COMPLIANCE REPORT

Project Code – UP-2-37-90

NAME OF PROJECT Indorama India Private Ltd , Jagdishpur

CLEARANCE LETTER NO.: 21/15/84-EN-I issued on 8.1.1985*
J 11011/314/2006-IA-II(I) issued on 13.7.2007

PERIOD OF COMPLIANCE REPORT **October -22 – March -23**

* All the conditions specified in the Environment clearance letter issued at the time of project stage in 1985 had been completed & complied.

Detailed compliance status of EC (J11011/314/2006-IA-II(I) issued on 13.7.2007) issued for debottlenecking of the project to enhance urea production capacity up to 3360MTPD is given here under.

A - SPECIFIC CONDITIONS

<table>
<tr><th>Sr No</th><th>CONDITION</th><th>COMPLIANCE STATUS</th></tr>
<tr><td>i</td><td>There shall be no addition of air pollution load to the expansion.</td><td>In Compliance. Condition amended vides Letter No. J 11011/314/2006-IA-II (I) dated 24.9.2008 by MOEF to delete “no addition of air pollution load”.

NOx & SOx are well within the prescribed limit of SPCB. Trend of emission from the stacks are as below for the period of October-22 – March -23:
<table>
<tr><th></th><th>SGP stack</th><th>GT stack</th><th>Primary Reformer</th></tr>
<tr><td>NOx</td><td>74 – 82 ppm</td><td>77– 83 ppm</td><td>174 – 184 ppm</td></tr>
<tr><td>Sox</td><td>BDL</td><td>BDL</td><td>BDL</td></tr>
<tr><td colspan="4">Prilling Tower</td></tr>
<tr><td></td><td>Min</td><td>Max</td><td>Average</td></tr>
<tr><td>SPM</td><td>34 mg/nm3</td><td>40 mg/nm3,</td><td>36.58 mg/nm3</td></tr>
<tr><td>NH3</td><td>36 ppm</td><td>44 ppm</td><td>39.53 ppm</td></tr>
</table></td></tr>
<tr><td>ii</td><td>The gaseous emissions (SO_2 NO_x NH_3 HC, VOC, Urea Dust & Fluoride) and particulate matter from various process units shall conform to the prescribed norms by the concerned authorities from time to time. At no time, the emission levels shall go beyond the</td><td>In Compliance. Condition amended vides Letter No. J 11011/314/2006-IA-II(I) dated 24.9.2008 by MOEF to delete “VOC & F from emission gases”.
Please refer compliance status at Sr.No. i for analysis results from different stacks.</td></tr>
</table>

	stipulated standards. The stack height shall be as per the CPCB guidelines. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Further, the company shall interlock the production system with the pollution control devices.	Safety interlock system is in place to take care of safety of man, machine, material, process, equipment and environment. This safety interlock system will safely shutdown the section of the plant / whole plant / any machine, if any parameter goes beyond the set parameters as prescribed by OEM / technology supplier.
iii	To limit various pollutants within the prescribed limits, multiple scrubbing systems along with a stack of 50 m shall be provided The stack height of DG sets will be 13 m.	**In Compliance.** Condition amended vide Letter No. J 11011/314/2006-IA-II(I) dated 24.9.2008 by MOEF to delete **"multiple scrubbing systems"**. The existing stack height of DG sets is already as specified in the condition.
iv	In Urea Plant, particulate emissions shall not exceed 50 mg/nm3. Monitoring of Prilling Tower shall be carried out as per the CPCB Guidelines. Hydrocarbon Monitors shall be installed.	**In Compliance.** Condition amended vides Letter No. J 11011/314/2006-IA-II(I) dated 24.9.2008 by MOEF to **"delete requirement for installation of Hydrocarbon monitor in Prilling Tower".** Average SPM in emissions from Prilling Tower for the October-22 – March -23 is 36.58 mg/NM3.
v	Regular monitoring of ambient air quality shall be carried out. The location of existing ambient air quality monitoring stations shall be reviewed in consultation with the state Pollution Control Board and additional stations shall be set up if required. It shall be ensured that stations are in the downwind directions as well as where maximum ground level concentration are anticipated.	**In Compliance.** Regular monitoring of Ambient air quality is being done from 3 Nos. Air monitoring stations. In the year 2019 & 2020, we have developed one station among the three stations for continuous online ambient air quality monitoring system of PM-10, PM-2.5, NH3, NOX and SOX parameters, at down wind direction. Existing AAQ stations have been reviewed by the SPCB vide their letter No. 330/Air monitoring/08-09 dated 6.8.2008 based on which AAQ station No.2 has been relocated as per recommendation of SPCB and AAQ Station no-03 also has been relocated by the SPCB vide their letter No 638/I-2/11-12 dated 30.11.2012.
vi	Fugitive emissions in the bagging plant shall be controlled through two wet de-dusting systems. Urea dust laden air from various dust emission points will be sucked through and sent to the venturi scrubbers. The scrubber liquor will be sent for urea recovery system and urea plant. Cyclone separators/Bag Houses will be provided at transfer	**In Compliance.** Wet de dusting system is in place & working satisfactory. Dust collected at different points is reprocessed in Urea plant.

