Gmail **Rita Chandrasekar <ritachandrasekar@gmail.com>**

Filing Reply Affidavit in O.A.70 of 2020 on behalf of 9th Respondent - Madras Fertilizers Limited

1 message

Rita Chandrasekar <ritachandrasekar@gmail.com> 20 November 2020 at 12:21
To: indsec@tn.gov.in, hfsec@tn.gov.in, ccb.cpcb@nic.in, tnpcb-chn@gov.in, collrtlr@nic.in, secy-moef@nic.in, cs@tn.gov.in, forsec@tn.gov.in, TNPC Board <tnpcblaw@gmail.com>, registrar-ngtsz@gov.in, judicial-ngtsz@gov.in

Sir/Madam,

We are filing a Reply Affidavit in O.A.70 of 2020 on behalf of 9th Respondent Madras Fertilizers Limited.
The Next date of hearing is 25.11.2020.

Please acknowledge the same.

Regards
Rita Chandrasekar
Advocate
9841346222

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2429K

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No.70 of 2020 [SZ]

IN THE MATTER OF

Tribunal on its own SUO MOTO based on
the News item in The New Indian Express,
Chennai edition dated 16.05.2020,
"Ammonia leak from Madras Fertilizers Limited
Worries residents, in Chennai's Manali ...Applicant

-Vs-

Union of India, rep. by its Environment and
Forests and Climate Change, New Delhi and
others ...Respondents

REPLY AFFIDAVIT FILED ON BEHALF OF THE 9TH RESPONDENT

I, Dr Girish Kumar, son of Late Shri Chandrika Prasad Singh, Hindu, aged about 47 years, having my place of work at Madras Fertilizers Ltd., Post Bag No. 2, Manali, Chennai – 600 068, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Company Secretary & Manager – Legal of Madras Fertilizers Ltd., arrayed as 9th Respondent in the Original Application and am well acquainted with the facts of the case.

2. I submit that this Hon'ble Tribunal vide order dated 17.05.2020 suo moto took up on O.A.No.70 of 2020 based on the news item in The New Indian Express, Chennai edition dated 16.05.2020, titled "Ammonia leak from Madras Fertilizers Ltd., worries residents in Chennai's Manali.

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MANAGER
COMPANY SECRETARY & LEGAL
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In that behalf, this Hon'ble Tribunal issued notice to the Ministry of Environment, Forest and Climate Change, including the Company, arrayed as 9th Respondent.

3. I state and submit that Madras Fertilizers Ltd., was established during the December 1966 and commercial production commenced in the year 1971. The Company is a Public Sector Undertaking under the aegis of Department of Fertilizers and Chemicals, Ministry of Chemicals and Fertilizers, Government of India. The Company is engaged in the manufacturing of fertilizers, both Urea and Complex to be sold to the farmers of the nation under subsidized cost. The Fertilizers were mainly supplied to farmers in South India. The annual turnover of the Company is around Rs. 1660 crores with daily working cost of Rs.4.76 crores. It engages 600 permanent direct employees and about 2000 contract workmen through the year around.

4. The Respondent company is one of the largest Fertilizer manufacturing company and engages in the manufacture of Urea, Ammonia and NPK complex fertilizer. The factory is state governed enterprise with Government of India holding 59.50%, Naftiran Intertrade Co. Ltd., Iran holding 25.77% and Public holding 14.73% equitable share capital.

5. The factory plant of the Respondent is located in the Manali industrial complex (MIC) which is one of the largest Refinery, Fertilizer and Petro-chemical complexes in the country and has been listed in the critically polluted industrial clusters in India by the Central Pollution Control Board (CPCB). The comprehensive environmental Pollution Index (CEPI) score for this complex is 76.32. The complex hosts many medium to

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large scale industries of which many belong to highly polluting industries. The land use of manali area is covered with 45% industries, 29% built up, 16% fallow region and 10% vegetation.

6. As the complex hosts many petro chemical industries, the air pollutant in this locality mostly in the form of smoke, particulate matter (PM), hydrocarbons, oxides of sulphur and nitrogen, carbon-monoxide and VOC. The air quality in manali industrial complex is monitored by CPCB and TNPCB using the continuous ambient air quality monitoring station in the nearby at Chinnasekkadu and Periya Thopu.

7. I submit that the products manufactured by the Company come under the ambit of Essential Commodities Act, 1955. I state that despite the lockdown announced by the Central Government and the State Government due to COVID-19 pandemic, the Company was committed to run the plant for production of Fertilizers, its transportation and distribution as per Government of India's directives. The Company is a continuous manufacturing industry throughout the year. The factory is located over a large extent of 329 acres. The copy of the blue print of the factory premises is annexed herewith as **Annexure – I**.

8. I state that on 14.05.2020 at around 1930 hours, there was a stoppage of Urea plant due to bearing failure of the cooling water pump motor. The said bearing was unusually found to be hot. This pump is exclusively used for the Urea plant process cooling purpose. On noticing the defect in the bearing, on the basis of sound technical advice, it was advised to safe shut down the plant and the Maintenance team was called upon to look into the defect in the bearing.

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injection of a condensate and steam on continuous basis has been installed to quench and dilute the concentration of Ammonia which will be in traces if at all discharged during shutdown, used to let out through the vent stack. The officials of the Tamil Nadu Pollution Control Board visit the factory for periodical inspection, check the various precautionary standard operating procedures and on being satisfied, allow the production activities to continue.

17. I submit that as per the proceedings of the Tamil Nadu Pollution Control Board dated 20.05.2020, this Respondent informed that the directives have been complied with. In the letter dated 20.05.2020, the Tamil Nadu Pollution Control Board suggested for installation of 2 Nos. of Ammonia sensors at the rear end of the unit towards the direction of the village from where the oral complaint was received. This Respondent immediately placed orders for installation of 11 Nos. Ammonia sensors at strategic locations in consultation with Tamil Nadu Pollution Control Board and the same have been installed and connectivity to Tamil Nadu Pollution Control Board has been made. A detailed report sent to TNPCB is annexed herewith as **Annexure – III**. The officials of the TNPCB have further advised this Respondent to conduct safety audit as per Schedule 8 from the competent authority notified in schedule 5 as per Rule 10 of the Manufacturing, Storage and Import of Hazardous Chemical Rules, 1989. This Respondent has also been directed to comply with the directions issued vide proceedings dated 12.05.2020. All these have been followed and implemented. I further submit that the officials of the Tamil Nadu Pollution Control Board regularly conduct Air

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Ambient Quality survey from the unit nearby. The Report for the period from 14.05.2020 to 16.05.2020 is annexed herewith as **Annexure – IV** which demonstrates that Air Ambient Quality is well within the permissible limits.

18. It is submitted that the Respondent is bounded by Refinery and Petro chemical industries in the East and densely populated villages in West and South. The factory is connected with Manali High Road in the East and Jawaharlal Nehru road in the West and Ennore port at the distance of 15Kms.

19. This Respondent is taking continuous efforts to monitor the plants and carry out periodical inspection of the valves, gaskets and pipelines of the ammonia and urea plant to avoid any leakage during the operation of the plant.

20. The factory consists of ammonia, urea and NPK production plant in single stream.

21. Utility plant supplies treated water, cooling water, steam, plant air and instrument air.

22. Utility plant consists of 2 boilers (50 Mt/hr), fuel by furnace oil.

23. As per direction of NGT appointed Expert Committee, the Environmental and Water resources Engineering Division, Department of Civil Engineering, IIT Madras, Chennai, India carried out air quality and Hazardous waste management between 26th August – 28th August 2020 and in that report Chapter – 5 (Page No. 47) they have stated that the respondent has complied with the following:

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- Pollutants (including ammonia) monitored for the utility stacks were within the limits prescribed by CPCB.

- Pollutants from urea and NPK stacks were well within the CPCB limits.

- Work place monitoring was carried out to assess the ammonia levels in the work environment. Ammonia concentrations were found well within the limit given by OSHA in all the sampling points.

A copy of Summary of IIT Report and Remarks of Respondent in tabular form is annexed as **Annexure – V.**

24. The respondents submit that in so far as ambient air monitoring is concerned, the ambient air quality is being analysed by the Tamil Nadu Pollution Control Board (TNPCB) and the values are within the limits, copy of the report of TNPCB which is annexed herewith as **Annexure – VI.** On suggestion by TNPCB, the respondents have installed Ammonia Sensors at eleven locations as on 03.09.2020 and connectivity to TNPCB made on 07.09.2020. The values are all within the limits contained. The stationary monitoring for Urea, Demister, Ammonia, HF & PM values and NPK Stack-Ammonia, HF & PM values are being monitored. The Ammonia Boiler Stack samples are being analysed by TNPCB and reports are always within CPCB norms and never exceed the limits, copy of the report of TNPCB which is annexed herewith as **Annexure – VI.** The Boiler is running with RLNG as fuel, effective on

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19.03.2020. New PM analyser was installed in Boiler stack on 01.10.2020, the values are below emission norms, and the connectivity to CPCB will be completed shortly.

