

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL,
EASTERN ZONE BENCH, KOLKATA.**

O.A. NO.41 OF 2024/EZ

Nanda Jhodia & another ... Appellants

-Versus-

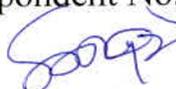
M/s. Utkal Alumina International Ltd.
& others ... Respondents

I N D E X

Sl. No.	Description of Documents	Pages
1.	Counter Affidavit filed by the Respondent No.4.	1 - 5
2.	<u>ANNEXURE-A/4</u> Copy of order dated 31.10.2022 passed by the Hon'ble High Court of Orissa in W.P.(C) No.24990/2022.	6 - 7
3.	<u>ANNEXURE-B/4</u> Copy of inspection report dtd.05.04.2024 of the Committee,	8 - 63

Place: CUTTACK By the Respondent No.4 through

Date: 20.05.2024


Advocate

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the order dtd.01.03.2024 passed by this Hon'ble Tribunal in the aforesaid Original Application, the Committee constituting the Member including the Respondent No.4 through its representative Addl. District Magistrate, Rayagada in Paragraph No.17 of the said order of this Hon'ble Tribunal, visited the site in question to cause an inspection with respect to the allegations made by the Applicants Nanda Jhodia and Susanta Goudo of Lachhuguda under Doraguda Police Station in Rayagada District before this Hon'ble Tribunal.



5. That, it is respectfully submitted that the conveyor belt transfer point of the Respondent No.1 is existing with all safety measures in due compliance of the guidelines of the Government issued from time to time. As per the direction dated 31.10.2022 of the Hon'ble High Court of Orissa passed in W.P.(C) No.24990/2022 and as per the direction of this Hon'ble Tribunal dtd.01.03.2024, the Committee had visited the site on 20.12.2022 and 05.04.2024 in both the dates of inspection, the Applicants were also present. It is respectfully submitted that the Committee conducted a Joint Enquiry and found that various measures have been taken to check Air/ Noise, Water pollution due to conveyor belt, Red mud pond, Ash pond of the Respondent No.1 in the surrounding of the transfer point passing though the village of the Applicants.

Mahajan
20/05/2024

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Copy of order dated 31.10.2022 passed by the Hon'ble High Court of Orissa in W.P.(C) No.24990/2022 is annexed herewith as **ANNEXURE-A/4.**

6. That, it is respectfully submitted that as per the Joint Verification Report dated 20.12.2022 and 05.04.2024 of the Committee, water sample from tube well located in the village of the Applicants was collected and sent to Central Laboratory of the Odisha State Pollution Control Board, Bhubaneswar and the analysis report is still awaiting and the same shall be submitted before this Hon'ble Tribunal soon after its receipt from the OSPCB, Bhubaneswar.

7. That, it is respectfully submitted that the Applicants along with three other co-villagers move to the Hon'ble High Court of Orissa vide W.P.(C) No. 24990/2022 with self-same prayer as has been made before this Hon'ble Tribunal with an additional relief to provide alternative housing accommodation and other rehabilitation facilities, in pursuance of the Orissa Resettlement and Rehabilitation Policy, 2006 for acquisition of the major portion of agricultural land of the petitioners as well as the villagers of the Applicants which have already been taken care of the Respondent No.1 and accordingly, 40 persons of the surrounding area of the Conveyor belt passing through the village Lachhuguda have been provided



*Charges
20/05/2024*

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with employment opportunities by the Respondent No.1.

8. That, it is respectfully submitted that the Respondent No.2 (Revenue Divisional Commissioner, Berhampur) in due compliance of the orders of the Hon'ble High Court of Orissa, the representation of the Applicants dated 16.06.2022 has already been taken into consideration and disposed of accordingly. As per the direction of this Hon'ble Tribunal, the committee visited the site on 05.04.2024 and submitted their report, except the views of the nominated representative of CPCB, Kolkata, as the report is yet to be received from the CPCB, Kolkata despite three reminders issued vide this office Lr. no. 998, dated 19.04.2024, Lr. No. 1053, dated 25.04.2024 and Lr no. 1129, dated 06.05.2024. However, copies of Joint Enquiry report as well as reminders are annexed herewith as **ANNEXURE-B/4.**

9 That, it is respectfully submitted that the Applicants have not been displaced for establishment of the plant and their homestead land were not acquired by the Respondent No.1.

10. That, the contents of the above paragraphs are true and correct to the best of my knowledge as derived from the official records and that nothing material has been concealed therefrom.



Dhanraj
20/05/2024

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11. That, the facts stated above are true to the best of my knowledge and belief based on the available official records.

Identified by

[Handwritten signature]

Advocate

(S.K. Nayak)

[Handwritten signature]
Deponent

VERIFICATION

I, Sri Manoj Satyawan Mahajan, aged about 30 years, S/o. Sri Satyawan Shamrao Mahajan, at present working as Collector, Rayagada, At/PO/Dist. Rayagada in the state of Odisha, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge as derived from official records and that nothing material has been concealed therefrom.



Verified at *Rayagada* on this the *20th* day of May, 2024.

