<sup>3</sup> and 83.07 Mg/m<sup>3</sup> respectively, which are all above the prescribed standard of 60 Mg/m<sup>3</sup>.

38. In the status report filed by the Board dated 6.5.2016 it is stated that in respect of immediate measures to be taken the port shall not store any dusty cargo

without installation of MDSS at any location in the port premises. As a matter of compliance, out of four stacking areas, the 3<sup>rd</sup> respondent – Port has provided MDSS at 3 stacking areas. The 4<sup>th</sup> stacking area is not provided with MDSS and the 3<sup>rd</sup> respondent is proposing to shift the said stacking area to the inner side of the Port by the end of June, 2016 to minimise dust. It remains a fact that in that regard, no action plan has been submitted. On a monitoring of five stations, it was found that out of five stations, three are bounded to the port activities and the other two are located within the vicinity of 250 M. The annual average RSPM (PM10) in the location of St. Alysius School in 2015 was found out as 84.6 Mg/m<sup>3</sup>, in the St. John's Parish School in 2015 it was 86.8 Mg/m<sup>3</sup> and in Gnanapuram it was 68.7 Mg/m<sup>3</sup> as against the standard 60 ug/m<sup>3</sup>. Even after the direction of the Tribunal when AAQ monitoring was conducted on 28.4.2016 near St John's Parish School it was found at 131 Mg/m<sup>3</sup> as against the standard 100 ug/m<sup>3</sup>. These particulars given in the reply of the 3<sup>rd</sup> respondent as well as the report of the Board show that the pollution in the port area is an event of reoccurrence periodically and from the date of every reoccurrence when cargo is being handled, the over all situation is that the dust pollution has not been curtailed fully and it should be treated as a fresh cause of action and therefore we are of the considered view that this application cannot be thrown out merely on the ground of maintainability on the basis of limitation.

39. This follows the next slap of the maintainability issue about the permanent injunction sought for and that the operation of the 3<sup>rd</sup> respondent – Port is illegal. It cannot be said that the operation of the 3<sup>rd</sup> respondent is illegal but as an Environment Court, we have to consider as to whether the conduct of the 3<sup>rd</sup> respondent in handling cargo which includes coal, as it is seen in the communication of the Board dated 22.11.2016 obtained under the RTI Act that in the year 2016 the RSPM noted in three places was found to be an average of 87 Mg/m<sup>3</sup> in the Administrative Office Building, St. Alysius School and St John's Parish School as against the permissible level of 60 Mg/m<sup>3</sup> is proper or any rectification or further direction should be given in the interest of maintaining pollution free environment for humans to live.

40. The Government of India, MoEF in the order dated 2.2.1993 has granted EC for the construction of LPG Handling Jetty in the Outer Harbour by the Visakhapatnam

Port. That was followed by another EC granted by the MoEF on 19.5.1998 for the construction of Multipurpose Berths in the extended arm of Internal Harbour subject to various conditions. There was another EC granted by the MoEF dated 29.11.2006 for upgradation of iron ore handling facility at Outer Harbour subject to specific and general conditions. There was another EC and CRZ Clearance granted by the MoEF on 31.8.2009 for the construction of three berths WQ – 6, WQ – 8, and EQ – 10 in the northern arm of Inner Harbour also with specific and general conditions. This was followed by another CRZ clearance and EC for the installation of Mechanised Handling facilities at General-cum-Bulk Cargo Berth in the outer Harbour dated 1.9.2009 with specific and general conditions. There was another EC and CRZ Clearance granted by the MoEF dated 6.6.2011 for the development of East Quay – IA (EQ – 1A) berth on the South side of EQ – 1 (ii) development of East Quay – 1 (EQ -1) by replacing the existing EQ – 1 berth and part of EQ -2 berth at Visakhapatnam Port. There was an amendment issued to the EC and CRZ Clearance dated 6.6.2011 on 19.10.2011 by MoEF by modifying that the coal storage shall be in closed shed to minimise the fugitive emissions and the drawings shall be submitted to MoEF and State PCB.

41. In fact, when a writ petition was moved in the High Court of Andhra Pradesh at Hyderabad in W.P.29115 of 1997 the Division Bench in the order dated 8.12.1999 has directed the Board to conduct enquiry after giving notice to all the stakeholders and decide the matter of pollution by Visakhapatnam Port after hearing the parties and it is seen that subsequent to the direction given by the Board, the 3<sup>rd</sup> respondent Port Trust has taken certain action. Therefore, it is clear that the activities of the 3<sup>rd</sup> respondent – Port Trust have been carried on with all due permissions from the MoEF as well as the State Board and it cannot be just like declared to be an illegal act. In any event, inspite of such approval having been given by all the authorities concerned, it remains a fact that the Board is periodically giving various directions some of which are complied with and in respect of some directions, the 3<sup>rd</sup> respondent is taking time and therefore except to the limited extent of compliance of Environmental Norms which would be continuously monitored by giving appropriate directions not only by the Board but also by this Tribunal, by taking note of various reports filed in the above said application, we hold that the activities of the 3<sup>rd</sup> respondent cannot be held to be illegal. In any event,

for the reasons stated above, we answer Issue No.1 that the application cannot be slightly brushed aside on the ground of maintainability for the reason that large number of activities like that of the 3<sup>rd</sup> respondent require appropriate directions and monitoring.

42. **Issues 2 & 3:** Considering the scope of the Issues 2 & 3, we propose to take both together, since it require appropriate directions. In the absence of any challenge made against any of the ECs granted by MoEF, as enumerated above, there cannot be any permanent injunction against the 3<sup>rd</sup> respondent from its functioning. However, based on various reports and reply and taking note of the compliance stated to have been made by the 3<sup>rd</sup> respondent, we are of the view that further directions should be issued on the monitoring by the Board in the matter of minimising the pollution level to the extent of permissible limit as per the stipulation made by the Board.

43. It is also relevant in the context of an observation made by the Rajya Sabha Subordinate Legislation Committee wherein it was observed that the management of Visakhapatnam Port Trust has suggested that they had spent Rs.250 Crores on modernisation of the port facilities to reduce pollution level and despite this the extent of air pollution was still a grave issue. In addition to the EC granted by the MoEF for various project activities of the 3<sup>rd</sup> respondent, the Board has also given 'consent' as well as 'authorisation' both under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and authorisation under Hazardous Wastes (Management, Handling & Transboundary, Movement) Rules, 2008.

44. In a study made by Dr. S. Balaprasad, Professor of Environmental Engineering, Department of Civil Engineering, A.U. College of Engineering, Visakhapatnam addressed to the applicant dated 7.5.2013 based on raw data on the concentration air pollutants measured in One Town area of Visakhapatnam provided to him, it is noted "it is interesting to note that the study area is not in proximity to any major industry that handles the material causing the past and present pollution in the area. Hence it may be inferred that the Visakhapatnam Port Trust is the major source of pollution in this area as the VPT is handling bulk cargo such as coal, iron and manganese ore etc. The storage, handling (loading, unloading and transporting) of

these material may be responsible for the pollution in the area. Even the major portion of the particulate matter consists of coal, iron and manganese fines. The detailed health history of area along with the disease inventory for the 15 years is essential for proper correlation between the health impacts and pollution levels of the region.” The study also makes two distinct short term and long term measures. The short term measures recommended are:

- “1.The households, the business and commercial establishment’s, offices should have fine mess doors to all the opening including ventilators to prevent the entry of particulate pollutant into their living or working space.
2. The people living and working the region should have nose filters/nose masks when they came out of their households in their day to day activity.
3. They should have periodical health checkups to assess the status of their reparative track including lungs, eye vision, skin diseases and so on.
4. The fruits, vegetables and other food products or materials procured from vegetables and food outlets must be soaked in water for more than one hour and should be washed thoroughly.
5. The fine mess doors used in the household and the nose mask or filters should be cleaned and washed periodically to prevent accumulation of the dust and making it as a source of pollution.”