The utility boiler stack are analysed by the TNPCB and reports are always within the CPCB norms and never exceed the limits, copy of the report of TNPCB which is annexed herewith as **Annexure – VI**. The Purchase order has been issued for the purchase of PM analyzer for utility stack and the same is expected to be installed during January of 2021.

25. The respondents are enclosing Stack Monitoring Survey results, Ambient air quality Survey-Report Analysis, Summary of Project Report of the assessment of Hazardous Waste management & Air quality management from IIT Madras and Remarks of Respondent in tabular form, TNPCB letter dated 12.05.2020 and 20.05.2020 with compliance status as a part of the Counter Affidavit. This respondent is duty bound to answer any queries of this Hon'ble Tribunal.

26. I state that the Company for its business purpose has availed a sum of Rs.567.81 crores from Government of India and a total of Rs.494.20 crores from various commercial banks for its Working Capital and Letter of credit loans. The Banks have to be repaid about Rs.275.70 crores as on 31.03.2020. The Company is maintaining standard account with the commercial banks.

27. I submit that this Respondent is ready and willing to abide by any conditions that may be imposed by this Hon'ble Tribunal for the

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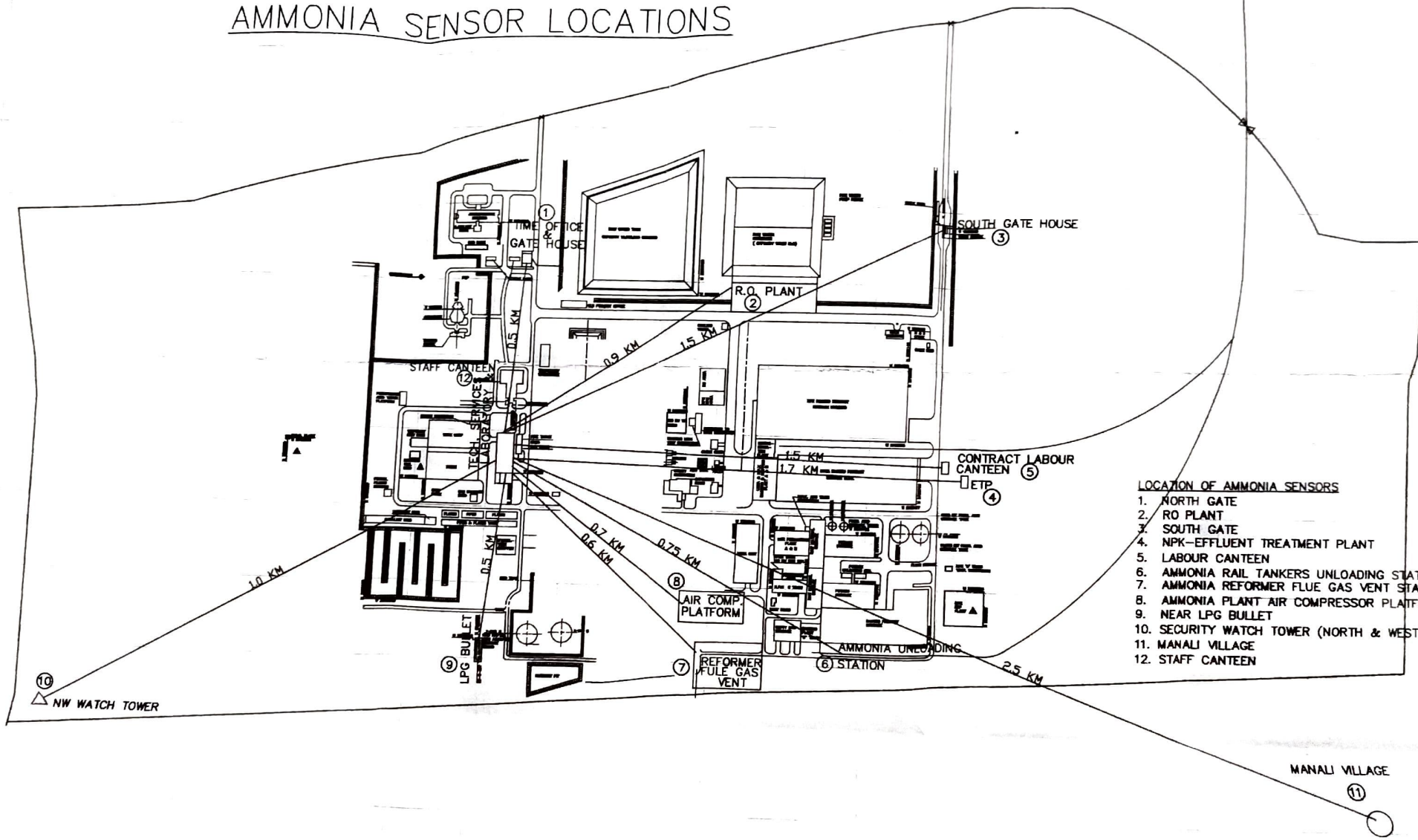
Attachment 1
ANNEXURE - J

AMMONIA SENSOR LOCATIONS



LOCATION OF AMMONIA SENSORS

1. NORTH GATE
2. RO PLANT
3. SOUTH GATE
4. NPK–EFFLUENT TREATMENT PLANT
5. LABOUR CANTEEN
6. AMMONIA RAIL TANKERS UNLOADING STATION
7. AMMONIA REFORMER FLUE GAS VENT STACK
8. AMMONIA PLANT AIR COMPRESSOR PLATFORM
9. NEAR LPG BULLET
10. SECURITY WATCH TOWER (NORTH & WEST CORNER
11. MANALI VILLAGE
12. STAFF CANTEEN

ANNEXURE – II

TAMILNADU POLLUTION CONTROL BOARD

Proceeding No.T1/TNPCB/F.0214 AMB/RL/W&A/2019-1, dated: 12.05.2020

SUB: TNPCB – Industries – M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai District– Certain directions under Section 33(A)of the Water (Prevention and Control of Pollution) act, 1974 as Amended and Section 31A of the Air (Prevention and Control of Pollution) act, 1987 as Amended - Issued – Regarding.

REF:

1. Proceeding No. T6/TNPCB/F-33003/17 CAT/AMB-RL/W&A/RCO/2013, dated 09.10.2013.
2. IR.No : F.0214AMB/RL/JCEE-M/AMB/2020 dated 18/03/2020
3. PROCEEDINGS NO.T1/TNPCB/F.0214AMB/RL/AMB/W&A/2020 DATED: 11/05/2020.

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Whereas, Board vide reference first cited, has renewed the consent issued to the unit of M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai Districtunder Water (Prevention and Control of Pollution)Act and Air (Prevention and Control of Pollution)Act valid up to 31.03.2014.

Whereas, Joint Chief Environmental Engineer (M) /Chennai has inspected the unit on 16.03.2020 and furnished Renewal Inspection Report vide reference second cited and has recommended to issue certain directions to the unit under Section 33(A) of the Water (Prevention and Control of Pollution) act, 1974 as Amended and Section 31(A) of the Air (Prevention and Control of Pollution) act, 1987 as Amended to comply with the improvement measures to be carried out by the unit along with renewal of consent.

Whereas, the consent is renewed to the unit under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 valid up to 31.03.2021 subject to certain conditions vide reference third cited.

Therefore, in exercise of the powers conferred under Section 33 (A) of Water (P&CP) Act1974 as amended in 1988 and Section 31(A) of the Air (Prevention and Control of Pollution) act, 1987 as amended, Board issues the following direction to the unit of M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai Districtto comply the following conditions/improvement measures to be carried:

1. The unit operate and maintain the Sewage Treatment Plant (CETP as stated by the unit) components efficiently and continuously so as to achieve the treated sewage standards prescribed by the Board consistently and ensure that the treated sewage is completely utilized for gardening within the unit premises without any stagnation.
2. The unit shall provide RO plant for the entire quantity of trade effluent generated from Cooling Tower as Cooling Water Blow down (4800KLD), Boiler Blow down (30KLD) and DM plant regeneration (300KLD) as reported which is one of the CEPI long term action plan.