[Handwritten signature]
VERIFICANT

[Handwritten signature]
20/05/24
Executive Magistrate
RAYAGADA

IN THE HIGH COURT OF ORISSA AT CUTTACK

W.P (C) No. 24990 of 2022

Nanda Jhodia & Others	Petitioners
		Mr. S.K. Bhanjadeo, Advocate
	Vs.	
State of Odisha & Others	Opposite Parties
		Mr. S.N. Nayak, ASC

CORAM:

DR. JUSTICE B.R. SARANGI

MR. JUSTICE BIRAJA PRASANNA SATAPATHY

ORDER
31.10.2022Order No.

01.

This matter is taken up through hybrid mode.

2. Heard Mr. S.K. Bhanjadeo, learned counsel for Petitioners and Mr. S.N. Nayak, learned Addl. Standing Counsel for the State-Opposite Parties.

3. The present Writ Petition has been filed with the following prayer:-

" Direct to the Opp. Parties for taking steps to check the Sound Pollution, Dust Pollution, Air pollution, caused due to Conveyor belt, Red mud pond, Ash Pond, Road Mill, L.D.C. Mejh (Medium Junction House), as well as for the movement of heavy vehicles inside the village road, as deemed just and proper.

And further direct the opposite parties to take steps for shifting of the Conveyor belt, Red mud pond, Ash pond, Road Mill, L.D.C. Mejh (Medium Junction House), as well as for the movement of heavy vehicles in the village road far away from the village Lachuguda Tahasil-Kashipur, Dist. Rayagada.

And otherwise direct the Opp. Parties to provide alternative housing accommodation and other rehabilitation facilities, in pursuant to the Orissa Resettlement and Rehabilitation Policy, 2006, for the acquisition of the major portion of the

Page 1 of 2

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(Signature)
COLLECTOR : RAYAGADA



agricultural land of the petitioners as well as the villagers of the petitioners, i.e., village Lachugauda, Tahasil-Kashipur, Dist.Rayagada".

he petitioner therefore prays that this Hon'ble Court may graciously be pleased to admit this Writ Petition issue notice to opp parties by considering the facts and grounds stated above a direction may be issued to the opp. parties directing them to release the arrear bill amount which is pending them to be released forthwith in favour of the petitioner for interest of justice".

4. Learned counsel for the Petitioners submits that through highlighting their grievance, the Petitioners have filed representation at Annexure-5 to the Writ Petition, before the opposite party No.2 but till date nothing has been done in the matter. In such background, they pray that a direction be issued to opposite party No.2 to take a decision on the above noted petition within a specific time period.

5. Considering the submissions made and without expressing any opinion on the merits of the case, this Court directs opposite party No.2 to take a decision on the above noted petition in accordance with law and also taking into account the order under Annexure-6 within a period of one month from the date of production of certified copy of this order, and communicate the result of such exercise to the petitioners.

6. With the aforesaid observation and direction, the Writ Petition stands disposed of.

Sd/- Dr. B.R. Sarangan, J

Sd/- B.P. Sarapathy, J

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COLLECTOR : RAYAGADA

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JOINT INSPECTION REPORT IN THE MATTER OF NANDA JHODIA & ANR. VS. M/S. UTKAL ALUMINA INTERNATIONAL LTD. & OTHERS OF NGT O.A. NO. 41/2024/EZ KOLKATA ORDER DATED 01.03.2024

Background:

With reference to Hon'ble NGT order dated 01.03.2024 directed at serial number 17 in the matter of **OA NO. 41/2024/EZ** filed by Sri Nanda Jhodia & Anr. Vs. M/S. Utkal Alumina International Ltd. & Others, it was directed to constitute a committee comprising of the following members: (1) Sr. Scientist, MoEF & CC, IRO, Bhubaneswar, (2) Sr. Scientist, CPCB, (3) Sr. Scientist, OSPCB, Bhubaneswar, (4) District Collector, Rayagada or his representative not below the rank of Addl. District magistrate and the committee shall visit the alleged site & cause an inspection w.r.t. the allegation made in the original application and submit its report on affidavit before the next date of listing.

In view of the said order, a team consisting of the following members vide Letter No. 771, dated: 28.03.2024 of District Collector, Rayagada, 1. Sri Trinath Majhi, OAS(S), Additional District Magistrate, Rayagada, 2. Sri Sandeep Nandi, Scientist "B", MoEF & CC, IRO, Bhubaneswar, 3. Sri Abhijit Pathak, Scientist "D", CPCB, Kolkata and 4. Sri Ashok Kumar Bhoi, Regional Officer, OSPCB, Rayagada visited the area to look into the matter on **05.04.2024**. The petitioners Sri Nanda Jhodia & Sri Susanta Gouda of Lachuguda were also present during the joint inspection. From industry side, Sri Mazharullah Beig, Unit Head, M/s Utkal Alumina International Ltd. and Sri Satyajeet Acharya, AGM (Environment) M/s Utkal Alumina International Ltd. were present during joint inspection.

That, the Committee proceeded to the spot, the IJH (Intermediate/medium Junction House) of the long distance Bauxite conveyor at Lacchuguda village. The village is situated at a distance of about 40 - 50 mtr away from IJH and 2 km away from M/S UAIL main plant.

That, the committee inspected the conveyor belt carrying the Bauxite from mines. The Conveyor belt covers a total distance of 18.2 Km. The first part of the conveyor belt is 14.5 km up to the Junction i.e. Lacchuguda and the second part of the conveyor belt is 3.7 km.

That, during inspection by the committee, it is observed that, the conveyor hood covered with GI Sheeting, more specifically at the IJH. Various measures was being taken by M/S UAIL to cover the IJH, conveyor belt and motor housing to regulate the sound/noise pollution.

