



REGIONAL OFFICE
STATE POLLUTION CONTROL BOARD, ODISHA
(Department of Forest & Environment, Government of Odisha)
4th Lane – Indira Nagar, RAYAGADA – 765 001, Odisha
Tel- (06856) 223073, Fax- 224281

No. _____
Er.P.C.Rauta,
Regional Officer.

Date _____

To
The Member Secretary,
State Pollution Control Board,
Bhubaneswar.

Sub: Submission of inspection report of M/s Vedanta Aluminium Ltd., At/PO Lanjigarh, Dist Kalahandi with respect to the alleged pollution of Vamsadhara due to red mud breach of the unit – Reg.

Ref:- Letter No 106-88EPE Dt. 04.07.2011 of Director (S), Ministry of Environment & Forests Eastern Regional Office, Government of India, Bhubaneswar addressed to The Member Secretary, State Pollution Control Board, Rayagada.

Sir,

With reference to the above cited letter, I am sending herewith the inspection report of the above unit in connection with the allegation of pollution of vamsadhara river due to red mud breach of M/s Vedanta Aluminium Ltd., Lanjigarh, Kalahandi for favour of kind information and further necessary action at your end.

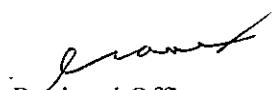
Encl. As above

Yours faithfully

/
Regional Officer

Memo No 2340 Dt. 27.07.2011

Copy along with the inspection report forwarded to the Chief Operating Officer, M/s Vedanta Aluminium Ltd., Lanjigarh, Dist. Kalahandi for information and necessary action.


Regional Officer



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No. _____
Er.P.C.Rauta,
Regional Officer.

Date _____

To
The Law Officer,
State Pollution Control Board,
Bhubaneswar.

Sub: Submission of inspection report of M/s Vedanta Aluminium Ltd., At/PO Lanjigarh, Dist Kalahandi w.r.t alleged pollution of Vamsadhara due to red mud breach of the unit – Reg.

Ref:- Your Letter no -11620/VII-L(PC)/19 Dated 14.07.2011.

Sir,

With reference to the above cited letter, I am sending herewith the inspection report of the above unit in connection with the pollution of vamsadhara river due to red mud breach of M/s Vedanta Aluminium Ltd., Lanjigarh, Kalahandi.

Further This is to inform you that earlier the unit was inspected by the Member Secretary, State Pollution Control Board on 25.04.2011, The Assistant Engineer of this Office on 17th and 18th May, 2011 and a joint inspection by the Asst. Environmental Engineer and Prof. T.G.Sitharam of IISC, Bangalore on 02.06.2011 in this connection and the reports have been sent to head office vide this office letter no1551 dt. 19.05.2011, and Letter no 2339 Dt 27.07.2011 However, copy of the earlier is enclosed herewith for further necessary action at your end. ^{report}

Yours faithfully,

/
Regional Officer

Memo No _____ Dt. _____

Copy along with the inspection report forwarded to the Senior Environmental Engineer (C), State Pollution Control Board, Bhubaneswar for kind information and necessary action.

/
Regional Officer

Memo No 2343 Dt. 27.07.2011

Copy along with the inspection report forwarded to the Chief Operating Officer, M/s Vedanta Aluminium Ltd., Lanjigarh, Dist. Kalahandi for information and necessary action.

[Signature]
Regional Officer

INSPECTION REPORT

Name of the industry : M/s. Vedanta Aluminium Ltd.,
At/PO.-Lanjigarh, Dist-Kalahandi.

Date of inspection : 18.07.2011 & 19.07.2011

Inspected the unit to verify the Present status of the Red Mud Pond and complaint regarding the leakage from the Red mud pond of the unit. Dr.Y.V.Ramana, General Manager (Quality control & Environment) of M/s VAL accompanied me during the inspection. Sri Mukesh Kumar, Chief Operating Officer & Sri B. Senapati, Head (Production) are interacted during investigation. Following observations are made towards the Present status of the Red Mud Pond of the unit.

Present status of the Red Mud Pond:-

The Red Mud Pond consists of two compartments named as East cell & West cell. Presently West cell of the Red Mud Pond (RMP) is in use and part of the East cell is under completion. During inspection, it is observed that lying of HDPE liners in the East cell of red mud pond is completed on one part of the pond. The unit has asked for permission from the Board for using part of the East cell.

