



ATUL LTD

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Ref : Atul/SHE/EC Compliance/05
Date : 27th January, 2017

Through Reg. AD Post

To,
Regional Head,
Regional Office, MoEF,
Bhopal.

Subject : Six Monthly Compliance on EC Condition
Reference : **1. EC F. No. J -11011/85/2009- IA II (I)**
2. EC NO.SEIAA/GUJ/EC/1(d)/340/2016

Respected Sir,

Please find attached herewith six monthly compliance report with respect to the above referred Environment Clearances granted to M/s Atul Ltd. Valsad, Gujarat for the period of July 2016-December 2016 and for June 2016 to November 2016 respectively.

We hereby request you to kindly validate the same including the earlier submitted reports.

Kindly do the needful and oblige.

Thanking you.

Yours truly,

For ATUL LIMITED,


(V. K. Patel)

Vice President -Utility & Services

Encl. : As stated above.

CC: 1. Mr. B. R. Naidu (Scientist 'E' & In charge), Central Pollution Control Board,

Zonal Office , Vadodara

2. The Member Secretary, Gujarat Pollution Control Board, Gandhinagar



Lalbhai Group

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January, 2017

COMPLIANCE REPORT

Report No. : - ATUL-05

MONITORING PERIOD: July 2016 to December 2016

M/s. Atul Ltd.

Atul, Valsad

Dist. – Valsad - 396020 Gujarat.

Project:

Atul Ltd is endeavoring to transform itself at the workplace and in the marketplace so as to become truly world-class in its chosen businesses and promoting Values which underline truthfulness, respect, collaboration, passion and accountability. Life with the Company therefore satisfies an individual personally and professionally

The products and formulations sold by Atul Ltd are used by around 4,000 customers belonging to diverse industries particularly Adhesives, Agriculture, Animal Feed, Automobile, Chemical, Composites, Construction, Cosmetic, Defense, Dyestuff, Electrical and Electronics, Flavor and Fragrance, Food, Glass, Home Care, Horticulture, Hospitality, Paint and Coatings, Paper, Personal Care, Pharmaceutical, Plastic, Polymer, Rubber, Soap and Detergent, Textile and Tyre.

In order to enhance focus and better serve customers, Atul has divided its portfolio of products into 41 product groups. The product groups are managed by 7 Businesses, namely Aromatics, Bulk Chemicals, Colors, Crop Protection, Floras, Pharmaceuticals, and Polymers, generally depending upon the industries served by them. Furthermore, each product has been made a part of either the Life Science Chemicals Segment or Performance and Other Chemicals Segment, so as to enhance understanding amongst investors.

Quintessentially, Atul consumes basic chemicals (such as Benzene, Phenol, Toluene) and natural resources (such as Coal, Salt, and Sulphur) and manufactures value added downstream chemicals. In addition to bulk sales, the Company has since 2004 commenced building and growing sales in small packs (brands), particularly in its Crop Protection and Polymers Businesses.

COMPLIANCE TO SPECIFIC CONDITIONS: As per EC F. No. J -11011/85/2009-IA II (I) dated 13th May 2009.

| No. | SPECIAL CONDITION |
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| I | Industrial Waste water generation shall not exceed 17,216 m3/d. Complied. The average wastewater generation for the report period is 7418 m3/day only. Detail break up is given in Table1. |
| | 23 m3/d High COD effluent shall be incinerated. Complied. There was no High COD Waste water generation and hence no incineration was done during this period. |
| | 97 m3/d High TDS effluent shall be evaporated through MEE. Complied. The average High TDS Waste water evaporated in MEE was 86.2KL per day . Detail break up is given in Table 2. |

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| | <p>Total quantity of 17283 m³/d shall be treated at company's own effluent treatment plant.</p> <p>Complied. The average wastewater discharged for the report period is 7418 m³/day only. Detail break up is given in Table 1.</p> <hr/> <p>Final Discharge of Treated effluent is being discharge into river par through 4 km line constructed by M/s Atul.</p> <p>Complied. The discharged effluent is meeting all pollution board limits and values of various parameters of treated effluent is given in Table 3.</p> <hr/> <p>Ammonia bearing effluent shall be subject to ammonia recovery before mixing with normal effluent stream.</p> <p>Complied. Ammonia present in 4,4 DDS aq. effluent is recovered by stripping in packed column. The ammonia contained water from the stripper is condensed in condensor and recovered ammonia is recycled for production of 4,4 DDS.</p> <p>Details are given in Table 4.</p> <hr/> <p>Phenol will be recovered from phenol containing effluent.</p> <p>Complied. 20 Kg phenol is recovered from effluent per one MT of 2,4 D production. A distillation column has been installed for phenol recovery. Data is given in Table 5.</p> <hr/> <p>The treated effluent shall confirm the discharge norms.</p> <p>Complied. The discharged effluent is meeting all pollution board limits and values of various parameters of treated effluent is given in Table 3.</p> <hr/> <p>The domestic effluent shall be disposed off through septic tank / soak pit.</p> <p>Complied.</p> |
| ii | <p>The process emissions (SO₂, NH₃, Cl₂, and HCl, shall be scrubbed with Scrubbers. The emission shall be dispersed through stack of adequate height as per CPCB standard.</p> <p>Complied. All the SO₂, NH₃, Cl₂, and HCl vents are being routed through adequate and properly designed scrubbing system. Chimney height, sampling port, etc. are as per the CPCB guidelines. Gaseous emissions from process units are monitored regularly on monthly basis. Details of stack results along with its height data is given in Table 6.</p> <hr/> <p>The gaseous emission from the DG sets shall be dispersed through stack of adequate height as per CPCB standards.</p> <p>DG sets are being used only during emergency like blackout.</p> |

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| | <p>Acoustic enclosures shall be provided to the DG set to control the noise pollution.</p> <p>All DG sets are having inbuilt acoustic enclosures and meeting the prescribed norms of noise levels.</p> |
| | <p>Furthermore, most of the process and flue gas stacks have been monitored through online monitoring system and also connected to GPCB and CPCB website.</p> |
| iii | <p>The company shall upload the status of compliance of stipulated environmental clearance conditions including results of monitored data on its web site.</p> <p>All the stipulated conditions are being complied.</p> |
| | <p>Status of compliance of stipulated environmental clearance conditions to be sent to Regional office of MoEF, the respective Zonal office of CPCB and the state pollution control board.</p> <p>Complied. Compliance status report is regularly submitted to authority.</p> |
| | <p>The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as Stack emissions) or critical sectoral parameters like VOC, indicated for the project shall be monitored and displayed at a convenient location near the main gate of company in the public domain.</p> <p>Complied. The critical pollutants parameters are displayed at board at the company entrance. Details of stack results, ambient air monitoring and VOC measured in fugitive emission is given in Table 6, 7 and 8 respectively.</p> |
| iv | <p>The company shall adopt cleaner production technology to minimize the quantity of fresh water requirement and process effluent generation.</p> <p>- Complied.</p> <p>Company is fully devoted towards protection of environment and has successfully completed many cleaner production projects and will continuously improve further. We have already converted few of our plants as ZLD and are in process of converting many plants as ZLD. Our Ankleshwar unit is fully ZLD. Treated wastewater is being used in lime preparation at ETP, steam condensate is being collected and used in place of raw water, vacuum pump, gland cooling and other water is being collected and reused. Vacuum pumps are removed by installing centrifuge in place of neutch filter and water consumption is reduced. Cooling tower blow down water is used as fire hydrant make up and also used for dust suppression and fly ash quenching instead of fresh water. Water used for washing purpose is reused.</p> <p>Details of per day water consumption is given in Table 9.</p> |
| v | <p>The company shall obtain Authorization for Collection; Storage and Disposal of Hazardous waste under the hazardous waste management (Handling and trans</p> |

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| | <p>boundary movement rule-2008) for management of hazardous waste and prior permission from GPCB shall be obtained for disposal of solid waste in the TSDF.</p> <p>Complied. We have authorization for our own TSDF through GPCB notification no. GPCB/HAZ/GEN-55/9647 dated 13th March 2000 and NOC no. CTE-65621 dated 19/11/2014. Also we have valid authorization under our current CCA No. AWH-67717 for handling, storage and disposal of hazardous waste.</p> <p>Month wise solid waste disposal data for TSDF site is given in Table 10. Details of Solid Waste Generations is given in Table 11.</p> <p>The concerned company shall undertake measures for the firefighting facility in case of emergency.</p> <p>Compiled. We have two nos. of fire tenders, fully adequate hydrant system and trained staff, emergency response team(ERT) of trained workers, power supply from two source with emergency backup power provision from DG set as well grid and detailed on-site emergency plan. Mock drills are also carried out at regular interval.</p> <p>Furthermore, as per the new directives from the SPSCB, high calorific wastes is being sent for co-processing in cement industries and this eliminates possibility of fire.</p> |
| vi | <p>The project authorities shall strictly comply with the rules and guidelines under manufacturing, storage and import of hazardous chemicals rule 1989 as amended in October, 1994 and January, 2000.</p> <p>Complied. We are complying with all the requirement of MSIHC rule and having proper storage and handling system, Onsite plan, Licenses, reporting, etc.</p> <p>All Transportation of Hazardous chemicals shall be as per the MVA, 1989.</p> <p>Complied. TREM card and MSDS of chemicals are provided to transporter.</p> |
| vii | <p>The company shall undertake waste minimization measures :</p> <ul style="list-style-type: none"> ➤ Metering and control of quantities of active ingredients to minimize waste. <p>All raw materials are either properly measured in calibrated measuring tanks or flow meters are installed or weighed before charging to reactors.</p> <ul style="list-style-type: none"> ➤ Reuse of by products from the process as raw materials or as raw material substitutes in other processes. <p>Complied. Sodium Sulfate, Brine, MEE salt, Sodium hypochlorate, sodium thiosulfate are few by-products from the process which are used either as raw material or as substitute to raw materials in other processes.</p> <ul style="list-style-type: none"> ➤ Use of automated filling to minimize spillage. |