That, SPCB taken the noise reading at IJH during peak load of transportation of conveyor belt (**Annexure -V**)

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That, the committee inspected the dust pollution at IJH in presence of the petitioner. As per the statement of the petitioner, during the transportation of Bauxite through conveyor belt the discharge of dust emission, which leads to pollution of the adjacent area. However, during the inspection it is seen that, the conveyor belt is covered with GI sheet, acoustic enclosure installed in the month of March, 2024 at IJH. Water sprinkling system and DFDS (Dry Fog Dust Suppression System) has been installed to reduce the noise/sound, dust emission. However, there is existence of dust pollution at the IJH due to compact valley location.

Further, to assess the ground water quality, water sample from tube well located in Lacchuguda village was collected. The analysis report of water sample will be submitted separately as the water sample has been sent to the Central Lab of OSPCB, Bhubaneswar for analysis.

After that, the committee proceeded to Red Mud Pond (RMP) of M/s UAIL along with the petitioner. During inspection by the committee, it was found that, RMP is consist of Pond A, Pond B, Pond C and Pond D. Besides, it was seen that, Red mud slurry generated from the Alumina Refinery is processed through high Pressure Membrane Filtration Technology in Red Mud Filtration unit & Red mud in cake form get disposed off in RMP (Red Mud Pond) area by dry stacking at Red Mud Pond A & B. Dykes & garland Drains have been provided around RMP (Red Mud Pond) and Ash Pond to prevent entry of runoff. The RMP (Red Mud Pond) is being provided with HDPE liners to prevent seepage. Red Mud Pond C & D, one is for accumulating caustic bearing leachate and other is for holding less alkaline water respectively was there. Caustic water is being recycled back to the plant in process. The RMP surrounded with in-situ natural vegetation and water sprinkling activities were going on at RMP area to curb the dust emission.

After that, the committee proceeded to the Ash pond site and it was enquired with the M/s UAIL representative about the use of Ash pond, the M/s UAIL representative stated that, since last two year the Ash pond was not in use. The Ash pond surrounded with in-situ natural vegetation. The legacy ash deposit is totally dry and susceptible to be air borne with wind blow. There was no signature of dust control practice at site. There is very limited time available with the industry to safely dispose the legacy ash.

Then, the committee proceeded to plant to verify the statutory clearances of M/s UAIL as follows:

Various Statutory clearances status of the industry:

- The Alumina refinery plant is having **valid CTO up to 31.03.2026** of SPCB, Odisha vide No 4860/Ind-I-con-6101, dated 31.03.2024 for following products: **(Annexure - I)**

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COLLECTOR: RAYAGUDA

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- 1) Calcined Alumina : 2.67 Million Tonne per Annum
2) Thermal Power : 3x30 MW

- CTE was granted by the Board to the unit vide letter no. 6086/IND-II-NOC-6127 dated 17.05.2018 for expansion of alumina refinery from 1.5 MTPA to 3.0 MTPA and captive power plant from 90MW to 150MW. **(Annexure - II)**
- The plant has already obtained Environmental Clearance from MoEF & CC for expansion of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with cogeneration Power Plant (90 MW to 150 MW) at Doraguda, Kashipur, Rayagada. **(Annexure - III (a & b))**
- The industry has also obtained **Hazardous Waste Authorization** from OSPCB vide No. IND-IV-HW-931/9663, dated 14.07.2021 which is **valid up to 31.03.2026.** **(Annexure-IV)**

That, as mentioned in the petition with respect to noise/sound, dust & air pollution in the above mentioned site i.e. conveyor belt, red mud pond, ash pond, road mill as well as movement of heavy vehicles at the adjacent road (Lacchuguda), M/s UAIL has taken the corrective measures to curb the pollution and inconvenience to the public as below:

1. That, to reduce the pollution at refinery plant, the following equipments were installed.

Pollution Control Equipment in place:

Sl. No.	Location	Pollution Control Device	Existing pollution control measures	
			Quantity	Capacity
1.	Boilers	Electrostatic precipitators	03	485573m ³ /hr each ESP
2.	Calciners	Electrostatic precipitators	03	354500m ³ /hr emission -Calciner1 354500m ³ /hr emission -Calciner2 361000m ³ /hr emission -Calciner1
3.	Coal crusher house	Bag filters	02	13500 m ³ /hr each
4.	Calciners	Bag filters	03	4260 m ³ /hr each
5.	Alumina Handling Area	Bag Filters	04	3200m ³ /hr- Bag filter 1&2 7000m ³ /hr Bag filter3 200m ³ /hr Bag filter 4
6.	Bauxite Crusher	Bag filter	02	58500 m ³ /hr each
7.	Bauxite Handling Area	Fixed Water Sprinklers	70	-
8.	Lime Handling area	Wet Scrubbers	02	32000 m ³ /hr each
9.	Coal Stock pile Area	Fixed Water Sprinklers	16	-
10.	Ash Silo Handling Area & Road	Fixed Water Sprinklers	72	-
11.	Wagon Tippler	Dry Fog System	01	-

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(Signature)

