

BALCO/ENV/A-02(A)/2026/208

Date: 15.05.2026

To,
The Integrated Regional Office (IRO),
Ministry of Environment, Forest & Climate Change,
Aranya Bhawan,
North Block, Sector-19,
Nava Raipur, Atal Nagar (CG) 492002.

Sub: Half Yearly Compliance Status Report (October 2025 to March 2026) of the expansion of Aluminum Smelter Plant (3.5 to 9.0 LTPA) and Captive Power Plant (300MW) at Korba, Chhattisgarh by BALCO

Respected Sir,

As per the Environmental Clearance (No. J- 11011/123/2007.IA-II (I) dated 16.09.2008 received for the Expansion of Smelter & Power Plant, M/s Bharat Aluminium Company Limited, Korba has set up the smelter plant, phase-1, (3.25 LTPA). Please find enclosed herewith the compliance report along with the necessary supporting documents.

We hope that the above is in line with the provisions stipulated in the Environmental Clearance. If you require any further information, we will be glad to provide the same.

Thanking you,

Yours Truly,
On behalf of Bharat Aluminum Company Ltd.



(Authorized Signatory)

Encl: a/a

Copy to: The Regional Officer, Chhattisgarh Environment Control Board, Korba.

BOW

**Compliance Status of Expansion of Aluminium Smelter Plant from 3.5 to 9.0 LTPA
and Captive Power Plant 300 MW**

AT-KORBA, CHHATTISGARH BY M/s BHARAT ALUMINIUM CO. LTD (BALCO)

No. J-11011/123/2007-IA-II (I) MoEF&CC dated 16.09.2008

Duration: October 2025 to March 2026

A. SPECIFIC CONDITION

Sl. No.	Conditions	Compliance status
i	The gaseous emissions (PM, SO ₂ , NO _x , PAH, HC, VOCs, and Fluoride) from various process units shall conform to the standard prescribed from time to time. The CECB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry, its size and location. At no time the emission level should go beyond the prescribed standards, In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control; measures are rectified to achieve the desired efficiency. The particulate emissions from the bake oven plant shall not exceed 50 mg/Nm ³ .	Pollution Control devices like bag filters, dry scrubbers and FTPs have been installed to ensure that emissions are well within the permissible limits, including the particulate emissions from bake oven plant. CEMS has been installed in the stacks of all units and the CEMS has been connected with CPCB and CECB servers for real-time continuous data monitoring. The monthly stack monitoring reports are submitted to CECB every month. Copy of monthly stack monitoring reports are attached as Annexure-I.
ii	Electrostatic precipitator (ESP) shall be provided to Captive Power Plant (CPP) to control emissions below 50 mg/Nm ³ . The company shall provide bag-filters, dry scrubbing system and dust suppression system to control all the emissions including fluoride emissions from all melting and casting units. Tar, dust and fluoride in the fumes shall be controlled in baking furnace by providing dry scrubber. The emissions shall conform to the standards prescribed by the Ministry/CPCB/SPCB whichever is more stringent.	300 MW power plant has not been set up as per EC approval hence the condition "Electrostatic precipitator (ESP) shall be provided to Captive Power Plant (CPP) to control emissions below 50 mg/Nm³" is not applicable. BALCO has installed bag-filters, dry scrubbing system and dust suppression system to control the emissions including Fluoride emissions from all units. Tar, dust and fluoride in the fumes are controlled in baking furnace by the dry scrubber. CEMS has been installed in the consented stacks of all units and the CEMS has been connected with CPCB and CECB servers for real-time continuous data monitoring. The monthly stack monitoring reports are submitted to CECB every month.