3. The unit shall ensure zero liquid discharge of trade effluent, thereby no discharge of untreated/treated trade effluent on land or into any water bodies either inside or outside the premises at any point of time.
4. The unit shall connect all EMFMs provided to Care Air Centre, TNPCB and CPCB.
5. The unit shall stop the discharge of underground pipe line leakages (Fire water) into old SEP's (lagoons) and to plant green belt by planting native & local specific species immediately.
6. The unit shall replace the furnace oil usage with LNG for the boilers of capacity 55T/hr each before June 2020, as reported.
7. The unit shall apply and obtain renewal of authorisation under the provisions of Hazardous & Other Wastes (Management, & Transboundary Movement) Rules 2016.
8. In order to prevent the formation and accumulation of toxic gases inside the tanks and to prevent the occurrence of fatal accidents, while cleaning the tanks, adequate ventilation arrangements should be provided in all the concealed tanks located both above and below ground level which are meant for storing/ holding the effluents, rejects, sludge, permeate water and raw water etc.,. The sludge accumulated in the ETP components should be cleaned mechanically only and manual cleaning of the sludge should not be carried out under any circumstances.
9. The unit shall obtain & furnish certificate of stability from the competent authority as notified in sub rule (3) of Rule 12 B of the Tamil Nadu Factories Rules, 1950 for the pollution abatement measures provided in the unit.
10. The unit shall complete the target of short term and long-term Action plan in CEPI area as committed by the unit without fail.
11. The unit shall continue to develop green belt by identifying land through Revenue Department and always the native species shall be planted.
12. The unit shall undertake CSR activities with priority to provide drinking water facility, Computer facilities and adequate toilet facilities in Girls Schools and Colleges to encourage Women Education especially in rural and semi-urban areas.
13. The unit shall provide Reverse plastic vending machines in prominent public places so as to collect waste plastic bottles so as to achieve the target of banning one time use and throw plastics in Tamilnadu and encourage recycling options.
14. The unit shall operate and maintain the existing air pollution control measures provided to the emission sources efficiently and continuously so as to achieve the Ambient Air Quality/Stack Emission standards prescribed by the Board.
15. The unit shall ensure that the online stack sensors provided for the parameters NH3 in urea prill tower and HF & PM in NPK train Care calibrated regularly & operated and ensure that the output of the sensors are connected to TNPCB & CPCB server at all times.
16. The unit shall re-commission the NPK train A & C only after installation of HF & PM online stack sensors in the stack attached to each train.
17. The unit shall install PM analyser for the common stack attached with process condensate boiler 70T/hr & 110T/hr boiler and PM, SOx& NOx analyser for the common stack attached with boilers 1 & 2 (55T/hr each) as reported.

18. The unit shall install 11 nos. of new ammonia sensors in the ambient air on or before June 2020 as reported as the existing 10 ammonia sensors were not functioning since, 2016 due to Vardha Cyclone.
19. The unit shall restore the CAAQMS station with the sensor parameters such as PM10, PM2.5, SOx, NOx, CO, NH3 & O3 as the one station near north gate is in operation and connected to CAC, Chennai and the remaining four station were not in operation since, 2016 due to Vardha Cyclone.
20. The unit shall rectify the roof defects in the temporary Hazardous Waste storage shed for the proper storage of hazardous waste till its disposal.

Failure to comply with the above said directions, will lead to issue of further directions for closure and stoppage of power supply to your unit under section 33 A of Water (P&CP) Act1974 as amended in 1988 and Section 31A of the Air (Prevention and Control of Pollution) act, 1987 as amended.

The receipt of the proceeding shall be acknowledged.

-sd-
Chairman

To :

The Director Technical,
M/s.MADRAS FERTILIZERS LIMITED,
MANALI, CHENNAI,
Pin: 600068.

Copy to:

1. The JCEE (M),
   Tamil Nadu Pollution Control Board,
   Chennai.

2. The DEE,
   Tamil Nadu Pollution Control Board,
   Ambattur.

3. Technical file.

//Forwarded by orders//

-sd-
Chairman

STATUS AS ON NOVEMBER 16, 2020

Sl No	TNPCB Directions dated 12.05.2020	Status
1	The unit operate and maintain the Sewage Treatment Plant (CETP as stated by the unit) components efficiently and continuously so as to achieve the treated sewage standards prescribed by the Board consistently and ensure that the treated sewage is completely utilized for gardening within the unit premises without any stagnation.	*Complied.* *The treated sewage samples collected from the STP by the TNPCB in the past periods are meeting all the standards prescribed by the Board.*
2	The unit shall provide RO plant for the entire quantity of trade effluent generated from Cooling Tower as Cooling Water Blow down (4800KLD), Boiler Blow down (30KLD) and DM plant regeneration (300KLD) as reported which is one of the CEPI long term action plan.	*MFL is constructing dedicated RO plant for cooling water blow down. Civil structure completed. Machinery installation in progress. Expected to be completed before January 2021.*
3	The unit shall ensure zero liquid discharge of trade effluent, thereby no discharge of untreated/ treated trade effluent on land or into any water bodies either inside or outside the premises at any point of time.	*Gutter water recovery sump about 100kl capacity constructed. All the water are collected, reprocessed and reused.*
4	The unit shall connect all EMFMs provided to Care Air Centre, TNPCB and CPCB	*Procurement of new EMFMs initiated and tendering in progress. Expected to be completed before January 2021.*
5	The unit shall stop the discharge of underground pipe line leakages (Fire water) into old SEP's (lagoons) and to plant green belt by planting native & local specific species immediately.	*Major leakages were attended during Turnaround 2020, (May – Jun 2020). Leaks are being attended as & when it happens.* *One acre of land is earmarked in ETP and 150 saplings were planted as part of Green belt area development.*
6	The unit shall replace the furnace oil usage with LNG for the boilers of capacity 55T/ Hr each before June 2020, as reported.	*Tender floated. Entire process will be completed before June 2021.*
7	The unit shall apply for renewal of authorisation under the provisions of Hazardous & Other Wastes (Management, & Transboundary Movement) Rules 2016.	*Renewal HWA application was submitted, but was returned with some queries by TNPCB. As per TNPCB directive, proposal sent to MFL Board and the same was approved by the Board. Now MFL is in the process of disposing HW thru direct sales to PCB authorised recyclers.*
8	In order to prevent the formation and accumulation of toxic gases inside the tanks and to prevent the occurrence of fatal accidents, while cleaning the tanks, adequate ventilation arrangements should be provided in all the concealed tanks located both above and below ground level which are meant for storing/ holding the effluents, rejects, sludge, permeate water and raw water etc.,. The sludge accumulated in the ETP components should be	*MFL ensures to comply.*

	cleaned mechanically only and manual cleaning of the sludge should not be carried out under any circumstances.	
9	The unit shall obtain & furnish certificate of stability from the competent authority as notified in sub rule (3) of Rule 12 B of the Tamil Nadu Factories Rules, 1950 for the pollution abatement measures provided in the unit.	*Complied. MFL has obtained certificate of stability from the competent person as authorized by DISH as notified in sub rule (3) of Rule B of the Tamil Nadu Factories Rules, 1950 vide dated 31.01.2020 for three years.*
10	The unit shall complete the target of short term and long term Action plan in CEPI area as committed by the unit without fail.	*Both Short term and Long Term compliance provided in the Attachment*
11	The unit shall continue to develop green belt by identifying land through Revenue Department and always the native species shall be planted.	*Already One acre of land is earmarked inside MFL in ETP and 150 saplings were planted as part of Green belt area development. One acre/Year will be earmarked and new trees will be planted accordingly.*
12	The unit shall undertake CSR activities with priority to provide drinking water facility, Computer facilities and adequate toilet facilities in Girls Schools and Colleges to encourage Women Education especially in rural and semi-urban areas.	*MFL is doing CSR activities regularly.*
13	The unit shall provide Reverse plastic vending machines in prominent public places so as to collect waste plastic bottles so as to achieve the target of banning one time use and throw plastics in Tamilnadu and encourage recycling options.	*Procurement action initiated and will be provided before December 2020.*
14	The unit shall operate and maintain the existing air pollution control measures provided to the emission sources efficiently and continuously so as to achieve the Ambient Air Quality/ Stack Emission standards prescribed by the Board	*The ROA of AAQ (8 stations) and Stack Emissions (6 sources) monitoring survey conducted by the Board Lab on 04.03.2020 & 05.03.2020 reveal that the parameters are well within the standards prescribed by the Board.*
15	The unit shall ensure that the online stack sensors provided for the parameters NH3 in urea prill tower and HF & PM in NPK train Care calibrated regularly & operated and ensure that the output of the sensors are connected to TNPCB & CPCB server at all times.	*All the three parameters NH3 in Prill tower Demister, HF & PM of NPK train C Stack are connected to Care Air Centre, TNPCB and CPCB server regularly.*
16	The unit shall re-commission the NPK train A & C only after installation of HF& PM online stack sensors in the stack attached to each train.	*HF & PM analyser already installed in NPK C Train. NPK A Train is not in line. Train B completely will not be used in production line. MFL will ensure installation of the analysers in NPK "A" before starting production.*
17	The unit shall install PM analyser for the common stack attached with process condensate boiler 70T/hr & 110T/hr boiler and PM, SOx & NOx	*PM analyser installed in process condensate boiler,70T/hr& 110T/hr boiler.*

