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ब्रह्मपुत्र क्रैकर एंड पॉलिमर लिमिटेड

(भारत सरकार का उपक्रम)

Brahmaputra Cracker and Polymer Limited

(A Govt. of India Enterprise)

Administrative Building,
BCPL, Lepetkata-786006
Dibrugarh, Assam, India
Tel: + 91373-2914604

Ref.: BCPL/LEP/ENV/12/2020/369

Date: 29/12/2020

Scientist 'D',
Ministry of Environment, Forest and Climate Change,
North Eastern Regional Office,
Law-U-SIB, Lumbatngen,
Near M.T.C. Workshop, Shillong-793021.

Kind Attention - Dr. H. Tynsong

Sub. : Submission of Six Monthly Compliance Report of M/s BCPL.

Dear Sir,

Please find attached herewith six monthly compliance report of Dec-2020 on environment clearance stipulations for M/s Brahmaputra Cracker and Polymer Limited, Dibrugarh, Assam for your kind perusal.

Thanking you,

Yours sincerely,


(Pranjal Changmai)
GM (Operations-I/C)

Encl.: (i) Compliance Report along with Annexure-I & II
(ii) Soft Copy of Compliance Report in CD.

CC:

For kind information of:

- **Dr. Z. Changsan (Scientist 'E' & Regional Director)**, Zonal Office Shillong, Central Pollution Control Board, Shillong, Meghalaya.
- **Shri H. Pegu, Regional Executive Engineer**, Regional Office, Pollution Control Board, Dibrugarh, Assam.

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BRAHMAPUTRA CRACKER AND POLYMER LIMITED

**SIX MONTHLY COMPLIANCE REPORT
(Dec-2020)**



BRAHMAPUTRA CRACKER AND POLYMER LIMITED

SIX MONTHLY COMPLIANCE REPORTS (Dec-2020) OF ENVIRONMENTAL CLEARANCE OF M/S BRAHMAPUTRA CRACKER AND POLYMER LIMITED

Sl. No.	A. SPECIFIC CONDITIONS:
1	The gaseous emissions (SO₂, NO_x, and HC) from the various process units should confirm to the standards prescribed under Environment (Protection) Act, 1986 or norm stipulated by the SPCB whichever is more stringent. At no time, the emission level should go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency. <u>Compliance status:</u> The process units are designed in such a way to meet the prescribed standards. The gaseous emissions from process plant, ambient air quality, analysis report of liquid effluent and noise level for reporting period is attached as Annexure-I.
2	Adequate number of ambient air quality monitoring stations (SPM, SO₂, NO_x and HC) should be set up in the petrochemical complex in consultation with SPCB, based on the concurrence of maximum ground level concentration and downwind direction of wind. The monitoring network must be decided based on the modelling exercise to represent short term GLCs. Continuous online stack monitoring equipment should be installed for measurement of SO₂ and NO_x. The company should install low NO_x burners in cracker furnaces, bag filters in the polymer plant and steam injection for smokeless flaring. Stack heights of 45mt for cracking plant and 60mt height for boilers in crackers should be provided for dispersion of pollutants. <u>Compliance status:</u> Continuous online monitoring for ambient air is available where the values of SO₂, NO_x, PM₁₀ & PM_{2.5} are shown on (24x7) basis and connected to CPCB server. Ambient Air Qualities are also being monitored in four locations at BCPL Lepetkata, two locations at BCPL Lakwa, one location at BCPL GDU & CS Duliajan and one location at BCPL Railway Siding by MoEF & CC approved laboratory. Moreover Continuous Online Stack Analysers are also available where the values of PM, SO₂, NO_x & CO are shown on (24x7) basis for continuous monitoring and connected to the CPCB server. Low NO_x Burners are incorporated wherever applicable in process units. Steam injection is also available for smokeless flaring. Height of each stack attached to heater in cracking plant is 52.5 mt and height of each stack for boiler in Captive Power Plant is 66 mt.
3	Liquid effluent (2900 m³/d) generated from the various sources should be treated comprehensively to conform to the load-based standards and concentration limits prescribed under Environment (Protection) Act, 1986 rules (MINAS standards). A unit level treatment facility should be provided to treat the concentrated waste streams such as polymer powder remover and spent caustic. The combined waste water after treatment for specific pollutants should be treated in the central waste water treatment facility to meet the State Pollution Control Board norms before discharging into the river through a closed pipeline at a point where sufficient dilution is available. The company must undertake maximum recycling/reusing of the treated effluent for process purpose in addition to green belt development and also adopt adequate water conservation measures. <u>Compliance status:</u> A Modern Effluent Treatment Plant (ETP) is functional at BCPL, Lepetkata Petrochemical Complex to meet the specified limits prescribed under Environment (Protection) Act,