Likewise, long term measures suggested are:

- “1.The storage and handling of the bulk cargo should not be taken up in open spaces of Visakhapatnam Port Trust.
2. The transportation of the work material through trucks should be discouraged
3. There should not be any spills of the bulk cargo during the handling of the material
4. Closed leak proof containers may be used even for handling of the bulk cargo
5. Handling (storage, loading, unloading, transportation) of the bulk cargo material such as coal, iron and manganese ore, alumina, should be shifted to a port which is far from human habitation.
6. The people from the already effected area should be rehabilitated to a safer zone to protect them from any further and future detrimental effects with respect to health and legitimate right to live.”

45. The Board on various occasions has given direction to the 3<sup>rd</sup> respondent either based on direction from the court or based on complaint received from any individual. The earliest of such direction given was on 31.11.2004 under Section 31(A)

of Air (Prevention and Control of Pollution) Amendment Act, 1987. After careful consideration of the materials the following directions were issued:

“1. The Port Trust shall implement all the measures suggested by M/s. MECON in the Environmental Management Action Plan. The Port Trust shall before 31.12.2004 submit a time bound action plan on implementation of MECON suggestion.

2. The Port Trust shall stop transportation of iron ore through trucks from Mrippalem Railway Yard by 31.01.2005.

3. The Port Trust shall clear the stock piles near the convent junction before 31.01.2005. The Port Trust may stock the non-dust generating cargo in that area.

4. The Port Trust shall ensure proper coverings to the sulphur stock piles and provide skirt walls, line drains along the periphery of the stacking areas with silt traps.

5. The Port Trust shall unload iron ore from the railway wagons only through mechanical tippers.

6. The Port Trust shall provide mechanical dust suppress systems at all the dusty cargo stacking areas.

7. The Port Trust shall ensure that the material is transported in closed trucks only.

8. The Port Trust shall wet the flyable material before loading and unloading operations into the ship.

9. The Port Trust shall reduce the drop height as minimum as possible.

10. The Port Trust shall use wheel mounted hopper for loading of coal.

11. The Port Trust shall use conveyor for directly loading/unloading of material into the ship.

12. The Port Trust shall provide a garland drain in the periphery of major yards to lead the dust collecting water into a sump where coagulants are added.

13. The Port Trust shall provide treatment system for treating the water sprinkled on the berths before discharging into sea.”

46. Similarly there was a direction issued by the Board on 3.11.2006 which is as

follows:

“1.The Visakhapatnam Port Trust shall stop storage of cargo at convent junction and adjacent to Pragathi Apartments and storage of dusty cargo in Northern side of flyover immediately.

2. The Visakhapatnam Port Trust shall maintain atleast 50 mts. Buffer zone on Southside of flyover and develop green belt in this area to minimize impacts of fugitive emissions.

3. The Visakhapatnam Port Trust shall properly demarcate storage yards and develop adequate green belt all around storage yards within 3 months

4. The Visakhapatnam Port Trust shall provide mechanical dust suppression system or adopt any suitable dust control systems in yard no.IV, V and VI in addition to strengthening of MDSS provided in yard no.III to minimize air pollution within 9 months.
  5. The Visakhapatnam Port Trust shall take measures for mechanization of dusty cargo handling with inbuilt dust suppression systems to minimize dust generation by 31.12.2007.
  6. The Visakhapatnam Port Trust shall take measures for Automization of MDSS and installation of centralized computer aided control systems to ensure regular and efficient operation of MDSS in 9 months time.
  7. The Visakhapatnam Port Trust shall provide Geonet screen at GCB, Eastern yard and on Southern side of flyover in 9 months to minimise impact of air pollution.
  8. The Visakhapatnam Port Trust shall avoid open storage of Sulphur and shall store only in scientifically designed storage yard with effect from 31.06.2007.
  9. The Visakhapatnam Port Trust shall provide unit bag filter or Telescopic chute at ship loading point in 9 months time.
  10. The Visakhapatnam Port Trust shall immediately ensure covering of vehicles carrying dusty cargo.
  11. The Visakhapatnam Port Trust shall deploy mechanical road cleaner in nine months to ensure proper cleaning of roads.
  12. The Visakhapatnam Port Trust shall handle Ammonium Nitrate only at dedicated berth i.e., EQ 5 or 7. On that berths inert material may only be allowed to be unloaded in addition to Ammonium Nitrate, as per CFO condition.
  13. The Visakhapatnam Port Trust shall ensure that height of dusty cargo stacks shall not increase beyond 5 mts.
  14. The Visakhapatnam Port Trust shall extend the covering of conveyor belt systems passing over and close to habitation areas in nine months time.
  15. The Visakhapatnam Port Trust shall provide empty dusty cargo vehicle washing/dry cleaning system in nine months time to clean all outgoing dusty cargo empty vehicles.
  16. The Visakhapatnam Port Trust shall take measures for widening and regular cleaning of Yerragadda drain streams passing through its premises in 6 months time to avoid flooding of upstream areas.
  17. The Visakhapatnam Port Trust shall scrupulously comply with all conditions stipulated in the Board Orders dt.29.02.2000 and 31.11.2004.”
47. A similar direction was issued on 18.3.2008, 26.3.2009, 8.3.2010 and 10.5.2010. While reviewing the status of compliance in Task Force Committee meeting dated 21.3.2011 the Board has issued the following directions to the 3<sup>rd</sup> respondent under Section 31(A) of Air (Prevention & Control of Pollution) Amendment Act, 1987 and under Section 33(A) of Water (Prevention & Control of Pollution) Amendment Act,

1988. The Board having satisfied that the 3<sup>rd</sup> respondent – Port has not complied with most of the directions issued and found the following defects viz,

“Recently the port has constructed one conveyor to transport coal from the ship to the stocking yard near GCB area. The conveyor is not covered and it is not provided with in-built water sprinklers. Huge emanation of coal dust was observed near the GCB area and the dust nuisance was spreading on to the area near Kotaveedhi.

Dust cargo stored in R-11 area shall be removed in view of its proximity to School & Colleges.

The iron ore stored opp. Essar is not removed and it is also not properly covered

A new open conveyor near GCB area is provided by the Port where coal is being handled. The conveyor should be immediately be covered other wise residents of Kotaveedhi area will be subjected to dust nuisance.

M/s. VPT is unable to clean up all the roads of the dust using the two road sweeping machines it has. It is spraying water on the roads to control the dust nuisance GVMC has complained that the roads are getting spoiled due to continuous wetting and accidents are also occurring due to slippery conditions.”

Accordingly, the Board issued three types of directions viz., Part – A for the improvement of the existing systems to be implemented within 15 days. Part – B for fixation of flow meters at various points to ensure continuous operation of existing systems and Part – C operation and maintenance of the systems in its directions dated 15.9.2011 to be implemented within two years which are as follows:

“Part-A: (Improvement of the existing systems (to be implemented within 15 days)

M/s.VPT shall remove all the Cargo stored at opposite ESSASR within 10 days and shall not store any dusty cargo like iron ore, coal, manganese at opposite ESSASR, West of ESSASR and at R-11 area.