COLLECTOR : RAYAGADA

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2. That, further, the M/s UAIL adopted the pollution control measure to regulate Air pollution by installing various equipments as follows:
 - DFDS (Dry Fog Dust Suppression System)
 - Bag Filter
 - ESP
 - CEMS (Continuous Emission Monitoring System)
 - CAAQMS
 - Wet scrubber system
 3. That, M/s UAIL taken preventive measure to reduce noise/sound and dust pollution by erecting GI sheet, acoustic enclosure, DFDS at the conveyor belt.
 4. That, M/s UAIL adopted the Industrial Solid Waste, i.e. Red mud in cake form being disposed off in RMP by Dry stacking. Ash being generated from the Power Plant get utilized for filling low laying area within plant premises, dyke raising of ash pond and partly supplied to brick manufacturing units, cement industries and road projects. Maximum portion of the lime grits are being supplied to Brick Manufacturing and rest is disposed off in RMP. For disposal of canteen waste (i.e. bio-degradable), the industry has provided one Aerobic Composting Machine of 400 Kg capacity for its canteen located at Nuapada township.
 5. That, M/s UAIL has done the following for Waste water management:

Separate drains have been constructed in the entire plant area for collection of storm water (Storm water drain) and process water (Caustic drain). Storm water drains are connected to Guard pond. For management of caustic effluent generated from the Alumina Refinery, Collection sumps with pumping systems are provided at respective process area to collect & recycle caustic effluent.

Further, to assess the ground water quality, water sample from tube well located in Lacchuguda village was collected. The analysis report of water sample will be submitted separately as the water sample has been sent to the Central Lab of OSPCB, Bhubaneswar for analysis.

Areas Needs Improvement:

- Development of green belt around the ash pond and red mud pond which will act as barrier both for noise and dust, immediately required. It may be a non compliance and violation of regulation.
- RMP slope area shall be made grass turfing to prevent erosion/emission wash out & to prevent developing of rain cuts during rain, immediate step may be taken.
- Unit shall carry out noise and vibration impact studies for the medium junction house of LDC through appropriate agency to access the pollution in the surrounding areas.

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COLLECTOR : RAYAGADA

- The water spraying facility shall be provided in the red mud pond and ash pond to keep the red mud and ash surface wet to prevent dust from being air borne.
- The approach road to medium junction house shall be of all weather mode to prevent generation of dust during movement of vehicle.
- Periodical water sprinkling shall also be done on all internal roads of RMP, ash pond and medium junction house to suppress the dust generation.
- Water sprinkling systems provided at medium junction house of LDC shall be properly operated and maintained to control fugitive dust emissions.
- Housekeeping shall be regularly carried out in the work zone area of medium junction house of LDC.
- The unit shall take steps for replacement of faulty idler if any found out in LDC which may create noise. Also, unit shall give priority on periodical maintenance of gear box, pulleys and other machineries associated with LDC for better noise control.
- The Unit shall be more cautious during dry and summer season which is prone to pollution, that one layer soil covering should be there in the Ash pond to prevent further dust emission in Ash pond.

Shw
15.4.24
Sri Ashok Ku Bhol,
Regional Officer,
OSPCB, Rayagada

Regional Officer
State Pollution Control Board
Rayagada

Sri Abhijit Pathak,
Scientist "D", CPCB,
Zonal Office, Kolkata

Svandi
15.04.24
Sri Sandeep Nandi,
Scientist "B", MoEF,
ERO, Bhubaneswar

संदीप नन्दी / Sandeep Nandi
वैज्ञानिक 'बी' / Scientist B
भारत सरकार / Govt. of India
पर्यावरण, वन एवं जल मंत्रालय / Min of Env. Forest & C.
एकीकृत क्षेत्रीय कार्यालय / Integrated Regional Office
भुवनेश्वर / Bhubaneswar

Trinath
15.4.24
Sri Trinath Majhi,
OAS(S), Addl. District
Magistrate, Rayagada

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Sharma
COLLECTOR : RAYAGADA

Tel: 06856-223073
 Email: rospcb.rayagada@ospboard.org
 Website: www.ospboard.org



**OFFICE OF THE REGIONAL OFFICER
 STATE POLLUTION CONTROL BOARD, ODISHA**

[DEPARTMENT OF FOREST, ENVIRONMENT & CC, GOVT. OF ODISHA]
 Plot No 287/A, 1st Lane, Kasturi Nagar, Rayagada, 765001

ANALYSIS REPORT OF NOISE MONITORING

Lab Ref No.02/AAQ/2024-25

Dtd.08.04.2024

Name & Address of Industry : M/s Utkal Alumina International Limited,(Refinery)
 Doraguda, Dist.Rayagada

Date of Monitoring : 06.04.2024

Monitoring conducted by : Sri A.Jena,FA.

Sl No	Location of Sampling	Noise level in dB			
		L max	L min	Leq dB(A)	
01	Within the village Lachhuguda	Day	58.0	52.9	55.2
		Night	61.8	51.1	53.7

N.B.

- Prescribed Standard of Leq dB(A) for residential area Day time: 55 as per the Noise pollution (Regulation and control) rules,2000
- Day Time monitoring carried out between 04.30pm to 05.00pm.
- Night Time monitoring carried out between 10.30pm to 11.00pm.

Analysed By

Anshuman Jena
 08.04.2024
 Field Asst.

