

COMPLIANCE TO EC CONDITIONS

(Expansion up to 65 KTPA)

MINISTRY OF ENVIRONMENT & FORESTS ENVIRONMENTAL CLEARANCE FOR EXPANSION OF ALUMINIUM SMELTER PLANT AT HIRAKUD BY M/S INDIAN ALUMINIUM COMPANY LIMITED

No. J11011/42/2000-IA II DATED 10TH JANUARY , 2001

Sl. No.	Condition	Compliance Status as on 30 th September, 2012
SPECIAL :		
i.	The gaseous emissions (SO ₂ , NO _x , Fluoride, Coal tar pitch volatiles) and particulate matters, from various process units should conform to the standards prescribed by the concerned authorities from time to time. 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.	<p>The standards already stipulated or to be enforced is being followed.</p> <p>We are monitoring particulate matter and fluoride from the smelter at FTP (Dry scrubbers) out let and fugitive fluoride from smelter pot rooms every month.</p> <p>We also monitor particulate matter and SO₂ and NO_x from the cast house and carbon plant. The height of the stacks is designed as per the guidelines.</p> <p>We have converted all our HSS pots to prebake and the prebake anode requirement is met through purchase from outside. We do not have the green anode and anode baking plant; hence the CTPV emission due to this is eliminated.</p>
ii.	A minimum of five ambient air quality monitoring stations should be set up based on the micro meteorological conditions as well as where maximum ground level concentration of SPM, SO ₂ , NO _x , Fluoride and volatiles are anticipated in consultation with the State Pollution Control Board. The data recorded should be submitted to the Regional Office at Bhubaneswar every six months and to the SPCB every three months.	<p>Seven ambient air stations are monitored and the results are reported to SPCB in progress report every month and to Regional Office, MoEF every six month. We monitor regularly forage fluoride in lieu of ambient air as per CREP recommendation.</p> <p>However during last EIA study maximum, minimum and average ambient fluoride in plant location was found to be 0.17, 0.11 and 0.14 microgram/m³ respectively. The ambient fluorides in other locations were found below detectable limit.</p>
iii.	As reflected in EMP, the company should be installing state of art dry scrubber technology to bring down the fluoride emission from the present level of 4.25 kg/t Al. To 2.60 kg/t Al. (minimum). Fugitive emissions must be monitored and controlled by taking adequate measures including sealing of pots & hooding.	<p>State of the art dry scrubbing system has been installed for all the pots. The fluoride emission is within limit. The stack and fugitive emissions are being monitored regularly and the data is submitted to Board in monthly progress report.</p>

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iv.	As dry process will be adopted there will be no generation of process effluent. The effluent from the utilities should be adequately treated to meet the norms prescribed for land disposal and should be regularly monitored before using it for irrigating the green belt.	The plant effluent from the utilities is treated in an effluent treatment plant and the treated water is completely recycled. Plant sewage and canteen effluent is suitably treated and reused for plantation gardening, ash moisturisation etc.
v.	The hazardous solid waste (spent pot linings) should be disposed off in a secured landfill site approved by the Orissa SPCB. The secured landfill site should be provided with impermeable HDPE lining and leachate collection facility. As the ground water table in the area is high the feasibility of vertical stacking of the spent pot lining also needs to be explored and a report submitted to the Ministry in three months.	Vertical stacking approved from OPCB (Letter no.-4572 dated 13.03.2001). The sheds have already been made as per the approved design and storage of SPL is being done in the aforesaid shed. Secured Landfill for hazardous waste is being implemented as approved by OSPCB.
vi.	The fluoride levels in the ground water quality around the hazardous waste disposal site should be regularly monitored for fluoride and data recorded to ensure there is no contamination of ground water.	F- in ground water is monitored near hazardous waste (sludge) disposal site and the results are reported to SPCB in progress report every month and to Regional Office, MoEF every six month.
vii.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and risk analysis report.	Complied

GENERAL :

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i.	The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board and the State Government.	Stipulations from OSPCB or Govt. adhered.
ii.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	Complied
iii.	The project authorities must strictly comply with rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended on 3 rd October, 1994.	Being complied
iv.	The project authorities must strictly comply with rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 1989. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	Complied
v.	Occupation health surveillance programme should be undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances.	Health surveillance for employees is being done regularly.

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vi.	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, 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).	Complied. The ambient noise level is within prescribed limit and the data is being reported in six monthly report.
vii.	The project proponent should have a scheme for social upliftment in the nearby village with reference to contribution in road construction, education of children, festivals, health centres sanitation facilities, drinking water supply, community awareness and employment to local people wherever possible both for technical and non technical jobs.	We have several socio-economic development activities in the surrounding villages like community development, educational programmes and health care, multi-cropping etc. About Rs. 67.84 Lacs have been spent at Hirakud complex towards community development projects including rural periphery development during April 12 to September 12. We also give priority to the local employments.
viii.	Green belt of adequate width and density should be provided to mitigate the effects of fugitive emission all around the plant. A minimum of 25% of the total land acquired should be developed as green belt in consultation with the local DFO.	We have more than 3.5 lakh surviving trees in and around the factory, colony, public roads and vacant areas in the vicinity of the plant complex. Since 2001 we have already planted more than 1.2 lakhs of trees. Every year we plan to plant around 20,000 saplings. We do not have adequate space for green belt. However, the total area of the smelter plant is around 28.37 acres where as we have developed green coverage by doing plantation in about more than 82 acres of land.
ix.	A separate environmental management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Environment Cell with all facilities exists.
x.	The project authorities will provide adequate funds both recurring and non recurring to implement the conditions stipulated by the Ministry of Environment and Forests 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.	Complied
xi.	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bhubaneswar/State Pollution Control Board/Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.	Being complied

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Xii.	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 Web site of the Ministry of Environment and Forests at http://www.envfor.nic.in . This should be advertised in at least two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.	Complied.
xiii.	The project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and financial approval of the project by the concerned authorities and the date of commencing the land development work.	Financial approval (No. HA-318) has been done on 10 July 2001. Date of Commencement of Land development work : 31 Aug. 2001.