

Ref.: MFCL/ MoEF&CC/ EC Comp./Phase-II/2023/02

The IGF & Incharge
Ministry of Environment, Forests and Climate Change
1 B-198, Salt Lake City
Sector III, Kolkata -700106

23rd Nov '2023

Sub: Half Yearly Environment Clearance (EC) Compliance Report for the period of April'2023 to Sep'2023.

Ref.: MoEFCC File No: J-11011/ 488/ 2011-IA II (I) dated 22nd February 2017

Dear Sir,


This has reference to the above cited subject, submitting half-yearly Environmental Clearance Compliance report along with relevant annexure for the period of **Apr' 2023 to Sep' 2023**.

May kindly note that the EC under reference is for our Phase-II expansion project and we have not started the project activities as of now due to unavoidable circumstances.

This is for your kind information and record please.

Thanking you,

Yours faithfully,


Dr. Rabindra Nath Sahu
(GM - EHS)

Enclosure: As above.

Copy to:

1. Member Secretary, West Bengal Pollution Control Board
2. Zonal Officer, Zonal Office Kolkata, Central Pollution Control Board
3. Environment Engineer, Durgapur Regional Office, West Bengal Pollution Control Board.

MATIX FERTILISERS AND CHEMICALS LTD

Expansion of Fertilizer Unit by Adding Ammonia (2530 MTPD) and Urea (4430 MTPD) and CPP (67 MW) at Panagarh Industrial Park, Dist. - Burdwan, West Bengal

Sub : Six monthly compliance report of Environment Clearance.

Ref : MoEFCC File No: J- 11011/ 488/ 2011- IA II (I) dated 22nd February 2017

Period: APR' 2023 – SEP' 2023

A. SPECIFIC CONDITIONS

Sl. NO.	CONDITIONS	COMPLIANCE STATUS
i)	All the conditions stipulated in environmental clearance J-11011 / 1440 / 2009-IAII (I) dated 22nd April, 2010 accorded for the existing projects shall be implemented.	All the conditions stipulated in environmental clearance J-11011 / 1440 / 2009-IAII (I) dated 22nd April, 2010 and its amendments are being complied with. Six-monthly compliance status is being regularly submitted to MoEF&CC. Last six-monthly compliance report was submitted on 26.05.2023, vide letter no. MFCL/MoEF&CC/EC Comp./Phase-II/2023/01
ii)	The proposed expansion related work will start only after getting the necessary water withdrawal permission from Damodar Valley Reservoir Regulation Committee (DVRRRC).	Expansion related activities pertaining to the EC has not been started yet as we got delayed in execution of our Phase-1 project and thereafter due to Covid-19. We have consent from DVRRRC for withdrawal of necessary water.
iii)	The gaseous emissions (SO ₂ , NO _x , NH ₃ , HC and Urea dust) and particulate matter from various process units shall conform to the norms prescribed	Noted.

EC COMPLIANCE



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	by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly 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.	
iv)	Adequate stack height shall be provided to Ammonia plant reformer, Heat recovery steam generator (HRSG), NG/ RLNG fired gas turbine and Prilling Tower. Low NOx burners shall be provided to control NOx emissions	Noted. Shall be considered during design of the stacks.
v)	In Urea Plant, particulate emissions shall not exceed 50 mg/Nm3. Monitoring of Prilling Tower shall be carried out as per CPCB guidelines	Particulate emission from Urea Prilling Tower will be maintained below 50 mg/Nm3 and its monitoring will be carried out as per CPCB guidelines.
vi)	Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM10 (Urea dust), SO2, NOx, Ammonia, Ozone and HC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the Respective Zonal office of CPCB and the WB State Pollution Control Board (WBSPCB).	<ul style="list-style-type: none"> • Ambient air quality data are being collected as per NAAQS in the project site. • Online CAAQMS, having analyzers of PM10, PM2.5, SO2, NOx, Ammonia, Ozone and HC, has been installed. • The concentration of the above parameters is being monitored and analyzed regularly by in-house quality Assurance team also. • All arrangements have been made for display of the Online data at main factory entrance. • Results of monitored data are being uploaded in the company website. The same is being updated periodically. • Environmental Monitoring report being submitted



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		regularly to the Regional Office of MOEF, the Respective Zonal office of CPCB and the WB State Pollution Control Board (WBSPCB) every six months. Last report was submitted on 26 th May' 2023, vide letter no MFCL/MoEF&CC/EC Comp./Phase-I/2023/01.
vii)	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions should conform to the limits stipulated by the WBPCB	Being complied at site for our phase-1 project and the same will be followed for phase-2 project also.
viii)	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution	Acoustic enclosures have been provided for the DG sets existing at site.
ix)	Fresh water requirement from River Damodar should not exceed 66240 m3 /day after expansion and prior permission shall be obtained from concerned Authority and a copy submitted to the Ministry's Regional Office at Bhubaneswar. No ground water shall be used.	Noted. Will obtain prior permission from DVRRRC for withdrawal of extra water and copy of the same will be submitted to Ministry's RO office at Kolkata. We are not using any ground water and will not use in phase-2 expansion project also.
x)	Industrial wastewater shall be treated in the ETP. As proposed, Urea plant process condensate shall be treated in a deep hydrolyser followed by stripping. Ammonia plant process condensate (APC) shall be stripped with steam followed by activated carbon and demineralization. Treated condensate shall be recycled /reused in the process. Utilities wastewater shall be treated in the ETP and treated effluent shall be recycled/ reused. Treated effluent shall also be monitored for the parameters namely	Noted. The ETP scheme will be implemented during execution of the project and the prescribed parameters will be monitored and maintained. Since ours is a Urea plant and we are not using Fluoride in process, fluoride monitoring may be exempted.