G. Chandra
 02/04/2024
 Asst.Env.Scientist
 Asst. Environmental Scientist
 State Pollution Control Board, Odisha
 Rayagada

[Signature]
 Regional Officer
 Regional Officer
 State Pollution Control Board
 Rayagada

"True Copy Attested"

[Signature]

COLLECTOR : RAYAGADA



**OFFICE OF THE REGIONAL OFFICER
STATE POLLUTION CONTROL BOARD, ODISHA**

[DEPARTMENT OF FOREST, ENVIRONMENT & CC, GOVT. OF ODISHA]
Plot No 287/A, 1st Lane, Kasturi Nagar, Rayagada, 765001

Tel: 06856-223073
Email: rospcb.rayagada@ospcbboard.org
Website: www.ospcbboard.org

ANALYSIS REPORT OF NOISE MONITORING

Lab Ref No.01(II)/AAQ/2024-25

Dtd.08.04.2024

Name & Address of Industry : M/s Utkal Alumina International Limited,(Refinery)
Doraguda, Dist.Rayagada

Date of Monitoring : 05.04.2024

Monitoring conducted by : Sri A.K.Bohoi, RO,
Er.R K Sahu, DEE &
Sri A.Jena,FA.

Sl No	Location of Sampling	Noise level in dB		
		L max	L min	Leq dB(A)
01	Near intermediate junction house towards Lachhuguda village	68.5	62.2	66.5

N.B.

- i. Prescribed Standard of Leq dB(A) for residential area Day time: 55 as per the Noise pollution (Regulation and control) rules,2000
- ii. Day Time monitoring carried out between 10.30am to 11.00am.

Analysed By

Ashuman Jena
08-04-2024
Field Asst.

08/04/2024
Asst.Env.Scientist
Asst. Environmental Scientist
State Pollution Control Board, Odisha
Rayagada

08-04-24
Regional Officer
Regional Officer
State Pollution Control Board
Rayagada

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Mahapatra
COLLECTOR : RAYAGADA



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01.5.24

FAX : 2562822/2560955
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EPABX : 2561909/2562847
E-mail : paribesh1@ospceboard.org
Website : www.ospceboard.org

STATE POLLUTION CONTROL BOARD, ODISHA
(DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA)
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar - 751 012
(CENTRAL LABORATORY)

No. 6168 /

VI-SC (LEM) Misc 38/2023-24

Dt. 24.04.2024 /

To

The Regional Officer,
State Pollution Control Board, Odisha,
Rayagada

Sub: Test Reports of Ground water sample collected from Tube well within the village Lachhuguda of M/s Utkal Alumina International Ltd., Rayagada - reg.

Ref: Your Letter No. 765 dt.09.04.2024

Sir,

With reference to the above cited letter, please find enclosed herewith the test reports of ground water sample submitted to the Central Laboratory on dt.10.04.2024 by your office, collected from Tube well within the village Lachhuguda of M/s Utkal Alumina International Ltd., Rayagada. Further this is to inform that parameters like Cu, Cd, Pb, Ni & Zn could not be analysed due to non-functioning of instrument.

Encl: (i) OS/380/04/2024 (For NABL Scope parameter)
(ii) OS/381/04/2024 (For NABL Non-scope parameter)

Yours faithfully,

[Signature]
Chief Env. Scientist (Lab.)

Memo No. 1028 Date. 29.04.2024

Copy forwarded to the Collector & District Magistrate, Rayagada for kind information and necessary action.

[Signature]
Regional Officer

Regional Officer
State Pollution Control Board
Rayagada

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandakn Industrial Estate, Patia,
Bhubaneswar -751024 E-mail: centrallab@ospceboard.org

"True Copy Attested"

[Signature]

COLLECTOR : RAYAGADA



**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospceboard.org

OSPCB/CNL/F0718



TEST REPORT

Page 1 of 2

1. ULR No. : TC127402400000217F
- 2 (i). Report No. : OS/380/04/2024
- 3 (i) Date : 24.04.2024
4. Sample Submitted By : Sri A. Jena, Field Asst.,
(Name and address) Regional Office, SPCB, Odisha, Rayagada
5. Reference Letter No. : 765 dt.09.04.2024
6. Date of sample receipt : 10.04.2024
7. Sample Description :
 - (i) Discipline : Chemical Testing
(Biological Testing, Chemical testing)
 - (ii) Group : Water
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
 - (iii) Sub Group : Ground water
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 10.04.2024 – 23.04.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Tube well within the village Lachhuguda of M/s Utkal Alumina International Ltd., Rayagada Others/Apr-24/GW/533 Tube well within the village Lachhuguda Results
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		
1.	pH	6.5-8.5	No relaxation	4500-H ⁺ -B, APHA, 23 rd Edn., 2017	8.2
2.	Turbidity (Turb), NTU	1.0	5.0	2130 B, APHA, 23 rd Edn., 2017	1.4
3.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 rd Edn., 2017	11.0
4.	Total Dissolved Solids (TDS), mg/L	500	2000	2540 C, APHA, 23 rd Edn., 2017	240.0
5.	Ammonical Nitrogen as N (NH ₃ -N), mg/L	0.5	No relaxation	4500-NH ₃ -B followed by 4500 - NH ₃ -C, APHA, 23 rd Edn., 2017	<0.4
6.	Boron (as B), mg/L	0.5	2.4	4500 B-B, APHA, 23 rd Edn., 2017	0.219
7.	Calcium (as Ca), mg/L	75	200	3500-Ca-B, APHA, 23 rd Edn., 2017	19.24
8.	Chloride (as Cl ⁻), mg/L	250	1000	4500 Cl ⁻ B, APHA, 23 rd Edn., 2017	30.0
9.	Fluoride (F ⁻) mg/L	1.0	1.5	4500-F-C, APHA 23 rd Edn., 2017	0.13
10.	Total Iron (as Fe), mg/L	1.0	No relaxation	3500 Fe - B, APHA, 23 rd Edn., 2017	0.805
11.	Magnesium (as Mg), mg/L	30	100	3500-Mg-B, APHA, 23 rd Edn., 2017	4.86
12.	Nitrate as NO ₃ ⁻ -N, mg/L	-	-	4500 - NO ₃ ⁻ -E, APHA, 23 rd Edn., 2017	4.703
13.	Nitrate as NO ₃ ⁻ , mg/L	45	No relaxation		20.82