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| | <p>Noted. Automated filling system for our agro products, polymers, resorcinol, dyes for small and bulk packing is provided.</p> <ul style="list-style-type: none"> ➤ Use of 'close feed' system into batch system. <p>Chemicals and solvents are handled in close handling system through pipe lines.</p> <ul style="list-style-type: none"> ➤ Venting equipment through vapor recovery system. <p>All reactor vents are connected through vapor recovery system consisting of condensers, ejector/vacuum pumps. Genosorb technology for solvent vapor recovery is adopted.</p> <ul style="list-style-type: none"> ➤ Use of high pressure hoses for equipment clearing to reduce wastewater generation. <p>Many equipment like reactors, spray dryers, condenser wherever necessary are being cleaned with high pressure sparger / jet.</p> |
| viii | <p>Fugitive emissions in the work zone environment, product, raw material storage area shall be regularly monitored. The emission shall conform to the limits imposed by I.</p> <p>Complied. Fugitive emissions is being regularly monitored. Data for the period is given in Table 8. Besides this online monitors in work area for parameters like Chlorine, HCl, Phosgene are also installed.</p> |
| ix | <p>The project authority shall provide chilled brine solution in secondary condensor for condensation of the VOCs.</p> <p>Complied. All the solvent recovery systems are attached with chilled brine solution in secondary condenser for condensation of VOCs.</p> |
| | <p>The project authority shall ensure that solvent recovery shall not be less than 95%</p> <p>Complied. On an average solvent recovery is 96%.</p> |
| | <p>The VOC monitoring shall be carried in the solvent storage area and data submitted to the Ministry.</p> <p>Complied. VOC monitoring is being done and data are submitted through EC compliance report. Data for the period is given in Table 8.</p> |
| x | <p>Solvent management shall be as follows:</p> <ul style="list-style-type: none"> ➤ Reactor shall be connected to chilled brine condenser system. <p>Complied. Refer condition compliance (IX-1) as above.</p> <ul style="list-style-type: none"> ➤ Reactor and solvent handling pump shall have mechanical seals to prevent leakages. |

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| | <p>Noted.</p> <ul style="list-style-type: none"> ➤ The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery. <p>Complied. Refer above condition compliance (IX-2).</p> <ul style="list-style-type: none"> ➤ Solvents shall be stored in a separate space specified with all safety measures. <p>Complied. Solvents are stored in tank yards.</p> <ul style="list-style-type: none"> ➤ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. <p>Complied.</p> <ul style="list-style-type: none"> ➤ Entire plant shall be flame proof. <p>Complied. Jumpers, flame proof electrical fittings and proper earthing are provided.</p> <ul style="list-style-type: none"> ➤ The solvent storage tanks shall be provided with breather valve to prevent loses. <p>Complied. Breather valves have been provided to all solvent storage tanks.</p> |
| xi | <p>Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc.</p> <p>Complied.</p> <hr/> <p>Company shall develop an area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.</p> <p>Complied.</p> <p>Company has developed green belt and dense plantation inside the factory in area more than 33 % of total land. Company is having green belt development plan and planting more than about 50000 plants per year on regular basis.</p> |
| xii | <p>The company shall harvest surface as well as rain water from the roof tops of the building and storm water drain to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.</p> <p>Complied.</p> <p>Company has recently constructed 6000 KL capacity pond to harvest rain water, which is the almost 75% of our per day requirement. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.</p> |

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| | In addition to above, surface runoff water and roof top water is used to recharge bore wells. |
| | Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. |
| | Complied. Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act which is shown in Table 12. |

General Conditions:

| No. | GENEARL CONDITION |
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| i | <p>The project authorities shall strictly adhere to the stipulations made by the State Pollution Control Board.</p> <p>Noted. The company complies with all stipulated norms under various acts.</p> |
| ii | <p>No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.</p> <p>Expansion carried out is strictly as per the project proposal submitted to MoEF.</p> |
| iii | <p>At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the units, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.</p> <p>It is being complied and we will continue its compliance in future as well.</p> |
| iv | <p>➤ The Gaseous emission (NO_x, HCl, SO₂ and SPM) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time.</p> <p>Complied. Details of stack results is given in Table 6.</p> <p>➤ At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restricted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO₂, Nox and SPM shall be carried.</p> <p>It is being complied and we will continue its compliance in future as well. Details of stack result is given in Table 6.</p> |

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| v | <p>The Location of ambient air quality monitoring stations shall be decided in consultation with state pollution control Board and it shall be ensured that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated.</p> <p>Complied. Company has installed monitoring stations as per EC guidelines and regular monitoring is being done as mentioned above. Details of ambient air quality results is given in Table 7.</p> |
| vi | <p>➤ Dedicated Scrubbers and stacks of appropriate height as per the central pollution control board guideline shall be provided to control the emission from various vents.</p> <p>Complied. Details of stack results along with its height data is given in Table 6.</p> <p>➤ The scrubber water shall be sent to ETP for further treatment or sell to actual end users.</p> <p>Complied. The water from scrubber is being sent to ETP.</p> |
| vii | <p>➤ The overall noise level in and around the plant area shall be kept well within the standard by providing noise control measures including acoustic hoods silencers, enclosures etc. on all source of noise generation.</p> <p>Acoustic hood, silencer and acoustic enclosures and insulation are provided at appropriate high noise area like turbine, DG set, vents etc.</p> <p>➤ The ambient noise level shall confirm to the standards prescribed under Environment(Protection) Act-1986 Rules,1989 viz 75 dBA (day time) and 70 dBA (night time)</p> <p>Noise level is regularly monitored around the source and within the plant boundaries and its data are given in Table 13 and 14.</p> |
| viii | <p>➤ Training shall be imparted to all employees on safety and health aspects of chemicals handling.</p> <p>Complied. Company is imparting training to all new employees as well as regular employees at regular intervals. Safety precautions and hazards are also being communicated through display boards at appropriate places in the plants.</p> <p>➤ Pre-employment and routine periodical medical examination for all employees shall be undertaken on regular basis.</p> <p>Pre medical checkup and routine medical checkup for the employees is being done on regular basis. Data are submitted in Table 12.</p> |
| ix | <p>Usage of PPE's by employee/ workers shall be ensured.</p> |

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| | <p>Complied. Company have PPE policy in place and is strictly followed. Company is providing adequate PPEs to all the employees.</p> |
| x | <p>The project proponent shall also comply with all the environmental protection measures and safeguards proposed in project report submitted to the ministry. All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.</p> <p>Complied. Company has complied all the environmental protection measures and safeguards proposed in the report apart from the recommendations made their in.</p> |
| xi | <p>The company will undertake all relevant measures for improving the socio economic condition for the surrounding area, CSR activities will be undertaken by involving local villages and administration:</p> <p>Complied. Company is doing CSR activities through its Atul Rural Development Fund trust and is specially designed for up gradation of surrounding area and well fare of nearby localities. List of CSR activities carried out in nearby villages and schools is given in Table 15.</p> |
| xii | <p>The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.</p> <p>Complied as mentioned in XI above and is provided in Table 15.</p> |
| xiii | <p>A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.</p> <p>Complied.</p> <p>Company has already set up a separate Environmental Management Cell equipped with full-fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is established for research work for the study of various aspects related to environment and its remedial measures. Organogram of Environment Health & Safety is attached as Annexure 1.</p> <p>Also company has developed a separate laboratory equipped with equipment such as pH meter, TDS meter, COD meter, Glass ware, gas chromatography system, oven, muffle furnace, inhofe Cone etc. to carry out testing of routine parameters. However sampling and testing is carried out by GPCB approved and company appointed consultant.</p> <p>Currently the parameters measured in-house are pH, COD, TDS, MLVSS, and MLSS.</p> |
| xiv | <p>The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions</p> |

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| | <p>stipulated herein. The funds so provided shall not be diverted for any other purposes.</p> <p>A budget is prepared for every coming six months and separate fund is allocated towards environmental management. Total expenditure for Jan -2016 to June 16 is given in Table 16.</p> |
| xv | <p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation. Urban local body and the local NGO, if any, from who suggestions/representation, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.</p> <p>Complied.</p> |
| xvi | <p>The implementation of the project vis-à-vis environmental action plan shall be monitored by Ministry's Regional office at Bhopal / SPCB / CPCB.</p> <p>Complied.</p> |
| xvii | <p>The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forest at http://www.envfor.ni.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Ministry's Regional office at Bhopal.</p> <p>Complied.</p> |
| xviii | <p>The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and final approval of the project by the concerned authorities and the date of start of the project.</p> <p>This is the existing project in production as oldest chemical unit and financial institutions have already approved our appraisal and we have obtained NOC and consolidated consent and authorization from GPCB.</p> |

Table 1: Month wise data for waste water generation. (in KL)

| | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | Total |
|------------|---------|--------|---------|--------|--------|--------|---------|
| Month wise | 336319 | 195770 | 165426 | 198007 | 222168 | 247202 | 1364892 |
| Per day | 10849 | 6315 | 5514 | 6387 | 7406 | 7974 | 7418 |

Table 2: Month wise data for MEE (In KL)

| | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | Total |
|------------|---------|--------|---------|--------|--------|--------|-------|
| Month wise | 2416 | 1658 | 2540 | 2861 | 3341 | 3036 | 15852 |
| Per day | 77.9 | 53.5 | 84.7 | 92.3 | 111.4 | 97.9 | 86.2 |

Table : 3: Quality of treated effluent :

| Sr. No. | Parameter | Effluent Sampling Date | | | | | | GPCB Limits |
|---------|---------------------------------|------------------------|--------|---------|--------|--------|--------|-------------|
| | | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | |
| 1 | pH | 7.62 | 7.0 | 7.4 | 7.0 | 8.1 | 7.2 | 5.5-9.0 |
| 2 | Colour (Pt. Co. Scale) | 38 | 62 | 73 | 37 | 84 | 68 | --- |
| 3 | Temperature (°C) | 32 | 28 | 29 | 29 | 29 | 26 | 40 |
| 4 | Suspended Solids | 67 | 84 | 36 | 62 | 76 | 52 | 100 |
| 5 | Phenolic Compounds | 0.6 | 0.7 | 0.58 | 0.2 | 0.6 | 0.4 | 5.0 |
| 6 | Cyanide | ND | ND | ND | ND | ND | ND | 0.2 |
| 7 | Sulphide | 0.84 | 0.8 | 1.2 | 0.5 | ND | ND | 2.0 |
| 8 | Ammonical Nitrogen | 14.52 | 42.3 | 30.5 | 26.4 | 23 | 42 | 50 |
| 9 | BOD | 34.2 | 26 | 18 | 33.2 | 52 | 36 | 100 |
| 10 | COD | 218 | 238 | 236 | 210 | 238 | 221 | 250 |
| 11 | Hexa. Chromium Cr ⁺⁶ | ND | ND | ND | ND | ND | ND | 1.0 |
| 12 | Total Chromium Cr ⁺² | 0.86 | 0.3 | 0.7 | 0.5 | 0.12 | 0.2 | 2.0 |
| 13 | Fluorides | ND | ND | ND | ND | ND | ND | 2.0 |

Note :

ND is not detectable

Unit of measurement is mg/l else specified

Table 4 : Ammonia Recovery data (in MT)

| July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | Total |
|---------|--------|---------|--------|--------|--------|-------|
| 320 | 325 | 320 | 580 | 565 | 620 | 2730 |

Table 5 : Phenol Recovery data (in MT)

| | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | Total |
|---------------------|----------|---------|----------|----------|----------|----------|---------|
| DCP crude distilled | 1537.404 | 1524.18 | 1566.873 | 1325.705 | 1529.766 | 1527.486 | 8964.56 |
| 2,4DCP recovered | 1348.6 | 1337 | 1374.45 | 1162.9 | 1341.9 | 1339.9 | 7863.65 |
| 2.6DCP recovered | 100.593 | 100.275 | 103.083 | 87.216 | 99.08 | 99.914 | 587.63 |
| OCP/Residue | 88.211 | 86.905 | 89.34 | 75.589 | 88.786 | 87.672 | 513.28 |

Table 6 : Stack Details : Attached separately.