	analyser for the common stack attached with boilers 1 & 2 (55T/hr each) as reported.	*For boiler 1 & 2 tender PO Issued and expected to be completed before January 2021.*
18	The unit shall install 11 nos. of new ammonia sensors in the ambient air on or before June 2020 as reported as the existing 10 ammonia sensors were not functioning since, 2016 due to Vardha Cyclone.	*Complied. 11 sensors installed.*
19	The unit shall restore the CAAQMS station with the sensor parameters such as PM10, PM2.5, SOx, NOx, CO, NH3 & O3 as the one station near North gate is in operation and connected to CAC, Chennai and the remaining four stations were not in operation since, 2016 due to Vardha Cyclone.	*Out of 5 CAAQM stations,* 1. *North gate station is working well and connected to Care Air Centre.* 2. *ETP station partially restored and connected to Care Air Centre.* 3. *Remaining 3 stations, tender floated. Technical Evaluation completed.*
20	The unit shall rectify the roof defects in the temporary Hazardous Waste storage shed for the proper storage of hazardous waste till its disposal.	*MFL has rectified the roof defects.*

ANNEXURE - III

TAMILNADU POLLUTION CONTROL BOARD

By RPAD

Proceeding No.T1/TNPCB/F.0214 AMB/RL/W&A/2019,dated 20.05.2020

SUB: TNPCB – Industries – M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai District– Release of ammonia in the ambient air on 14.05.2020 at 8.20 PM - Complaint Received -Certain directions under Section 33(A)of the Water (Prevention and Control of Pollution) act, 1974 as Amended and Section 31A of the Air (Prevention and Control of Pollution) act, 1987 as Amended - Issued – Regarding.

REF:

1. PROCEEDINGS NO.T1/TNPCB/F.0214AMB/RL/AMB/W&A/2020 DATED: 11/05/2020.
2. Proceeding No.T1/TNPCB/F.0214 AMB/RL/W&A/2019-1,dated :12.05.2020
3. Report of JCEE (M)/Chennai vide Lr.No.F.0214AMB/ RL/JCEE(M)/ TNPCB/ CHN.ZONE/ 2020, Dated:15.05.2020.

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Whereas, Board vide reference first cited, has renewed the consent to the unit of M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai Districtunder Water (Prevention and Control of Pollution)Act and Air (Prevention and Control of Pollution)Act valid up to 31.03.2021 subject to certain conditions.

Whereas, Board vide reference second cited has issued the following direction to the unit under Section 33(A) of the Water (Prevention and Control of Pollution) Actand Section 31(A) of the Air (Prevention and Control of Pollution) Act among others to comply with the improvement measures to be carried out by the unit:

1) The unit shall install 11 nos. of new ammonia sensors in the ambient air on or before June 2020 as reported as the existing 10 ammonia sensors were not functioning since, 2016 due to Vardha Cyclone.

Whereas, a complaint has been received by JCEE (M)/Chennai on 14.05.2020 night against the unit of M/s. Madras Fertilizer Limited, R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk, Chennai District as ammonia odour felt in Mathur and Manali villages.

Whereas, based on the complaint, the unit of M/s. Madras Fertilizer Limited, R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk, Chennai District and the surrounding area of Manali & Mathur area were inspected by JCEE (M)/Chennai on 15.05.2020 and reported the following details vide reference third cited:

- The unit of M/s. Madras Fertilizer Limited has been in operation continuously even during the countrywide Lockdown due to COVID 19 situation as per the directions of Department of Fertilizers to meet out the fertilizers demand of the farmers since it comes under Essential commodities and producing about 1200 TPD of urea.
- On 14.05.2020 at 7.30PM, the cooling water pump motor bearing in the urea plant process became hot and pump got stopped and the urea plant was shut down immediately. All the vents are connected to sump and sent to ammonia stripper for recovery. The additional steam charged to vent stack to dilute any let out vapors got misunderstood as ammonia and there was no ammonia smell felt inside their unit, but noticed icing from one of the ammonia recirculation pump discharge safety valve, which may be the cause for ammonia odour. The suspected safety valve was serviced and fixed back. But the unit authorities reported that the real fact of leakage was not known and it is under investigation.

Whereas,during inspection, it has been noticed that ammonia plant was not under operation due to TNEB power failure and also the backup power was under pullout. The unit was under complete shutdown at present.

Whereas, during inspection, strong ammonia odour was felt near the ammonia storage tanks at the rear end of the unit towards the complaint prone village side. It was informed by the unit authorities that the plant is under complete shutdown and some rectifying work is in progress due to which odour could be felt inside the plant area.

Whereas, no ammonia odour felt during the visit of surrounding area of Manali and Mathur villages and also the complainant was contacted and he informed that the ammonia odour was felt on 14.05.2020 night for about 20 minutes and thereafter no odour was felt.

Whereas,the unit authorities have been instructed to find the real cause for the ammonia odour felt in the nearby villages.

Whereas, during inspection it was also noticed that there was no ammonia sensor around the plant and it was reported that the existing sensors were damaged due to Vardha Cyclone and it has been proposed to install 11 numbers of ammonia sensors around the plant. Further it was informed that the unit has proposed to connect all the vents in the ammonia and urea plant to common scrubber and also to flare the excess, thereby no release of ammonia will happen in future.

Whereas,the unit was instructed to comply with the directions issued by the Board vide Proc. Dated 12.05.2020,to provide at least two ammonia sensors immediately at the rear end of the unit towards the village direction where complaint received and to take immediate action to connect all the vents in the ammonia and urea plant to common scrubber and also to flare the excess, thereby no release of ammonia will happen in future.

TAMILNADU POLLUTION CONTROL BOARD

Whereas,JCEE(M)/Chennai has recommended to issue certain directions under section 33A of the Water(P&CP) Act 1974 as amended and under section 31A of the Air(P&CP) Act 1981 as amended to the unit.

Therefore, in exercise of the powers conferred under Section 33 (A) of Water (P&CP) Act1974 as amended in 1988 and Section 31(A) of the Air (Prevention and Control of Pollution) act, 1987 as amended, Board issues the following direction to the unit of M/s. MADRAS FERTILIZERS LIMITED , S.F.No. R.S.No.212 to 248, Manali Village, Thiruvottiyur Taluk and Chennai District to comply the following conditions/improvement measures to be carried:

1) To restart the unit only after installation of at least two ammonia sensors at the rear end of the unit towards the village direction where complaint received.
2) To restart the unit only after obtaining approval of updated safety audit report containing the information specified in schedule-8 from the competent authority notified in schedule-5 as per rule 10 of the Manufacture, Storage and Import of Hazardous Chemical Rules 1989 as amended.
3) The unit shall comply with the Directions issued vide Proceeding No.T1/ TNPCB/ F.0214 AMB/RL/W&A/2019-1, dated: 12.05.2020.

Failure to comply with the above said directions, will lead to issue of further directions for closure and stoppage of power supply to your unit under section 33 A of Water (P&CP) Act1974 as amended in 1988 and Section 31A of the Air (Prevention and Control of Pollution) act, 1987 as amended.

The receipt of the proceeding shall be acknowledged.

For Chairman

To :

The Director Technical,
M/s.MADRAS FERTILIZERS LIMITED,
MANALI, CHENNAI,
Pin: 600068.

Copy to:

1. The JCEE (M),
   Tamil Nadu Pollution Control Board,
   Chennai.

2. The DEE,
   Tamil Nadu Pollution Control Board,
   Ambattur.

3. Technical file

TNPCB Directions dated 20.05.2020
Compliance Status as on 16.11.2020

(i) To restart the unit only after installation of at least two ammonia sensors at the rear end of the unit towards the village direction where complaint received.

Complied. Connected to TNPCB.

