

**BEFORE THE NATIONAL GREEN TRIBUNAL
(WESTERN ZONE) BENCH, PUNE
APPLICATION No. 40/2014(WZ)**

CORAM:

**Hon'ble Mr. Justice V.R. Kingaonkar
(Judicial Member)
Hon'ble Dr. Ajay A. Deshpande
(Expert Member)**

B E T W E E N:

- 1. Mr. Charudatt Pandurang Koli**
Age 50 years, Occn : Service,
R/o. Pandurang House, Near Khari
Bawadi, Mahul Village, R.C. Marg,
Chembur, Mumbai 400 074
- 2. Mr. Dayaram Harishchandra Mahulkar,**
Age 49 Yrs. Occn : Business,
R/o. Chereshwar Co-operative Housing
Society Ltd., Near BMC School,
Flat No.504, 5th Floor, Mahul Village,
Mumbai 400 074.
- 3. Mr. Mohan Laxman Mhatre,**
Age 42 Yrs. Occn: Fishing,
R/o. Katkar House, Ambapada Village,
Mahul Road, Chembur,
Mumbai 400 074.
- 4. Mr. Dattaram Laxman Koli,**
Age 59 yrs., Occn : Service,
R/o. Chereshwar Co-operative Housing
Society Ltd., Near BMC School,
Flat No.201, 2nd Floor, Mahul Village
Chembur, Mumbai 400 074.

....Appellants

A N D

- 1. M/s. Sea Lord Containers Ltd.,**
Having its Chemical Storage plant at
Ambapada, Mahul Village,
Near BPCL Refinery, Main Gate,
Chembur, Mumbai – 74.

- 2. Aegis Logistics Ltd.,**
Having its office at 403, Peninsula
Chambers, Peninsula Corporate Park,
G.K. Marg, Lower Parel (W),
Mumbai 400 013.
- 3. State of Maharashtra,**
Through : Its Environment Department,
Having office at 15th Floor,
New Administrative Building,
Madam Cama Road, Mantralaya,
Mumbai 400 013.
- 4. Maharashtra Pollution Control Board,**
Having Regional Office at Kalpataru
Point, 3rd and 4th floor,
Opp. Cine Planet, Sion Circle,
Mumbai 400 022.
- 5. Maharashtra Pollution Control Board,**
Having Sub-Regional Office at Raikar
Chambers, 2nd floor, Nr. Jain Mandir,
Govandi Gaon Road, Govandi
Mumbai 400 088.
- 6. The Commissioner,**
Municipal Corporation of Greater Mumbai
A statutory Body incorporated under
Mumbai Municipal Corpn. Act,
Head office at Mahapalika Marg, Fort,
Mumbai 400 001.
- 7. Board of Trustees of Port of Mumbai,**
Incorporated by Major Port Trust Act 1963,
Having office at 3rd Floor, Vijay Deep,
S.V.Marg, Ballard Estate,
Mumbai 400 001.
- 8. The Collector, Mumbai Suburban,**
10th Floor, Administrative Building,
Opp. Chetna College, Bandra East,
Mumbai 400 051.
- 9. Bharat Petroleum Corporation Ltd.**
Mahul Village, Chembur,
Mumbai- 400 074.
- 10. Hindusthan Petroleum Corporation Ltd.,**
Mahul Road, Chembur,
Mumbai 400 074.

11. Tata Power Limited,
Mahul Road, Gavanpada Village,
Chembur, Mumbai 400 074.
12. Natural Oil Blending Limited,
Mahul Road, Gavanpada Village,
Chembur, Mumbai 400 074.
13. Chemical Terminal Trombay Limited,
Mahul Road, Gavanpada Village,
Pir Pau, Chembur, Mumbai 400 074.
14. Rashtriya Chemical Fertilizer Limited,
Mahul Road, Washigaon,
Chembur, Mumbai 400 074.

...Respondents

Counsel for Appellant :

Mr. Asim Sarode, W/Mr. Vikas Shinde,
Mr. Gajendra Waity,

Counsel for Respondent No.1 & 2:

Mr. Gaurav Kothari, w/o. Mr. Gaurav Joshi, Sr. Advs.
Mr. Nikhil Sakhardande, Ms. Swagata Naik,

Counsel for Respondent No.3 to 5:

Mr. D.M. Gupte, Mrs. Supriya Dangare,
Mr. Saurabh Kulkarni,

Counsel for Respondent No.6:

Mr. U.H. Deshpande, Mr. K.N. Gaikwad, i/b.
Mr. P.A. Purandare,

Counsel for Respondent No.7 :

Mr. P.M. Deshmukh, holding for Mr. M.V. Kini, & Co.