The dyke wall rising job of West cell of the RMP is under progress to ensure that enough safety free board is available before the onset of monsoon. As explained by Dr. Mukesh Kumar, Chief Operating Officer of the unit, the dyke wall height raising in the areas where geo grid liner and geo cell support followed by compaction will be completed by the end of July. Previously, the unit was inspected by me along with Prof. T.G.Sitharam, of Indian Institute of Science, Bangalore on 02.06.2011 to verify the on going construction of Red Mud Pond. As per the report of Prof. T.G.Sitharam, the procedure adopted for raising the dyke height is as per the technical requirements and the work is being executed as per the guidelines suggested. The unit has provided stone pitched toe drain along the periphery of RMP. Two nos. of RCC central collection pits are provided which is connected to the toe drain to collect any leachate from this toe drain. This will also provide additional security to prevent over flow of any rain water accumulated around the Red Mud Pond. The size of the central collection pits are (20 X 15 X 1.5) mtrs. and (30 X 20 X 1.5) mtrs approx. Two nos. of pumps are provided near this central collection pit to pump out the collected water to the process water lake where it will be reused in the process.

A public complaint was received from the villagers of Rengapali, Bandhaguda, Kadamguda, Basantpada under Lanjigarh Block regarding pollution caused due to breach in the West cell of the RMP resulting contamination of nearby pond as well as Vamsadhara River. During inspection, it is observed that, no such breach/ Leakage has occurred in the West cell of RMP and East cell of RMP has not yet been put into commission. During

inspection to the unit on 02.07.2011 also no breach/ Leakage was observed in the West cell of RMP.

Water samples are collected from the following locations to examine the quality of the nearby water bodies. The analysis report of water samples are tabulated below.

Sl.No.	Location of sampling point	pH
01	River Vansadhara near Tentulipadar	6.8
02	River Vansadhara near Narayanpur culvert	7.3
03	River Vansadhara near Bundel (U/s of Plant)	7.6
04	Ground water discharged to river Vansadhara near Bundel	6.9
05	River Vansadhara near Chhatrapur Bridge	7.5
06	River Vansadhara near Jagannathpur Bridge	7.6
07	Tube well water Near Ash pond	7.2
08	Tube well water near process water Lake. (Observation well 1)	6.2
09	Tube well water near process water Lake. (Observation well 2)	6.6
10	Stream water near Red Mud Pond	7.5
11	Pond water near Red Mud Pond	7.6

It appears from the above analysis result that, the quality of the water remains within the acceptable limit of 5.5 to 9.0 and the pH of the surrounding surface is also within the acceptable limit.

Further, stack monitoring was conducted at the stack attached to E.S.P. I, & III of Unit 1 and Unit 3 respectively and the Ambient Air Quality monitoring are conducted at different locations within and outside the premises of the unit. The monitoring results are represented below:

Monitoring Result: Stack emission:

Location of the sampling points	Date of monitoring	Particulate matter emission in mg/Nm ³	Prescribed standard mg/Nm ³
Stack attached to ESP of UNIT#1	18.07.2011	52	100
Stack attached to ESP of UNIT#3	18.07.2011	61	100

It is observed from the above stack monitoring report that the particulate matter emissions from stack attached to E.S.Ps of Unit #1 and Unit #3 are within the prescribed standard of the Board. Out of 3 units, 2 units (Unit #1 & Unit #3) were in operation during inspection.

II. Ambient Air Quality monitoring report.

Sl.No.	Location of sampling points	Date of monitoring	RSPM in mg/m ³	SPM in mg/m ³
01	Near Project Office (2 nos. samples)	18.07.2011	18	34
			(100)	(500)
			21	39
			(100)	(500)


02	Near Project Office (2 nos. samples)	19.07.2011	24	42
			(100)	(200)
			38	54
			(100)	(200)

NB. Figures mentioned inside the brackets indicate the Board's Prescribed Standard.

It is observed from the above Ambient Air Quality monitoring report that the Ambient Air Quality both inside and out side the plant is well within the prescribed standard of the Board.

CONCLUSION :-

- It is informed by Sri Mukesh Kumar, Chief Operating Officer, that the construction work for rising the dyke height of West cell of RMP is being carried out as per the technical suggestions and Design of IISc Bangalore and the entire work will be completed by the end of July 2011.
- The work of HDPE lining is completed in one part of the East cell of RMP and The unit has asked for permission from the Board for using this part of the East cell of RMP.
- No over flow of Red mud or breach of the pond is observed in the west cell of RMP during inspection.
- Recently no such breach/ Leakage in the West cell of RMP has occurred. Also In both the occasions (i.e. inspection carried out to the unit dt.02.06.2011 and 18th and 19th July 2011) no over flow of Red mud or breach of the pond is observed in the west cell of Red Mud Pond. Also no over flow or breach from the Process Water Lake, Dirty water pond, clear water pond and Ash pond was observed during the inspections.


 (Er. D. Sethi)
 Asst. Env. Engineer