		Copy of monthly stack monitoring reports are attached as Annexure – I .
iii	The poly-aromatic hydrocarbons (PAH) from the carbon plant (anode bake oven) shall not exceed 2 mg/Nm ³ . The data on PAH shall be monitored quarterly and report submitted regularly to the Ministry/Regional Office at Bhopal and CECB.	Poly-aromatic hydrocarbons (PAH) from Bake oven plant are regularly monitored and reported to CECB every month which is well within limit. Copy of monthly stack monitoring reports are attached as Annexure – I .
iv	Particulate fluoride emissions shall not be more than 0.65 mg/Nm ³ and fugitive Particulate fluoride emissions from pot room shall not be more than 1.85 mg/Nm ³ .	State of the art technology (Prebaked technology, Ports with point feeder control), has been installed in the smelters. Systems for covering the pots with properly designed hoods and fume treatment plant are in place to ensure Fluoride emissions (Particulate and Fugitive) are within the stipulated norms. Copy of fluoride emission monitoring reports are attached as Annexure –I & Annexure II .
v	Fluoride consumption shall be less than 10 kg/ton of Aluminium produced as specified in the CREP guidelines.	CREP (Corporate Responsibility for Environmental Protection) recommendation prescribing Specific Fluoride consumption less than 10 kg/ton of aluminium has been amended to specific AlF ₃ consumption less than 20 kg/ton of aluminium as per the Gazette Notification dated 21st July 2025 under the Environment (Protection) Fifth Amendment Rules, 2025, issued by the Ministry of Environment, Forest and Climate Change, Government of India. The revised standard replaces the earlier entry under Serial No. 36 of Schedule I of the Environment (Protection) Rules, 1986 and for FY 26 the specific AlF ₃ consumption was within the prescribed limit .
vi	In-plant control measures like fume extraction and dust extraction system for controlling fugitive emissions from all the material handling/transfer points shall be provided to control dust emissions. Fugitive fluoride emissions from the pot room and in the forage around the smelter complex shall be monitored and data submitted regularly to the Ministry's Regional Office at Bhopal and CECB. Further dry scrubbing system to control the emissions from the pot lines shall be provided.	State of the art technology, PFPB, has been installed in the smelters. System for covering the pots with properly designed hoods, fume treatment plant based on dry scrubbing and bag filter technology and dust suppression and dust extraction systems are in place to check fugitive emissions. Fluoride emissions from pot rooms and forage Fluoride around the smelter complex are monitored regularly. Copy of fugitive emission reports attached as Annexure – II and copy of forage Fluoride monitoring reports attached as Annexure – III .
vii	Total water requirement for the expansion from Hasdeo River shall not exceed 1253 m ³ /hr and prior permission for the existing and proposed expansion shall be obtained from the concerned department before	Total water requirement for the expansion from Hasdeo River does not exceed 1253 m ³ /hr. Effluent Treatment Plant with RO system is in place and treated effluent from ETP is being used in the process.

	commissioning of the plant. All the effluent including from cooling tower and de-mineralization plant shall be treated in the effluent treatment plant and treated effluent shall be recycled / reutilized in the process in the smelter and CPP and also for fire protection, dust suppression, green belt development etc. Domestic effluent shall be treated in Sewage Treatment Plant (STP) and treated domestic wastewater will be used for green belt development.	For treatment of domestic effluent, Sewage Treatment plant has been installed and treated water is being used for green belt development.
viii	No effluent shall be discharged outside the premises during the non-monsoon period and during the monsoon period water shall be discharged only after proper treatment and meeting the norms of the CECB/CPCB.	The plant is designed for zero discharge, and treated water is being used in the process. During monsoon season, under emergency situations storm water is discharged conforming to norms.
ix	Regular ground water monitoring shall be carried out by installing Piezometers all around the secured landfill site in consultation with the Chhattisgarh Environment Conservation Board, Central Ground Water Authority and State Ground Water Board and data submitted to the Ministry's Regional Office and CECB.	Piezometers have been installed all around the secured landfill site and ground water monitoring is being carried out every month. The monthly monitoring reports are submitted to CECB every month. Copy of ground water quality monitoring reports are attached as Annexure–IV.
x	Anode butts generated from the pots shall be cleaned and recycled to the Anode Plant. The spent pot lining generated from the smelter shall be properly treated in spent pot lining treatment plant to remove fluoride and cyanide and disposed off to the Cement/Steel plants and as minimum as possible to secured landfill. The location and design of the landfill site shall be approved by the CECB as per Hazardous Wastes' (Management and Handling) Rules 1989 and amended in 2003. Leachate collection facilities shall be provided to the secured landfill facility (SLF). The dross shall be recycled in the cast house. STP sludge shall be utilized as manure for green belt development. All the used oil and batteries shall be sold to the authorized recyclers/ re-processors.	Anode butts generated from the smelter operations are recycled at Green Anode Plant within the plant premises. For utilizing the Spent Pot Lining (SPL) generated from the Smelter, BALCO has entered into an agreement with following authorized co-processors for detoxification and further usage in cement/steel plants as per Central Pollution Control Board (CPCB) guidelines. Captive SLF for storage of Hazardous Waste is approved by the CECB as per Hazardous and Other Wastes' (Management and Transboundary Movement) Rules 2016. The approved design of captive SLF is attached as Annexures V (Colly) & VI. Dross generated is processed through Dross Processing Units / authorized recyclers having valid consent and authorization as per the guidelines of CECB.