M/s. VPT shall maintain the dusty cargo stock piles height to 6M only in all the yards. The excess stock piles height shall be removed immediately at S-4, R-10, East Yard & other areas.

M/s. VPT shall cover all the dusty cargo stored at R-2, R-10, S-2, S-6, S-4 with tarpaulins with immediate effect.

M/s VPT shall cover the new conveyor provided near GCB area immediately.

M/s. VPT shall provide mechanized truck tyre washing facility and provide height gauge to sweep the over loaded cargo at GCB area and Convent Junction area.

Part – B: Fixation of flow meters at various points to ensure continuous operation of existing systems (to be implemented within the next 2 years]

M/s. VPT shall provide mechanical dust suppression system or adopt any suitable dust control systems at all dusty cargo handling stockyards in addition

to strengthening of existing MDSS provided to minimize air pollution before 31.10.2011 as committed at the time of Task force committee meeting.

M/s. VPT shall provide mechanical dust suppression system (MDSS) at all other areas like EQ-1, EQ-1A before 31.10.2013 as committed at the time of Task force committee meeting.

M/s. VPT shall construct compound wall in the remaining sides before 31<sup>st</sup> December, 2012.

Part –C: Operation and maintenance of the systems:

M/s. VPT shall ensure cleaning of all roads in port area including the flyovers, bulb area, Ramakrishna area, and road connecting the convent junction to Naval Dock Yard.

M/s. VPT shall ensure that all the ware houses in the port area shall not store the dusty cargoes openly and shall take proper measures for minimization of dust pollution. The height of the cargo stored shall not be more than 6M.

M/s. VPT shall ensure that the storm water from the warehouses in the port area shall not be contaminated and the warehouses shall not discharge any sort of wastewater.

M/s. VPT shall not store chemicals including chemical fertilizers openly under any circumstances.

M/s. VPT shall properly demarcate storage yards and develop adequate green belt all around the storage yards within 3 months.

M/s. VPT shall provide three online CAAQM stations at different locations with display facility for the parameters of TPM, PM<sub>10</sub> & PM<sub>2.5</sub> by 31.10.2011 as committed at the time of Task Force Committee meeting.

M/s. VPT shall provide iron barriers (as provided by Navy) all along the length of the two flyovers (one opposite M/s. Essar and the other one Scindia flyover) on both the side.

M/s. VPT shall provide garland drain in the periphery of major yards to lead the dust collecting water into a sump where coagulants are added.

M/s. VPT shall provide unit bag filter or Telescopic chute at ship loading point before 31.10.2011.

M/s. VPT shall implement all the measures suggested by M/s. Mecon in the Environmental Management Action Plan.

M/s. VPT shall take measures for mechanization of dusty cargo handling with in-built dust suppression system to minimize dust generation by 31.12.2013.”

48. Finding that there was non compliance of the direction dated 15.9.2011, the Board has issued further directions on 16.4.2012 which are as follows:

“Whereas a hearing was conducted by the Task Force Committee of A.P. Pollution Control Board on 09.04.2012 to review the non compliance of the earlier Board directions. The representatives of M/s. VPT attended the hearing and explained about pollution control measures taken by the port. The representatives of the Port informed that the port is regularly sprinkling water in the dusty cargo

stock yards. The committee reviewed the measures taken by the port authorities for pollution control measures. The Committee, after detailed discussions, opined that the unauthorized stockyards in the port is contributing particulate pollution problem in the Visakhapatnam and the Port authorities shall ensure proper dust suppression measure in the port area. The committee recommended to insist the Port authorities to comply with the earlier direction dt. 15.09.2011 within 15 days.

After careful consideration of material facts of the case, the Board hereby issues following direction to your industry

M/s. VPT shall comply with the directions issued to the Port vide order dt. 15.09.2011 within 15 days, failing which action will be initiated against the Port without any further notice.

M/s. VPT shall fix up the individual responsibility to the stevedores, warehouse leaseholders, transporters, stock yard leaseholders and other stakeholders involved in implementation of environment measures like water sprinkling on stockyards, roads, covering the stockyards, restricting the height of the cargo etc., in their stock yards and M/s. VPT shall review the status once in 15 days. The review meeting minutes along with the action taken shall be communicated to the RO, Visakhapatnam.”

49. The Civil Engineering Department of the 3<sup>rd</sup> respondent – Port Trust in its communication dated 9.5.2013 addressed to the applicant has informed the following initiatives taken by it to minimise dust pollution.

- 1) “The Coal stack yards abutting convent junction are provided with mechanical dust suppression system at a cost of Rs.8.00 Crores, covering an area of 4,75,000 m<sup>2</sup> commissioned in the year 2002 and the same is effective and water sprinkling is done continuously round the clock.
- 2) Wetting of cargo stacks by sprinkling of water with water tankers where Mechanised Water Sprinkling System is not installed.
- 3) Wetting of roads through water tankers continuously round the clock to prevent emission of dust during movement of vehicles. A total of 275 trips of water (about 4.0 MLD) is being sprinkled every day through tankers and 3.0 MLD is being sprinkled in stacking areas through Mechanical Dust Suppression System.
- 4) Covering of trucks with tarpaulins and manual sweeping of the roads.
- 5) The stack heights are limited to six meters only as per the directions of APPCB.
- 6) Plantation programme is being pursued by VPT on a continuous basis for the last 2 decades for continual improvement and addition of Green Belt in and around Port area. So far, 4,30,000 plantation has been done covering an area of 630 Acs at different areas including Port operational areas, residential and city areas.

In addition to the above, the following remedial measures are proposed to contain the dust pollution:

i. Proposed Mechanization of Cargo Handling:

- a) Mechanisation of coal handling facilities at GCB in the Outer Harbour of VPT at an estimated cost of Rs.444.10 Crores, which was awarded to M/s.Vedanta is completed and **commissioned from April 01, 2013.**
- b) Development of EQ-1 & EQ1A for handling thermal coal and steam coal with fully mechanised means in the inner harbour at an estimated cost of Rs.323.18 & Rs.313.39 Crores respectively, are **targeted to be completed by December, 2013 and June, 2014 respectively.**
- c) Mechanisation of fertiliser handling facilities at EQ-7 in the Inner Harbour of VPT at an estimated cost of Rs.217.58 Crores has been taken up and the project will be completed by **June, 2014.**
- d) Mechanisation of iron ore handling facilities in the Inner Harbour and upgradation of iron ore handling facilities at OHC is being taken up and targeted to be completed by **May, 2015.**

ii. Construction of high-rise wall to contain dust:-

- a) A High-rise wall of 7.5 mts height was constructed on the eastern and northern side of the east yard at a cost of Rs.2.0 crores where there is a city interface.
- b) Construction of high rise walls near convent junction and opposite ESSAR are in progress and will be completed soon.

iii. Re-organisation of Stack Yards:

As a part of the mechanisation of handling of coal, it is proposed that the entire coal will be shifted to East Yard and inter transportation of coal to centralised stack yard at East Yard would be done through closed conveyor system. The other stack yards are proposed to be utilised for stacking clean cargos.

The implementation of the above schemes will result in reduction in vehicular traffic (approximately 4690 trips /day) and the dust levels will be reduced drastically.”