Table 7 : Ambient Air Monitoring details

| Station | Parameter | Limit microgm/NM3 | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 |
|--------------------|-----------|----------------------|---------|--------|---------|--------|--------|--------|
| 66 KV | PM 2.5 | 60 | 24 | 24 | 22 | 18 | 20 | 23 |
| | PM10 | 100 | 51 | 52 | 50 | 46 | 49 | 56 |
| | SO2 | 80 | 11.3 | 10.7 | 11.2 | 10.5 | 10.6 | 10.5 |
| | NOx | 80 | 12.2 | 11.2 | 11.6 | 11.3 | 11.8 | 11.6 |
| Opposite Shed D | PM 2.5 | 60 | – | 23 | – | 23 | – | 23 |
| | PM10 | 100 | – | 48 | – | 48 | – | 48 |
| | SO2 | 80 | – | 10.2 | – | 10.2 | – | 10.2 |
| | NOx | 80 | – | 11.3 | – | 11.4 | – | 11.4 |
| | Ammonia | 850 | – | 8.6 | – | ND | – | ND |
| | HCl | 200 | – | ND | – | ND | – | ND |
| Near West site ETP | PM 2.5 | 60 | – | 25 | – | 28 | – | 28 |
| | PM10 | 100 | – | 52 | – | 53 | – | 53 |
| | SO2 | 80 | – | 10.8 | – | 10.5 | – | 10.5 |
| | NOx | 80 | – | 11.7 | – | 11.8 | – | 11.8 |
| | Ammonia | 850 | – | ND | – | ND | – | ND |
| | HCl | 200 | – | ND | – | ND | – | ND |
| Near North ETP | PM 2.5 | 60 | – | 24 | – | 25 | – | 25 |
| | PM10 | 100 | – | 56 | – | 57 | – | 57 |
| | SO2 | 80 | – | 11.2 | – | 9.8 | – | 9.8 |
| | NOx | 80 | – | 12.4 | – | 10.8 | – | 10.8 |
| | Ammonia | 850 | – | ND | – | ND | – | ND |
| | HCl | 200 | – | ND | – | ND | – | ND |
| TSDF | PM 2.5 | 60 | – | 22 | – | 22 | – | 22 |
| | PM10 | 100 | – | 50 | – | 55 | – | 55 |
| | SO2 | 80 | – | 11.4 | – | 11.5 | – | 11.5 |
| | NOx | 80 | – | 12.8 | – | 12.2 | – | 12.2 |
| | Ammonia | 850 | – | ND | – | ND | – | ND |
| | HCl | 200 | – | ND | – | ND | – | ND |
| Main Guest House | PM 2.5 | 60 | 27 | – | 21 | – | 26 | – |
| | PM10 | 100 | 51 | – | 45 | – | 52 | – |

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|-------------------------|---------|-----|------|------|------|------|------|------|
| | SO2 | 80 | 10.5 | _ | 9.2 | _ | 10.6 | _ |
| | NOx | 80 | 12.4 | _ | 11.4 | _ | 11.6 | _ |
| | Ammonia | 850 | 8.6 | _ | ND | _ | ND | _ |
| | HCl | 200 | ND | _ | ND | _ | ND | _ |
| Wyeth Colony | PM 2.5 | 60 | 26 | _ | 26 | _ | 24 | _ |
| | PM10 | 100 | 50 | _ | 59 | _ | 49 | _ |
| | SO2 | 80 | 10.8 | _ | 10.6 | _ | 10.8 | _ |
| | NOx | 80 | 13.2 | _ | 12.8 | _ | 11.8 | _ |
| | Ammonia | 850 | ND | _ | ND | _ | ND | _ |
| | HCl | 200 | ND | _ | ND | _ | ND | _ |
| Gram panchayat hall | PM 2.5 | 60 | 24 | _ | 19 | _ | 20 | _ |
| | PM10 | 100 | 48 | _ | 48 | _ | 46 | _ |
| | SO2 | 80 | 11.6 | _ | 11.2 | _ | 10.4 | _ |
| | NOx | 80 | 12.5 | _ | 11.9 | _ | 11.2 | _ |
| | Ammonia | 850 | ND | _ | ND | _ | ND | _ |
| | HCl | 200 | ND | _ | ND | _ | ND | _ |
| Main office, North site | PM 2.5 | 60 | 29 | _ | 24 | _ | 24 | _ |
| | PM10 | 100 | 56 | _ | 57 | _ | 49 | _ |
| | SO2 | 80 | 11.2 | _ | 10.2 | _ | 10.8 | _ |
| | NOx | 80 | 12.8 | _ | 12.2 | _ | 11.8 | _ |
| | Ammonia | 850 | ND | _ | ND | _ | ND | _ |
| | HCl | 200 | ND | _ | ND | _ | ND | _ |
| Haria water tank | PM 2.5 | 60 | 31 | 28 | 22 | 23 | 25 | 23 |
| | PM10 | 100 | 57 | 54 | 48 | 46 | 42 | 46 |
| | SO2 | 80 | 10.2 | 10.6 | 10.2 | 11.2 | 9.8 | 11.2 |
| | NOx | 80 | 11.8 | 11.2 | 11.8 | 12.3 | 10.3 | 12.3 |

Table 8 : Fugitive Emission Monitoring details

| Plant | Area | Parameter | Prescribed Limit | Results of VOCs in Microgram per NM3 | | | | | |
|------------|-------------------------------------|---------------|------------------|--------------------------------------|--------|---------|--------|--------|--------|
| | | | | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 |
| 2,4 D | Reactor | Phenol | 19 | 0.182 | 0.192 | 0.148 | 0.105 | 0.106 | 0.144 |
| | Buffer tank | Chlorine | 3.0 | 0.176 | 0.104 | 0.104 | 0.187 | 0.156 | 0.108 |
| Resorcinol | Benzene storage tank area near vent | Benzene | 10 | 3.14 | 4.82 | 2.54 | 1.06 | 2.84 | 1.94 |
| | Near Extraction/scrubber unit | Butyl acetate | - | ND | ND | ND | ND | ND | ND |
| Pharma | At second floor work area | Ammonia | 0.8 | 0.71 | 0.69 | 0.74 | 0.81 | 0.62 | 0.71 |
| | Ammonia recovery area | Ammonia | 0.8 | 0.62 | 0.682 | 0.79 | 0.73 | 0.68 | 0.77 |
| Epoxy - I | At vacuum pump 2nd floor | ECH | 10 | 6.22 | 6.81 | 7.64 | 6.98 | 7.68 | 7.94 |
| | At vessel POS 1208 G.F | ECH | 10 | 6.46 | 5.94 | 8.22 | 7.92 | 8.15 | 8.71 |
| Shed H | | Nitrobenzene | 5 | 0.64 | 0.75 | 0.448 | 0.863 | 0.437 | 0.437 |
| Shed J | | Chlorine | 3 | 0.105 | 0.394 | 0.185 | 0.443 | 0.176 | 0.176 |

Table 9 : Water Consumption details

| Month | Raw Water Consumed (In Liters) | |
|--------|--------------------------------|----------|
| | Month | Day |
| Jul 16 | 386574000 | 12470129 |
| Aug 16 | 217517000 | 7016677 |
| Sep 16 | 174133000 | 5804433 |
| Oct 16 | 215225000 | 6942742 |
| Nov 16 | 246853000 | 8228433 |
| Dec 16 | 274669000 | 8860290 |

Table 10 : Month wise Solid waste disposal data for TSDF site (In MT.)

| July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | Total |
|---------|--------|---------|--------|--------|--------|---------|
| 741.36 | 712.53 | 729.48 | 812.36 | 771.11 | 824.67 | 4591.51 |

Table 11 : Solid Waste Generations details

| Sr. No. | Type of waste | Category | Qty. per month in Kgs. | | | | | | Disposal |
|---------------------|-------------------|----------|------------------------|--------|---------|--------|--------|--------|----------|
| | | | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | |
| Waste Data for TSDF | | | | | | | | | |
| 1 | Al. Hydroxide | 26.1 | 0 | 0 | 0 | 0 | 0 | 2850 | TSDF |
| 2 | Iron Sludge | 26.1 | 0 | 0 | 0 | 24000 | 9400 | 12000 | TSDF |
| 3 | Iron Residue | 26.1 | 11210 | 13530 | 12780 | 6490 | 2870 | 19710 | TSDF |
| 4 | Brine Sludge | 16.3 | 0 | 0 | 0 | 17710 | 11440 | 22500 | TSDF |
| 5 | ETP/Gypsum Sludge | 34.3 | 722900 | 699000 | 700900 | 726500 | 695900 | 721300 | TSDF |
| 6 | Inci. Ash | 36.2 | 150 | 0 | 0 | 0 | 0 | 0 | TSDF |
| 7 | Salt from MEE | - | 0 | 0 | 0 | 22160 | 37900 | 30610 | TSDF |
| 8 | Hyflow | 29.1 | 7100 | 0 | 15800 | 15500 | 13600 | 15700 | TSDF |

| Waste Data for Incinerator | | | | | | | | | |
|----------------------------|-----------------------------|------|-------|-------|-------|-------|-------|--------|-------------------------------|
| 9 | Higher Amino | 23.1 | 0 | 0 | 0 | 0 | 0 | 0 | Incinerator |
| 10 | Filter cake of Epoxy Resins | 23.1 | 0 | 0 | 0 | 0 | 0 | 0 | Incinerator |
| 11 | Epoxy Resin | 23.1 | 83050 | 96670 | 93620 | 92390 | 86410 | 100530 | Incinerator/ Co processing |
| 12 | Still & Other residue (CP) | 29.1 | 940 | 0 | 0 | 0 | 0 | 0 | Incinerator |
| 13 | Still & Other residue (CO) | 26.1 | 0 | 0 | 0 | 0 | 0 | 0 | Incinerator |
| 14 | Spent Carbon | 28.2 | 5840 | 35610 | 36750 | 38890 | 36420 | 40940 | Incinerator/ Co processing |
| 15 | Darco | 26.1 | 0 | 0 | 0 | 0 | 0 | 0 | Incinerator |