		STP sludge is being used as manure for green belt development. Used oil and batteries are being sold to the authorized recyclers/ re-processors.
xi	Integrated Ash Management Plan shall be prepared for the utilization of fly ash as per Fly Ash Notification, 1999 as amended in 2003 and implemented. A copy of the plan shall be submitted to the Ministry's Regional Office. Fly ash shall be collected pneumatically in silos and used by cement and brick manufacturers for further utilization. Bottom Ash shall be disposed off in ash pond using high concentrated slurry disposal method.	300 MW Power Plant has not been set up, and this clause is not applicable.
xii	Green belt of adequate width and density around the project site shall be developed in 33 % area in consultation with the DFO as per the CPCB guidelines having density of 2,000 trees/ha.	Extensive tree plantation is being carried out all open spaces available in and around the plant premises. ≈77000 number of saplings have been planted around BALCO's premises including ash dykes, township and plant premises during FY 2026-27. Copy of greenbelt details attached as Annexure–VII .
xiii	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance of the employees is being carried out as per the Factories Act and the records are being submitted to the Department of Industrial Health & Safety (Govt. of Chhattisgarh) through the Online Portal (cglabour.nic.in) on regular basis.
xiv	The company shall develop rainwater structures to harvest the run-off water for recharge of ground water in consultation with the Central Ground Water authority/ State Ground Water Board.	Rainwater harvesting system is in place to harvest the run-off water.
xv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium sector shall be strictly implemented.	The compliance status of the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) is attached as Annexure-VIII .
xvi	All the environmental conditions stipulated by the Ministry vide letter no. J-11011/34/2003-1A II (I) dated 5 th November 2003 for the Alumina Refinery and Aluminium Smelter Plant shall be complied and regular compliance report submitted to the Ministry's Regional Office at Bhopal.	Compliance status for the environmental conditions stipulated by the Ministry vide letter no. J-11011/34/2003-1A II (I) dated 5 th November 2003 for the Alumina Refinery and Aluminium Smelter Plant is submitted regularly to Ministry's Regional Office at Bhopal/Nagpur. Last report was submitted vide our letter no. BALCO/ENV/A-02(A)/2025/493 dated 16 th October 2025. Copy of the letter attached as Annexure – IX .

xvii	The company shall comply with all the commitments made during public hearing/public consultation held on 16th November 2007. The company shall prepare the action plan for implementation of the commitments and same shall be submitted to the Ministry and its Regional Office at Bhopal and Chhattisgarh Environmental Conservation Board Raipur.	The commitments made during the public hearing are being implemented and the status of the same is attached as Annexure- X .
xviii	Prior permission from the State Forest Department shall be obtained due to the likely impact of transport of raw material and end product and gaseous emissions from the smelter on the surrounding reserve forests and wildlife. Recommendations regarding mitigative measures suggested by the State Forest department and Chief Wildlife Warden, Govt. of Chhattisgarh shall be strictly followed.	BALCO has the required transport infrastructure (Rail & Road) in place. A letter has been sent to the Principal Chief Conservator of Forest on 18.11.2015 vide Letter No. Balco / Sm3.25LTPA / Env / 01(A) / 2015 / 380 and is being followed up regularly. Further, the impact due to transportation and operations was evaluated in the EIA for expansion project and the Wildlife Conservation/ Management Plan was prepared. This has been discussed during the EC Appraisal process.
xix	Ministry of Environment and Forests shall regularly be informed about the source and quantity of Alumina procured from captive/indigenous/imported sources.	The source and quantity of Alumina procurement from October 2025 to March 2026 is as follows: 1. Indigenous –214067 (Vedanta Limited, Lanjigarh, Odisha) 2. Indigenous –65570 MT (Utkal Alumina, Odisha, Muri Alumina - Jharkhand) 3. Imported – 345039 MT (Ras-Al-Kher, Saudi Arabia, Go Dau, Vietnam, Kendawangan, Indonesia, Kijang, Indonesia, Gladstone, Australia)
xx	Alumina shall be obtained only from those refineries, which have been accorded environmental clearance by the Ministry of Environment and Forests.	Complied with. Alumina procured from the sister concern (Vedanta Limited, (Lanjigarh) has the required EC from MoEF&CC (No. J-11011/81/2003-IA-II dated 22.09.2004, No. J-11011/53/2014-IA.II dated 20.11.2015, No. J-11011/406/2011-IA.II(I) dated 06.08.2021).