	points for controlling dust. Dust collected at these points will be reprocessed in the urea plant.	
vii	The fugitive emissions in the work zone environment, product, raw material storage area shall be regularly monitored as per the guidelines of CPCB and data shall be submitted to the concerned authorities. The fugitive emission shall be controlled and conform to the limits prescribed by the CPCB in future.	**In Compliance.** Ammonia & SPM are being monitored around work zones as per schedule and all are maintained well below the specified norms. Reports are being submitted to concerned authorities on monthly basis.
viii	Total water requirement shall not exceed 905 m3/hr which will be sourced from River Gomti and deep borewell. A copy of the water withdrawal permission shall be submitted to the Ministry.	**In Compliance.** Average Water consumption sourced from River Gomati & bore well (Factory) is 746.74 M3/hr during the period of October-22 – March-23. Water withdrawal permission as issued by Irrigation Department has already been submitted at MOEF on 28.9.2007.
ix	The total wastewater generation shall not exceed 4680 m3/d. 61 m3/hr will be the additional effluent. The effluent shall be treated as per the discharge standards under E(P)Act 1986 and/or provided by the State Board, whichever is most stringent. The treated effluent shall be reused in the process and for Green Belt development. The Unit shall endeavour to achieve zero water discharge.	**In Compliance.** Industrial waste water and domestic waste water generation for the period of October-22 – March -23 were 1018.06 M3/day (avg.) and 561.76 M3/day (avg.) respectively. All Domestic waste water generated is being utilized for irrigation purposes. Effluent discharge standard is strictly followed & Efforts are being done to maximize reuse of effluent in greenbelt area. Irrigation lines are further extended in township to maximize reuse of treated effluent.
Lx	Regular monitoring of ground water by installing piezometric wells around the guard pond and sludge disposal sites shall be periodically monitored and report shall be submitted to the concerned Regional Office of the Ministry, CPCB and SPCB.	**In Compliance.** Four Nos of Digital type telemetry piezometers are installed as per guidelines of Ground Water Department in the complex & water samples of hand pumps located in nearby area are also analyzed. Six monthly reports are submitted to concerned agencies regularly. Summary of Ground water analysis for the period of October -22 – March -23 is as under: pH : 7.10 – 7.70 Nitrate as N : N.T – 0.90 ppm Fluoride as F : 0.40– 0.60 ppm Ammonia as NH3: N.T. Phosphate as P : N.T
xi	No solid waste shall be generated from the expansion project. Activated carbon, Spent Catalysts and Used Oil will be stored in HDPE bags and sold to	**In Compliance.** Used oil & spent catalyst generated in the process are kept safely as per guidelines & sold to "Authorized Reprocessors" only. Used batteries from