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	1986 rules. There is no polymer powder waste generated from Polymerization units i.e. LLDPE/HDPE and PP Units, however polymer powder is an intermediate product from which LLDPE & PP produce as final products. Spent Caustic Treatment System is available prior to Effluent treatment plant (ETP). Hydrocarbon Condensate mixed with waste water from GDU & CS-Duliajan and Railway Siding facilities are periodically shifted to ETP of BCPL, Lepetkata by tanker for treatment. Only treated water is discharged to Brahmaputra river through a dedicated pipeline after meeting the SPCB Norms and guidelines. Diffuser is also installed at end of effluent discharge pipe for proper dilution of treated water. A portion of the treated water is also being recycled to fire water network & greenbelt development. Monthly ETP Log-Sheet is also being sent to CPCB, New Delhi.
4	The company should take steps to control escaping of polymer fines and mixing in effluent as well as other pollutants in the effluent streams. The polymer fines should be recovered from the effluent stream and the treated effluent should be monitored regularly before discharging into the river to prevent the harmful impact on aquatic flora and fauna. <u>Compliance status:</u> Process plant has been designed in such a way that polymer fines remain in closed loop. The area of the plant handling polymer fines has a separate network of underground piping system called Polymer Water Sewage (PWS). All the water carrying polymer fines from different areas like PCW tank overflow line, PCW coolers, other pellet handling areas etc. goes to the said PWS system which finally accumulates in the PWS Pit inside the respective unit. PWS pit is open to atmosphere and all the accumulated fines keeps floating on the surface. This pit is being cleaned regularly by removing all the floating fines which in-turn are dried and sold as Ground Sweep Polymer fines under Finished Goods FG-02 category. PWS pit is designed in several compartments and the process is such that only clean water from the pit will be released to ETP and further treated effluents are monitored regularly before discharging into the river to prevent the harmful impact on aquatic flora and fauna.
5	The solid waste generated in the form of spent catalyst should be supplied to the outsiders. The ETP sludge and molecular sieve dehydrator spent media should be disposed of in the secured landfill within the plant premises. The landfill site should be suitably designed with the approval of the SPCB, as the water table in the area is quite high. Landfill site should be ready along with commissioning of the project. The ground water quality around the landfill site should be monitored regularly and data submitted to the Ministry and CPCB. <u>Compliance status:</u> The solid wastes generated in BCPL are being sold to CPCB / SPCB approved authorized agencies only as and when generated. Also in house bio-remediation facility developed at ETP for treatment of chemical sludge generated at ETP which is in operation at present. Review of design of the secure landfill is under progress and ground water quality around the landfill site will be monitored regularly as a part of statutory compliance. Once landfill is ready to use, data will be submitted to the MoEF & CC and CPCB accordingly. However presently ground water qualities are being monitored at different locations by MoEF & CC approved laboratory.
6	The company should implement the Relief and Rehabilitation package approved by Govt.



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	of Assam vide its order no. RLA.221/94/219, dated 28th November, 2002. An amount of Rs. 24 crores should be separately earmarked for implementation of R&R plan. <u>Compliance status:</u> Total 66 nos. of families were displaced for setting up M/s Brahma Putra Cracker and Polymer Limited at Lepetkata, Dibrugarh. 52 bighas of land (the cost of the land was borne by BCPL) was allotted for rehabilitation of the displaced families in which they have built their dwelling houses presently occupied by them. Certificate of completion of rehabilitation is attached as Annexure-II.
7	Green belt of 50m width in an area of 140 ha. Should be developed as per the CPCB guidelines. <u>Compliance status:</u> Green Belt has been developed at BCPL's Lepetkata Unit in and surrounding of Administrative Building, surrounding the plant boundary, across product ware house, BCPL Township & CISF Township. Total 773 numbers of plantations were completed during the period of June'2020 to November'2020. Green belt has been developed at BCPL Lakwa plant & Sivasagar township, GDU CS Duliajan & Railway siding unit also.
8	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act and the West Bengal Factories rules. <u>Compliance status:</u> Health check-up is conducted for BCPL employees as well contract workers as per the Factories Act.
B. GENERAL CONDITIONS:	
1	The project authorities must strictly adhere to the stipulation made by the Assam State Pollution Control Board and the State Government. <u>Compliance status:</u> BCPL is strictly following all the stipulations made by the Pollution Control Board, Assam and the State Government.
2	No further expansion or modification in the plant should 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 should be made to the Ministry to assess the adequacy of condition imposed to add additional environmental protection measures required, if any. <u>Compliance status:</u> Noted. Procedures for obtaining EC for new projects Butene-1 and HPG-2 is under progress.
3	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended on 3rd October, 1994 and 6th January, 2000. Prior approval from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained wherever applicable. <u>Compliance status:</u> All O&M activities are being undertaken in compliances of OISD, PESO, MSIHC, CIF, PCB