Counsel for Respondent No.12 & 13 :

Mr. R.B. Mahabal, Adv.

DATE : February 3rd, 2015

ORDER

1. The Applicants are resident of Ambapada and Mahul villages in Mumbai and have filed this Application raising the

substantial issue of Volatile Organics Emissions causing health impacts on the surrounding population allegedly caused by Respondent Nos.1 and 2.

2. Respondent Nos. 3 to 8 are the Government Agencies who are mandated to regulate the activities of Respondent Nos.1 and 2. The Respondent Nos.1 and 2 are the Companies registered under the Companies Act, 1956 and engaged in the business of Logistic services to the oil, gas and chemical industry. The Respondent No.1 has a terminal located at Ambapada and Mahul villages which is in-operation since 2007. This terminal comprises of five (5) units of 10,000 KL and five (5) units of 5,000 KL capacity chemical storage tanks. All the storage tanks located at the terminal have close roof and five (5) of these tanks are fitted with internal floating roofs.

3. The chemical storage facility (terminal) of Respondent No.1 is a sea-shore based tank farm. Various types of chemicals coming from the sea-way are unloaded on the new *Pir Pau Jetty* along the Mahul village and through interconnected pipes; it is stored in ten (10) chemical storage tanks at the terminal of Respondent No.1. The MPCB has granted consent to establish to Respondent No.1 on 9-7-1997 for storing 38 types of hazardous and highly inflammable chemicals with a capacity of 1,15,000 KL per month. The Applicants submit that around 75,000 KL of hazardous chemical is being stored at any given time in 10 tanks of Respondent No.1 as per the consent to operate granted by

MPCB to Respondent No.1 dated 11-10-2012. The Applicants claim that the MPCB has renewed the permissions to Respondent-1 unit without considering the environmental impacts and consideration.

4. The Applicants have raised concerns over the air pollution caused due to emissions of Volatile Organic Compounds (VOC) due to loading, storage and unloading of the chemicals by the Respondent No.1. The Applicants submit that the pressure and vacuum valve at the top of each storage tank is a major source of VOCs emissions, though it is a necessary component from the safety aspect. The Applicants submit that in the absence of proper air pollution control system, the emissions from these valves, during loading, unloading and cleaning operations, give rise to substantial VOC emissions. Secondly, the pigging operation which is practiced for cleaning the inner sides of the chemical conveyance pipe line, through internal brushing action, conducted before every change of chemical which is stored in the storage tanks, also cause excessive emissions of remaining chemicals in the pipe line into the environment. Generally, high pressure nitrogen is used for this operation and such release of nitrogen along with remaining chemicals results into excessive VOC emissions.

5. Applicants further state that during the change of chemical which can be stored in a particular storage tank, the cleaning and purging operations result into Water and Air

Pollution. The pigging and cleaning activities are very common as these ten (10) tanks are used for storage of 38 chemicals which require frequent change of chemicals and accordingly, the pigging and cleaning operations are carried out frequently at the terminal. The Applicants also claim that the stored chemicals are distributed to user agencies by dispensing the chemicals through twelve (12) filling stations for filling the tankers. Considering the capacity of chemical handling, hundreds of tankers are daily loaded at these filling stations. The Applicants submit that such filling operations also result in excessive VOC emissions.

6. Applicants submit that they have made regular complaints to the authorities and the KEM hospital conducted Respiratory Morbidity Survey and their report dated 18-07-2013 indicates that Respiratory Morbidity is significant in Mahul and Ambapada village. The majority population is suffering from various health problems i.e. eye irritation, breathlessness, cough, chocking sensation in chest, frequent sneezing; and more than 80 per cent people are bothered by strong chemical smell around the area of residents. The report further record that the complaints related to respiratory morbidity in the stated population are highly significant and environmental pollution containment measures are required to be taken up urgently. The Applicants further submit that based on this report, MCGM has listed the licence granted to Respondent No.1 in 'not to renew' list and accordingly,