	end users. Spent catalysts based on Chromium, Copper, Nickel Zinc, Aluminum and Iron will be stored in metallic drums at designated place and sold to the re-processors authorized by CPCB/SPCB. Used oil will be stored in leak proof steel drums for sale to registered recyclers. Used Batteries shall be sold to authorized reprocessors.	battery bank after replacement are sold to supplier under buy back scheme.
xii	All safety precautions as submitted to Ministry shall be installed and undertaken. Adequate protection measures for the handling of Ammonia vapours in case of process upset condition shall be undertaken. Safety well exhaust and drains shall be connected to a separate close header from which ammonia vapours shall be vented from vent stack after diluting the stream.	**In Compliance.** System already is in place.
xiii	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000 and Hazardous Wastes (Management and Handling) Rules, 2003 along with the Emergency Preparedness Rules. Authorization from the state pollution Control Board must be obtained for collection/ treatment/ storage/ disposal of hazardous wastes, if any.	**In Compliance.** Authorization issued by UPPCB is valid up to 20.02.2024
xiv	The company shall strictly follow all the recommendations mentioned in the charter on corporate Responsibility for Environmental Protection (CREP).	**In Compliance.** All CREP conditions applicable to us like water consumption of max. 8 M3/te of Urea, Dryness of storm water drain channels, ground water monitoring, safe disposal of catalyst is completed & in compliance.
xv	The company shall install rainwater harvesting systems from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	**In Compliance.** Ground water department (GWD) informed vide their letter No. 77/GW khand-5-Sul/RWH dated 6.5.2005 that rainwater harvesting system installed at IGF will not be fruitful due to sufficient water table in their area. Letter from GWD already submitted at SPCB.
xvi	Total green belt area will be 116.61 ha after the expansion.	**In Compliance.** We maintain the green belt coverage & greenery more than area 33% of total land.
xvii	Occupational Health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	**In Compliance.** Occupational Health surveillance of employees was carried out in regular interval. No employee was found suffering from any occupational disease.

B - GENERAL CONDITIONS

<table>
<tr><th>Sr No</th><th>CONDITION</th><th>COMPLIANCE STATUS</th></tr>
<tr><td>i</td><td>The project authorities must strictly adhere to the stipulations made by the concerned State Pollution Control Board and the State Government.</td><td>In Compliance. Stipulations applicable to us are being complied.</td></tr>
<tr><td>ii</td><td>No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.</td><td>Noted.</td></tr>
<tr><td>iii</td><td>Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the SPCB. Regular monitoring shall be carried out for relevant parameters.</td><td>In Compliance. Monitoring points of influent & effluent are already there & same have also been reviewed by UPPCB vide their letter No. 330/Air monitoring/08-09 dated 6.8.2008. Regular monitoring is being done for relevant parameters.</td></tr>
<tr><td>iv</td><td>The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.</td><td>In Compliance. Recommendations are being complied.</td></tr>
<tr><td>v</td><td>Industrial waste- water shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 31st December 1993 or as amended from time to time. The treated waste- water shall be utilized for plantation purpose.</td><td>In Compliance. Treated effluent quality is monitored regularly by IIPL lab before discharge. Statistical data of final effluent analysis for the period of October22 – March -23 is as under: All results are well within the specified norms of SPCB.
<table>
<tr><th rowspan="2">Parameter</th><th colspan="3">Result in ppm</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg</th></tr>
<tr><td>pH</td><td>7.10</td><td>7.80</td><td>7.36</td></tr>
<tr><td>Total Suspended solid</td><td>37.00</td><td>57.00</td><td>44.41</td></tr>
<tr><td>TAN</td><td>8.00</td><td>39.00</td><td>23.10</td></tr>
<tr><td>TKN</td><td>17.00</td><td>57.00</td><td>38.00</td></tr>
<tr><td>Free Ammonia</td><td>N.T.</td><td>1.65</td><td>0.42</td></tr>
<tr><td>Oil & Grease</td><td>N.T.</td><td>N.T.</td><td>N.T.</td></tr>
<tr><td>Nitrate Nitrogen</td><td>4.00</td><td>9.00</td><td>7.86</td></tr>
<tr><td>Phosphate as P</td><td>0.70</td><td>1.90</td><td>1.34</td></tr>
<tr><td>COD</td><td>15.00</td><td>28.00</td><td>22.02</td></tr>
<tr><td>BOD</td><td>9.00</td><td>14.00</td><td>10.70</td></tr>
<tr><td>Lead (as Pb)</td><td>N.T.</td><td>N.T.</td><td>N.T.</td></tr>
<tr><td>Copper (as Cu)</td><td>N.T.</td><td>N.T.</td><td>N.T.</td></tr>
<tr><td>Zinc (as Zn.)</td><td>0.10</td><td>0.53</td><td>0.33</td></tr>
<tr><td>Nickel (as Ni)</td><td>N.T.</td><td>N.T.</td><td>N.T.</td></tr>
<tr><td>Fluoride (as F)</td><td>0.76</td><td>1.10</td><td>0.93</td></tr>
<tr><td>Sulphide (as S)</td><td>0.010</td><td>0.011</td><td>0.010</td></tr>
<tr><td>Iron (as Fe)</td><td>0.10</td><td>0.38</td><td>0.17</td></tr>
<tr><td>Vanadium (as V)</td><td>N.T.</td><td>0.10</td><td>0.096</td></tr>
<tr><td>Bioassay test for 90% survival after 96 hrs.</td><td>Pass</td><td>Pass</td><td>Pass</td></tr>
</table>
N.T – Not Traceable
Elements like As, Hg, Cd, Cr, Se, CN, Mn, Phenolic compounds & Radio active materials are not applicable to us.</td></tr>
</table>