50. In the various orders of the Board granting renewal of ‘consent’ under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 ‘authorisation’ under Hazardous Wastes (Management, Handling & Transboundary, Movement ) Rules, 2008 the Board has insisted the 3<sup>rd</sup> respondent to follow all previous directions and conditions given in various schedules particularly, Schedule B which are as follows:

“1. The facility shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below:

S.No.	Purpose	Quantity (KLD)
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1.	For MDSS	960.0
2.	Domestic	40.0
	Total	1000.0

2. The facility shall file the water cess returns in Form –I as required under Section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5<sup>th</sup> of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment orders as and when issued by Board.
3. The facility shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
4. The facility shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10µg/m<sup>3</sup>; NO<sub>x</sub> – 80 µg/m<sup>3</sup>, NH<sub>3</sub> – 400 µg/m<sup>3</sup> outside the factory premises at the periphery of the industry.

Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009

**Noise Levels:** Day time (6 AM TO 10 pm) 75 dB (a)  
Night time (10 PM to 6 PM) – 70 dB (A)

5. The Effluent Treatment Plant (ETP) shall be constructed and commissioned along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution.
6. Effluents shall not be discharged onland or into any water bodies under any circumstances and zero liquid discharge system shall be maintained. The effluent collection tank shall be impervious with proper lining to prevent ground water pollution.
7. The industry shall maintain digital flow meters with totalisers at water inlet and at the ETP outlet for assessing water consumed for dust suppression and runoff from the MDSS.
8. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below:
  - a. Industrial cooling, boiler feed.
  - b. Domestic purposes
  - c. Processing, whereby water gets polluted and pollutants are easily biodegradable.
  - d. Processing, whereby water gets polluted and pollutants are not easily biodegradable.
9. There shall not be any coal cargo movement right from Berth to the stock pile upto final despatch by trucks/dumper as committed in the CFE Committee meeting held on 23.12.2011.
10. The industry shall obtain EC amendment from MoEF with regard to provision of enclosures around coal stack yards.
11. The facility shall submit compliance report every month about the progress on installation of Continuous Ambient Air Quality Monitoring Stations to the Regional Office, Visakhapatnam.

12. In any case, the cargo stacking height shall not be more than 10 m from the ground level.
13. The facility shall handle the coal in the allotted stock yard i.e., East yard only and it shall maintain MDSS/fog canons for entire stock yard.
14. Following measures for controlling fugitive emissions shall be carried out continuously:
- Fully mechanized handling equipment for loading & unloading operations
  - Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying cargo.
  - Vehicle movement shall be eliminated by implementing mechanical operation.
  - Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.
15. The proponent shall implement the following measures in the cargo handling and stacking area:
- a. The ship un-loader for unloading and transfer of material shall be provided with insitu water sprinkling system to avoid dust nuisance.
  - b. Mechanical stackers cum reclaimers for staking transfer and reclamation and conveyors for transfer of materials to stop manual handling and no involvement of mobile machines.
  - c. Installation of Wagon loading silo for discharge of coal cargo directly on wagon through automatic mechanized system.
  - d. Plain water dust suppression system shall be installed at Mobile Hoppers on the berth. Nozzles with auto sensor shall be provided on the hopper side walls and every receipt and discharge point.
  - e. Shall install swivelling sprinklers along the lengths of stockpiles on main water supply pipelines at coal stock yard.
  - f. Dry fogging system at transfer points.
  - g. Automatic water sprinkling at stock yard.
16. The industry shall maintain standby centrifugal pump with drive motor for uninterrupted dust suppression of the cargo.
17. All the transfer points, loading/ unloading points and conveyer systems shall be housed completely with leak proof arrangements. Adequate dust suppression and containment measures shall be implemented for effective control of fugitive emissions.
18. Fire detection and fire fighting facilities with adequate water storage facility shall be provided in fire prone area in consultation with Directorate of Fire Fighting.
19. Green belt of adequate density and width shall be maintained along the boundary of the industry in an area of 4.6 Acres as committed. Green belt development shall be completed within 3 months.
20. The facility shall maintain Mechanical Dust Suppression system (MDSS) to control fugitive emissions at all potential sources in entire activity.
21. Dry fogging/ water sprinkling shall be maintained effectively at all transfer points, cargo handling area and stacking areas.
22. The facility shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.

23. Onsite & offsite Disaster Management plan shall be submitted to Board on meeting any eventuality in case of any accident. Mock drills shall be conducted atleast twice a year and modifications required if any shall be incorporated in Disaster Management Plan.

24. The following rules and regulations notified by the MoEF, GOI shall be implemented.

- a. Hazardous waste (Management, Handling and Transboundary), Rules, 2008.
- b. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- c. Batteries (Management & Handling) Rules, 2010

25. The facility shall not allow any hazardous wastes through the port.

26. The facility shall not store any hazardous cargo containers within premises.

27. The facility shall submit monthly monitoring reports to Board Office under copies to Regional Office and Zonal Office, Visakhapatnam.

28. The facility shall comply with all the conditions stipulated in the Environmental Clearance dated 06.06.2011 and Amendments to E.C. dated 08.07.2011 & 19.10.2011 issued by MoEF, GOI and CFE order dated 07.01.2012 issued by APPCB.

29. The facility shall comply with all the directions issued by the Board from time to time.

30. The applicant shall submit Environment statement in Form V before 30<sup>th</sup> September every year as per Rule No.14 of E (P) Rules , 1986 & amendments.

31. The conditions stipulated are without prejudice to the rights and contentions of this Board in any Hon'ble Court of Law.

51. It is seen that the 3<sup>rd</sup> respondent has been consistently giving compliance reports to the Board. It is stated that in respect of the directions issued by the Board dated 28.12.2015 the 3<sup>rd</sup> respondent – Port Trust has given compliance report as on 2.5.2016 in the form of following tabulations:

**APPCB task force directions vide order No.724/APPCB/TF/VSP/2015  
Dated 28.12.2015**

Sl.No.	Taskforce directions of APPCB dated 28.12.2015	Compliance of VPT as on 02.05.2016
	<b>IMMEDIATE MEASURES</b>	
1.	The port shall cover all the stack yards of dusty cargos (coal and other cargos etc.) with tarpaulins immediately and no coal stackyard shall exist without covering with tarpaulins.	Port handles coal and other cargos at three major areas i.e. at S4 area (1.50 lakh sq.m) West ore berth (2.35 lakh sq.m.) and R4/R10 areas (1.72 lakh sq.m.). Except while handling coal almost all the coal stackyards are fully covered with tarpaulins. The tarpaulins blown off with high winds are attended as and when required.