(ii) To restart the unit only after obtaining approval of updated safety audit report containing the information specified in schedule-8 from the competent authority notified in scheduile-5 as per the rule 10 of the Manufacture, Storage and Import of Hazardous Chemical Rules 1989 as amended.

Complied. Safety Audit completed and submitted to the report to DISH (Directorate of Industrial Safety & Health).

(iii) The unit shall comply with the directions issued vide Proc. Dated 12.05.2020.

Compliance details submitted below.

1. The unit shall operate and maintain the Sewage Treatment Plant (CETP as stated by the unit)components efficiently and continuously so as to achieve the treated sewage standards prescribed by the Board consistently and ensure that the treated sewage is completely utilized for gardening within the unit premises without any stagnation.

Complied. The treated sewage samples collected from the STP by the TNPCB in the past periods are meeting all the standards prescribed by the Board.

2. The unit shall provide RO plant for the entire quantity of trade effluent generated from Cooling Tower as Cooling Water Blow down (4800KLD), Boiler Blow down (30KLD) and DM plant regeneration (300KLD) as reported which is one of the CEPI long term action plan.

MFL is constructing dedicated RO plant for cooling water blow down. Civil structure completed. Machinery installation in progress. Expected to be completed by January 2021.

3. The unit shall ensure zero liquid discharge of trade effluent, thereby no discharge of untreated/ treated trade effluent on land or into any water bodies either inside or outside the premises at any point of Time.

Complied. Gutter water recovery sump about 100kl capacity constructed. All the water is being collected, reprocessed and reused.

4. The unit shall connect all EMFMs provided to Care Air Centre, TNPCB and CPCB.

Procurement of new EMFMs initiated and tendering in progress. Expected to be completed in January 2021.

5. The unit shall stop the discharge of underground pipe line leakages (Fire water) into old SEP's (lagoons) and to plant green belt by planting native & local specific species immediately.

Complied. Major leakages were attended during Turnaround 2020, (May – Jun 2020). Leaks are being attended as & when it happens.
One acre of land is earmarked in ETP and 150 saplings were planted as part of Green belt area development.

6. The unit shall replace the furnace oil usage with LNG for the boilers of capacity 55T/ Hr each before June 2020, as reported.

Tender floated and the installation expected to be completed by June 2021.

7. The unit shall apply for renewal of authorisation under the provisions of Hazardous & Other Wastes (Management, &Tran's boundary Movement) Rules 2016.

Renewal HWA application was submitted, but was returned with some queries by TNPCB. As per TNPCB directive, proposal was sent to MFL Board and approval obtained for disposing HW thru direct sales to PCB authorised recyclers. We are in the process of selecting the vendors.

8. In order to prevent the formation and accumulation of toxic gases inside the tanks and to prevent the occurrence of fatal accidents, while cleaning the tanks, adequate ventilation arrangements should be provided in all the concealed tanks located both above and below ground level which are meant for storing/ holding the effluents,rejects, sludge, permeate water and raw water etc.,. The sludge accumulated in the ETP components should be cleaned mechanically only and manual cleaning of the sludge should not be carried out under any circumstances.

MFL ensures to comply.

9. The unit shall obtain & furnish certificate of stability from the competent authority as notified in sub rule (3) of Rule 12 B of the Tamil Nadu Factories Rules, 1950 for the pollution abatement measures provided in the unit.

Complied. MFL has obtained certificate of stability from the competent person as authorized by DISH as notified in sub rule (3) of Rule B of the Tamil Nadu Factories Rules, 1950 vide dated 31.01.2020 for three years.

10. The unit shall complete the target of Action taken details are short term and long term Action plan in CEPI area as committed by the unit without fail.

Furnished below.

SHORT TERM ACTION PLAN:

Action Plan	*Present Status of Compliance*
Feed Stock Conversion from Naphtha to LNG which will reduce Energy consumption of Ammonia and Urea plants	*Completed*

110T/hr ATA and Process Condensate boiler fuel change from Furnace Oil to LNG.	*Completed*
Construction of a sump to recover all the water let out into the gutter which will be pumped to the Cooling Water Blow down Treatment Plant where it will be treated and used for Cooling Water makeup	*Construction of a sump Completed.*
Dedicated RO to treat Cooling Water Blow down Plant Outlet.	*Civil job completed. Machineries installation in progress.*

LONG TERM ACTION PLAN:

Action Plan	*Present Status of Compliance*
Increasing Green Belt area.	*150 saplings planted this year.*
Change of Fuel from Furnace Oil to RLNG for Boiler 1 and 2 (55T/hr each)	*Tender Floated.*

11. The unit shall continue to develop green belt by identifying land through Revenue Department and always the native species shall be planted.

Already One acre of land earmarked inside MFL in ETP and 150 saplings were planted as part of Green belt area development. One acre/Year will be earmarked and new trees will be planted accordingly.

12. The unit shall undertake CSR activities with priority to provide drinking water facility, Computer facilities and adequate toilet facilities in Girls Schools and Colleges to encourage Women Education especially in rural and semi-urban areas.

MFL is doing CSR activities regularly.

13. The unit shall provide Reverse plastic vending machines in prominent public places so as to collect waste plastic bottles so as to achieve the target of banning one time use and throw plastics in Tamilnadu and encourage recycling options.

Procurement action initiated and will be provided before December 2020.

14. The unit shall operate and maintain the existing air pollution control measures provided to the emission sources efficiently and continuously so as to achieve the Ambient Air Quality/ Stack Emission standards prescribed by the Board.

Complied. The ROA of AAQ (8 stations) and Stack Emissions (6 sources) monitoring survey conducted by the Board Lab on 04.03.2020 & 05.03.2020 reveals that the parameters are well within the standards prescribed by the Board.

15. The unit shall ensure that the online stack sensors provided for the parameters NH3 in urea prill tower and HF & PM in NPK train Care calibrated regularly & operated and ensure that the output of the sensors are connected to TNPCB & CPCB server at all times.

Complied. All the three parameters NH3 in Prill tower Demister, HF & PM of NPK train C Stack are connected to Care Air Centre,TNPCB and CPCB server.

16. The unit shall re-commission the NPK train A &B only after installation of HF& PM online stack sensors in the stack attached to each train.

Now A&B trains are not in line and MFL will ensure installation of the analysers before starting production.

17. The unit shall install PM analyser for the common stack attached with process condensate boiler 70T/hr& 110T/hr boiler and PM, SOx&NOx analyser for the common stack attached with boilers 1 & 2 (55T/hr each) as reported.

Complied. PM analyser installed in process condensate boiler,70T/hr& 110T/hr boiler.
For boiler 1 & 2 tender PO Issued and expected to be completed before January 2021.

18. The unit shall install 11 nos. of new ammonia sensors in the ambient air on or before June 2020 as reported as the existing 10 ammonia sensors were not functioning since, 2016 due to Vardha Cyclone.

Complied. 11 sensors installed and functioning since Sep 2020.

19. The unit shall restore the CAAQMS station with the sensor parameters such as PM10, PM2.5, SOx, NOx,CO, NH3 & O3 as the one station near North gate is in operation and connected to CAC, Chennai and the remaining four stations were not in operation since, 2016 due to Vardha Cyclone.

Out of 5 nos of CAAQM stations, North gate station is working. ETP station partially restored and connected to Care Air Centre. Remaining 3 stations tender floated and in the final stage of finalizing the contract. Expected to be completed by Mar 2021.

20. The unit shall rectify the roof defects in the temporary Hazardous Waste storage shed for the proper storage of hazardous waste till its disposal.

Complied. MFL has rectified the roof defects.