B. General Condition

i	The Project authorities must strictly adhere to the stipulation made by the Chhattisgarh Environment Conservation Board and the State Government.	Complied with.
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ii	No expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Complied with.
iii	Adequate ambient air quality-monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality, fugitive emission and stack emissions should be regularly submitted to this ministry including its Regional Office at Bhopal and the State Pollution Control Board/Central Pollution Control Board once in six months.	AAQ stations have been set up both in upwind and downwind directions at locations approved by the State Pollution Control Board. Copy of monthly stack emission monitoring reports attached as Annexure – I. Copy of monthly fugitive emission monitoring reports attached as Annexure –II. Copy of monthly ambient air quality monitoring reports attached as Annexure – XI.
iv	Industrial wastewater should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater should be recycled in the plant as well as utilization for plantation purposes.	Effluent Treatment Plant with RO system is in place and treated effluent from ETP is being used in the plant activities.
v	The project authorities shall with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules 2003. Authorization from the CECB must be obtained for collection, storage, treatment and disposal of hazardous wastes.	Authorization in accordance with Hazardous and other Waste (Management, and Transboundary Movement) Rules 2016 has already been obtained from CECB vide letter No. 5255/HSMD/HO/CECB/2021 Raipur dated 22.10.2021, which was further amended vide letter No. 5394/HSMD/HO/CECB/2025 Nava Raipur Atal Nagar, Dated 07/08/2025 and 13438/HSMD/HO/CECB/2026 Nava Raipur Atal Nagar, Dated 11/03/2026 for generation, collection, storage, transport, reuse, recycling and disposal of hazardous wastes and the same is valid up to 23.10.2026. Copy of Authorization and its amendment attached as Annexure -XII.
vi	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measured including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under Rules, 1989 viz.75 dBA (day time) and 70 dBA (Night time)	Equipment designed to ensure that noise level at plant boundary area is within the stipulated level of 85 dB. Copy of noise monitoring reports attached as Annexure – XIII.
vii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP/risk analysis and DMP report.	Complied with.

viii	As proposed in EIA/EMP Rs. 216.50 Crores earmarked toward the capital cost and recurring the expenditure/annum for environmental protection measures shall be used judiciously to implement the condition 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 purposes.	Complied with.
ix	The Regional Office of this Ministry at Bhopal/Central pollution Control Board/CECB will monitor stipulated conditions. A six-monthly compliance report and the monitored data along with Statistical interpretation should be submitted to them regularly.	Complied with. EC Compliance was last submitted vide letter no BALCO/ENV/A-02(A)/2025/493 dated 16 th October 2025. Copy of the letter attached as Annexure – IX .
x	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.	Complied with. Copy of newspaper advertisements attached as Annexure–XIV .
xi	The project authorities should 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 commencing the land development work.	The expansion project of Aluminium smelter from 3.25 LTPA to 9.0 LTPA was approved by MoEFCC vide EC letter No. J-11011/123/2007-IA-II (I) MoEF dated 16.09.2008 and Consent to Establish vide letter No. 4567/TS/CECB/2022 dated 12.11.2010. We have commenced the land development work as per the Consent to Establish and final approval i.e. Consent to Operate vide letter No. 3747/TS/CECB/2013 dated 25.10.2013.
6.0	The Ministry may; revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
7.0	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in at time bound manner will implement these conditions	Noted.

8.0	Any appeal against this environment clearance shall lie with the national environment appellate authority, if preferred within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.	Noted.
9.0	The above conditions will be enforced, inter-alia under the provisions of the water (Prevention& Control of Pollution) Act 1974, the Air (Prevention &Control of Pollution) Act, 1981, the Environment Protection Act, 1986, Hazardous Wastes (Management and Handling) Rules, 1989/2003 and the Public Liability insurance Act, 1991 along with their amendments and rules.	Noted.