informed the other authorities. The Applicants claim that though MPCB conducted inspection after the complaints, it did not inspect any of the 10 storage tanks; neither had it inspected the actual functioning and operation of the chemical storage and handling process to understand and assess the VOC emissions. It only recorded that 10 (ten) filling stations needs to be provided with the scrubbers. The M.P.C.B. accordingly, gave a show cause notice on 24-12-2013 and further the S.D.O. also gave directions to the industry on 17-1-2014 to install the scrubbers in two (2) months. In spite of such directions, no initiatives have been taken by the Respondent No.1 to control VOC emissions. The Applicants submit that the VOC are generally highly carcinogenic and cause severe health impacts. As distance between population of Ambapada and Respondent No.1 unit is only about 10m, the VOC emissions, though mainly of fugitive nature and occur randomly, such emissions are causing health impacts on the surrounding population. The Applicants also claim that there is no buffer zone between the residential area and the Respondent No.1's unit and therefore, in case of any fire or hazardous and excessive emissions, there is huge and grave danger to the large population staying in surrounding and therefore, it is necessary that the Respondents-Government Authorities should take suitable action in view of the above fact position. The Applicants prayed for appropriate study and inspection of the chemical storage tank and entire functioning

of storage plant of Respondent No.1 besides provision of the necessary Pollution Control Systems and in case of non-compliance closure of the storage plant.

7. The Respondent Nos.3 and 4-MPCB initially filed an Affidavit on 8th May 2014 and submitted that the Board was in discussion with the subject experts in this field for in depth study by constituting a Committee of Officers from PESO Dish, MPCB and Technical Expert in the field and based on the findings of the Committee necessary measures to be adopted by Respondent No.1 for control of VOCs arising from the tank forms area will be imposed on Respondent No.1. However, during the proceedings on May 28th, 2014, statement was made that MPCB requires time to place on record the report of Committee which is constituted to take survey of all the adjoining industries and locate the sources of pollution.

8. The MPCB submitted final report of the said Committee vide Affidavit dated 21st May 2014. The Affidavit deals with all the major industries in Mahul, Chambur area. Considering the findings of the report, the other industry-Respondents were also added as party in the Application, though the Applicants have challenged the air pollution caused due to activities of Respondent-1 only in their Application.

9. As far as Respondent No.1 is concerned, the report indicates that the first consent to establish was granted to the industry on 9th July 1997 for storage and distribution

activities of chemicals with capacity of 1,15,000 KL per month and 36 chemicals were listed in the consent. The Respondent No.1 also received environmental clearance from the environment department on 22-1-1997. The report also mentions that the 'isolated storage' was not covered under EIA Notification, 1994. The MPCB granted first consent to operate to the said unit on 25-5-2007 which was valid up to 31-5-2012 for storage of chemical with maximum capacity of 75,000 KL per month. The renewal of consent of the unit was issued on 11-10-2012 which was valid up to 31-5-2017, for storage and handling of chemicals to the maximum capacity of 75,000 KL at a time, in total ten (10) tanks. MCZMA has informed vide letter dated 5-9-2012 that the site of Respondent No.1 is located outside CRZ area and hence CRZ clearance is not applicable to the project. The report makes a statement that some of the tanks were observed to be constructed after September 2006, the project proponent should get necessary clarification from the Competent Regulatory Authority under EIA Notification, 2006. The report also suggests various corrections required in MPCB consent to operate. However, it is noticed that MPCB affidavits have not dealt with the specific grounds of the Application, particularly emissions of the VOCs from the Respondent No.1's industrial activities like pigging operations, tank cleaning operations, release through pressure valves and dispensers etc. though such affidavit was filed on 8-5-2014. The Applicants have elaborately raised such issues

and claimed that the MPCB has not conducted mandatory inspection and monitoring for assessment of air emissions and liquid emissions from these activities of the Respondent No.1.

10. The Respondent No.1 has filed a detailed reply Affidavit on 26-5-2014 and has resisted the Application. The Respondent No.1 gave elaborate description of their manufacturing activities and submits that all their activities like pigging, tank cleaning; and emissions from the pressure valves and dispensers are properly managed by Respondent-1 Industry by provision of necessary air pollution and water pollution control arrangements. The Respondent No.1 also informs that they have installed scrubbers at the dispensers for control of VOCs as per the directions of MPCB. The Respondent further claims that their chemical storage and handling is miniscule, as compared to chemical storage and handling at the nearby industries like RCF, BPCL and HPCL. The Respondents also filed further Affidavit and claimed that the MPCB Expert Committee report clearly indicates that their activities are not contributing significantly to the VOC emissions. They claimed that apart from making some minor suggestions and recommendations, MPCB has not found any wrong in operation of the facilities of Respondent No.1 and its processes. The Respondent No.1 also submits that they are ready to implement any modifications/suggestions as recommended by MPCB if such modifications/suggestions are directed to all similar units in the state.