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Maharaj

COLLECTOR : RAYAGADA

(Cont..)



**CENTRAL LABORATORY
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,
Bhubaneswar - 751 024

E-mail: centrallab@ospcbboard.org

TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i) Report No. : OS/381/04/2024
- 3 (i) Date : 24.04.2024
- 2(ii) Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Jena, Field Asst.
(Name and address) Regional Office, SPCB, Odisha, Rayagada
5. Reference Letter No. : 765 dt.09.04.2024
6. Date of sample receipt : 10.04.2024
7. Sample Description :

(i) Discipline : Chemical Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Ground water (Surface water/ Ground water/ Drinking water / Wastewater / Effluent/ Ambient Air / Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 10.04.2024 – 23.04.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Tube well within the village Lachhuguda of M/s Utkal Alumina International Ltd., Rayagada Others/Apr-24/GW/533 Tube well within the village Lachhuguda Results
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		
1.	Total Chromium (T.Cr), mg/L	0.05	No relaxation	3030 G followed by 3500 Cr-B, APHA, 23 rd Edn., 2017	0.017

* Drinking water specification, IS : 10500 (2012) and it's amendments

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,
(a) Date of Sampling : (b) Method Used* :
(b) Name of Sampler with Designation :

-----End of Test Report-----

U. Patnaik
24.4.2024
Authorised Signatory
(Water/wastewater)

(Dr.(Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

M. Niranjan Mallick
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

- Note :**
- i) The results stated above relate only to the items tested.
 - ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
 - iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
 - iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

ad Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955
EL: 2564033/2563294 EPABX : 2561909/2562847, E-mail: paribesh1@ospcbboard.org Website: www.ospcbboard.org

COLLECTOR : RAYAGADA

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Tube well within the village Lachhuguda of M/s Utkal Alumina International Ltd., Rayagada
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/Apr-24/GW/533
					Tube well within the village Lachhuguda
					Results
14.	Phosphate as P, mg/L	-	-	4500-P-D, APHA, 23 rd Edn., 2017	0.108
15.	Sulphate as SO ₄ ²⁻ , mg/L	200	400	4500-SO ₄ ²⁻ -E, APHA, 23 rd Edn., 2017	6.64
16.	Total Alkalinity as CaCO ₃ , mg/L	200	600	2320 B, APHA, 23 rd Edn., 2017	56.0
17.	P. Alkalinity as CaCO ₃ , mg/L	-	-		<5
18.	Total Hardness as CaCO ₃ (TH), mg/L	200	600	2340 C, APHA, 23 rd Edn., 2017	68.0
19.	Total Fixed Solids (TFS), mg/L	-	-	2540-G, APHA, 23 rd Edn., 2017	224.0

* Drinking water specification, IS : 10500 (2012) and it's amendments

11. Deviation from Test Method, if any :

12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No
If Yes,

(a) Date of Sampling :

(b) Method Used* :

(c) Name of Sampler with Designation :

-----End of Test Report-----

Usharani Patnaik
24/4/2024
Authorised Signatory
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Niranjan Mallick
24/4/24
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

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(ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.

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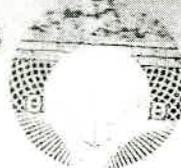
(iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/11R, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : paribesh1@spcbboard.org Website : www.ospcbboard.org

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Mahajan

COLLECTOR : RAYAGADA



CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

Page 1 of 14

BY REGD. POST WITH AD

STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]
A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcboard.org, Website: www.ospcboard.org

CONSENT ORDER

No. 4860 / 1

IND-I-CON-6101

Dt. 31.03.2024 / 1

CONSENT ORDER NO. 2783.

Sub : Consent for discharge of sewage and trade effluent under Section 25/26 of Water (PCP) Act, 1974 and emission under Section 21 of Air (PCP) Act, 1981 for operation of the plant.

Ref : Your online application ID No. 5443107, Dtd. 01-03-2024 and online reply dated 07-03-2024.

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to;

Name of the Industry: M/s Utkal Alumina International Ltd. (Alumina Refinery)

Name of the Occupier & Designation: Sri Surya Kanta Mishra, Unit Head

Address: At: Doraquda, PO: Kucheipadar-765 015, Dist: Rayagada, Odisha

This consent order supersedes the earlier consent order issued vide Board's Letter No.15728, dtd.06.10.2023.

This consent order is valid for the period upto 31.03.2026.