Table 12: Summary of occupational health

| Sr. No. | Month of Examination | Total No. of Employees |
|---------|----------------------|------------------------|
| 1 | Quarter 2 (16-17) | 1238 |
| 2 | Quarter 3 (16-17) | 1501 |

Table 13: Noise level monitoring data (Day Time)

| Sr. No. | Location | Noise Level, dBA | | | | | | Permissible Limits, dBA |
|---------|-----------------------|------------------|--------|---------|--------|--------|--------|-------------------------|
| | | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | |
| | | | | | | | | 75 |
| 1 | Near Main guest house | 68 | 65 | 61 | 63 | 68 | 66 | 75 |
| 2 | Near TSDF | 65 | 63 | 65 | 62 | 65 | 64 | 75 |
| 3 | At Wyeth Colony | 67 | 67 | 66 | 65 | 61 | 62 | 75 |
| 4 | Gram Panchayat Hall | 61 | 63.5 | 64 | 64 | 58 | 59 | 75 |
| 5 | Near Main Office | 64 | 66 | 67 | 60 | 65 | 66 | 75 |

| | | | | | | | | |
|----|-----------------------|------|----|----|----|----|----|----|
| | North site | | | | | | | |
| 6 | ETP North site | 63.5 | 69 | 68 | 65 | 67 | 68 | 75 |
| 7 | Opposite shed D | 68.5 | 61 | 63 | 68 | 64 | 65 | 75 |
| 8 | ETP West site | 59 | 57 | 69 | 67 | 67 | 63 | |
| 9 | Water tank Haria road | 69 | 64 | 63 | 60 | 61 | 59 | 75 |
| 10 | Near 66KVA substation | 66 | 62 | 59 | 58 | 58 | 57 | 75 |

Table 14: Noise level monitoring data (Night Time)

| Sr. No. | Location | Noise Level, dBA | | | | | | Permissible Limits, dBA |
|---------|-----------------------------|------------------|--------|---------|--------|--------|--------|-------------------------|
| | | July-16 | Aug-16 | Sept-16 | Oct-16 | Nov-16 | Dec-16 | |
| | | | | | | | | 70 |
| 1 | Near Main guest house | 58 | 55 | 56 | 58 | 62 | 60 | 70 |
| 2 | Near TSDF | 59 | 56 | 59 | 54 | 60 | 58 | 70 |
| 3 | At Wyeth Colony | 52 | 54 | 58 | 53 | 56 | 56 | 70 |
| 4 | Gram Panchayat Hall | 55 | 58 | 60 | 62 | 52 | 54 | 70 |
| 5 | Near Main Office North site | 49 | 52 | 61 | 65 | 59 | 61 | 70 |
| 6 | ETP North site | 63 | 61 | 63 | 58 | 62 | 60 | 70 |
| 7 | Opposite shed D | 57 | 54 | 55 | 51 | 57 | 58 | 70 |
| 8 | ETP West site | 49 | 61 | 58 | 57 | 61 | 56 | 70 |

| | | | | | | | | |
|----|--------------------------|----|----|----|----|----|----|----|
| 9 | Water tank Haria road | 61 | 58 | 56 | 59 | 56 | 53 | 70 |
| 10 | Near 66KVA substation | 63 | 60 | 61 | 56 | 52 | 52 | 70 |

Table 15: List of CSR activities

| CSR activities during 16-17 | |
|------------------------------------|--|
| 1 | Distributed 11630 note books, 2735 pencils, erasers, and ballpen etc. to students of 23 primary school students. |
| 2 | Set up library at Sarvajanic Madhyamik Shala Parnera, Supply of Furniture for Library. |
| 3 | Food Material supply to 85 students for Chhataralaya Mama Bhacha , every month including cooking facility. |
| 4 | Construction of Compound wall at Primary School Magod Dungri . |
| 5 | Painting work at Primary school Haria village as per requirement of School Authority. |
| 6 | Seva Day was organized at Moti Korvad Ashram Shala, Moti Korvad, Dharpur . Cloths and food material distributed to approx. 2000 tribal people and provided lunch thereafter. |
| 7 | Donation given to Mass Marriage at Chadra Moleshwar Mahadev Temple. |
| 8 | Help to flood effected people Valsad Parid village repair and construct of cluster and distribution of Blank ket. |
| 9 | Sanitation programme held at Parnera, Atar, Dived, Chanvai, Haira, Magod Dungri , Anjalv, Chanvai and Parnera 593 Units completed in the 2016 -17 . |
| 10 | 40 LED street light provided to Parnera Village. |
| 11 | Supply of Dustbin to Dived village under the scheme of Swchh Bharat Abhiyan. |
| 12 | Colour work at Bhakti Shed and Temple Binwada Village. |
| 13 | Distribution of fertilizer to Farmer Haria Khedut Mandal , Haria project (104 couples) |
| 14 | 15 Blood donations camp organized and total 1319 units blood collected. |
| 15 | 7 eye camps organized and Total 2073 patients covered during eye camps. |

Table 16 : Total expenditure for July -2016 to December 16

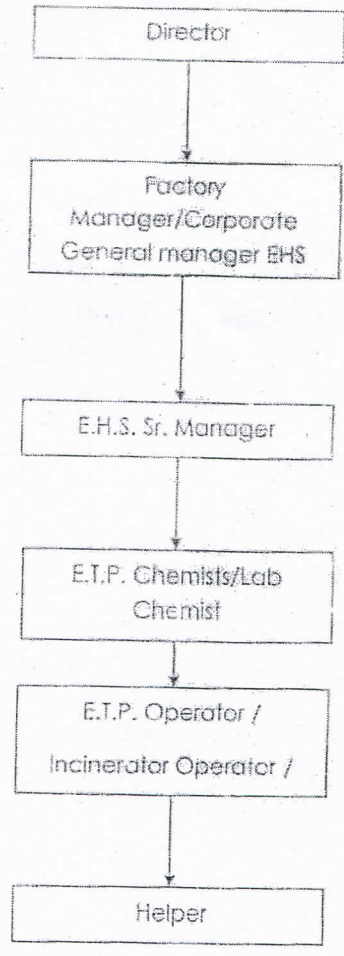
| Expenditure for months | Particular | Expenses Rs. |
|--|-----------------------------|---------------------|
| July 2016 to December-2016 Including, recurring maintenance, modifications and monitoring. | Fuel | 2843171 |
| | Chemicals(Raw Material) | 67293613 |
| | Electricity | 28334819 |
| | Waste disposal | 701002 |
| | Salary | 14537721 |
| | Maintenance & modifications | 12086043 |
| | Monitoring | 1851112 |
| | Total | 127647480 |

| CP Plant | | Permissible Limits | Stack Height m | Parameter | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value |
|-----------------------|--|-----------------------|----------------|-------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|
| 21 | MCPA | 9 mg/NM ³ | 19 | Cl ₂ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 20 mg/NM ³ | | HCL | | | | | | | | | | | | |
| | | 40 mg/NM ³ | | SO ₂ | | | | | | | | | | | | |
| 22 | Fipronil | 40 mg/NM ³ | 19 | SO ₂ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 20 Mq/Nm3 | | HCL | | | | | | | | | | | | |
| 23 | Imidacloprid | 175 Mg/Nm3 | 20 | NH ₃ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| 24 | Pyrathroids | 40 Mg/Nm3 | 19 | SO ₂ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 20 Mq/Nm3 | | HCL | | | | | | | | | | | | |
| 25 | Stack at Amine Plant | 175 Mg/Nm3 | 5 | NH ₃ | 2/12/2016 | 9 | | | 28/10/16 | 7.3 | 23/9/16 | 9 | 19/8/16 | 7 | 29/7/16 | 8 |
| MPSL Plant | | | | | | | | | | | | | | | | |
| 26 | Phosgene Scrubbr at MPSL | 0.1 ppm | 7 | Phosgene | 7/12/2016 | ND | | | 28/10/16 | 0.03 | 23/9/16 | 0.02 | | 0.01 | 29/7/16 | 0.02 |
| 27 | Central Scrubber at MPSL | 0.1 ppm | 7 | Phosgene | 7/12/2016 | ND | | | | 0.03 | | 0.02 | 19/8/16 | 0.01 | | 0.01 |
| NICO Plant | | | | | | | | | | | | | | | | |
| 28 | Central scrubber at Nico Plant | --- | 12 | Acetonytryle, IPA | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| Ester Palnt | | | | | | | | | | | | | | | | |
| 29 | Scrubber at Ester plant for Glyphosate | 10 Mg/Nm3 | 12 | Formaldehyde | | | | | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | 29/7/16 | 2.1 |
| 30 | Central Scrubber MCPA Plant | 20 Mg/Nm3 | 19 | HCL | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| Atul West Site | | | | | | | | | | | | | | | | |
| 31 | Shed A7/14/41 Reaction pan/ D tank | 2.0 mg/Nm3 | 19 | Bromine | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 25.0 mg/Nm3 | | NOx | | | | | | | | | | | | |
| 32 | Shed B2/12/24 Reaction Vessel | 9.0 mg/Nm3 | 19 | Cl ₂ | 14/12/16 | 3.8 | | 3.8 | | 4 | | 4.2 | | 3.8 | | 4.2 |
| | | 20.0 mg/Nm3 | | HCL | | | | | | | | | | | | |
| 33 | Shed C5/20/15 Chlorinator | 9.0 mg/Nm3 | 19 | Cl ₂ | 14/12/16 | 5.2 | | 5.2 | | 3.8 | | 3.6 | | 4.8 | | 5.8 |
| | | 20.0 mg/Nm3 | | HCL | | | | | | | | | | | | |
| 34 | Shed D Niro Spray dryer No.45 | 150.0 mg/Nm3 | 19 | PM | 1/12/2016 | 6.2 | | 6.2 | | 5.2 | | 5.2 | | 5.2 | | 6 |
| 35 | Shed D Niro Spray dryer No. 50 | 150.0 mg/Nm3 | 19 | PM | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | 5.4 | | 6.2 |
| 36 | Shed E 7/12/49 Spray Dryer | 150.0 mg/Nm3 | 19 | PM | | Not Runnig During Visit | 25/11/16 | Not Runnig During Visit | 13/10/16 | Not Runnig During Visit | 15/9/16 | Not Runnig During Visit | 6/8/2016 | Not Runnig During Visit | 8/7/2016 | Not Runnig During Visit |
| 37 | Shed F 6/1/15 Reaction Vessel | 9.0 mg/Nm3 | 19 | Cl ₂ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 20.0 mg/Nm3 | | HCL | | | | | | | | | | | | |
| 38 | Shed G 10/8/1 (receiver) | 9.0 mg/Nm3 | 19 | Cl ₂ | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| | | 20.0 mg/Nm3 | | HCL | | | | | | | | | | | | |
| 39 | Shed H 1/6/17 Chlorinator | 9.0 mg/Nm3 | 19 | Cl ₂ | 2/12/2016 | 3.1 | | 3.1 | | 3.2 | | 3.7 | | 3.2 | | 3.8 |
| | | 20.0 mg/Nm3 | | HCL | | | | | | | | | | | | |
| 40 | Shed K K-13/3/4 Final of Sulfuric acid plant | 2.0 kg/T | 19 | SO ₂ | | 0.8 | | 0.8 | | 0.4 | | 0.3 | | 0.2 | | 0.3 |
| | | 50.0 mg/Nm3 | | Acid Mist | | | | | | | | | | | | |