2.	The port shall restrict the stack height of coal piles upto 6 m as per the CFO condition and the excess stacking shall be removed immediately.	Most of the coal stacks under the control of VPT are below 6 m height at S4, WOB and R4/R10 areas. Out of the areas mentioned above three each in S4 and WOB coal stack areas (total 6 Nos.) are stacked up to about 8 to 9 m height because of space constrains. However, those limited stacks of height more than 6 m height are fully covered with tarpaulins and within next 15 days the heights would be reduced upto 6 m.
3.	The port shall not store any dusty cargo at west of ESSAR and the existing dusty cargo shall be removed immediately.	There is no dusty cargo on west of ESSAR. The cargo stacked is Manganese ore (fines) and the same is covered with tarpaulins. The stack yard allotted to M/s.ABG Infra logistics (WQ 6 berth project) is surrounded by 7.5 m high rise wall as permitted in CFO by APPCB. However, there is no cargo at present.
4.	The port shall not store any dusty cargo without MDSS system at any location in the port premises.	Out of the three cargo storage areas i.e. at S4 area (1.50 lakh sq.m.) West ore berth (2.35 lakh sq.m.) and R4/R10 areas (1.72 lakh sq.m.) except at R4 /R10 areas at which the present coal cargo is proposed to be shifted inside port, the MDSS system exists and in operation. The MDSS at GCB area from where the cargo was shifted to East yard under mechanization of coal handling through PPP operator M/s.Vedanta, is working and operated to avoid emission of ground dust. The present status of sprinkling system of MDSS at areas mentioned above is enclosed at <b>Annexure -1</b>
5.	The port shall not store any dusty cargo at R-11 area.	Coal stacks at R-11 area were removed long back and at present there is no stacking at this area.
6.	The port shall submit an action plan for reorganisation of coal stacking yards, which are near to the city interface immediately.	The action plan was submitted to APPCB vide this office letter dated 25.01.2016.  The reorganisation of the stack yards is in progress as indicated in the enclosed sketches ( <b>Annexure 2</b> ) and shifting of coal cargo from the periphery is targeted to be completed by end of June, 2016 so that the dust generating stacks such as Coal will be shifted to the inner side of the harbour and non-dusty cargos viz., Steel, Granite blocks, project cargo etc. to the periphery.
7.	The port shall submit an action plan for reorganisation of all the dusty stacking yards and submit the stacking yard plan within 15 days.	The action plan was submitted to APPCB vide this office letter date 25.01.2016.  The reorganisation of the stack yards is in progress and shifting of dusty cargo from the periphery is

		targeted to be completed by end of June, 2016 so that the dust generating stacks such as other than Coal will be shifted to the inner side of the harbour and non-dusty cargos viz., Steel, Granite blocks, project cargo etc., to the periphery.
8.	The port shall submit an action plan for mechanisation of the dusty cargo handling berths within 30 days.	The action plan was submitted to APPCB vide this office letter dated 25.01.2016. However, the latest status is enclosed as <b>Annexure -3</b> .
	<b>SHORT TERM MEASURES</b>	
1.	The port shall complete the installation and commission of the truck tyre washing facility by 31 <sup>st</sup> March, 2016.	Target date of completion of construction is 10.05.2016 and O & M for 3 years thereafter.
2.	The port shall complete the installation and commissioning of the truck mounted fog canon system at loading/ unloading of dusty cargo by 31 <sup>st</sup> March, 2016..	Mobile Fog canons deployed since December, 2015 and they are in operation.
3.	The port shall complete the refurbishing all the existing MDSS and shall be operational by 31 <sup>st</sup> March, 2016.	Target date of completion is 30.04.2016. However, during operations certain sprinklers are getting damaged and are being attended regularly, which is a continuous process. However, it will be ensured that at least 90% of sprinklers works at any given point of time within next one month time.  The present status of sprinkling system of MDSS at various areas is enclosed at <b>Annexure -1</b> .
4.	The port shall install 3 CAAQM stations and connect to APPCB website by 31 <sup>st</sup> March, 2016.	Work is in progress and installation at two stations will be completed by 31.05.2016 and by end of June, 2016 at other location i.e. at GVMC stadium for which permission from GVMC is awaited. O & M for 5 years thereafter.
5.	The port shall comply with the targets fixed for the plantation under Green Visakha Program.	Plantation: Green Visakha Plantation programme Phase II at a cost of Rs.3.29 crores. Status: 40,000 No. of plants were planted during 2015-16. Another 40,000 No. of plants are planned during 2016-17
6.	The port shall procure Mechanical sweeping machine by 31 <sup>st</sup> March, 2016.	Since there was no response from the bidders, the estimate was revised and tender issued. NIT closing date : 11.05.2016 Target date of supply of machine : July, 2016
	<b>MEDIUM TERM MEASURES</b>	
1.	The port shall complete the construction of concrete wall of 7.5 m height and 1.7 KM long i.e. from the sea Horse Junction to Convent Junction at the city interface by 31 <sup>st</sup> July, 2016.	Dust barrier of 7.50 m height and 1.70 KM long i.e. from the Sea Horse Junction to Convent Junction at the city interface is under construction at a cost of Rs.9.72 crores. Status: Convent junction to Kobbarithota Junction (1K M) completed under Phase I and the rest

		under Phase II will be completed by December, 2016.
2.	The port shall complete the upgradation of STP to handle 10 MLD with proper quality output to meet to the standards of the Board by 31 <sup>st</sup> July, 2016.	Preparation of tender document for refurbishment of STP is entrusted to ASCI and the same is under progress. Work is expected to be completed by 31.03.2017.
3.	The port shall provide CC Cameras at the coal yard and connect it to Website of APPCB for dissemination of information to the public.	CC Cameras are already installed at 24 places in port operational areas and all of them are in working condition under the control of command control centre. The happenings are also monitored by Chairman and Dy. Chairman regularly from their Chambers.

52. Likewise, in respect of the directions issued by the Board dated 29.4.2016 regarding immediate measures to be taken by the 3<sup>rd</sup> respondent, the 3<sup>rd</sup> respondent is stated to have given a compliance report as on 2.5.2016 which is as follows:

Sl. No.	Directions of APPCB dated 29.04.2016	Compliance of VPT as on 02.05.2016
1	The port shall cover all the stack yards of dusty cargoes (coal and other cargoes etc.) with tarpaulins immediately and no local stackyard shall exist without covering with tarpaulins	Port handles coal and other cargoes at three major areas i.e., at S4 area (1.50 lakh sq.m.). West ore berth (2.35 lakh sq.m) and R4/R10 areas (1.72 lakh sq.m.). Except while handling coal almost all the coal stackyards are fully covered with tarpaulins. The tarpaulins blown off with high winds are attended as and when required
2	The port shall restrict the stack height of coal piles upto 6 m as per the CFO condition and the excess stacking shall be removed immediately	Most of the coal stacks under the control of IVPT are below 6m height at S4, WOB and R4/R10 areas. Out of the areas mentioned above three each in S4 and WOB coal stack areas (total 6 Nos.) are stacked upto about 8 to 9m height. However, those limited stacks of height more than 6m height are fully covered with tarpaulins and within next 15 days the heights would be reduced upto 6m
3	The port shall not store any dusty cargo at west of ESSASR and the existing dusty cargo shall be removed immediately	There is no dusty cargo on west of ESSAR. The cargo stacked is Manganese ore (fines) and the same is covered with tarpaulins The stack yard allotted to M/s. ABG infra logistics (WQ 6 berth project) is surrounded by 7.5m high-rise wall as permitted in CFO by APPCB. However, there is no cargo at present
4	The port shall not store any dusty cargo without MDSS system at any location in the port premises	Out of the three cargo storage areas i.e. at S4 area (1.50 lakh sq.m.) West ore berth (2.35 lakh sq.m.) and R4/R10 areas (1.72 lakh sq.m.) except at R4/R10 areas at which the present coal cargo is proposed to be shifted inside port, the MDSS system exists and in operation. The MDSS at GCB area from where the cargo was shifted to East yard under mechanization of coal handling through PPP operator M/s. Vedanta, is working and operated to avoid emission of ground dust. The present status of sprinkling system of

