

Ref. No. Env/Six-EC-VI/ 016

Date: 25/05/2021

Registered

The Dy. Director,
Regional Office (Central)
Ministry of Environment and Forest and Climate Change,
Government of India,
5th Floor, Kendriya Bhawan,
Sector – H, Aliganj,
Lucknow (UP) – 226 024

Sub: Six monthly compliance status report for stage VI (Oct 20 - March21)

Ref: (i) Your Letter No.J-13012/23/98-IA.II (T) dated 28.11.2001

(ii) Your letter No.J-13012/23/98-IA.II (T) dated 10.03.2014 reg. amendment in EC for change of source of coal.

1. NAME OF THE PROJECT : HINDALCO INDUSTRIES LIMITED (Renusagar Power Division)

2 .(I) CLEARANCE LETTER NO. : J-13012/23/98IA.II (T) Dt.28.11.2001 (Stage-VI) (II) CLEARANCE LETTER NO. : J-13012/23/98IA.II (T) Dt.10.03.2014 (Stage-VI Amended)

3. PROJECT CODE

: UP-18-99-1997

4. TIME PERIOD

: October 2020 TO March 2021

Dear Sir,

As desired, please find below the status of our EC conditions stated for expansion Stage VI:-

EC No. J-13012/23/98IA.II (T) Dt.28.11.2001 (Stage-VI):

Specific Conditions:

| S.N. 3(i) | Conditions All the conditions stipulated by Uttar Pradesh Pollution Control Board letter No.G-19804/C- 2/NOC/3227/2001 dated 22 nd March, 2001 should be strictly implemented. | We have implemented all the conditions of NOC stipulated by UPPCB. With regards to point no.2,3,4,5,6,7,8,9,10,11,13,14,15,16,17,19&20 complied via letter dated 20.07.2006. PonitNo.12-Policy under Public Liability Insurance PolicyAct-1991 has been applied for the period April to March2022. Copy is attached in annexure-1 PonitNo.18-The authorization has been granted. |
|--------------|--|--|
| | | PonitNo.18-The authorization has been granted under The Hazardous Waste(Management, Handlin, & Transboundary Movement)Rules,2008 vide letter No.F8509/C-2/Haz/09 valid up to 03.08.2021. Copy is attached in annexure-2. |

Hindalco Industries Limited

Corporate ID No.: L27020MH1958PLC011238

0/6

| | 3(ii) | The expansion units (2x80 MW) should be installed in the space avail for available in the premises of existing power station and the land acquisition for ash disposal should also be restricted to 151.25 acres at new ash disposal area. | 2x80MW units have been installed in the space available in the existing plant. Ash disposal area at Bichhari is within 151.25 acres. |
|---|--------|---|--|
| | 3(iii) | As per MoEF Condition No.3(iii)the stack height of 130 m with continuous monitoring system and it should be ensured that exist velocity is maintained at 20.3m/s and the temperature at130°C as these have been used as input parameter for estimation of GLC values. | |
| | 3(iv) | Electrostatic Precipitator having efficiency not less than 99.8% should be installed and it should be ensured that particulate matter emission would not exceed the prescribed limit of 100mg/Nm3. | Electrostatic precipitator having efficiency of 99.9% has been installed to ensure the particulate emission within prescribed limit. |
| | 3(v) | Only make up water for the project should be drawn from Rihand Reservoir as per the permission given by UP Irrigation Department. Closed circuit cooling Towers should be provided for conservation of water. As committed zero discharge of effluent should be adhered to and at no stage discharge of treated water would be permitted either into reservoir or for irrigation out side the plant premises. | Make up water for the project is being drawn from Rihand Reservoir as per the permission given by U.P. Irrigation department(currently U.P. Jal Vidyut Nigam, Limited) Cooling Towers has been provided with closed circuit cooling with induced draft cooling system. All the plant & domestic effluents are collected and get treated in ETP, AWRS and STP. All the effluents are treated and reused in ash disposal and cooling Tower system to ensure zero discharge. |
| _ | | | |