11. We have carefully considered the Application and the response of MPCB and Respondent No.1. We have noted that the Applicants have filed the present Application against the pollution by excessive VOC emissions caused due to chemical storage and handling activity of Respondent No.1. The reference to Respondent No.2 in the Application is in relation to the ownership of the Respondent No.1-unit, though Respondent No.2 also has a separate chemical storage tank facility, away from Respondent No.1 unit. In other words, the Applicants are aggrieved by the foul smell and air emissions and associated health effects caused due to alleged VOC emissions from Respondent No.1 unit. The MPCB has identified that the Mahul- Chembur area accommodate several other units which are contributing to the ambient air quality deterioration. True, various industrial sources contribute to deterioration of ambient air quality but in the instant Application, specific allegations have been made regarding the VOC emissions and the smell nuisance due to industrial operations of chemical storage and handling of Respondent No.1. Though Respondent No.1 has dealt with these issues in its Affidavit, we could not locate any information or submissions regarding specific sources of VOC emissions from Respondent no.1's activities in MPCB replies though it was so assured in affidavit dated 8-5-2014. It is observed from the location map on the record that the Respondent No.1-unit is in much nearby to the residential area of Applicants, than any of

the other industry respondents. The multiple localised sources of VOC emissions could be more important when local ambient air quality impacts are required to be assessed. It is true that on a larger scale, the Mahul- Chembur area has large industries which are also required to be assessed for their contribution to the air quality and therefore, in any air quality management normally, various scales of such air quality management like local and Regional scales are adopted for effective assessment and intervention. Localised sources can be predominant in local air quality. Their concentrations may be low in comparison to the large scale emissions which are away from the receptor location, though they may be in the said Region. Considering this air quality management scenario, the Tribunal thinks it necessary and prudent to first deal with the issues of environmental compliance of Respondent No.1, as far as VOC emissions are considered.

12. The another aspect which has been brought out by MPCB is the applicability of EIA Notification, 2006 in consent management, in view of construction of new tanks after 2006; and change of approved capacity chemical handling from maximum 75,000 KL per month to 75,000 KL at any given time.

13. KEM Hospital's interim report is already on record. Further, KEM vide their letter dated 20/12/2014 suggested the source apportionment studies. However, KEM was directed to make a comparative study of health hazards vis-a-vis

observed air quality data and particular nature of stack and process emission and industrial emissions, in order to locate contributory sources, in view of their earlier report and its findings. It is seen that no such study has been initiated by KEM so far, though their earlier report indicates increased health effects in the area in question. Under these circumstances, the Tribunal is of the considered opinion that the issues related to Respondent No.1-Unit needs to be properly dealt with in the first instance and therefore, considering the submissions of MPCB, we think it appropriate to appoint Institute of Chemical Technology, Matunga, to submit a report on the following issues :

- 1.** The nature and composition of the VOC emissions from activities and unit processes at Respondent No.1 terminal including the pigging operations, pressure valves mounted out on storage tanks and dispenser units etc.
- 2.** The nature of chemicals stored at Respondent No.1-unit and health impacts of the potential emissions on human health.
- 3.** Adequacy and efficacy of the Pollution Control System at the Respondent No.1-Unit in terms of the operational standards adopted by Respondent No.1-unit for its processes and activities.
- 4.** The potential impacts and change in the air and water emissions resulting from change in capacity from maximum 75,000 KL per month to

75,000 KL at a time and its environmental implications.

14. We, therefore, direct the Director ICT, Matunga-Mumbai to nominate Sr. Faculty Member/s to submit a Report above, within six (6) weeks. The expenditure for such Report will have to be initially borne by MPCB, subject to further orders from the Tribunal and MPCB shall provide all the necessary assistance, including copy of the Application, and response of MPCB and Respondent No.1 and report of Committee to direct ICT, within two (2) weeks. Respondent No.1 shall provide necessary assistance to the designated faculty members of ICT and their authorised team members for conducting the studies. The matter will be heard after receipt of such report from the ICT. The cost of study will be determined and liability will be fixed in the final order.

15. The Director, KEM hospital is directed to expedite the study as ordered vide directions dated 23.9.2014 and submit the report in six (6) weeks, without fail.

Stand over to 30th March, 2015.

....., **JM**
(Justice V. R. Kingaonkar)

....., **EM**
(Dr. Ajay. A. Deshpande)

Date : February 3rd, 2015.