		MDSS at areas mentioned above is enclosed at Annexure – 1
5	The port shall complete the refurbishing all the existing MDSS and shall be operational by 31 <sup>st</sup> March, 2016	Target date of completion is 30.04.2016. However, during operations certain sprinklers are getting damaged and are being attended regularly, which is a continuous process. However, it will be ensured that at least 90% of sprinklers works at any given point of time with in next one month time. The present status of sprinkling system of MDSS last various areas is enclosed at Annexure-1

53. In respect of Ambient Air Quality monitoring at three locations viz., St. John Parish School, Dock Labour Board Canteen and North West Cabin R & D Yard, a report has been submitted by the Principal Investigator, Visakhapatnam Port Trust Project & Professor in Environmental Sciences, Andhra University to the Chief Engineer of the Port Trust dated 14.6.2016 showing gradual development towards modernization/upgradation/strengthening of the berths and cargo handling operations in and out of the outer and inner harbour of the port which is as follows:

Station	Date	Shift	PM2.5	PM10	Wind Speed/ direction	Remarks
SJP	11.05.2016	I	63	147	8 S → N	Dust is rising from south side, Roads of Container terminal, No sprinkling hence roads are dry. Periodical sweeping of roads in front road of the building. Dust is rising from roads of Container terminal No sprinkling is done. Road dust from fishing harbour road due to vehicular movement
		II	48	75	6 S W → NE	
		III	50	89	3.7 SE → NE	
		AVG	53	103	5.9 SW → NE	
DLB	12.05.2016	I	56	129	3.4 W → E	S6 conveyor is under operation Lorry movement is noticed on S6 road. TM office road and MMDC road noticed. Dust emissions due to the movement of vehicles noticed. Dust emissions due to handling of coal at R2 area was noticed. Dust emissions from the coal stacks of East yard No sprinkling is done.
		II	47	94	4.2 S E → NW	
		III	39	81	1.5 S E → NW	
		AVG	47	101	3.0 SE → NW	
R & D Yard	13.05.2016	I	145	5.4	E → W	Movement of coal loaded wagons without cover, empty wagons, oil tankers and diesel engines on the track. In 1.17 sprinkling done, adjacent roads are dry. Dust rising from the west side roads due to vehicular movement. Dust emissions from all the surrounding roads due to the movement of
		II	31	92	7.2 SW → NE	
		III	20	65	3.6 SE → NW	

		AVG	35	100	5.4 SE →NW	vehicles. No sprinkling. No sprinkling even after informing sprinkling office at 3.15 PM
SJP	14.05.2016	I	57	128	6.9 S →N	Dust is rising from south side, Roads of Container terminal. No sprinkling hence roads are dry. Periodical sweeping of roads in front road of the building. Waste material burning on road left side of the building. Dust is rising from Roads of Container terminal. No sprinkling is done. Road dust from fishing harbour road due to vehicular movement. Sprinkling done at 8.30 P.M.
		II	48	109	8.3 S →N	
		III	38	86	2.5 SE →NW	
		AVG	48	107	5.1 S →N	
DLB	15.05.2016	I	42	129	3.3 S →N	Dust rising from the west side roads due to vehicular movement. Dust emissions from all the surrounding roads are observed due to the movement of vehicles
		II	27	85	2.7 SE →NW	
		III	21	91	2.1 SE →NW	
		AVG	30	102	2.7 SE →NW	
R&D	16.5.2016	I	56	149	6.8 SE →NW	Dust is rising from L-15 road. No sprinkling hence roads are dry. Wagons and Lorry movements are there. Southerly winds are blowing with considerable speed causing air borne dust.
		II	42	89	5.6 SE →NW	
		III	20	62	1.2 S →N	
		AVG	40	100	4.5 SW →NE	

54. In response to that the Port Trust submitted a statement showing the planting and development of various trees as green area in and around the port. The Administrative Staff College of India, Hyderabad which has prepared an Action Plan for achieving Continuous Environmental Improvement, has taken note of one of the key environmental aspects viz., fugitive emissions management due to handling of dusty cargo such as coal, iron ore etc. It is stated that to address the issue of dust emission due to multiple handling of cargo the Port Trust has taken up mechanization of cargo handling wherein the cargo instead of unloading on the berth, will be unloaded from the ship into a hopper and transported to the stockyard through conveyor system. To minimise the dust emission at the transfer point and at stockyards, effective water sprinkling system by providing fog system/sprinklers is needed. While mentioning about the mechanization of projects it is stated that mechanization of coal handling facilities at

general cargo berth in outer harbour on PPP basis by M/s. Vedanta commissioned operations during April, 2013 for which 'consent' has been granted by the Board on 4.12.2014 which is valid upto 31.7.2017. Further, development of EQ1 berth for handling steam coal with fully mechanized mean in the inner harbour on PPP made by M/s. Adani was commissioned during September, 2014 for which the Board has given extension. Again for the development of WQ – 6 berth in inner harbour for handling dry bulk cargo on DBFOT basis by M/s. West Quay Multi Port Pvt. Ltd., was commissioned during April, 2015 for which 'consent' has been given both under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 by the Board. That apart, M/s. Vizag Sea Port Pvt. Ltd., is operating at the EQ 8 and EQ 9 berths and obtained 'consent' from the Board. In addition to that other mechanization projects like development of EQ1A berth for handling steam coal and thermal coal with fully mechanized means in the inner harbour on PPP mode by M/s. SEW, mechanization of EQ7 berth for handling fertilizers in the inner harbour on PPP mode by M/s. ABG Logistics and mechanisation of iron ore handling facilities in the inner harbour and upgradation of iron ore handling facilities at OHC by M/s. ESSAR to be completed in March, 2016, March, 2018 and March, 2018, respectively. It is also stated that in respect of the environmental measures taken by the Port, the very first step taken in 2002 was to control and manage the dust generated during coal handling by MDSS to minimise fugitive dust emissions. Further, sprinkling of treated water from STP through tankers fitted with pump/sprinkler for wetting the roads and wetting the cargo stored in the stockyards are provided under MDSS. In addition to that dust barriers were constructed at R11 area in the North at a height of 7.5 meters for a length of 500 meters and another dust barrier of 11.5 meter height for a length of 1,000 meters was constructed on the Eastern and Northern side of the East Yard. 90% of the coal is being evacuated by rail avoiding road movement and to minimise dust emissions. Comprehensive environment management system to remove floating matter from Geddas, desilting of drains, manual sweeping of roads was taken up in July, 2015 and is in progress. The Port, in consultation with the port users, has taken efforts to cover the dusty cargo with tarpaulin to reduce fugitive emission. In addition to that, green belt

area has been increased apart from construction of STP with a capacity of 10 MLD for treating the city sewage before entering into sea.