ğ

| 3(vi) | All con | | , 1 |
|--------|--|--|----------------------|
| 3(VI) | All effluents generated in various plant activities should be collected in the Central effluent treatment plant/Central Monitoring Basin and treated to ensure adherence to specified standard of usage. | All the industrial effluents are collected and go treated in Effluent Treatment Plant which maintained well to the utmost operational effectiveness and efficiency. We have evolve recycling system and reuse of entire domestic an industrial treated effluents; hence there is zer discharge to Rihand lake. Approved Third part report of treated effluents for dated 10.03.2021 i given in Table. Report is attached in annexure-3 | is ai ed nd |
| | | S.N. Parameter Unit ETP outlet STP outlet AWTP outlet 1 pH 7.6 7.5 7.4 2 BOD mg/l 18.4 22 20 3 COD mg/l 74 64 90 4 Oil/grease mg/l 1.8 1.8 2.8 5 Fluoride mg/l 1.6 1.2 1.4 | علا المعامدات |
| 3(vii) | Coal for the project, as for as possible, from Jhingurda Coal Mines of Northern Coalfield Limited should be used@1310 TPD for the expansion units. Fuel should be transported only through existing two aerial ropeways from Mine head to the projects site. In case of change of coal mines, detail of fuel analysis and mode of transportation should be submitted in the Ministry for approval. | We have applied for the change of Linkage coafrom Jhingurda Coal mines to Krishnashila Coamines of NCL, vide our letter No.Env/293 dated 28.02.2013. The Ministry has accorded the Change of source of coal vide letter No.J-13012/23/98 IA.II(T) dated 10.03.2014. | al ed |
| 3(ix) | All recommendation made by the State Department of Environment, Government of U.P. vide their letter dated 21st July,2001 along with the condition stipulated in the report of the Committee constituted by the State Government to examine the expansion proposal should be strictly adhered to. | All the recommendations made by State Department of Environment, Govt. of U.P. an conditions stipulated in the report of the committee constituted by State Govt. had been followed. | เลื |

3(xii) With 39% average ash content ash generation for the expansion project should not exceed 3.2 lacs tones per annum. As per MoEF Notification of September 1999,100% ash utilization should be ensured within 9 years of commissioning of the plant. The of ash disposal area accordingly should restricted to 151.25 acres. A green belt of 100 meter on Eastern side and 50 meter on Southern should be developed covering an area of 36 acres. Ash storage area should not be limited only to 70 acres. For avoiding contamination of ground water ,ash disposal area should be covered with LDPE lining.

Action plan for 100% utilization of ash has been prepared and submitted to Ministry. Accordingly we have achieved the action plan.

The Ash Disposal area at Bichhari is within 151.25 acres.

A green belt covering an area of 36.00 acres (i.e.14.50 hectare) around new ash dyke at Bichhari has been developed.

For avoiding ground water contamination, ash disposal area at Bichhari has been completely covered with LDPE lining.

A detailed scheme of Afforestation programme covering an area of 49.5 hectare including 14.50 hectare, around new ash dyke should be submitted to the Ministry clearly indicating width of greenbelt along the plant boundary, ash disposal area, internal roads etc. A norm of 1500-2000 trees per hectare should be followed for Afforestation programme. Financial allocation of Rs.38.16 lacs should be included in the budget of the project for this purposes. Detailed proposal in this regard should be submitted to the Ministry within 3 months. For ensuring good quality of plants of specified species, a nursery should be created in consultation with State Forest Department and National Botanical Research Institute, Lucknow.

Under the Green Belt Development Programmer covering an area of 49.5 hectare of land, a total of 1,21,203 sapling of various varieties commensurate to local bio-diversity of area were planted in and around plant, colony and ash dyke area against the target of 85,900.

3(xiv)

| 3(xv) | Hindalco Ind. | |
|----------|---|--|
| | Hindalco Industries Limited should establish special Environment Cell at site for this project for consultation on day to day basis during project planning and implementation of the project. As submitted dated 5th November, 2001, experts should be consulted for special issues. | monitoring of various environmental issues. |
| 3(xvii) | The project proponent should advertise at least two local newspapers widely circulated in the region around the project, one of which will be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at website of the Ministry of Environment & Forest at http://www.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 Regional Office. | We advertised the information in two local newspapers 'Hindustan Times'(English) and 'DainikJagran'(Hindi) widely circulated in the regionaround the project on 5/12/2001 out of which one is in the vernacular language of the locality. The |
| 3(xviii) | A monitoring committee should be constituted for reviewing the compliance of various safeguard measures by involving recognized local NGOs, Pollution Control Board, Institutions, Experts etc. | The committee includes Regional Officer, UPPCB. Robertsganj, Head Environmental Division, CII, New Delhi, Prof. B.D. Tripathi, Dept of Botany, BHU Varanasi, Dr. S.K. Bhargava, Ex head, EMD, IITR Lucknow, and Sri SubhashYadav for seeking guidance & opinion for improvement of environment of an acetal. |
| 3(xix) | The project authorities should inform the Regional Office as well as Ministry the date of financial closure & final approval of the project by the concerned authorities and the date of start of land development work. | environment on continuous basis. The report was sent to concerned authorities. |

