



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

**BY REGISTERED AD**

CPCB/PCI-II/AI/OMS/5146 15554

24/03/2017

To

The Unit Head  
M/s Bharat Aluminium Company Limited (BALCO),  
Balco Nagar,  
Korba-495684, Chhattisgarh

**Sub.:** Directions under Section-5 of the Environment (Protection) Act, 1986 regarding installation of on-line effluent and emission monitoring system– Closure thereof

**Ref.:** CPCB's direction No. CPCB/PCI-II/AI/OMS/5150, dated July 23, 2015.

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BALCO's reply dated 24/08/2015.

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BALCO's reply dated 03/09/2015.

WHEREAS, the primary aluminium industries are identified as one of the 17 categories of highly polluting industries which have been discharging environmental pollutants directly or indirectly into the ambient air and water, having potential threat to cause adverse effect on the water and air quality; and

WHEREAS, there is need to inculcate habit of self-monitoring within the industries for complying with the prescribed standards and this can be achieved by the methods like installing online effluent and emission monitoring devices; and

WHEREAS, for strengthening the monitoring and compliance through self-regulatory mechanism, online source emission and effluent monitoring systems need to be installed and operated by the industries on 'polluter pays principle'; and

WHEREAS, a direction under section-18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 was issued on February 05, 2014 to all the State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) for installation of online emission monitoring system w.r.t. PM & fluoride parameters and online effluent monitoring system w.r.t. pH, BOD, COD & TSS in aluminium industries; and

WHEREAS it was clarified that flow meter & web camera may be installed in case of units with zero liquid discharge (ZLD) by March 31, 2015 vide guidelines uploaded on website of CPCB dated November 7, 2014; and

WHEREAS, considering the requests/representations received from industries/industrial associations/SPCBs/PCCs, an extension of time up to June 30, 2015 for installation of online monitoring systems was granted vide direction dated March 02, 2015 under section-18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981; and

WHEREAS, a letter vide dated May 29, 2015 was issued by the Chairman CPCB to all the SPCBs/PCCs informing that no further extension of time will be given after June 30, 2015 and withdrawal of consent to operate along with forfeiture of bank guarantee of non-complying Units will be the only option; and

WHEREAS, concerned SPCB/PCC have issued directions under section-33A of the Water (Prevention & Control of Pollution) Act, 1974 and section-31A of the Air (Prevention & Control of Pollution) Act, 1981 to install the online monitoring system by June 30, 2015 and to submit bank guarantee of 100% of the cost of online emission & effluent monitoring system; and

WHEREAS, Hon'ble Supreme court of India has expressed concern regarding non implementation of direction of statutory bodies on various matters; and

WHEREAS, Hon'ble National Green Tribunal in its order dated 15th December, 2014 in the matter of Krishan Kant Singh Vs. M/s. Hindustan CocaCola Beverages Pvt. Ltd., Mehdiganj, Rajatalab, Varanasi stated that "it seems appropriate introduction of online monitoring system for the industries needs to be explored and if it is possible to provide for joint online monitoring system"; and

WHEREAS, CPCB has explored installation of Online Monitoring device in the other countries and has come to conclusion that the online monitoring devices are essential for improving compliance as the conventional monitoring systems not able to capture violations on regular basis; and

WHEREAS, CPCB has held stakeholder consultations with industrial associations and SPCBs/PCCs on 06.08.2014, 19.09.2014, 29.09.2014, 08.10.2014, 16.10.2014, 09.01.2015, 08.04.2015 and 16.06.2015 regarding time bound implementation of installation of these devices; and

WHEREAS, the Ministry of Environment & Forests, Government of India, vide Notifications No. S. O. 157 (E) of 27.02.1996 and S. O. 730 (E) dated 10.07.2002, has delegated the powers vested under Section-5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board, to issue directions to any industry or any local body

or any other authority for violations of the standards and rules notified under the Environment (Protection) Rules, 1986 and amendment thereof.

WHEREAS to this effect and in exercise of powers vested under Section-5 of the Environment (Protection) Act, 1986, CPCB has served the above referred notice (CPCB/PCI-II/Cu/OMS/5146) on July 23, 2015 directing the industry to comply with the following directions:

1. The Unit shall submit documentary evidence regarding status of installation of online emission & effluent monitoring system.
2. The Unit shall submit the status on connectivity for submission of online 24x7 monitoring data to SPCBs/PCCs and CPCB.
3. The Unit shall submit the details as per Annexure-I through
  - (a) E-mail id - cems.cpcb@nic.in
  - (b) uploading the data on the link provided on CPCB Website (www.cpcb.nic.in) and
  - (c) by speed post

to the Member Secretary, Central Pollution Control Board.