55. In addition to that the action plan for achieving continuous improvement has been submitted for fugitive emission management, identified Environmental Management Plan (EMP) under three categories viz., Short Term Plans (during 2015 – 2016) Medium Term Plans (during 2015 – 2017) Long Term Plans (during 2015 – 2018) which are elaborated as follows:

#### Short Term Plans (During 2015 -16)

<b>EMP1</b>
<b>Identified EMP</b> In order to reduce fugitive dust, agents to cover the coal stack with tarpaulins as per the discussion had between VPT and users. However, whenever the agents are not covering the stacks as mentioned above, Visakhapatnam port is taking up covering of the stacks, for which an agency is in place for supply of tarpaulins and manpower. VPT estimated cost of Rs.0.85 Crores for the implementation of the EMP.
<b>Time Frame</b> Targeted for the completion by October, 2015.
<b>EMP 2</b>
<b>Identified EMP</b> Supply and operation of Truck Mounted Fog Canons to be deployed while loading /unloading at a cost of Rs.1.13 Crores.
<b>Time Frame</b> Release of work order by October, 2015 Targetted for procurement by end of December,2015
<b>EMP3</b>
<b>Identified EMP</b> Construction and operation of Truck Tyre Cleaning System at “B Ramp” i.e. at the interface of port and city roads, at a cost of Rs.0.81 Crores for which work order issued on 14.09.2015 and work is in progress.
<b>Time Frame</b> Targetted to be completed by January, 2016.
<b>EMP4</b>
<b>Identified EMP</b> The planning for reorganisation of the stack yards so that the dust generating stacks such as coal is to be shifted to the inner side of the port, as per the feasibility and non-dusty cargos at the periphery in a phased manner.
<b>Time Frame</b> Initially shifting of cargo to designated stacks is targeted to be completed by December, 2015.
<b>EMP5</b>
<b>Identified EMP</b>

Repairs/ modifications to existing sprinkling systems at S4 and WOB areas. Work in progress and project cost is Rs.1.60 crores.
<b>Time Frame</b>
Targeted to be completed by end of December, 2015.

<b>EMP6</b>
<b>Identified EMP</b>
Supply, operation & maintenance of Continuous online ambient air quality monitoring (CAAQM) stations at three identified areas of Port of Visakhapatnam for a period of 5 years at a cost of Rs.2.71 Crores..
<b>Time Frame</b>
Release of work order by October, 2015.

<b>EMP7</b>
<b>Identified EMP</b>
Comprehensive Environment Management System for housekeeping and controlling fugitive emissions. Work order issued July, 2015. Project cost is Rs.5.94 Crores for a period of two years.
<b>Time Frame</b>
On going.

#### Medium Term Plans (During 2015-17)

<b>EMP1</b>
<b>Identified EMP</b>
VPT finalised DUST BARRIER of 7.50 meters height and 1.70 KM long; from the Sea Horse Junction point to Convent Junction at the city interface. Work order released dated 13.05.2015. Project cost is Rs.10.27 Crores.
<b>Time Frame</b>
Work under progress. Targeted for completion by May, 2016.

<b>EMP2</b>
<b>Identified EMP</b>
Sweeping of roads within the Port by mechanical sweeping machine. Estimated cost is Rs.2.81 crores.
<b>Time Frame</b>
Tenders have been floated. VPT to work out activity chart with time frame for completion.

<b>EMP3</b>
<b>Identified EMP</b>
Up-gradation and strengthening of BT and CC blocks for Operational Roads including drains and Berms (East Zone) at a cost of Rs.16.31 crores.
<b>Time Frame</b>
Tenders have been floated. VPT to work out activity chart with time frame for

completion.
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**EMP4****Identified EMP**

Strengthening and up-gradation of BT and CC Blocks for roads including drains and berms (Convent Junction to PCR Junction) at a cost of Rs.18.32 Crores.

**Time Frame**

Tenders have been floated. VPT to work out activity chart with time frame for completion.

**EMP5****Identified EMP**

Refurbishment of STP to handle 10 MLD with enhances quality output.

**Time Frame**

Completion of the initial assessment study by October,2015.

**Long Term Plans (During 2015-18)**

- A. **Re-organisation of stackyards duly providing Environmental safeguards viz.,** Service road, raised kerb wall around stacks, sprinkling system, plantation around stacks etc.
- B. Dismantling and reconstruction of West Quay berths i.e. from part of **WQ-2 to WQ-5** for handling 14.50 m draft vessels with fully **mechanised handling facilities** for handling bulk cargos.
- C. Dismantling and re-construction of **part of EQ5 and EQ6** berths for handling 14.50 m draft vessels with fully **mechanized handling facilities** for handling bulk cargos. Mechanisation of cargo handling at EQ6 berth.
- D. Development of multipurpose terminal by replacement of existing **EQ2 to EQ5 berths** to cater to 14.50 m draft vessels with fully **mechanized handling facilities** for handling bulk cargos in inner harbour of Visakhapatnam Port.
- E. Development of West Quay North (**WQ-7 & WQ-8**) berth with **mechanised handling facilities** for handling bulk cargos.
- F. VPT to work out activity chart with time frame for the above Long Term Action Plans.

56. The monthly average value of SO<sub>2</sub>, NO<sub>x</sub>, and RSPM on three locations of Administrative Office Building, St. Alyosius School and St. John's Parish School from April, 2016 to October, 2016 furnished by the Public Information Officer under the Right to Information Act by the Visakhapatnam Regional Office of the Board, are as follows:

SO<sub>2</sub>

S. No	Station Name	April 2016	May 2016	June 2016	July 2016	Aug. 2016	Sep. 2016	Oct. 2016	Avg.
1	Administrative Office Building	10.0	8	8	9	9	9	9	9
2	St. Alyosius school	9.0	9	7	8	8	7	8	8
3	St. John's Parish School	9.0	8	8	9	9	8	9	9

NO<sub>x</sub>

S. No	Station Name	April 2016	May 2016	June 2016	July 2016	Aug. 2016	Sep. 2016	Oct. 2016	Avg.
1	Administrative Office Building	22.0	20	16	20	21	19	19	20
2	St. Alyosius school	20.0	21	16	17	18	17	20	18
3	St. John's Parish School	19.0	19	17	20	20	17	19	19

## RSPM

S. No	Station Name	April 2016	May 2016	June 2016	July 2016	Aug. 2016	Sep. 2016	Oct. 2016	Avg.
1	Administrative Office Building	111.0	79	76	80	82	83	100	87
2	St. Alyosius school	85.0	81	77	78	75	76	88	80
3	St. John's Parish School	109.0	86	83	78	91	81	81	87

57. It shows that even though there is declining trend in respect of the values and the parameters, still the parameters are above the permissible limit and therefore further directions are needed for the purpose of improving the standard. Controlling fugitive dust emission and making it as cleanly as possible, while handling coal cargo at sea ports, has become increasingly important and it is a challenging task for the port authorities considering that there is manifold increase in import of coal since there is a huge demand for coal to feed various coal based industries, particularly the thermal power plants. At the same time, the population of Port cities is increasing by leaps and bounds and urbanisation is going on at break neck speed. Added to that, the increase in air pollution due to various other anthropogenic activities such as vehicular emissions, rapid industrialisation, construction activities etc. is aggravating the situation leading to increased environmental concerns, safety risks, and maintenance costs. Suppressing and controlling the amount of dust in the air is important in many ways particularly to prevent airborne pollution and reducing respiratory health hazards to the people.

58. Coal is generally transported in loose lumps of varying sizes. Sometimes, the coal is pre-screened to a certain size and it also includes dust. The record placed before us indicates that the total volume of coal permitted to handle by the respondent No. 3 Port Trust is almost 30 million tonnes per annum which is quite high and thus offloading the coal from the cargo ships may go upto thousands of tonnes per hour. Then when the coal is offloaded and stockpiled it gets dropped from a height and therefore the dust particles easily get separated and quickly spread by crosswinds. Every time a transfer occurs, lumps of coal break into smaller sizes and thus more dust will be produced at this point also. Even once the coal is stockpiled, it can still be a problem. Though water is sprinkled to keep it wet, movement of wind across the stockpile can evaporate the moisture and dust will be lifted and spread in the air. Vehicles driving over crushed coal will also raise dust. All of these sources of dust require special consideration in the design of the coal handling system and have different solutions as even minute percentages of dust at these levels become a problem. Finding ways to effectively control the dust emissions with simple, proven, economic and environmentally friendly solutions is the need of the hour.