Details of Products Manufactured:

Sl. No.	Product	Quantity
1.	Calcined Alumina	2.67 Million Tonne per Annum
2.	Thermal Power	3 x 30 MW

Additional Facility Details of Plants

1. Facility of Upper Carriage Maintenance for BTCS & BTAP Wagon

This consent order is valid for the specified outlets, discharge quantity and quality of effluents (ii) quantity of emission and its quality, specified chimney / stack (iii) quantity of solid waste and its disposal as specified below.

This consent is granted subject to the General and Special Conditions stipulated below:

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Mahaj

COLLECTOR : RAYAGADA



-2X-

CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

A. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Prescribed standard (mg/l) except pH				
				pH	TSS	BOD	O&G	COD
01	Ash Pond effluent	To be recycled	1,665 KLD	No Discharge				
02	Red mud pond effluent	To be recycled	6,071 KLD	No Discharge				
03	Outlet of STPs (STP-I:140 KLD, STP-II:200 KLD & STP-III:100 KLD)	Used for greenbelt & horticultural purpose	-	5.5-9.0	100	30	10	250
04	Boiler blow down	Discharged to guard pond after treatment	-	SS (mg/l)-100	O&G (mg/l)-20	Copper (Total) (mg/l)-1.0	Iron (Total) (mg/l)-1.0	-
05	Cooling Tower blow down	Discharged to guard pond after treatment	-	Free available Chlorine (mg/l)-0.5	Zinc (mg/l)-1.0	Chromium (Total) (mg/l)-0.2	Phosphate (mg/l)-5.0	-
06	DM Plant effluent	Discharged to guard pond after treatment	-	5.5-9.0	100 mg/l	-	-	-
07	Storm water and washout of caustic area	Discharged to caustic pond	-	Standard as per Annexure -I				
08	Storm water from other area	Discharged to guard pond	-	Standard as per Annexure -I				

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Shahin
COLLECTOR : RAYAGADA



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CONSENT ORDER

M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

B. Emission permitted through the following stack subject to the prescribed standard

(I)

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission (m ³ /hr)	Prescribed Standard		
				PM (mg/Nm ³)	SO ₂	NO _x
1	Stacks attached to boiler 1, 2 & 3	150 (each)	4,85,573	100	-	-
2	Stack attached to Calciner-I	136	3,54,500	50	-	-
3	Stack attached to Calciner-II	136	3,54,500	50	-	-
4	Stack attached to Calciner-III	136	3,61,000	50	-	-
5	Stack attached to Bag filters (3 Nos.)	30	-	50	-	-

(II)

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission (m ³ /hr)	Prescribed Standard			
				NO _x (mg/Nm ³)	CO (mg/Nm ³)	PM (mg/Nm ³)	NMHC (mg/Nm ³)
1	DG set (5 MVA)	As Special Condition No.47	--	710	150	75	100

C. Disposal of solid waste permitted in the following manner

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
01.	Fly ash	1,424	-	-	-	Disposed off in Ash Pond by HCSD System and any other utilization
02.	Red mud	9,470	-	-	-	Disposed off in Red Mud Pond by HCSD System and any other utilization
03	Lime grit	74	-	-	-	Supply to brick manufacturing units and disposed of in Red Mud Pond

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(Signature)

COLLECTOR : RAYAGADA



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CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

Page 4 of 14

D. GENERAL CONDITIONS FOR ALL UNITS

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground for liable to review/variation/revocation of the consent order under section 27 of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The occupier would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / products / manufacturing process or quantity / quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order without any negligence on his/her part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
12. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
13. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
14. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
15. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed impervious.
16. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
17. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
18. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the occupier must adopt alternate satisfactory treatment and disposal measures.
19. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
20. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
21. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Acts or Rules made therein.
22. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.

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Shubraj

COLLECTOR : RAYAGADA



CONSENT ORDER

M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

23. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
24. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
25. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner so as to meet the standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
26. In case of episodal discharge/emissions the occupier shall take immediate action to bring down the emission within the limits prescribed by the Board and stop the operation of the plant if required. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
27. The applicant shall keep the premises and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
28. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned shall be reported to the Headquarters and Regional Office of the Board by E-mail within 2 hours of its occurrence.
29. The occupier has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
30. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the shall be disposed off scientifically to the satisfaction of the Board.
31. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
32. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
33. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
34. The applicant, his/hers/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
35. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
36. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
37. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
38. In case the consent fee is revised during this period, the occupier shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
39. The occupier shall comply to the conditions stipulated in CTE order issued by Odisha State Pollution Control Board and conditions stipulated in Environmental Clearances issued by MoEF&CC, Govt. of India.

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Shahin

COLLECTOR : RAYAGADA



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CONSENT ORDER
M/S. UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

Page 6 of 14

E (I) SPECIAL CONDITIONS (FOR ENTIRE FACTORY):

