



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

Registered

**Sub : Six Monthly Compliance Status Report for Stage – VII. (Oct-20 to March- 21).**

Ref : Your letter no. J 13012 / 148 / 2008 – IA. II (T) dated January 21, 2013 for Modernization and Expansion of Existing Captive Power Plant from 741.7 MW to 999.7 MW Regarding:

1. NAME OF THE PROJECT : HINDALCO INDUSTRIES LIMITED  
(Renusagar Power Division)
2. CLEARANCE LETTER NO. : J 13012/148/2008-IA.II (T) dated January 21, 2013.(Stage VII)
3. PROJECT CODE : UP-18-99-1997
4. TIME PERIOD : Oct 2020 to March 2021

Dear Sir,

As desired, please find below the status of our Environmental Clearance Conditions stated for Expansion Stage VII.

Si. No.	EC Conditions	Status
(i)	<b>A : Specific Conditions :</b> The project proponent shall submit compliance status of the action plan formulated by the State Pollution Control Board and required to be undertaken by them for their captive power and other plants in the area within one month.	We regularly submit Monthly Progress Report of compliance of NOC conditions accorded by U P Pollution Control Board, Lucknow date May 03, 2013.
(ii)	In case source of fuel supply is to be changed at a later stage ( now proposed imported coal from Indonesia / South Africa ) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. In such a case the necessary for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee. It shall be ensured that the imported coal is an additional coal coming to the country for the specific requirement of the power project.	We had applied online on May 11, 2017 to MoEFCC for amendment in existing EC dated January 21, 2013 regarding change of fuel source from imported coal to indigenous coal. Presentation done before Expert Appraisal Committee. Minutes of meeting issued. Amended EC is yet to be granted by MoEFCC. A recent letter issued by ministry is attached for your reference in this regards in Annexure-I

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(iii)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	Complied. Submitted vide our letter no. HR/Six-EC-VII/3472 dated 10.10.2013.
(iv)	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.
(v)	Transportation of coal shall be railway siding to project site through a combination of link conveyor belt pipe conveyor and aerial rope ways. The proponent shall explore the possibility for installation of wagon tippler at rail-way siding.	Belt Pipe conveyor system has been commissioned. All linkage coal from NCL is being transported through Belt Pipe conveyor and Aerial ropeway system.
(vi)	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.4 % and 10 % respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.	We had applied online for Fuel source change dated 11.05.2017 to MoEFCC. Presentation done before EAC. Minutes of meeting issued. Amended EC is yet to be granted.
(vii)	Stack of 100 m height shall be provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and Particulate Matter ( PM 2.5 & PM 10 ). Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emission from stack shall also be monitored on periodic basis.	The minimum height of stack shall not be less than 100 meters from the ground level for the commissioning of new units of 79.7 MW & 80.0 MW. At the time of erection & commissioning of new units, on line Monitoring equipments will be installed.
(viii)	Space provision for installation of FGD shall be made.	We will keep space for FGD in new units.
(ix)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm <sup>3</sup> .	High efficiency ESPs shall be installed to ensure particulate emission within limits for new units of 79.7 MW & 80.0 MW.
(x)	Adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas such as in coal handling and ash	All stated system has been already in place and working well. The same shall be utilized for new units also.



	handling points, transfer areas and other vulnerable dusty areas shall be provided.	
(xi)	Utilization of 100 % Fly Ash generated shall be made from 4 <sup>th</sup> year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Status of implementation of 100 % fly ash utilization as stated in the condition shall be sent to Ministry after operation of two new units of 79.7 MW and 80.0 MW.
(xii)	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 mine 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 the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.	Fly Ash is not used for agricultural purpose. Mine Void filling is also not being done. 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.
(xiii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury & other heavy metals (As, Hg, Cr, Pb, etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying areas.	Existing silo is sufficient for storage of fly ash. Unutilized ash generated from new units will be disposed to existing ash Disposal site. Report of testing of mercury & other heavy metals in bottom ash and Ash pond effluents from M/s Prakriti Consultants Services, Lucknow attached in Annexure-2.
(xiv)	Ash pond shall be lined with HDPE / LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Existing Ash disposal site is already lined with LDPE lining to prevent any seepage. All safety measures are in place to protect ash dyke.
(xv)	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Water sprinkling System has already been installed in Existing ash dyke to control fugitive emission.