| Atul North Site | | Permissible Limits | Stack Height m | Parameter | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value | Date of Sampling | Obtained Value |
|----------------------------------|---------------------------------------|--------------------|----------------|--------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|
| 41 | N-FDH Plant Catalytic Incinerator | 150.0 mg/Nm3 | 31.5 | PM | 29/12/16 | 25 | 24/11/16 | 21 | 13/10/16 | 24 | 15/9/16 | 22 | | 28 | | 30 |
| | | 40.0 mg/Nm3 | | SO2 | | 5.4 | | 5.1 | | 5.5 | | 4 | | 5 | | 6 |
| | | 25.0 mg/Nm3 | | Nox | | 5.8 | | 5.6 | | 6 | | 5 | | 7 | | 9 |
| | | 10.0 mg/Nm3 | | Formaldehyde | | ND | | ND | | ND | | ND | | ND | | ND |
| 42 | PHIN Plant | 0.1 ppm | 15.5 | Phosgene | | ND | | ND | 14/10/16 | ND | 16/9/16 | ND | 11/8/2016 | ND | 8/7/2016 | ND |
| 43 | DCDPS Plant | --- | 30 | SO3 | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| 44 | DDS Plant | 175 Mg/Nm3 | 20 | NH3 | 28/12/16 | Not Runnig During Visit | | Not Runnig During Visit | 27/10/16 | 5.3 | 22/9/16 | 5.6 | 19/8/16 | 6.8 | 28/7/16 | 7.2 |
| 45 | SPIC II Plant | --- | 30 | SO3 | | 2.2 | | | | 2.8 | | 3.2 | | 4.1 | | 4.3 |
| 46 | SPIC I Plant | 175 Mg/Nm3 | 30 | NH3 | | 3.6 | | | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit | | Not Runnig During Visit |
| Details of Flue gas stack | | | | | | | | | | | | | | | | |
| East site | | | | | | | | | | | | | | | | |
| 1 | FBC boiler E1 | 150.0 mg/Nm3 | 34 | SPM | 29/12/16 | 38 | 17/11/16 | 36 | 14/10/16 | 27 | 16/9/16 | 29 | 11/8/2016 | 32 | 14/7/16 | 36 |
| | | 100 ppm | | SO2 | | 35 | | 34 | | 31 | | 33 | | 35 | | 38 |
| | | 50 ppm | | Nox | | 32 | | 31 | | 34 | | 31 | | 32 | | 36 |
| 2 | FBC boiler E2 | 150.0 mg/Nm3 | 34 | SPM | 29/12/16 | 36 | 17/11/16 | 33 | 14/10/16 | 29 | 16/9/16 | 26 | 11/8/2016 | 31 | 14/7/16 | 34 |
| | | 100 ppm | | SO2 | | 31 | | 32 | | 35 | | 36 | | 38 | | 36 |
| | | 50 ppm | | Nox | | 33 | | 35 | | 37 | | 34 | | 31 | | 34 |
| 3 | FBC boiler No.3 | 150.0 mg/Nm3 | 50 | SPM | 29/12/16 | 34 | 17/11/16 | 32 | 14/10/16 | 32 | 16/9/16 | 31 | 11/8/2016 | 36 | 14/7/16 | 33 |
| | | 100 ppm | | SO2 | | 32 | | 36 | | 37 | | 37 | | 39 | | 37 |
| | | 50 ppm | | Nox | | 36 | | 33 | | 35 | | 33 | | 37 | | 33 |
| 4 | Hot Oil Unit (Resorcinol Plant) | 150.0 mg/Nm3 | 32.5 | SPM | 29/12/16 | ND | 17/11/16 | ND | 14/10/16 | ND | 16/9/16 | ND | 11/8/2016 | ND | 14/7/16 | ND |
| | | 100 ppm | | SO2 | | ND | | ND | | ND | | ND | | ND | | ND |
| | | 50 ppm | | Nox | | 24 | | 26 | | 28 | | 26 | | 28 | | 26 |
| West Site | | | | | | | | | | | | | | | | |
| 5 | FBC boiler W1 | 150.0 mg/Nm3 | 45 | SPM | 30/12/16 | 32 | 25/11/16 | 30 | 15/10/16 | 31 | 16/9/16 | 30 | 11/8/2016 | 32 | 14/7/16 | 37 |
| | | 100 ppm | | SO2 | | 37 | | 35 | | 33 | | 34 | | 34 | | 36 |
| | | 50 ppm | | Nox | | 35 | | 33 | | 36 | | 37 | | 38 | | 39 |
| 6 | Coal fired Boiler W1 | 150.0 mg/Nm3 | 35 | SPM | 30/12/16 | Not in use | 25/11/16 | Not in use | 15/10/16 | Not in use | 16/9/16 | Not in use | 11/8/2016 | Not in use | 14/7/16 | Not in use |
| | | 100 ppm | | SO2 | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use |
| | | 50 ppm | | Nox | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use |
| 7 | Coal fired boiler W2 | 150.0 mg/Nm3 | 35 | SPM | 30/12/16 | Not in use | 25/11/16 | Not in use | 15/10/16 | Not in use | 16/9/16 | Not in use | 11/8/2016 | Not in use | 14/7/16 | Not in use |
| | | 100 ppm | | SO2 | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use |
| | | 50 ppm | | Nox | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use | | Not in use |
| 8 | Hot Oil Plant shed-B | 150.0 mg/Nm3 | 19 | SPM | 30/12/16 | ND | 25/11/16 | ND | 15/10/16 | ND | 16/9/16 | ND | 11/8/2016 | ND | 14/7/16 | ND |
| | | 100 ppm | | SO2 | | ND | | ND | | ND | | ND | | ND | | ND |
| | | 50 ppm | | Nox | | 27 | | 25 | | 23 | | 26 | | 28 | | 30 |
| 9 | Oil burner Shed B (Standby) | 150.0 mg/Nm3 | 17 | SPM | 30/12/16 | STAND BY | 25/11/16 | STAND BY | 15/10/16 | STAND BY | 16/9/16 | STAND BY | 11/8/2016 | STAND BY | 14/7/16 | STAND BY |
| | | 100 ppm | | SO2 | | STAND BY | | STAND BY | | STAND BY | | STAND BY | | STAND BY | | STAND BY |
| | | 50 ppm | | Nox | | STAND BY | | STAND BY | | STAND BY | | STAND BY | | STAND BY | | STAND BY |
| 10 | Boiler (50 TPH 2 Nos) | 50.0 mg/Nm3 | 108 | PM | 31/12/16 | 39 | 25/11/16 | 38 | 15/10/16 | | 16/9/16 | | 11/8/2016 | | 14/7/16 | |
| | | 100 ppm | | SO2 | | 34 | | 36 | | | | | | | | |
| | | 50 ppm | | Nox | | 31 | | 33 | | | | | | | | |
| 11 | DG set 1500 KVA (Standby) | -- | 12 | Mercury | 31/12/16 | ND | 25/11/16 | ND | 15/10/16 | | 16/9/16 | | 11/8/2016 | | 14/7/16 | |
| | | 150.0 mg/Nm3 | | SPM | | STAND BY | | STAND BY | | | | | | | | |
| | | 100 ppm | | SO2 | | STAND BY | | STAND BY | | | | | | | | |
| 12 | Thermic fluid heater of DCO/DAP Plant | 150.0 mg/Nm3 | 12 | SPM | 31/12/16 | 58 | 25/11/16 | 62 | 15/10/16 | 65 | 16/9/16 | Not Runnig During Visit | 11/8/2016 | Not Runnig During Visit | 14/7/16 | Not Runnig During Visit |
| | | 100 ppm | | SO2 | | 49 | | 51 | | 55 | | | | | | |
| | | 50 ppm | | Nox | | 34 | | 32 | | 35 | | | | | | |