81 1

General Conditions:

| S.N. | Conditions | Compliance Status |
|---------|---|---|
| 3(viii) | For maintaining the pollution load at existing levels and for its improvement and also to ensure that the expansion project involving installation of the two units of 80MW capacity each does not deteriorate existing environmental status. It should be ensured that revamping and up gradation programme for control SPM, SO2, and NOx is under taken and synchronize with commercial operation of the expansion units. | We ensure that pollution load does not exceed the existing level after installation of two units. To maintain the existing pollution load (SPM, SO2, NOx), we have upgraded and revamp the units and thus controlling the concentration of pollution load and we ensure that expansion unit does not deteriorate the environment. |
| 3(x) | Noise level should be limited to 75 dBA& regular maintenance of equipments should be undertaken. For people working in the area of generator halls and other high noise area, ear plug should be provided. | People working in the noise area have been provided with ear plug, ear muff protection devices. Their use is ascertained by site supervisors. |
| 3(xi) | For controlling fugitive dust, regular sprinkling of water in coal handling and vulnerable areas of the plant should be ensured. In addition, use of Chem –jet for controlling fugitive dust at coal handling site should also be continued as reflected in the environmental management programme submitted to the Ministry. | For controlling fugitive dust regular sprinkling of water is being done in coal handling and various areas of the plant. Chem-jet dust suppression system & dust extraction device has also been installed to control dust pollution and keep within the prescribe limit. |
| 3(xiii) | Detailed Socio-economic survey should be undertaken for the additional area proposed to be acquired for ash disposal. The resettlement plan should be got approved from District Collector and submitted to the Ministry within six months. As submitted in the EIA report, there should be no displacement of people due to the acquisition of land. | required from public and hence no displacement of people. |

Regular Monitoring for SPM, SO2, and Nox around the power plant may be carried out & record maintained. Monitoring stations should be established in consultation with the State Pollution Control Board.

We have installed 04 No. Ambient Air Quality Monitoring Stations in four directions in consultation and approval from UPPCB. Regular monitoring for RSPM(PM10,PM2.5),SO2 & NOX is being carried out, records are maintained and the reports are being sent regularly. Approved Third party report for dated 08-10/03/2021 is given in table. The report in Annexure-4. One No. CAAQMS had been installed at Renusagar and data online connected to CPCB server.

| Source | Para meter | Unit | Average Value. |
|--------------------|---------------|--------|-------------------|
| Ambient | PM2.5 | μg/m3 | 36.3 |
| Air | PM10 | µg/m3 | 67.7 |
| Quality. | SO2 | µg/m3 | 25.2 |
| | NO2 | µg/m3 | 27.4 |
| Stack Emission. | PM | mg/Nm3 | 92.57 |

3(xx)

Full cooperation should extended to the Scientist/Officers from Regional office of the ministry located at Lucknow and central and state Pollution Control Boards who would monitoring the Compliance of Environmental Status. Complete set of impact assessment report and the Management Plans should forwarded to the regional office for their use during monitoring.

We are extending our full cooperation to the Scientist/Officers from Regional office of the Ministry located at Lucknow and Central and State Pollution Control Boards during their visit & monitoring for compliance.

EC No. J-13012/23/98IA.II (T) Dt.10.03.2014 (Stage-VI Amended):

3(xxi)

Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.

For installing Solar Power we are in process of material order and it is expected to be completed by Dec-2021.