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	ammonical nitrogen, Nitrate, Fluoride, pH etc.	
xi)	The effluent generation from the cooling tower, oily water and DM plant effluent shall not exceed 432 m3 /hr. after expansion. All the effluents after treatment shall be routed through a properly lined guard pond/holding pond for equalization and final control. In the guard pond/holding pond, automatic monitoring system for flow, and relevant pollutants (i.e. pH, ammoniacal nitrogen, nitrate nitrogen etc.) shall be provided with high level alarm system	Noted. The treatment scheme shall be implemented during execution of the project and restrict to 432 m3/hr after expansion.
xii)	The treated effluent (432 m3 /hr) shall be discharged into the River Damodar after conforming to the standards prescribed for the effluent discharge and after obtaining permission from the WBSPCB. No process effluent shall be discharged in and around the project site. Sewage shall be treated in STP and treated water shall be recycled/reused within factory premises to achieve zero discharge except rainy season.	Noted.
xiii)	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	Complied Ground water monitoring is presently being carried out from piezometric wells installed near holding ponds. The monitoring results are summarized in Annexure-1
xiv)	The company shall construct the garland drain all around the project site to prevent runoff of any chemicals containing waste into the nearby water bodies. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	Noted.



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xv)	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for firefighting facilities in case of emergency.	The company shall take the Authorization for collection, storage and disposal of hazardous wastes from WBPCB before the start of operation of Expansion Project.
xvi)	Spent catalysts and used oil shall be sold to authorized recyclers/re processors only.	Noted.
xvii)	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	Noted.
xviii)	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection	Noted.
xix)	As proposed, most of the raw materials shall be transported through RAIL.	Noted. Raw material (CBM/NG) will be transported by pipeline.
xx)	All the commitments made during the Public Hearing/Public Consultation meeting held on 2 nd July, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly	The public Hearing for the expansion project was held on 8 th February 2013. All the commitments made during public hearing will be implemented during project execution and Status of compliance of Public Hearing commitments will be complied and communicated.
xxi)	Remote operated valve placed on NH3 line to avoid leakage/equipment check shall be performed to ensure that remote operated valve (ROV) is all time is functional.	Noted.

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xxii)	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/ details shall be prepared and submitted to the Ministry's Regional Office at Bhopal Implementation of such program shall be ensured accordingly in a time bound manner.	Noted.
xxiii)	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Being done for Phase-1 employees and same will be extended for phase-2 employees.
xxiv)	As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	<ul style="list-style-type: none"> • 33% of the total area has been earmarked for green belt development. 75,000 nos. of plants being already planted covering approx. 165 acres area. • 15 types of plant species have been selected as per CPCB guideline and in consultation with DFO, Durgapur. • To continue the Green Belt area expansion, several local species of around 2500 nos. saplings were planted in Apr-Sep 2023. In addition to that approx. 500 Nos. of fruit saplings being distributed in local villagers and planted in their area, to motivate them for plantation.
xxv)	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, creche etc. The housing may be in the form of a temporary structure to be removed after the completion of the project. All the construction waste shall be managed so that there is no impact on the surrounding environment.	Noted.



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B. GENERAL CONDITIONS		
(i)	The project authorities must strictly adhere to the stipulations made by the West Bengal State Pollution Control Board (WBSPCB), State Government and any other statutory authority.	Shall be complied.
(ii)	No further expansion or modifications 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.	Noted.
(iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the WBPCB and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	<p>Three nos. of Ambient Air Quality Monitoring Station (AAQMS) have been established in the project site in consultation with WBPCB.</p> <p>One no of station each in upwind direction and two nos. of stations in downwind direction are installed and monitoring carried out by our laboratory team on regular basis.</p> <p>In addition, one no. of Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed and is functioning well.</p>
(iv)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Noted.



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(v)	The Company shall harvest rainwater from the roof-tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Rainwater harvesting for the project site has already been adopted. All storm water drains are connected to RainWater Harvesting (RWH) Pond to collect the rainwater. The harvested rainwater is being used as raw water replacement in the existing process to minimize raw water consumption and conservation of fresh water.
(vi)	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.	Noted. Shall be complied.
(vii)	Usage of Personnel Protection Equipment by all employees/ workers shall be ensured.	Noted. Shall be complied.
(viii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted	Training in safety and health is being conducted for the existing employees. Pre-employment and routine periodical medical examinations for employees are being carried out on regular basis. Training on chemicals handling is also conducted to concerned employees. MSDS being displayed at chemical handling locations.
(ix)	The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Noted. Shall be complied.