ANNEXURE- IV

Madras Fertilizers Ltd, Tamil Nadu

Report Type:Average Report

From: 14-05-2020 00:00:00 To: 16-05-2020 23:59:00

Created By: MFLNORTHGATE Created At: 2020-05-19 12:15:17

Date-(DD-MM-YYYY hh:mm)	MFLNORTHGATE-Ozone-(ug/m3)-Normalized	MFLNORTHGATE-SOx-(ug/m3)-Normalized	MFLNORTHGATE-PM2.5-(ug/m3)-Normalized	MFLNORTHGATE-NOx-(ug/m3)-Normalized	MFLNORTHGATE-CO-(mg/m3)-Normalized	MFLNORTHGATE-PM10-(ug/m3)-Normalized
Avg	85.96	8.64	26.6	5.71	1.21	30.38
Max	191.11	9.98	102.37	5.99	1.52	85.83
Min	61.98	6.54	0	5.49	1.06	1.53
Prescribed Standard	100	80	60	80	2	100
First Max occured at	14-05-2020 05:30	14-05-2020 06:45	14-05-2020 15:00	14-05-2020 21:15	15-05-2020 06:15	14-05-2020 17:45
First Min occured at	15-05-2020 07:00	15-05-2020 09:00	14-05-2020 01:15	14-05-2020 10:00	14-05-2020 20:45	14-05-2020 19:15
Valid Data Points	137	137	137	137	137	135
Total Data Points	137	137	137	137	137	137
Data Availability %	100	100	100	100	100	98
Uncertainty	0	0	0	0	0	0
MCERT Certified Analyzer	No	No	No	No	No	No
14-05-2020 00:00	91.23	9.67	6.75	5.75	1.09	24.21
14-05-2020 00:15	75.07	9.69	3.31	5.62	1.16	6.36
14-05-2020 00:30	82.77	9.48	3.19	5.73	1.15	13.89
14-05-2020 00:45	77.4	9.91	6.63	5.7	1.14	16.64
14-05-2020 01:00	83.84	9.72	2.44	5.79	1.12	14.49
14-05-2020 01:15	84.89	9.14	0	5.57	1.12	27.15
14-05-2020 01:30	77.89	9.34	0	5.68	1.13	40.12
14-05-2020 01:45	77.88	8.48	0	5.74	1.13	22.42
14-05-2020 02:00	73.47	9.91	0	5.57	1.15	2.54
14-05-2020 02:15	88.65	9.51	0	5.68	1.16	11.97
14-05-2020 02:30	81.67	9.39	0	5.83	1.16	14.61
14-05-2020 02:45	74.35	9.33	0	5.66	1.15	11.52
14-05-2020 03:00	72.76	9.31	0	5.78	1.15	15.01
14-05-2020 03:15	72.24	9.07	0	5.69	1.17	4.41
14-05-2020 03:30	81.35	8.9	0	5.76	1.27	4.72
14-05-2020 03:45	104.79	9.01	0.49	5.67	1.37	4.35
14-05-2020 04:00	86.96	9.23	11.96	5.78	1.41	14.8
14-05-2020 04:15	102.25	8.86	25.54	5.71	1.44	47.49
14-05-2020 04:30	73.87	8.85	31.65	5.74	1.4	63.15
14-05-2020 04:45	71.74	8.05	25.26	5.63	1.32	47.43
14-05-2020 05:00	81.84	9.02	20.32	5.68	1.28	21.53
14-05-2020 05:15	138.27	9.1	19.2	5.74	1.27	18.24
14-05-2020 05:30	191.11	9.32	25.99	5.66	1.27	40.15
14-05-2020 05:45	90.92	8.96	46.17	5.66	1.26	27.4
14-05-2020 06:00	90.63	9.15	61.76	5.77	1.34	22.74
14-05-2020 06:15	82.73	8.87	62.35	5.78	1.35	54.13
14-05-2020 06:30	86.11	9.74	56.15	5.7	1.34	59.91
14-05-2020 06:45	86.45	9.98	50.7	5.61	1.36	54.62
14-05-2020 07:00	77.31	9.38	41.52	5.67	1.32	26.31
14-05-2020 07:15	85.04	9.4	39.16	5.63	1.32	0
14-05-2020 07:30	83.93	9.54	36.51	5.51	1.27	0

14-05-2020 07:45	86.89	9.09	32.05	5.56	1.25	9.88
14-05-2020 08:00	83.84	8.75	30.23	5.68	1.23	28.77
14-05-2020 08:15	80.45	8.81	25.72	5.69	1.25	51.47
14-05-2020 08:30	90.94	9.22	18.45	5.62	1.25	50.19
14-05-2020 08:45	77.41	8.74	11.92	5.58	1.24	20.19
14-05-2020 09:00	78.41	8.8	12.47	5.52	1.19	11.22
14-05-2020 09:15	79.31	8.18	14.16	5.57	1.2	11.48
14-05-2020 09:30	82.24	9.23	10.25	5.68	1.24	19.93
14-05-2020 09:45	102.6	9.1	2.92	5.65	1.2	19.03
14-05-2020 10:00	97.74	8.76	0.02	5.49	1.2	31.97
14-05-2020 10:15	92.73	8.13	0	5.58	1.22	16.93
14-05-2020 10:30	94.77	8.48	3.05	5.62	1.19	19.41
14-05-2020 10:45	94.93	8.73	10.49	5.57	1.18	34.79
14-05-2020 11:00	93.57	8.81	16.04	5.73	1.17	45.42
14-05-2020 11:15	96.92	9.46	21.08	5.59	1.17	29.55
14-05-2020 11:30	97.19	9.43	22.39	5.57	1.18	4.16
14-05-2020 11:45	96.81	9.06	16.97	5.58	1.18	10.67
14-05-2020 12:00	94.11	9.41	11.42	5.51	1.2	11.4
14-05-2020 12:15	92.32	9.02	8.76	5.5	1.2	3.66
14-05-2020 12:30	100.73	9.06	11.94	5.56	1.18	7.39
14-05-2020 12:45	106.5..	9.23	17.92	5.69	1.17	40.14
14-05-2020 13:00	108.78	8.9	30.29	5.77	1.16	61.29
14-05-2020 13:15	110.5	8.02	44.14	5.73	1.18	43.98
14-05-2020 13:30	110.81	9.1	54.35	5.66	1.17	17.96
14-05-2020 13:45	97.08	8.5	62.07	5.61	1.16	31.35
14-05-2020 14:00	90.49	8.86	72.4	5.73	1.14	78.86
14-05-2020 14:15	92.22	8.84	82.46	5.66	1.12	76.17
14-05-2020 14:30	92.5	9.06	91.96	5.82	1.11	28.74
14-05-2020 14:45	93.29	8.77	98.36	5.75	1.12	38.61
14-05-2020 15:00	94.83	8.53	102.37	5.67	1.11	63.72
14-05-2020 15:15	89.31	8.43	97.4	5.8	1.12	75.6
14-05-2020 15:30	89.02	9.09	91.32	5.8	1.1	19.35
14-05-2020 15:45	91.4	8.09	91.37	5.95	1.09	51.16
14-05-2020 16:00	120.04	8.3	94.94	5.83	1.09	59.05
14-05-2020 16:15	99.24	9.17	93.57	5.84	1.08	53.25
14-05-2020 16:30	93.23	8.64	86.02	5.92	1.08	12.03
14-05-2020 16:45	94.1	8.66	66.66	5.81	1.14	18.96
14-05-2020 17:00	124.46	8.6	52.23	5.77	1.1	31.11
14-05-2020 17:15	105.5	8.33	41.44	5.94	1.08	22.34
14-05-2020 17:30	95.66	8.07	33.77	5.89	1.09	61.11
14-05-2020 17:45	91.21	8.51	29.25	5.95	1.08	85.83
14-05-2020 18:00	107.93	8.29	26.82	5.91	1.08	65.26
14-05-2020 18:15	97.13	8.35	29.04	5.9	1.14	52.59
14-05-2020 18:30	88.8	8.02	31.35	5.95	1.1	36.79
14-05-2020 18:45	83.51	8.37	23.46	5.9	1.1	39.17
14-05-2020 19:00	81.94	8.6	6.54	5.98	1.09	19.51
14-05-2020 19:15	82.96	8.16	0	5.89	1.09	1.53
14-05-2020 19:30	84.48	8.48	0	5.83	1.11	12.8
14-05-2020 19:45	124.79	8.94	0	5.85	1.08	15.84