WHEREAS in response to the CPCB's Directions your industry sent the above referred letters dated 24/08/2015 and dated 03/09/2015 indicating that you have installed the Online Continuous Emission and Effluent Monitoring Systems (OCEMS) and hooked up the data to the CPCB servers; and

WHEREAS, the SMS alerts are supposed to be generated and sent to concerned dealing officer in CPCB as well as in plant whenever concentration of any pollutant exceeds the limit as prescribed. However, in case of M/s BALCO, Korba, Chhattisgarh number of SMS alerts have been generated in last three months; and

WHEREAS, in order to verify the compliance and find out the status of online monitoring system, a team from CPCB, Regional Directorate Bhopal carried out an inspection of M/s BALCO, Korba, Chhattisgarh on 05-06/01/2017 and made few observations which are as follows:

1. The unit has phased out the Soderberg technology and presently total production is being done by Pre-bake technology, which is more environmentally safe. Raw material i.e. Alumina is being procured mainly from M/s Vedanta, Langigarh (Odisha) and sometime import from Indonesia, Australia, Belgium. The plant is only smelting the alumina in pot to produce Aluminium bars.

2. The unit procured Alumina from Odisha, processing for extraction of Alumina from ore has been completely closed at M/s Balco Korba, hence no red mud and allied waste is generated. The old red mud pond is being used for disposal of fly ash of CPPs through HCSD system.
3. The unit has installed total 14 online CEMS in Smelter No. 1 & 2, CPP of 1200 MW and CPP of 540 MW.
4. As per the guideline of CPCB, the unit has to install CEMS in pre-Bake Oven stack and Green Anode Paste (GAP) Plant. The unit have 02 pre-bake oven plants, the opacity meter (Make- Sintrol s304) has been installed in pre-bake oven No. 01 but not connected with CEMS, and in pre-bake oven no. 02 was under commissioning.
5. The CEMS was also not installed in GAP Plant. As informed by the unit representative only de-dusting system installed and possibility of CEMS installation will be explored in consultation with CECB and other similar plant located in India.
6. M/s BALCO, Korba has also 270 MW CPP Unit but it was under temporary shutdown due to economical reason since December, 2015. However, CEMS has been installed in it.
7. The unit has not prepared Calibration protocol for regular Calibration of installed CEMS as mentioned in CPCB guideline of Specifications and guidelines for continuous emissions monitoring systems (CEMS) for PM measurement with special reference to emission trading programs.
8. As informed by the unit representative, the warranty period of all the installed CEMS has been expired and as on date Instrumentation division of concerned plant is looking after the O&M of the same. However, AMC has been given to Forbes Marshall for CEMS installed in 540 MW CPP only and last calibration done on 12.12.16 for gaseous emission.
9. Rupturing of bag in bag house, light up of boiler, Tripping of ESP due to increasing of CO concentration and scheduled maintenance of APCDs are major causes of high Emissions and SMS alarms.

WHEREAS, as per CPCB direction dated 23/07/2015 and industry specific checklist available at CPCB website, each stack and outlets of the industry has to be covered with Online Monitoring Instruments/analysers connected with CPCB website. However, in case of M/s BALCO, Korba it is clear from the

inspection that stacks attached to prebake oven and Green Anode Plant are left out by the industry and CEMS are yet to be installed with these sections. CPCB now observes that the Unit remains non-compliant. Substantial time has been elapsed since unit received our original notice; and

**NOW, THEREFORE,** based on the observations made by the CPCB (RD-Bhopal) inspection team and all material facts available with CPCB and in exercise of powers vested under Section-5 of the Environment (Protection) Act, 1986, M/s Bharat Aluminium Company Limited, Balco Nagar, Korba is hereby directed to close down all operations/production with immediate effect till the Unit complies fully with CPCB direction dated 23/07/2015 issued w.r.t. installation & connectivity of online emission & effluent monitoring systems and complies with the following directions:

- To install the CEMS in pre-bake oven and connect with CECB/CPCB server for instantaneous display of emission results.
- To install the CEMS in GAP Plant and connect with CECB/CPCB server as per CPCB guideline.
- To complete the registration details on the CPCB registration portal.
- To ensure proper calibration record and periodic maintenance of all installed CEMS and provide at the time of verification and Inspection of the Plant.
- To ensure that treated water of STP be used for horticulture purpose inside the plant and excess water discharged from the STP should meet the prescribed standards as laid down by the Chhattisgarh Environment Conservation Board.

  
**(S.P. Singh Parihar)**  
Chairman

Copy to:

1. The Chairman  
Chattishgarh Environment Conservation Board,  
Nanak Niwas, Civil Lines, Raipur,  
Chattishgarh – 421001
2. The Advisor-CP Division  
Ministry of Environment, Forest and Climate Change  
Indira Paryavaran Bhawan, Jorbagh Road  
New Delhi - 110003
3. The Incharge, Zonal Office (Central)  
Central Pollution Control Board,  
3rd Floor, Sahkar Bhawan,  
North TT Nagar,  
Bhopal-462003 (M.P.)
4. I/c IT division  
CPCB, Delhi

  
(Dr. A. B. Akolkar)  
Member Secretary