| 3(xxii) | A long term study on radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an inbuilt continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place. | Radioactivity and heavy metal test report of coal tested from M/s Sri Ram Institute of Industrial Research, Delhi has been submitted vide our letter No.HR/Six-EC-VI/050 dated 20/05/2016.We have placed order for fresh study. when report is received we shall submit to you. |
|-----------|---|---|
| 3(xxiii) | Mercury emission from stack shall also be monitored on periodic basis. | Complied. (Analysis is being done by M/s Prakriti Consultants Services, Lucknow.) |
| 3(xxiv) | Fugitive emission shall be controlled to prevent impact on agricultural or non-agricultural land. | Complied. (Analysis is being done by M/s Prakriti Consultants Service ,Lucknow.) |
| 3(xxv) | No ground water shall be extracted for use in operation of the power plant even in lean season. | Complied. |
| 3(xxvi) | Hydro geological study of the area shall be reviewed annually and report submitted to the Ministry. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant. | We have conducted the study from M/s Motilal Nehru National Institute of Technology, Allahabad and report has been sent vide our letter No. HR/Six-EC-VI/050 dated 20/05/2016 .New order has been placed for the study to M/s MNNIT, Allahabad. Pre-monsoon & post monsoon Team visit completed. It is being delayed due to Covid-19 pandemic spread. |
| 3(xxvii) | Minimum required environmental flow suggested by the competent Authority of the State Govt. shall be maintained in the Channel / Rivers (as applicable) even in lean season. | We are having Zero discharge. All effluents are recycled and reused. |
| 3(xxviii) | Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of the mine with suitable with suitable media, such that no leachate shall take place at any point of time. In case the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by | Fly Ash is not used for agricultural purpose. Mine Void filling may be done owing the compliance of MoEFCC letter F.No22-13/2019-IA.III dated 28.08.2019 regarding –changes in the conditions stipulated in the EC of thermal power plants and coal mines in line with the fly ash notification and subsequent amendments-reg. We have requested for Feasibility Study for fly ash utilization in abandoned coal mines from Central Institute of Mining and Fuel Research (CIMFR),DGMS, Dhanbad and CMD Northern Coalfields Limited. vide our letter No. UH/RPD /256 dated 24/11/2015. |

| | the State Pollution Control Board | |
|-----------|---|---|
| 3(xxix) | coordination with the State Pollution Control Board | |
| | water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals(Hg,Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project. | |
| 3(xxx) | monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken. | lake) is being monitored by M/s Prakriti Consultants services, Lucknow. Report is attached in Annexure-5 for your kind perusal. |
| 3(xxxi) | Green belt consisting of 3 tier of plantation of native species around plant and at least 100m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 75%. | at Renusagar Power Division. 34.15% of total area has been developed as Green Belt. |
| 3(xxxii) | Three tier green belt shall be developed all around Ash Pond over and above the Green Belt around the plant boundary. | Regular Plantation is being done around ash pond and plant areas. |
| 3(xxxiii) | A common Green Endowment Fund shall be created and the interest earned out of it shall be | Green Belt development expenditure for FY: 2020-21 is Rs 1.36 Lac |

THE THE PROPERTY SEE the part of the part that I 100 - 100 TO

IN THE PARTY I SUPPLY I AND MICHIGAN CONTROL II THE the of the plant. And and the THE PROPERTY AND PARTY. Weller IV Telling 24 MINER OF THE PROPERTY. the superior of fair. If the and seean is se submitted is MINE DESIGN THE TOTAL TO THE THE PARTY OF THE PARTY.

I stronger groups of LAN of the recording the expension of the last service. MINE THE A THE THE TANK LIGHT STORE I AND A LIGHT I nd has be sometime in the inventer of the military in the states to be and at the state to the state of the letter The states seemed to the terms of the terms to place belong experiment that I want to be seen to IN 15 Supplier that part of the fact and the English English and THE WAR THE TAX ELLE AND A REFERENCE

what with an it is in animalian. ALL I CALLED COLLEGE ME the maje factions out the Mand Maningodica 4 76 1 the part temperature of the ALCHER OF ALC SALE SHANNER I BE TATEL BE more than the same training that the and a company to the property of Mary and the property initially realized training at M 90 3 M 1 15 STATE BUT INCIDENT STATES works higher or thought THE PROPERTY AND AND AND ADDRESS. Breaking Transfer invalidade trading programme by yappide dell'employment art disc that se missened it destrict Alleger, him of 150.

A 32 12 "

The street bound address function of the time that the time to the time to the time. WALL THE SE SE SE SE SENDER PROME THE SENDER SE ME AND THE WAS ASS. THE DESIGNATION DEPOSITED TO THE रामकार र वर्ष कामार वर्ष क्या कार्य कार्य कार्य कार्य स्थापना कार्य कार्य कार्य

| 3(xxxvii) | An Environmental Cell shall be created at the project site itself and shall be headed by an Officer of the company of appropriate seniority and qualification. It shall be ensured that head of the Cell shall directly report to the head of the Organization. | A well established Environmental cell is already in place to monitor the Environmental safeguard. |
|------------|--|---|
| 3(xxxviii) | The Environmental Statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned 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 respective Regional Office of the Ministry by e-mail. The project proponent shall formulate a well laid Corporate | Complied. |
| | Environment Policy and identify and designate responsible Officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations. | |

We hope, you will kindly find the same in order.

Thanking you and assuring you of our best co-operation at all times.

Yours faithfully, For HINDALCO INDUSTRIES LIMITED

(Renusagar Power Division)

(Kamlesh Maurya) Asst Manager(Environment)