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	etc. guidelines only wherever applicable.
4	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 1989 as amended in January, 2000, wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/ disposal of hazardous wastes. <u>Compliance status:</u> Noted. Hazardous waste authorization obtained for all the site of BCPL i.e. Lepetkata, Duliajan, Lakwa and Railway siding.
5	The overall noise levels in and around the rig area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencer, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). <u>Compliance status:</u> Plant is designed to keep the overall Noise Levels within the standards. Personal protective equipments (PPEs) by operating personnel as per requirement and different measures like acoustic hood, silencers and enclosures etc. are available. Ambient noise levels are attached at Annexure-I.
6	A separate environmental management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions. <u>Compliance status:</u> Environmental Management Cell and NABL accredited Laboratory Department are functional at BCPL.
7	The project authorities will provide adequate fund for both recurring and non-recurring expenditure 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 stipulated herein. The funds so provided should not be diverted for any other purpose. <u>Compliance status:</u> <u>Capital Expenditure</u> 1. Construction of ETP at BCPL, Lepetkata is Rs. 89.80 crores (approx.). 2. Effluent Water Pipeline from BCPL, Lepetkata upto Brahmaputra River is Rs. 37.42 crores (approx.). 3. Flare Stack is Rs. 3.56 crores (approx.). 4. Sessa River Embankment works is Rs. 2.36 crores (approx.). 5. Bioremediation facilities set up is Rs. 4.02 crores (approx.). 6. Stack Gas Analysers-ECU is Rs. 12.5 lakhs (approx.). 7. Data Transmission to CPCB Server of all stacks emission data is Rs. 3.5 lakhs (approx.). <u>Note-</u> Expenses for set up of Quality Control Lab has come approximate Rs. 60.0 crores. Also 5 nos. stacks are available in Ethylene Cracker Unit, 4 nos. in Captive Power Plant and one

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	no. in Gas Sweetening Unit. Low NOx burners are incorporated in stacks of four furnaces and thermal oxidiser system in thermal oxidiser stack. Online analysers are also available in CPP stacks to analyse the gaseous emission and in effluent treated line to analyse the treated water. <u>Recurring Expenditure</u> 1. Renewal of 'Consent to Operate' per financial year is Rs. 60.0 lakhs (approx.). 2. Operation and maintenance of treated effluent disposal pipeline to Brahmaputra River per financial year is Rs. 2.5 lakhs (approx.). 3. Public Liability Industrial Risk renewal for one year for all sites viz. BCPL-Lepetkata, GDU & CS- Duliajan, BCPL-Lakwa and BCPL-Railway Siding is Rs. 5.7 lakhs (approx.). 4. Public Liability Insurance Act 1991 renewal for one year for all sites viz. BCPL-Lepetkata, GDU & CS-Duliajan, BCPL-Lakwa and BCPL-Railway Siding is Rs. 0.6 lakhs (approx.). 5. Environmental parameters monitoring at BCPL, Lepetkata per year Rs. 13.95 lakhs (approx.). <u>Note-</u> Budget is also kept for Green Belt Development, maintenance & operation of ETP and laboratory of BCPL, Awareness programmes & trainings, different environmental events etc.
8	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Shillong, State Pollution Control Board/Central Pollution Control Board. A six monthly compliance status report should be submitted to the monitoring agencies. <u>Compliance status:</u> Six Monthly Compliance Reports are submitted to MoEF&CC - Regional Office Shillong, Meghalaya; CPCB Zonal Office, Shillong, Meghalaya and Pollution Control Board- Assam.
9	The Project Proponent should inform the public 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 of Environment and Forests at http://envfor.nic.in. This should 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 should be forwarded to the regional office. <u>Compliance status:</u> Complied the same.

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(T. Ghosh)

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