14-05-2020 20:00	91.27	9.04	0	5.82	1.07	30.42
14-05-2020 20:15	81.54	8.79	0	5.89	1.08	17.82
14-05-2020 20:30	75.93	8.87	0	5.9	1.08	25.77
14-05-2020 20:45	74.49	8.73	0	5.87	1.06	35.37
14-05-2020 21:00	74.45	8.75	0	5.78	1.08	29.34
14-05-2020 21:15	80.71	8.69	0	5.99	1.08	7.36
14-05-2020 21:30	76.72	8.23	0	5.82	1.09	10.61
14-05-2020 21:45	73.53	8.51	7.8	5.99	1.08	16.83
14-05-2020 22:00	103.27	8.17	18.2	5.9	1.11	18.37
14-05-2020 22:15	103.25	8.1	32.08	5.81	1.11	13.92
14-05-2020 22:30	91.04	8.49	35.72	5.82	1.1	15.41
14-05-2020 22:45	79.72	8.35	20.24	5.87	1.09	66.02
14-05-2020 23:00	78.52	8.62	5.39	5.8	1.09	33.31
14-05-2020 23:15	78.2	8.08	0	5.78	1.08	49.24
14-05-2020 23:30	78.16	9.1	0	5.89	1.11	34.99
14-05-2020 23:45	76.45	8.24	0	5.7	1.11	77.03
15-05-2020 00:00	76.03	8	0	5.68	1.13	69.13
15-05-2020 00:15	74.52	8.66	0	5.7	1.18	38.42
15-05-2020 00:30	77.21	8.15	0	5.57	1.2	62.31
15-05-2020 00:45	90.33	8.78	0	5.73	1.23	39.2
15-05-2020 01:00	82.84	7.8	0	5.63	1.21	15.35
15-05-2020 01:15	74.98	7.37	0	5.68	1.25	10.85
15-05-2020 01:30	83.56	7.5	0	5.53	1.36	13.89
15-05-2020 01:45	82.23	7.71	0	5.74	1.46	29.15
15-05-2020 02:00	78.64	8.22	0	5.66	1.44	19.99
15-05-2020 02:15	74.81	8.88	6.09	5.6	1.42	16.67
15-05-2020 02:30	78.58	8.9	17.45	5.63	1.4	11.51
15-05-2020 02:45	80.64	9.14	24.17	5.6	1.38	9.4
15-05-2020 03:00	79.35	9.86	33.75	5.62	1.36	14.66
15-05-2020 03:15	78.72	9.27	40.59	5.55	1.32	38.61
15-05-2020 03:30	76.17	9.36	42.77	5.59	1.29	41
15-05-2020 03:45	75.86	8.6	34.85	5.64	1.29	28.93
15-05-2020 04:00	77.89	8.84	30.39	5.59	1.3	14.42
15-05-2020 04:15	79.89	8.83	29.78	5.52	1.33	11.16
15-05-2020 04:30	80.58	8.22	29.72	5.63	1.36	14.94
15-05-2020 04:45	78.56	8.91	26.86	5.62	1.37	27.43
15-05-2020 05:00	79.12	8.65	25.21	5.68	1.4	35.4
15-05-2020 05:15	79.19	8.94	22.11	5.74	1.41	42.56
15-05-2020 05:30	79.83	8.74	18.55	5.68	1.42	37.94
15-05-2020 05:45	79.56	8.55	12.35	5.59	1.45	27.61
15-05-2020 06:00	80.94	8.9	13.47	5.57	1.47	17.87
15-05-2020 06:15	83.8	7.49	24.19	5.69	1.52	35.57
15-05-2020 06:30	75.97	7.33	30.08	5.72	1.52	53.29
15-05-2020 06:45	63.09	7.95	39.35	5.68	1.41	40.02
15-05-2020 07:00	61.98	7.37	52.2	5.64	1.34	23.44
15-05-2020 07:15	62.32	6.82	60.91	5.66	1.32	32.33
15-05-2020 07:30	62.25	7.82	72.95	5.66	1.27	41.99
15-05-2020 07:45	63.26	8.66	76.73	5.55	1.25	45.61
15-05-2020 08:00	63.13	8.26	70.4	5.67	1.23	52.87

15-05-2020 08:15	63.61	7.1	62.4	5.6	1.23	70.97
15-05-2020 08:30	64.16	7.45	55.16	5.62	1.23	51.25
15-05-2020 08:45	63.57	7.46	47.9	5.6	1.24	21.49
15-05-2020 09:00	65.21	6.54	40.61	5.79	1.21	16.85
15-05-2020 09:15	66.55	7.1	30.03	5.59	1.2	15.77
15-05-2020 09:30	77.46	6.64	19.73	5.79	1.19	14.35
15-05-2020 09:45	81.67	6.78	13.2	5.72	1.2	11.7
15-05-2020 10:00	76.35	6.75	12.86	5.6	1.2	19.71

ANNEXURE - V

Summary of IIT Report and Remarks of MFL

Parameters	Status/ Compliance	Remarks
1.Ambient monitoring		
PM concentrations (PM10 & PM2.5)	Yes Complied	-
NO_2 and SO_2 concentrations	Yes Complied	-
HF and CO concentrations	Yes Complied	-
Ammonia Concentration	Exceeding the NAAQS limits at all the monitored locations	Ambient air quality is being analysed by TNPCB and the values are within the limits (Copy of report enclosed). Recently we have installed Ammonia sensors at 11 locations on 03.09.2020 and connectivity TNPCB made on 07.09.2020, the values are well within the limits continuously.
2. Stationary monitoring		
Urea Demister - Ammonia, HF, & PM values	Yes Complied	-
NPK Stack - Ammonia, HF, & PM values	Yes Complied	-
Ammonia Boiler Stack - SO2 - CO - PM - NOx	 Yes Complied Yes Complied Exceeds norms by 1.14 times Exceeds norms by 1.1 times	Stack samples are being analysed by TNPCB and reports are always within CPCB norms and never exceeded the limits (Copy of TNPCB results enclosed). Boiler is running with RLNG as fuel effective March 2019. New PM analyser was installed in boiler stack on 01.10.2020 and values are below CPCB emission norms. Connectivity to CPCB is being made ready and will be completed within this week.
Utility Boiler Stack - SO2 - CO - PM - NOx	 Yes Complied Yes Complied Exceeds norms by 1.14 times Exceeds norms by 1.1 times	Stack samples are being analysed by TNPCB and reports are always within CPCB norms and never exceeded the limits (Copy of TNPCB results enclosed). PO issued for supply of PM analyser for Utility stack on 21.10.2020 and will be installed in Jan 2021.
3. Workspace ammonia monitoring		
Ammonia levels	Yes Complied	-
4. Hazardous waste storage adequacy		
Waste labelling / categorisation	Yes Complied	-
Storage requirements	Spacing of storage containers, fire extinguishers etc not met prescribed by CPCB	Set right as recommended by IIT

TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory

STACK MONITORING SURVEY – Report of Analysis

Report No. 67/ SM/2019-2020 Date: 28.05.2020

1. Name of the Industry : **M/s. Madras Fertilizer Ltd.,**

2. Address of the Industry : Ponneri Road, Manali, Chennai - 68

3. Date of Survey : 04.03.2020 & 05.03.2020

4. Type of Industry : Coal/Chemical/Sugar/Paper & Pulp/ Power plant / Textile Processing/ **Fertilizer**

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Fuel used	Stack .Temp ^{0}K	Velocity in (m/ sec)	Discharge rate In Nm^3/hr	Pollutants (mg / Nm^3)			
						PM	SO_2	NO_x	NH_3
1	Utility Boiler I	FO	461	39.24	469775	58	547	40	-
2	Utility Boiler II	FO	453	39.25	477775	56	549	48	-
3	DG – 1000 KVA	HSD	594	29.73	2634	16	53	1205	-
4	110 ATA - Boiler	Gas (RLNG)	463	29.29	660072	42	BDL	42	-
5	PC - Boiler	RLNG	447	28.30	213269	38	BDL	78	-
6	Urea Prill Tower Demister	-	308	9.67	3807384	7	-	-	79

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NOx	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

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Chief Scientific Officer,
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali

TAMIL NADU POLLUTION CONTROL BOARD
DISTRICT ENVIRONMENTAL LABORATORY – MANALI

STACK MONITORING SURVEY – Report of Analysis

Report No.22/SM/2019-20, dated 13.09.2019

1. Name of the Industry : M/s. Madras Fertilizers Limited,
2. Address of the Industry : Ponneri Road, Manali, Chennai-68
3 Date of Survey : 20 & 21.08.2019
4 Type of Industry : Cement/Chemical/Sugar/Paper & Pulp/ Power plant/Textile Processing/**Others**

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Stack .Temp °K	Velocity in (m/sec)	Discharge rate in Nm^3/Day	Pollutants (mg / Nm^3)				
					PM	SO_2	NO_x	NH_3	F
1	Utility Boiler 2	366	35.28	52466546	52	437	43	-	-
2	DG – 1000 KVA	623	30.14	61110	18	59	1361	-	-
3	110 ATA - Boiler	433	28.55	16511346	48	BDL	49	-	-
4	PC - Boiler	458	28.89	5099666	44	BDL	68	-	-
5	Urea Prill Tower Demister	303	9.83	94388555	9	-	-	84	-
6	NPK - C	304	13.92	5788648	11	-	-	21	0.24

Test Performed	Test Method
PM_{10}	IS 5182: (Part 23) – 2006
SO_2	Modified West – Gaeke / IS 5182: (Part 2) – 2001 RA: 2012
NO_2	Jacobs – Hochheiser / IS 5182: (Part 6) – 2006 RA: 2012

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Deputy Chief Scientific Officer 13/9/19
TNPCB, DEL, Manali