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(x)	The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.	CSR is not applicable for this project at present as we have not started the plant yet. However, the company has undertaken some community building activities under in the surrounding villages.
(xi)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	Noted.
(xii)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	A full-fledged separate Environment Management Cell has been established at site to carry out over all environment management and environment monitoring activities. A full-fledged environment laboratory with all requisite facilities has been set up for environment monitoring.
(xiii)	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Being followed. Shall be complied for Phase-2.
(xiv)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.	Copy of the clearance letter has been submitted to the following authorities vide letter no. MFCL/Env/Phase-II/MoEFCC/EC/2017/01, 02 and 03 dated 21 st March 2017. <ul style="list-style-type: none"> • Pradhan, Kota Gram Panchayat. • Sabhadhipati ,Burdwan Zila Parishad • Block Development Officer ,Aushgram-II Block

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(xv)	<p>The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the West Bengal State Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.</p>	<ul style="list-style-type: none"> • Being complied. Six-monthly compliance report of the EC is submitted to the concerned authorities in softcopies by mail and hard copies on time. Last report was submitted on 25th May' 2023, vide our letter no MFCL/ MoEF&CC/ EC Comp./Phase-II/2023/01. • The copy of Environmental Clearance along with six monthly compliance status reports uploaded in company website.
(xvi)	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the West Bengal State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Bhubaneswar Regional Offices of MoEF by e-mail.</p>	<p>Shall be complied once the project activities are completed.</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 at http:// envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers 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 Regional Office of the Ministry.</p>	<p>Complied. The advertisement was made in 'Anandabazar Patrika & The Telegraph'.</p> <p>Copy of the advertisement has been sent to Regional Office, Bhubaneswar vide our letter no. MFCL/Env/Phase-II/MoEF&CC/2017-04 dated 25th March 2017.</p>
(xviii)	<p>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 the project.</p>	<p>Noted.</p>



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8	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
9	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
10	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted, we will obtain Consent to Establish and Consent to Operate under the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) from WBPCB in due course as per the requirement.



Ground Water Quality Monitoring Results (Apr'2023 – Sep'2023)

Annexure - 1

Sample collected from: Piezometric Wells

Sample analyzed by: External 3rd party Laboratory (NABL Accredited)

Parameters	Unit	Jun,2023		
		Well No.-1	Well No.-2	Well No.-3
pH	--	7.80	7.62	7.78
Conductivity	uS/cm	400.0	393.0	611.0
Total Hardness as CaCO ₃	mg/l	NA	NA	NA
TDS	mg/l	224.0	220.0	354.0
Chloride Cl ⁻	mg/l	27.0	27.0	29.0
Fluoride as F ⁻	mg/l	0.90	0.87	0.80
Ortho- Phosphate as PO ₄ ³⁻	mg/l	0.03	0.15	0.06
Nitrate as NO ₃ ⁻	mg/l	7.18	4.16	6.56
Nitrite as NO ₂ ⁻	mg/l	<0.03	<0.03	<0.03
Boron (as B)	mg/l	<1.0	<1.0	<1.0
Iron (as Fe)	mg/l	0.52	0.35	1.61
Zinc (as Zn)	mg/l	<0.01	0.057	0.022
Lead (as Pb)	mg/l	<0.1	<0.1	<0.1
Mercury (as Hg)	mg/l	<0.001	<0.001	<0.001
Nickel (as Ni)	mg/l	<0.05	<0.05	<0.05
Total Arsenic (as As)	mg/l	<0.01	<0.01	<0.01
Total Coliform	MPN/100 ML	130	350	500
Fecal Coliform	MPN/100 ML	90	170	280



Ground Water Quality Monitoring Results (Apr'2023 – Sep'2023)

Annexure - 1

Sample collected from: Piezometric Wells

Samples analyzed by: In-house Env laboratory in QC

Parameters	Unit	June, 2023 (Post-Monsoon) Piezometric Well No.-1	June, 2023 (Post-Monsoon) Piezometric Well No.-2	June, 2023 (Post-Monsoon) Piezometric Well No.-3
	Date	20.06.2023	20.06.2023	20.06.2023
pH	--	7.7	7.5	NA
Conductivity	uS/cm	--	--	--
Total Hardness as CaCO ₃	mg/l	--	--	--
Ca Hardness as CaCO ₃	mg/l	--	--	--
Mg Hardness as CaCO ₃	mg/l	--	--	--
Total alkalinity as CaCO ₃	mg/l	--	--	--
Chloride Cl ⁻	mg/l	--	--	--
Sulphate as SO ₄ ²⁻	mg/l	--	--	--
Phosphate as PO ₄ ³⁻	mg/l	--	--	--
Sodium as Na ⁺	mg/l	--	--	--
Potassium as K ⁺	mg/l	--	--	--
Ammonia as NH ₃	mg/l	<1.0	<1.0	NA
Nitrate as NO ₃ ⁻	mg/l	5.2	1.5	NA
Nitrite as NO ₂ ⁻	mg/l	--	--	--
Fluoride as F ⁻	mg/l	--	--	--
TDS	mg/l	--	--	--