Figure 1
Organogram of Environment Health & Safety

Management Cell



Compliance to EC No. SEIAA/GUJ/EC/1(d)/340/2016

| | |
|----------------|---|
| Sr. No. | A.1 SPECIFIC CONDITION: |
| 1. | Unit shall comply the emission standards mentioned in the Notification by MOEF&CC vide S.O. 3305(E) dated 07/12/2015. |
| | Complied. Installed 4 Field ESP and 106 Mtr tall chimney. |
| 2. | All measures shall be taken to prevent soil and ground water contamination. |
| | Noted. |
| 3. | The project proponent shall submit the detailed study report to Gujarat Pollution Control Board (GPCB) at least once in a year, through the reputed institute or university to assess the impacts on soil and ground water quality, if any due to application of waste water generation from the CPP and shall adopt the additional mitigation measures as may be suggested through such studies. |
| | Noted and will be submitted |
| | A.2:WATER: |
| 4. | The fresh water requirement for the proposed expansion shall not exceed 2095 KL/day and it shall be met through the existing water supply system from River par. Permission from the Concern authority for additional water requirement shall be obtained. |
| | Noted. We already have permission from Government of Gujarat for this additional requirement. |
| 5. | Metering of water shall be done and its records shall be maintained. No ground water shall be tapped in any case for meeting the project requirements. |
| | Complied. |
| 6. | The industrial effluent generation from the proposed expansion shall not exceed 270 KL/day and entire quantity of effluent shall be utilized for ash quenching, dust suppression, fire hydrant make up, Gardening plants floor cleaning. |
| | Complied. |
| 7. | There shall be no discharge of industrial effluent from the proposed project in any case. |
| | Complied. |

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| 8. | Domestic waste water generation shall not exceed 1 KL/day Which shall be disposed of into soak system. |
| | Complied. |
| 9. | The unit shall provide metering facility at the inlets and outlets of the collection cum reuse system of waste water and maintain records of the same. |
| | Complied. |
| 10. | Proper logbooks of waste water reuse system showing quantity and quality of effluent reused shall be maintained and furnished the GPCB from time to time. |
| | Complied. |
| 11. | Rain water harvesting of rooftop rain water shall be undertaken as proposed in the EIA report of the project and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water through percolation wells. Before recharging the rain water, pre-treatment must be done to remove suspended matter. |
| | Partially implemented and will be completed before monsoon. |
| | A.3AIR: |
| 12. | Existing two coal fired steam boilers shall be replaced with two AFBC Boilers having capacity 50 TPH each. |
| | Two old stoker fired boilers have already been dismantled for upcoming new AFBC boiler. |
| 13. | Fuel (Indian coal/and or Imported coal and or Lignite) to the tune of 16725 MT/M shall be used for proposed boilers. |
| | Complied. |
| 14. | Sulfur and ash content of the fuel to be used shall be analyzed and its record shall be maintained. |
| | Noted and will be maintained. |
| 15. | A Long term study of radio activity and heavy metal contents in coal/ lignite to be used shall be carried out through a reputed institute and results thereof analyzed regularly and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal/lignite and Flyash (Including bottom ash) shall be put in place. |

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| | Noted and will be maintained. |
| 16. | Height of flue gas stacks attached to boilers shall be minimum 74.58 meters. |
| | Height of the stack is 108 meters. |
| 17. | A flue gas stack of 74.58 m height shall be provided with online monitoring system to proposed steam Boiler. Mercury gas emission from stacks shall also be monitored on periodic basis. |
| | Height of the stack is 108 meters. Online monitoring system for SPM, SOx and NOx is already been made. Photograph attached as Annexure 1. Stack result by GPCB is attached as Annexure 2. |
| 18. | High efficiency Electro static precipitators (ESP) with efficiency not less than 99.9% shall be installed for control of flue gas emission from the proposed Boilers. The ESP shall be operated efficiently to ensure that particulate matter emission does not exceed the GPCB norms. The control system shall be designed and integrated in plant DCS in such a way that amended from ESP exceeds the specified standard prescribed in the Environment (protection) Rules 1986 as amended from time to time, utilization of boiler capacity shall so that flue gas emission from the stack meets with the specified standards or boiler shall shut down totally. |
| | Total 4 field ESP has been installed and commissioned to meet further stringent requirement also. |
| 19. | Third party monitoring of the functioning of ESP along with efficiency shall be carried out once in a year through a reputed institute / organization. |
| | Noted and will be done. |
| 20. | Lime stone injection technology shall be adopted to control SO2 and it shall be ensured that SO2 levels in the ambient air do not exceed the prescribed standards. |
| | A system to inject lime stone powder and meeting with the prescribed norms of SO2 is already been installed and interconnected with the online emission monitoring system. |
| 21. | The company shall prepare schedule and carry out regular preventive maintenance of mechanical and electrical parts of ESPS and assign responsibility of preventive maintenance to the senior officer of the company. |
| | Our company is ISO 14001 certified company and regular preventive maintenance of all the critical equipment is a part of our system. |
| 22. | Diesel to the tune of 300 Lit/hr shall be used as a fuel in stand –by D. G. Set (1500 KVA). |

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| | Noted. |
| 23. | The flue gas emission from DG set shall be dispersed through adequate stack height as per CPCB standards. At no time the emissions levels shall go beyond the stipulated standards. Acoustic enclosure be provided to DG seta to mitigate the noise pollution. |
| | Noted. |
| 24. | Online monitoring system shall be installed to monitor the SOx, NOx and SPM in the flue gas stack. An arrangement shall also be done for reflecting the online monitoring result on the company's server, which can be assessable by the constructed. |
| | Online monitoring system for SPM, SOx and NOx is already been made. |
| 25. | Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No shall be constructed. |
| | Two silos of 330 m3 capacity for fly ash and one silo of 45 m3 for bottom ash are provided. |
| 26. | Handling of the fly ash shall be through a closed pneumatic system. |
| | It is already provided. |
| 27. | Ash shall be handled only in dry state. |
| | Complied. |
| 28. | The unit shall strictly comply with the fly ash Notification under the EPA and it shall ensure that there is 100% utilization of fly ash to be generated from the unit. |
| | Complied. Fly ash generated data given in Table 1. |
| 29. | The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health) Following Indicative guidelines shall be also be followed to reduce the fugitive emission. |
| | <ul style="list-style-type: none"> •All handing & transport of coal & Lignite shall be exercised through covered coal conveyors only. <p>Already been considered and provided.</p> <ul style="list-style-type: none"> •Enclosure shall be provided at coal / Lignite loading and uploading operations. <p>Already been considered and provided.</p> |

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| | <ul style="list-style-type: none"> •Water shall be sprinkled on coal / Lignite stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission. <p>Already been considered and will be followed.</p> <ul style="list-style-type: none"> •All transfer points shall be fully enclosed. <p>Already been considered and provided.</p> <ul style="list-style-type: none"> •Adequate dust suppression / extraction system at crusher house as well as for the coal/ Lignite stock yard and other vulnerable areas shall be provided to abate dust nuisance. <p>Already been considered and provided.</p> <ul style="list-style-type: none"> •Accumulated coal dust / fly ash on the ground and surfaces shall be removed / swept regularly and water the area sweeping. <p>Noted and will be followed.</p> <ul style="list-style-type: none"> •Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. <p>We have already been constructed RCC roads.</p> <ul style="list-style-type: none"> •Air borne dust shall be controlled with water sprinkles at suitable locations in the plant. Coal / Lignite shall be transported through covered trucks only whereas fly ash shall be transported through closed trucks only. <p>Noted and will be followed.</p> <ul style="list-style-type: none"> •A green belt shall be developed all around the plant boundary and also the roads to mitigate fugitive & transport dust emission. <p>Noted and will be followed.</p> |
| 30. | <p>Regular Monitoring of ground level concentration of PM2.5, PM10, NOx, SO2 and Hg shall in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by GPCB If at any stage these levels are found to exceed the prescribed limits necessary additional control measures shall be taken be decided in consultation with the GPCB.</p> <hr/> <p>We are regularly monitoring PM2.5, PM10, NOx, SO2 in ambient air and will be continued monitoring. Ambient Air data given in Table 2.</p> |
| | <p>A.4 SOLID/ HAZARDOUS WASTE:</p> |

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| 31. | The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance from time to time. Authorization from the GPCB shall be obtained for collection / treatment/storage disposal of hazardous waste. |
| | Noted and will be complied time to time. |
| 32. | Hazardous waste sludge shall be packed stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal. |
| | Complied. There is not any generation of waste in this project, however for rest of plant it is strictly done as per the valid CCA. |
| 33. | The used oil shall be sold to only to the registered recyclers / refiners. |
| | Used oil is being sold to GPCB authorized vendors only |
| 34. | The discarded containers / barrels /bags/ liners shall be sold only to the registered recycler. |
| | Decontaminated material is being sold to GPCB authorized vendors only. |
| 35. | For storage of fly ash closed silos of adequate capacity shall be provided. No ash pond shall be construed in the project. |
| | Complied. Fly ash Silos 2 No's of storage capacity 300 Cu.M each have been installed. A separate bed ash silo of 100 Cu.M has been installed. |
| 36. | The fly ash shall be supplied to the manufacturers of fly ash based products such as cement, concrete blocks, bricks, panels, etc. The unit shall strictly comply with the Fly Ash Notification under EPA and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit. |
| | Complied. Fly ash is being given to Cement and Bricks manufacturers and also being used for our own Bricks Manufacturing unit. |
| 37. | All possible efforts shall be made for co-processing of the Hazardous waste prior to disposal into TSD/CHWIF. |
| | Noted and will be complied. |
| | A.5 SAFETY: |
| 38. | The project management shall strictly comply with the provisions made in the Factories Act, 1948 as well as manufacturer, storage and Impact of Hazardous chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals. |
| | Noted and will be complied. |

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| 39. | Necessary precautions like continuous monitoring of hot spot (lignite lignite) using temperature detection systems water sprinklers, avoiding stacking of lignite near stream pipeline etc shall be made for storing lignite to prevent fire hazard. |
| | Complied. Lignite is usually used on the same day of its receiving at site as far as possible. Lignite is not being stored for not more than 3-4 Days. However, Water spray and fire hydrant system is available for the fuel storage sheds. |
| 40. | All the risk mitigation measures, general & specific recommendations mentioned in risk Assessments Report shall be implemented. |
| | Complied. |
| 41. | A well designed fire hydrants system shall be installed as per the prevailing standards. |
| | Complied. |
| 42. | Personal protective Equipment shall be provided to worker and its usage shall be ensured and supervised. |
| | Being followed. |
| 43. | First Aid Box and required antidotes for the chemical used in the unit shall be readily available in adequate quantity at all the times. |
| | Complied. First aid box are kept in each plant and at strategic locations whereas antidotes are kept in the medical Centre. |
| 44. | Occupational health surveillance of the workers shall be done its records shall be maintained. Pre - employment and periodical medical examination for all the worker shall be undertaken as per the Factories Act & rules. |
| | Being done on regular basis as per the Factories Act & rules. |
| 45. | Flameproof fittings shall be provided at the proposed power plant. |
| | Flame proof fittings are provided and being complied. |
| 46. | Adequate firefighting facilities shall be provided at the proposed power plant. |
| | Complied. |
| 47. | Proper ventilation shall be provide in the work area. |
| | Complied. |