TAMIL NADU POLLUTION CONTROL BOARD
District Environmental Laboratory

AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No. 67 /AAQS/2019-2020 Date: 28.05.2020

1. Name of the Industry : **M/s. Madras Fertilizer Ltd.,**
2. Address of the Industry : Ponneri Road, Manali, Chennai - 68
3. Date of Survey : 04.03.2020
4. Duration of Survey : **8 Hours** / 24 hours
5. Category : **Red** / Orange / Green – **Large** / Medium / Small
6. Land use classification : **Industrial** / Commercial / Residential / Sensitive

Meteorological Conditions

Ambient Temperature (^{0} C)	Min	Max	Relative Humidity (%)	Min	Max
	27	35		44	74
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	ESE – WNW		Mean Wind Speed (km/hr)	15	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m^3)				
					PM 2.5	PM 10	SO_2	NO_2	NH_3
1	On top of Platform near Scrap Yard	N	100	4.0	46	92	13	17	98
2	On top of Platform near Main Gate	NE	100	4.0	--	75	12	14	14
3	On top of Platform near RO Plant	E	100	4.0	--	88	17	12	19
4	On top of Platform near LPG Bullet Area	NW	150	4.0	--	98	21	16	61
5	On top of Platform near NH_3 Plant Watch Tower	SW	100	4.0	--	77	14	18	55

Note: * With respect to major emission sources. The analytical results are restricted to the sampling period of **8 hrs**/24hrs

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Test Performed	Test Method
PM10	IS 5182 : (Part 23) -- 2006
SO2	Modified West -- Gaeke / IS 5182 : (Part 2) -- 2001 RA: 2012
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TAMIL NADU POLLUTION CONTROL BOARD
District Environmental Laboratory

AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No. 67 /AAQS/2019-2020 Date: 28.05.2020

1. Name of the Industry : **M/s. Madras Fertilizer Ltd.,**
2. Address of the Industry : Ponneri Road, Manali, Chennai - 68
3. Date of Survey : 05.03.2020
4. Duration of Survey : **8 Hours** / 24 hours
5. Category : **Red** / Orange / Green -- **Large** / Medium / Small
6. Land use classification : **Industrial** / Commercial / Residential / Sensitive

Meteorological Conditions

Ambient Temperature (^{0}C)	Min	Max	Relative Humidity (%)	Min	Max
	28	32		49	79
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SE – NW		Mean Wind Speed (km/hr)	16.37	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m^3)				
					PM 2.5	PM 10	SO_2	NO_2	NH_3
6	On top of Platform near South Gate	SE	100	4.0	38	89	16	19	13
7	On top of Platform near Tamin Gate	NE	300	4.0	--	83	13	21	53
8	On top of Platform near Fire Station	S	350	4.0	--	67	11	13	14

Note: * With respect to major emission sources. The analytical results are restricted to the sampling period of **8 hrs**/24hrs

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Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
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TAMIL NADU POLLUTION CONTROL BOARD
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AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No.22 /AAQ/2019-20, Dated 13.09.2019

1. Name of the Industry : M/s. Madras Fertilizers Limited,
2. Address of the Industry : Ponneri Road, Manali, Chennai -68
3. Date of Survey : 20 & 21.08.2019
4. Duration of Survey : **8 hours** / 24 hours
5. Category : **Red**/Orange/Green-**Large**/Medium/Small
6. Land use classification : **Industrial**/Commercial/Residential/Sensitive/Mines

Meteorological Conditions

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	31	35		59	84
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	NW to SE		Mean Wind Speed (km / hr)	11.37	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height From GL (m)	Pollutants Concentration (microgram / m^3)				Addl. Parameters if any ($PM_{2.5}$)
					PM_{10}	SO_2	NO_2	NH_3	
1	On top of Platform near Scrap Yard	N	100	4.0	87	11	19	57	24
2	On top of Platform near Main Gate	NE	100	4.0	72	14	16	75	--
3	On top of Platform near RO Plant	E	100	4.0	84	19	14	8	--
4	On top of Platform near South Gate	SE	100	4.0	94	21	17	92	32
5	On top of Platform near NH_3 Plant Watch Tower	SW	100	4.0	82	18	15	104	--
6	On top of Platform near LPG Bullet Area	NW	150	4.0	91	13	20	70	--
7	On top of Platform near Tamin Gate	NE	300	4.0	79	17	22	87	--
8	On top of Platform near Fire Station	S	350	4.0	63	15	17	66	--

Note:- * With respect to major emission sources. The analytical results are restricted to the sampling period of **8 hrs**/24hrs

Test Performed	Test Method
PM_{10}	IS 5182: (Part 23) – 2006
SO_2	Modified West – Gaeke / IS 5182: (Part 2) – 2001 RA: 2012
NO_2	Modified Jacob – Hochheiser / IS 5182: (Part 6) – 2006 RA: 2012

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ANNEXURE - VI

TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory

STACK MONITORING SURVEY – Report of Analysis

Report No. 67/ SM/2019-2020 Date: 28.05.2020

1. Name of the Industry : **M/s. Madras Fertilizer Ltd.,**
2. Address of the Industry : Ponneri Road, Manali, Chennai - 68
3. Date of Survey : 04.03.2020 & 05.03.2020
4. Type of Industry : Coal/Chemical/Sugar/Paper & Pulp/ Power plant / Textile Processing/ **Fertilizer**

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Fuel used	Stack .Temp ^0K	Velocity in (m/ sec)	Discharge rate In Nm^3/hr	Pollutants (mg / Nm^3)			
						PM	SO_2	NO_x	NH_3
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2	Utility Boiler II	FO	453	39.25	477775	56	549	48	-
3	DG – 1000 KVA	HSD	594	29.73	2634	16	53	1205	-
4	110 ATA - Boiler	Gas (RLNG)	463	29.29	660072	42	BDL	42	-
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6	Urea Prill Tower Demister	-	308	9.67	3807384	7	-	-	79

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
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2. Address of the Industry : Ponneri Road, Manali, Chennai-68
3. Date of Survey : 20 & 21.08.2019
4. Type of Industry : Cement/Chemical/Sugar/Paper & Pulp/ Power plant/Textile Processing/**Others**

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Stack .Temp °K	Velocity in (m/sec)	Discharge rate in Nm^3/Day	Pollutants (mg / Nm^3)				
					PM	SO_2	NO_x	NH_3	F
1	Utility Boiler 2	366	35.28	52466546	52	437	43	-	-
2	DG – 1000 KVA	623	30.14	61110	18	59	1361	-	-
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TAMIL NADU POLLUTION CONTROL BOARD

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AMBIENT AIR QUALITY SURVEY – Report of Analysis

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1. Name of the Industry : **M/s. Madras Fertilizer Ltd.,**
2. Address of the Industry : Ponneri Road, Manali, Chennai - 68
3. Date of Survey : 04.03.2020
4. Duration of Survey : **8 Hours** / 24 hours
5. Category : **Red** / Orange / Green – **Large** / Medium / Small
6. Land use classification : **Industrial** / Commercial / Residential / Sensitive

Meteorological Conditions

Ambient Temperature (^{0} C)	Min	Max	Relative Humidity (%)	Min	Max
	27	35		44	74
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	ESE – WNW		Mean Wind Speed (km/hr)	15	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m^3)				
					PM 2.5	PM 10	SO_2	NO_2	NH_3
1	On top of Platform near Scrap Yard	N	100	4.0	46	92	13	17	98
2	On top of Platform near Main Gate	NE	100	4.0	--	75	12	14	14
3	On top of Platform near RO Plant	E	100	4.0	--	88	17	12	19
4	On top of Platform near LPG Bullet Area	NW	150	4.0	--	98	21	16	61
5	On top of Platform near NH_3 Plant Watch Tower	SW	100	4.0	--	77	14	18	55

Note: * With respect to major emission sources. The analytical results are restricted to the sampling period of **8 hrs**/24hrs

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TAMIL NADU POLLUTION CONTROL BOARD
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AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No. 67 /AAQS/2019-2020 Date: 28.05.2020

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2. Address of the Industry : Ponneri Road, Manali, Chennai - 68
3. Date of Survey : 05.03.2020
4. Duration of Survey : **8 Hours** / 24 hours
5. Category : **Red** / Orange / Green – **Large** / Medium / Small
6. Land use classification : **Industrial** / Commercial / Residential / Sensitive

Meteorological Conditions

Ambient Temperature (^{0}C)	Min	Max	Relative Humidity (%)	Min	Max
	28	32		49	79
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SE – NW		Mean Wind Speed (km/hr)	16.37	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m^3)				
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