(xvi)	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built 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 has been received from M/s Sri Ram Institute of Industrial Research, Delhi report has been submitted vide our letter No. HR/Six-EC-VII/ 051 dated 20/05/2016 We have placed order for fresh study. when report is received we shall submit to you.
(xvii)	Continuous monitoring of heavy metals in and around the existing ash pond area shall be carried out by reputed institute like IIT, Roorkee.	Regular monitoring is being done by competent lab of UP Pollution Control Board & MoEFCC Prakriti Consultants Services, Lucknow. Report is attached in Annexure-3.
(xviii)	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.	Complied. We are zero liquid discharge units thus has no effects on natural water bodies.
(xix)	COC of at least 5.0 shall be adopted.	Complied.
(xx)	A well designed rain water harvesting system shall be put in place which shall comprises of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Regional Office of Ministry.	As per advise of Central Ground Water Board , Allahabad ' Taking into the cognizance of Rihand Reservoir which is very close to the Power Plant and other hydro geological conditions, there is no need of rain water harvesting since entire rain full run – off is already meeting into the Rihand Reservoir.'
(xxi)	Hydrology of the area shall be reviewed annually from an institute /organization of repute to assess impact of surface water and ground regime (Especially around ash dyke). In case any deterioration is observed specific mitigation measures shall be undertaken and reports / data of water quality monitored regularly & maintained shall be submitted to the Regional Office of the Ministry.	We have conducted the study from M/s Motilal Nehru National Institute of Technology, Allahabad and report has been submitted vide our letter No. HR/Six-EC-VII/ 051 dated 20/05/2016. New order awarded for study to M/s MNNIT, Allahabad. Pre-monsoon & post-monsoon team visit completed. It is being delayed due to Covid-19 pandemic spread.
(xxii)	Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB / CPCB.	Water quality is regularly being monitored by competent lab of UPPCB & MoEFCC M/s Prakriti Consultants Services Limited, Lucknow. Complied. We are treating all our waste water and treated waste water are recycled & reused in ash plant & cooling activities.

- (XXIII) Green belt consisting of three tiers of plantations of native species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised & adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less 80 %.
- (XXIV) The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.
- (XXV) An amount of Rs. 3.10 Crores shall be earmarked as one time capital cost CSR programme. Subsequent a recurring expenditure of Rs. 0.600 crore per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.
- (XXVI) CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken.
- (XXVII) It shall be ensured that in-built monitoring mechanism for the scheme identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.
- (XXVIII) An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be
- 34.15 % of total area of the plant has been developed as Green Belt. Plantation report for period of Oct to March 2021 is attached in Annexure-4
- Complied Through CSR activities 1150 meters pipeline has been laid down in Garphandha & Partaliya villages. Water taps have been provided at 22 no. of locations for safe drinking water. Drinking Water is regularly being supplied.
- With the installation of new units, we shall ensure the same.
- Direct & indirect employment has already been provided & shall be further provided during construction and commissioning of the new units. CSR scheme shall be implemented as submitted to the Ministry.
- Social Audit of CSR schemes has been conducted model villages by Xavier Institute of Social Serv (XISS), Ranchi in September, 2017. XISS final report & action Plan has been submitted our letter No. Env Six VII / 100 dated 28.11.2017. Action plan has been implemented.
- A well-established Environmental Cell is already in place to monitored the environmental safeguard.