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| 48. | All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages. |
| | The roads are of high quality. |
| 49. | The project management shall prepare a details Disaster management plan (DMP) for the project as the guidelines from Directors of Industrial safety and Health. |
| | Complied. Detailed disaster management plan is already prepared. |
| | A.6 NOISE: |
| 50. | <p>To minimize the noise pollution the following noise control measures shall be implemented.</p> <ul style="list-style-type: none"> • Selection of any new plant equipment shall be made with specifications of low levels. <p>Complied.</p> <ul style="list-style-type: none"> •Manufacturer / supplier of major noise generating machines / equipment like air compressor. Feeder pumps, turbine generators, etc shall be instructed to make required design modifications wherever possible regulatory norms with respect to noise generation for individual units. <p>Complied.</p> <ul style="list-style-type: none"> •Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact. <p>Complied.</p> <ul style="list-style-type: none"> •Noise suppression measures such as enclosures, buffers and / or protective measures shall be provided. <p>Silencers, accoustic hood are provided.</p> <ul style="list-style-type: none"> •Employees shall be provided with ear protection measures like earplugs or earmuffs. <p>Complied.</p> <ul style="list-style-type: none"> •Proper oiling lubrication and preventive maintenance shall be carried out of the machineries and equipments to reduce noise generation. <p>Complied.</p> <ul style="list-style-type: none"> • Construction equipment generating minimum noise vibration shall be chosen. <p>Complied.</p> |

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| | <ul style="list-style-type: none"> • Ear plugs and / muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment. <p>Complied.</p> <ul style="list-style-type: none"> • Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate. <p>Complied.</p> <ul style="list-style-type: none"> • Construction equipment meeting the norms specified by EP Act, 1986 shall only be used. <p>Complied.</p> <ul style="list-style-type: none"> • Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas. <p>Complied.</p> <ul style="list-style-type: none"> • Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment. <p>Complied.</p> |
| 51. | <p>The overall noise level in and around the plant area shall be kept well within the prescribed standard by providing noise control measures including acoustic insulation, hoods, silences, enclosures, vibration, dampers etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (protection) Act and Rules. Workplace noise levels for workers shall be as per the factories Act and Rules.</p> <p>Complied. Silencers, acoustic hood are provided.</p> |
| | A.7 GREEN BELT AND OTHER PLANTATION. |
| 52. | <p>The unit shall develop green belt in at least 68000 sq.m area within the premises. Green belt shall comprise of rows of varying height tall native trees with thick foliage in the periphery of the factory premises.</p> <p>Complied. Green belt is developed and we planted more than 50000 plants every year.</p> |
| 53. | <p>The unit shall also taken up adequate plantation at suitable open Land on road sides and other open areas in nearby villages or schools in consultation with the Gram panchayat / GPCB and submit an action plan for the same for next three years to the GPCB.</p> <p>Being followed.</p> |
| | B. OTHER CONDITIONS: |

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| 54. | In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved. |
| | Noted. |
| 55. | All the recommendation , mitigation measures ,environments protection measures and safeguard proposed in the EIA report of the project prepared by M/s ; Eco chem Sales &Service ,surat & submitted vide letter no NIL dated 03/11/2015 and commitments made during presentation before SEAC, proposed in the EIA report shall be strictly adhered to in letter and spirit. |
| | Noted and being complied. |
| 56. | All the recommendation of CREP guidelines as may be applicable from time to time shall be following vigorously. |
| | Noted and being complied. |
| 57. | A separate environment management cell with qualified staff shall be set up for implementation of stipulated environmental safeguards. |
| | Noted and being complied. |
| 58. | The project authorities must strictly adhere to stipulations made by the Gujarat Pollution Control Board (GPCB), state government and statutory authority. |
| | Noted and being complied. |
| 59. | No further expansion or modification in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority. |
| | Noted. |
| 60. | The above conditions will be enforced, inter-alla under the provisions of water (prevention &Control or pollution) Act, 1974, Air (prevention & Control of pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous & other wastes (Management and Trans boundary Movements) Rules 2016 and the public liability insurance Act, 1991 along with their amendments and rules. |
| | Noted. |
| 61. | The project proponent shall comply all the conditions mentioned in ' The Companies (Corporate Social Responsibility Policy) Rules, 2014 and its amendments from time to time in a letter and spirit. |

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| | Noted and being complied. |
| 62. | The project proponent shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk .Assessments study repot as well as proposed by project proponent. |
| | Noted and being complied. |
| 63. | The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as GPCB along with the implementation scheduled for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose. |
| | Noted and being complied. |
| 64. | The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and May also be seen at website of SEIAA / SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarat language and the other in English. A copy each of the same shall be forwarded to the concerned Regional office of the Ministry. |
| | Complied. The advertisement copy attached as Annexure 3. |
| 65. | The project proponent shall also comply with additional conditions that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management. |
| | Noted and will be complied. |
| 66. | It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and condition in hard and soft copies to the regulatory authority concerned on 1st June and 1st December of each calendar year. |
| | Noted and being complied. |
| 67. | Concealing factual data or submission of false / fabricated data and failure to comply with any of conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986. |
| | Noted. |
| 68. | The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board. |

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| | Noted and will be complied. |
| 69. | The SEIAA may revoke or suspend the clearance. If implementation of any of the above conditions is not found satisfactory. |
| | Noted. |
| 70. | The company in a time bound manner shall implement these conditions. The SEIAA reserves the stipulate additional conditions, if the same is found necessary. |
| | Noted. |
| 71. | The project authorities shall inform the GPCB. Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project. |
| | Noted. |
| 72. | This environmental clearance is valid for seven years from the date of issue. |
| | Noted. |
| 73. | Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 day as prescribed under section 16 of the National Green Tribunal Act, 2010. |
| | Noted. |

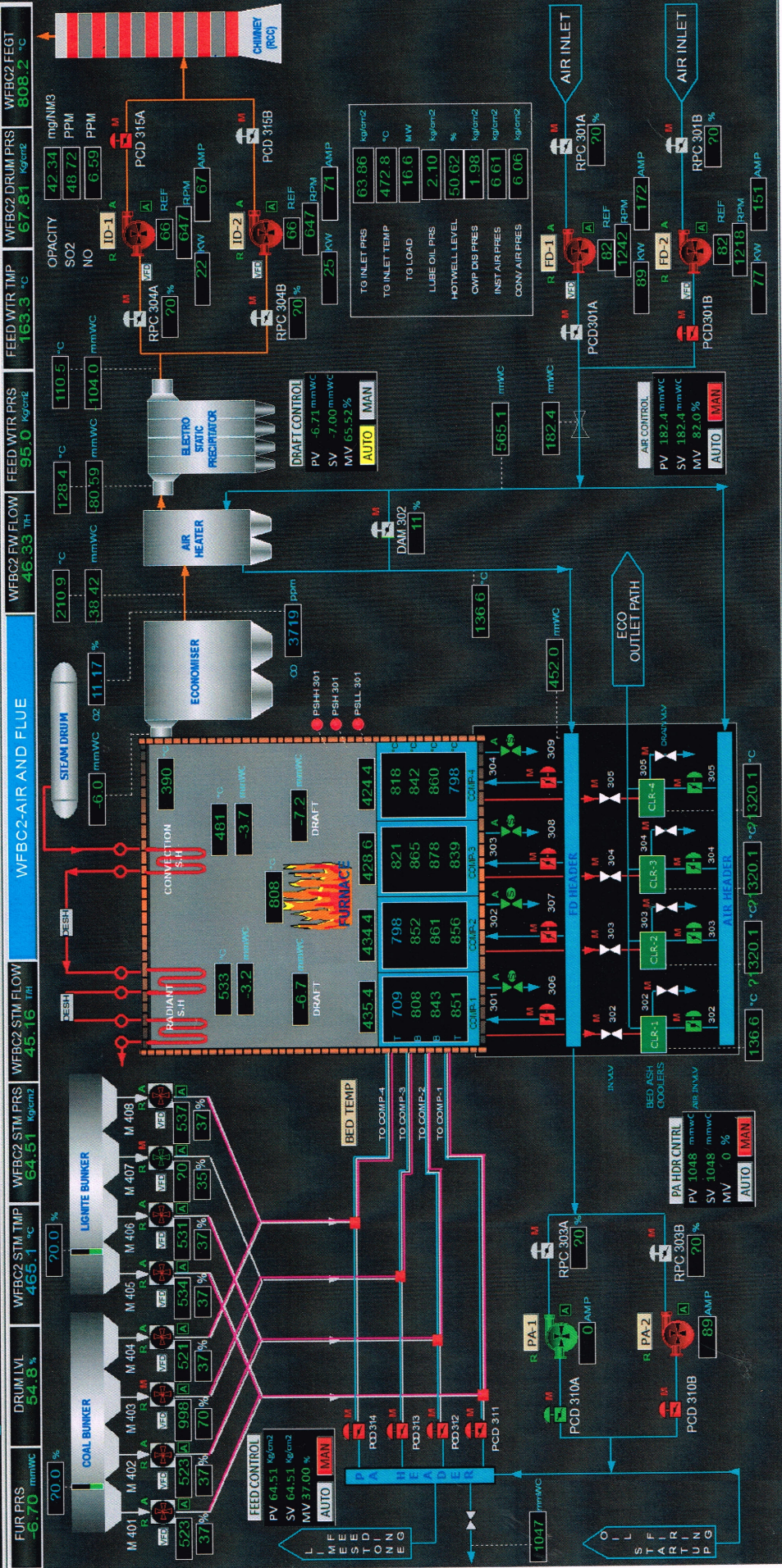
Table 1 : Fly ash generation and disposal details:

| Fly Ash | Unit | June | July | Aug | Sept | Oct | Nov |
|------------|------|---------|--------|---------|----------|---------|---------|
| Generation | MT | 1990.21 | 3733.2 | 5144.64 | 5131.766 | 5777.73 | 5308.48 |
| Disposal | MT | 1990.21 | 3733.2 | 5144.64 | 5131.766 | 5777.73 | 5308.48 |