59. After perusing the material papers and after hearing the arguments on both sides we agree that clearly, there is no single point answer to solve all of these problems. No doubt the respondent Port Trust is adopting various techniques that are suggested by the State Pollution Control Board and experts in the field, but the question is whether the efforts being made by the respondent Port Trust, are enough to control the dust emission and bring down air pollution levels to permissible limits. Though various anthropogenic activities are responsible for increase in air pollution, the respondent Port, being the main point source of dust emission while handling the coal cargo, shall bear major responsibility for increase in the air pollution, particularly in its vicinity and it shall continue to strive to give top most priority and utmost attention to this aspect in the interest of environment, particularly in the interest of health of the people residing in the area. Even the latest status report filed by the Board dated 6-5-2016 indicates the RSPM are beyond the permitted levels at some of the monitoring stations. However, one cannot deny the fact that the Port is implementing the short term, medium and long term directives issued by APPCB and also getting the various environmental activities implemented by the Port, which are reviewed by the Expert Monitoring Committee which is inspecting the various operational areas of the Port and advising improvements and giving suggestions from time to time. Presently the measures taken by the Port to mitigate dust pollution include:

- Monitoring of Ambient Air Quality at six locations in and around the Port area by Port and Andhra University Development Centre and APPCB.
- Continuous development and maintenance of thick Green Belt in and around Port area.
- Modernisation and mechanisation of Cargo Handling Operations in phases.
- Reorganising stack yards

- Insulating coal stack yards by providing high rise walls along with dust suppression system

The Port should stick on to the time schedule prescribed for implementing the short term, medium term and long term measures stated above and scrupulously follow the directions.

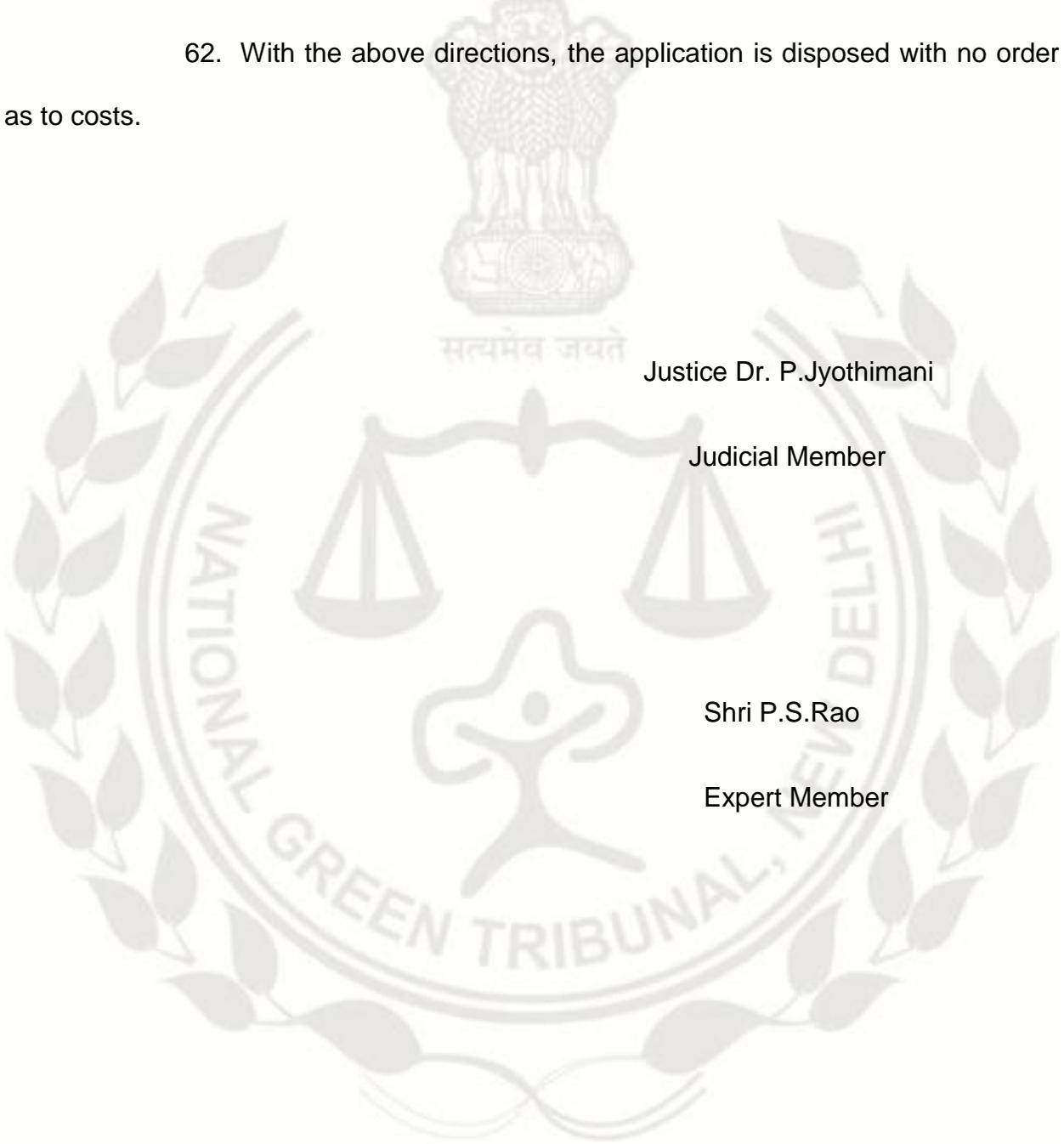
60. Though the main prayer of the applicant is to issue an order of injunction restraining the 3<sup>rd</sup> respondent from operating any coal cargo, whether by way of import or export, out of its unit at Port area, presently we are not inclined to grant such relief considering the fact that the Port is already implementing various pollution control measures and its activities are regularly monitored by the Board and also keeping in view the concept of 'Sustainable Development' as coal is the major source of fuel, particularly for the thermal power plants. However, we direct the Port Trust to scrupulously implement the Environment Management Plan with short, medium and long term measures and submit quarterly progress reports by filing in the Registry with a copy to the applicant starting with the quarter ending with 30-6-2017 as per the following schedule which will be placed before the Tribunal for perusal and for further orders, if necessary.

Quarter ending with	Due date of submission of report
30-6-2017	15-7-2017
30-9-2017	15-10-2017
31-12-2017	15-1-2018
31-3-2018	15-4-2018
30-6-2018	15-7-2018
30-9-2018	15-10-2018
31-12-2018	15-1-2019

61. The State Pollution Control Board shall also submit the quarterly AAQ monitoring reports along with inspection reports by filing in the Registry, starting with the quarter ending with 30-6-2017 as per the aforesaid schedule which will also be placed before the Tribunal for perusal and further orders, if any, required. We make it clear that if we find any slackness in implementing the plan and

neglecting the pollution control measures and if there is no perceptible reduction of dust emission and improvement of the air quality, we will be constrained to invoke "Polluter Pays" principle and even restraining the respondent Port Trust from handling coal cargo.

62. With the above directions, the application is disposed with no order as to costs.



Justice Dr. P.Jyothimani

Judicial Member

Shri P.S.Rao

Expert Member

# NGT