	<p>ensured that the Head of the Cell shall directly report to the Head of the Organization.</p> <p><b>B : General Conditions :</b></p> <p>(i) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.</p> <p>(ii) A sewage treatment plant shall be provided (as applicable) &amp; the treated sewage shall be used for raising greenbelt / plantation.</p> <p>(iii) Adequate safety measures shall be provided in the plant area to check / minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.</p> <p>(iv) Storage facilities for auxiliary liquid fuel such as LDO/ HFO/ LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5 %. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.</p> <p>(v) First aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase.</p> <p>(vi) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area , requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Worker engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.</p>	<p>Complied.</p> <p>Existing Sewage Treatment Plant is sufficient to treat effluent generated from the project and treated effluent is being used for Cooling purpose.</p> <p>Adequate safety measures has already been taken in coal yard area to minimize Spontaneous fires.</p> <p>Existing storage facilities are sufficient for storage of HSD / HFO for proposed modernization and expansion project. Disaster Management Plan is already in place.</p> <p>All necessary arrangements has been made and shall be used during construction phase for the drivers and other contract workers.</p> <p>All necessary steps have been taken to control noise level in work zone area. Necessary PPEs have been provided. Workers working in high noise area are being examined periodically.</p>
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(vii)	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM 2.5 & PM 10 and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	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),SO <sub>2</sub> ,NO <sub>x</sub> are being carried out, records are maintained and the reports are being sent regularly. Approved Third party report for dated 08-10/03/2021 is attached in Annexure-5. One No. CAAQMS (PM10, PM2.5, SO <sub>2</sub> , NO <sub>x</sub> , CO, Ozone, Ammonia & Benzene) had been installed at Renusagar and data online connected to CPCB server.
(viii)	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as for fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	All necessary steps shall be taken during construction phase as stated in the condition.
(ix)	The project proponent shall 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 within seven days from the date of this clearance letter, 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 and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	Complied. We have advertised the information in two local news papers 'Aaj' (in Hindi) and 'Pioneer' (in English) widely circulated in the region around the Project on January 26 <sup>th</sup> , 2013, out of which one is in vernacular language of the locality.
(x)	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 whom suggestions / representations, if any received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied.
(xi)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It	Complied. We are regularly submitting six monthly compliance report alongwith monitoring data to SPCB / CPCB /



shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely SPM, RSPM (PM 2.5 & PM 10), SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.

(xii) The environmental statement for each financial year ending 31<sup>st</sup> 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.

(xiii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguard to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically & simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.

(xiv) Regional Office of Ministry of Environment and Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis. Criteria pollutants levels including NO<sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.

Regional Office MoEFCC.  
Data is being displayed at main gate.

Environmental Statement is regularly submitted to SPCB and regional office of ministry through e-mail as prescribed.

We are regularly submitting six monthly compliance report along with monitoring data to SPCB / CPCB / Regional Office MoEFCC.

Complied with.



(xv)	<p>Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should be reported to the Ministry.</p>	<p>Separate funds shall be allocated for environmental protection measures. Action shall be taken as per the allocated fund. Year wise expenditure shall be reported to Ministry after commissioning of project.</p>
(xvi)	<p>The project authority shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the Project by the concerned authorities and the dates of start of land development work and commissioning of the plant.</p>	<p>Regional Office as well as Ministry shall be informed the date of financial closure and final approval of the Project.</p>
(xvii)	<p>Full cooperation shall be extended to the Scientist / Officers from the Ministry / Regional Office of the Ministry / CPCB / SPCB who would be monitoring the compliance of environmental status.</p>	<p>Full cooperation is being extend by the Industry to the officers of Pollution Control Board and others during monitoring of compliance of environmental status.</p>
(5)	<p>The Ministry of Environmental and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.</p>	<p>Noted.</p>
(6)	<p>The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.</p>	<p>Noted.</p>
(7)	<p>Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions above may result in withdrawal of this clearance and attract action under the provisions of Environment ( Protection ) Act, 1986.</p>	<p>Noted.</p>
(8)	<p>In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.</p>	<p>In case of any change as stated in the condition , Ministry shall be informed accordingly.</p>

(9)	The above stipulations would be enforced among others under the Water ( Prevention and Control of Pollution ) Act, 1974 , the Air ( Prevention and Control of Pollution ) Act, 1981, the Environment ( Protection ) Act, 1986 and rules there under, Hazardous Wastes ( Management, Handling & Trans-boundary Movement ) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	We are complying the Water Act 1974, the Air Act 1981, EPA ,Hazardous waste rules-2008 and its amendment, and Public liability Insurance Act 1991.
(10)	Any appeal against this environmental clearance shall lie with the National Green Tribunal , if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.

We hope, you will kindly find the same in order.  
Thanking you and assuring you of our best cooperation at all times.

Yours faithfully,  
For HINDALCO INDUSTRIES LIMITED  
( Renusagar Power Division )

**(Kamlesh Maurya)**  
Asst Manager (Environment)  
Encl: as above.

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