Table 2 : Ambient air monitoring:

| Station | Parameter | Limit microgm/NM3 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 |
|--------------------|-----------|----------------------|--------|--------|--------|--------|--------|--------|
| 66 KV | PM 2.5 | 60 | 24 | 23 | 24 | 22 | 18 | 20 |
| | PM10 | 100 | 51 | 56 | 52 | 50 | 46 | 49 |
| | SO2 | 80 | 11.3 | 10.5 | 10.7 | 11.2 | 10.5 | 10.6 |
| | NOx | 80 | 12.2 | 11.6 | 11.2 | 11.6 | 11.3 | 11.8 |
| Opposite Shed D | PM 2.5 | 60 | 29 | - | 23 | - | 23 | - |
| | PM10 | 100 | 54 | - | 48 | - | 48 | - |
| | SO2 | 80 | 10.2 | - | 10.2 | - | 10.2 | - |
| | NOx | 80 | 12.2 | - | 11.3 | - | 11.4 | - |
| | Ammonia | 850 | 8.6 | - | 8.6 | - | ND | - |
| | HCl | 200 | ND | - | ND | - | ND | - |
| Near West site ETP | PM 2.5 | 60 | 32 | - | 25 | - | 28 | - |
| | PM10 | 100 | 50 | - | 52 | - | 53 | - |
| | SO2 | 80 | 11 | - | 10.8 | - | 10.5 | - |
| | NOx | 80 | 13.1 | - | 11.7 | - | 11.8 | - |
| | Ammonia | 850 | ND | - | ND | - | ND | - |
| | HCl | 200 | ND | - | ND | - | ND | - |
| Near North ETP | PM 2.5 | 60 | 30 | - | 24 | - | 25 | - |
| | PM10 | 100 | 53 | - | 56 | - | 57 | - |
| | SO2 | 80 | 10.6 | - | 11.2 | - | 9.8 | - |
| | NOx | 80 | 12.4 | - | 12.4 | - | 10.8 | - |
| | Ammonia | 850 | ND | - | ND | - | ND | - |
| | HCl | 200 | ND | - | ND | - | ND | - |
| TSDF | PM 2.5 | 60 | 34 | - | 22 | - | 22 | - |
| | PM10 | 100 | 58 | - | 50 | - | 55 | - |
| | SO2 | 80 | 11.5 | - | 11.4 | - | 11.5 | - |
| | NOx | 80 | 12.8 | - | 12.8 | - | 12.2 | - |
| | Ammonia | 850 | ND | - | ND | - | ND | - |
| | HCl | 200 | ND | - | ND | - | ND | - |
| Main Guest House | PM 2.5 | 60 | - | 27 | - | 21 | - | 26 |

| | | | | | | | | |
|-------------------------|---------|-----|------|------|------|------|------|------|
| | PM10 | 100 | - | 51 | _ | 45 | _ | 52 |
| | SO2 | 80 | - | 10.5 | _ | 9.2 | _ | 10.6 |
| | NOx | 80 | - | 12.4 | _ | 11.4 | _ | 11.6 |
| | Ammonia | 850 | - | 8.6 | _ | ND | _ | ND |
| | HCl | 200 | - | ND | _ | ND | _ | ND |
| Wyeth Colony | PM 2.5 | 60 | - | 26 | _ | 26 | _ | 24 |
| | PM10 | 100 | - | 50 | _ | 59 | _ | 49 |
| | SO2 | 80 | - | 10.8 | _ | 10.6 | _ | 10.8 |
| | NOx | 80 | - | 13.2 | _ | 12.8 | _ | 11.8 |
| | Ammonia | 850 | - | ND | _ | ND | _ | ND |
| | HCl | 200 | - | ND | _ | ND | _ | ND |
| Gram panchayat hall | PM 2.5 | 60 | - | 24 | _ | 19 | _ | 20 |
| | PM10 | 100 | - | 48 | _ | 48 | _ | 46 |
| | SO2 | 80 | - | 11.6 | _ | 11.2 | _ | 10.4 |
| | NOx | 80 | - | 12.5 | _ | 11.9 | _ | 11.2 |
| | Ammonia | 850 | - | ND | _ | ND | _ | ND |
| | HCl | 200 | - | ND | _ | ND | _ | ND |
| Main office, North site | PM 2.5 | 60 | - | 29 | _ | 24 | _ | 24 |
| | PM10 | 100 | - | 56 | _ | 57 | _ | 49 |
| | SO2 | 80 | - | 11.2 | _ | 10.2 | _ | 10.8 |
| | NOx | 80 | - | 12.8 | _ | 12.2 | _ | 11.8 |
| | Ammonia | 850 | - | ND | _ | ND | _ | ND |
| | HCl | 200 | - | ND | _ | ND | _ | ND |
| Haria water tank | PM 2.5 | 60 | 34 | 31 | 28 | 22 | 23 | 25 |
| | PM10 | 100 | 59 | 57 | 54 | 48 | 46 | 42 |
| | SO2 | 80 | 10.5 | 10.2 | 10.6 | 10.2 | 11.2 | 9.8 |
| | NOx | 80 | 12.3 | 11.8 | 11.2 | 11.8 | 12.3 | 10.3 |



**ANALYSIS REPORT FOR AIR****TYPE : Stack-Flue Gas**

Gujarat Pollution Control Board

Vapi

C5/124, GIDC Vapi,

Near Hotel Pritam,

Vapi - 396 195

Tele:(0260) 2432089

Sample ID:196496 - Analysis Completion:06/10/2016

Dyes And Dye-Intermediates. / LAB Inward : 35573

1. Name & : Atul Limited - 23158
2. Address of the Unit : 5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: 396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : APP-On Application)
4. Sample Collected By : Rana Jaimin C
5. Date & Time of Collection & Receipt : 28/09/2016, (1200 to 1220)
6. Date of Start & Completion of Analysis : 30/09/2016 & 06/10/2016
7. Sampling Point : Stack attach to Boiler ~ stack attached to boiler-22 MW power plant
8. Fuel : coal
9. APCM : ESP-4 field
10. Thimble & Weight (gm) : 9862/10
11. Temperature on Collection : 72 & Volume-Absord Media : SO2-50 ml, NOx-50 ml
12. Volume-Gas Passed : PM-480 lts, SO2-38 lts, NOX-1.526 lts
13. Parameters : 3 & Oper Time(Min) : 20

| Sr | Parameter | Unit | Test Method | Range of Testing | Result |
|----|-----------------|--------|--|------------------|--------|
| 1 | PM-Stack | MG/NM3 | IS: 11255 (Part - 1), 1985 (Reaffirmed 1999) | 1 - 5000 mg/NM3 | 46 |
| 2 | SO2-Stack (PPM) | PPM | IS: 11255 (Part - 2), 1985 (Reaffirmed 2009) | 5 - 500 mg/NM3 | 79.53 |
| 3 | NOX-Stack | PPM | IS:11255(Part-7), 2005 | 5 - 500 mg/NM3 | 24.42 |

Laboratory Remarks : FREEZE By:445-lab_445 Dt.: 06/10/2016

J.D.OZA, Lab Head

Field Observation :

ગુજરાત સમાચાર (રવિવાર, તા. ૨૯ મે ૨૦૧૬)

તા. : ૨૮/૦૫/૨૦૧૬ સ્થળ : સુરત

શાખાના પ્રબંધક

Atul Limited, Post: Atul-396 020, Distt.:Valsad.

Atul Ltd. situated at Atul-396 020, Valsad has been accorded Environmental Clearance vide letter No.SEIAA/GUJ/EC/1(d)/340/2016 dated 20.05.2016 by the State Level Environment Impact Assessment Authority(SEIAA), Gujarat for the proposed project of additional 22 MW Captive Power Plant . The copy of the Environment Clearance letter is available with the SEIAA and may also be seen at website of the State Level Environment Impact Assessment Authority(SEIAA) at <http://seiaa.gujarat.gov.in>.

અતુલ લિમિટેડ, પોસ્ટ: અતુલ-૩૯૬૦૨૦, ડિસ્ટ્રીક્ટ :વલસાડ

આ સાથે જલાવવામાં આવે છે કે, ગુજરાત સરકારની સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઈમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) દ્વારા અતુલ લિમિટેડ પોસ્ટ : અતુલ -૩૯૬૦૨૦, ડિસ્ટ્રીક્ટ : વલસાડ ને પત્ર ક્રમાંક SEIAA/GUJ/EC/1(d)/340/2016, તા. ૨૦ મે, ૨૦૧૬ ના રોજ સુચિત વધારાનાં ૨૨ મેગાવોટ કેપ્ટીવ પાવર પ્લાન્ટ માટેની પર્યાવરણીય મંજુરી આપેલ છે. આ પત્રની નકલ સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઈમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) ની કચેરી ઉપરાત સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઈમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) ની વેબસાઈટ <http://seiaa.gujarat.gov.in> ઉપર ઉપલબ્ધ છે.

સંદેશ

SUNDAY, 29.05.2016

Atul Limited, Post: Atul-396 020, Distt. Valsad

Atul Ltd. situated at Atul-396 020, Valsad has been accorded Environmental Clearance vide letter No. SEIAA/GUJ/EC/1(d)/340/2016 dated 20.05.2016 by the State Level Environment Impact Assessment Authority (SEIAA), Gujarat for the proposed project of additional 22 MW Captive Power Plant. The copy of the Environment Clearance letter is available with the SEIAA and may also be seen at website of the State Level Environment Impact Assessment Authority (SEIAA) at <http://seiaa.gujarat.gov.in>

અતુલ લિમિટેડ, પોસ્ટ : અતુલ-૩૯૬ ૦૨૦, ડિસ્ટ્રિક્ટ : વલસાડ

આ સાથે જણાવવામાં આવે છે કે ગુજરાત સરકારની સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઇમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) દ્વારા અતુલ લિમિટેડ પોસ્ટ : અતુલ-૩૯૬૦૨૦, ડિસ્ટ્રિક્ટ : વલસાડને પત્ર ક્રમાંક SEIAA/ GUJ/EC / 1(d) / 340/ 2016, તા. ૨૦ મે ૨૦૧૬નાં રોજ સુચિત વધારાનાં ૨૨ મેગાવોટ કેપ્ટીવ પાવર પ્લાન્ટ માટેની પર્યાવરણીય મંજૂરી આપેલ છે. આ પત્રની નકલ સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઇમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) ની કચેરી ઉપરાંત સ્ટેટ લેવલ એનવાયર્નમેન્ટ ઇમ્પેક્ટ એસેસમેન્ટ ઓથોરિટી (SEIAA) ની વેબસાઈટ <http://seiaa.gujarat.gov.in> ઉપર ઉપલબ્ધ છે.