		Treated effluent is being utilized up to best possible extent for irrigation purpose in the plant and township.
vi	The overall noise levels in and around the plant area shall be limited within the prescribed standards (85 dBA) by providing noise control measures including acoustic hood, silencers, enclosures etc. on all sources of noise generation.	**In Compliance.** Overall noise level is 72.45/44.72 dB during the period of October-22 – March -23, which is well within the specified norms. PPEs are provided to employees for movement in compressor area.
vii	Proper House keeping and adequate occupational health program shall be taken up. Regular Occupational Health Surveillance Program shall be carried and records shall be maintained properly for at least 30-40 years. The program shall include lung function and sputum tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.	**In Compliance.** Lungs & sputum test is being carried out for those employees who are working in fume and dusty environment in occupational health checkup program. Sufficient measures are taken to avoid exposure to dust.
viii	A separate environment management cell with full fledge laboratory facilities to carry out various management and Monitoring functions shall be setup under the control of a senior executive.	**In Compliance.** Environment management cell is in place with well equipped laboratory & working well under control of Chief Operating Officer.
ix	Rs.43.80 lakhs and Rs. 94.67 lakhs/annum have been earmarked to meet the capital cost and recurring cost/annum for the environmental protection measures. The amount needs to be raised in view of the Capital cost of expansion and the revised amount shall be submitted to the Ministry. The amounts so earmarked shall be used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	In Compliance.
x	The Company shall undertake welfare measures and community development measures for the local people in the vicinity of the project area.	**In Compliance.** Indo Gulf Jan Seva Trust (IGJST) is working since inception for upliftment and welfare of nearby rural population like medical care, providing artificial limbs to handicapped, eye care camps, leprosy eradication etc. In addition to it, Jan Seva Trust also extends their helping hands in collaboration with NGOs for development of Infrastructure like School, Kharanza etc. in villages and improvement of there livelihoods.

xi	The concerned regional Office of this Ministry / State Pollution Control Board / Central Pollution Control Board shall monitor the implementation of the stipulated conditions. Six monthly compliance status report and monitoring data along with statistical interpretation shall be submitted to them regularly and shall be placed on the Website of the Company.	**In Compliance.** Monitoring data has been provided in respective column of the conditions, wherever required.
xii	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the state Pollution Control Board / Committee and may also be seen at Website of the Ministry and Forests at http://envfor.nic.in. The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the concerned Regional Office of the Ministry.	**In Compliance.** Information had been published in two news papers, Dainik Jagran & Rashtriya Sahara on 19.7.2007 & also informed to MOEF, Regional office – Lucknow on 25.7.2007.
xiii	The Project Authorities shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	**In Compliance.**