1. The unit shall effectively operate and maintain ESPs connected to boilers of Captive Power Plant (CPP) and Alumina Calciner so as to meet the Particulate Matter (PM) emission norm specified at Section-B of this order.
2. Air pollution control equipment such as ESP and ancillary equipment shall be retrofitted to achieve emission standard of particulate matter (PM), Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) 50 mg/Nm³, 600 mg/Nm³ and 450 mg/Nm³ respectively. The unit shall have provision of one spare field in ESP and if more than one field of ESP fails, then the plant shall trip automatically through an interlocking system. A proposal to this effected shall be submitted within a month.
3. The dust extraction and suppression systems in bauxite, lime, coal and alumina handling areas and railway siding shall be maintained and operated properly for control of fugitive dust emission.
4. The unit shall provide bag filter of adequate capacity to control fugitive emission in the bauxite crushing unit, grinding unit and coal crusher and coal bunker.
5. The industry shall explore the possibility to install XRS coal pulveriser (suction based) to minimize fugitive dust emission in coal grinding area in boiler house.
6. The unit shall take all preventive steps to operate all the installed dust suppression / extraction system so that the ambient air quality inside the factory premises shall conform to the National Ambient Air Quality standard.
7. All the internal and approach roads shall be blacktopped / concreted expeditiously to control fugitive emission.
8. Mobile tankers shall be provided to sprinkle water on roads and other dust generating points.
9. Good housekeeping practices shall be followed to improve the work environment. All roads and shop floors shall be cleaned regularly. The industry shall deploy mechanized road sweeping system for cleaning internal roads.
10. Bauxite shall be transported through tippers and covered conveyor with appropriate air pollution control measure at transfer points to control fugitive emission.
11. Separate energy meter shall be installed for all the pollution control equipments and the records shall be maintained for verification of the Board from time to time.
12. Pneumatic conveyor system shall be provided as dust collection system for ESP dust. Silos shall be provided for collection of bottom ash and fly ash. Conveyor belt shall be closed and bag filter shall be provided at transfer points of conveyor system to control fugitive emission.

"True Copy attested"

M. Ray

COLLECTOR : RAYAGADA



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CONSENT ORDER

M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

13. Online continuous monitoring system with recording facilities shall be installed at stacks of different units for various critical pollutants and shall be hooked to SPCB server for real time data recording.
14. At least 4 continuous ambient air quality monitoring stations around the industry shall be set up to monitor PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other important parameters (as given in annexure) within at least to the distance in down wind direction and where maximum ground level concentration is anticipated.
15. The industry shall ensure proper calibration, functioning, connectivity and real time data transmission of all CEMS and CAAQMS to SPCB and CPCB server. A status report to this effect shall be submitted within 7 days from the date of issue of this consent order.
16. Air pollution control devices shall be maintained properly. Fabric bags and cages in bag house shall be checked regularly and replaced whenever required. Adequate availability of spares shall be ensured for immediate replacement.
17. Desulphurization of flue gas at thermal power plant if and when asked for shall be adopted by the industry. Therefore, in future, for such installation adequate space shall be earmarked at the installation stage.
18. The industry shall provide fixed water sprinkling arrangement to prevent fugitive emission at dry surface of ash and red mud disposal area.
19. A part of ash generated shall also be utilized for filling of low-lying areas within the plant premises and township area and shall also be used in a phased manner as per provisions of the notification on Fly Ash Utilization issued by the Ministry of Environment and Forest, Govt. of India.
20. Massive plantation programme shall be taken up and thick green belt shall be developed with native species.
21. There shall be no discharge of process effluent to outside the plant premises. Extensive measures shall be undertaken for effective collection of water, its treatment, reuse and recycling. The domestic wastewater from canteen, colony and other sources shall be treated in the Sewage Treatment Plant (STP) and treated wastewater conforming to the standard shall be reused for green belt development.
22. The industry shall adopt High Concentration Slurry Disposal (HCSD) System for disposal of bottom ash, fly ash & red mud. Measures shall be taken to strengthen the embankments in order to provide greater safety and stability. Decanted water from the ash pond and red mud pond shall be completely recirculated and there shall not be any discharge.
23. Both guard pond and caustic pond shall be constructed by providing HDPE lining of thickness 1.5 mm in order to prevent ground water contamination.
24. Caustic level in red mud is about 10 gpl. The industry shall take precautionary measures to prevent seepage/ leakage and overflow of caustic level from red mud pond and pipeline to avoid contamination of nearby water bodies.

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Maharaj

COLLECTOR : RAYAGADA



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CONSENT ORDER

M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

25. In case of any ground water contamination observed in and around Alumina Refinery and red mud pond, the industry shall remediate the same.
26. The Ground Water quality shall be monitored quarterly around the red mud and ash ponds by providing piezometric holes and the analysis report shall be submitted to the Board.
27. The industry may increase the height of the ash pond and red mud pond by proper design, carrying out safety and stability of ponds and after obtaining necessary clearance from competent authorities.
28. A minimum free board of 1.5 m shall be kept to prevent any chances of overtopping of the dyke of red mud pond, even during rainy season.
29. The internal and external slopes of the dykes with stone rip rap, turfing, etc. shall be adequately protected to take care of erosion due to wave action, rain cuts.
30. The surface run-off from ash pond area during monsoon shall be properly treated to meet prescribed standard for in-land surface water. Regular inspection of the dykes shall be carried out with respect to :
 - Presence of cracks, rat holes, etc.,
 - Any sign of foundation having sink holes, etc.,
 - Developments of any wet area or seepage and flow on the embankment slope or on the foundation surface near the toe of the dyke.
31. The overflow from the ash pond and red mud pond if any or seepage water if any shall be completely recycled and in no case shall be allowed to be discharged to outside and nearby Bad river and San River. The collection facility shall be developed for surface run off from ash pond during rain and the same shall be recycled after treatment.
32. The cooling water systems shall be closed type. The tower blow down shall be reused for service water/fire water / dust suppression / ash moistening / green belt development to the maximum extent possible.
33. Effluent from workshop shall be treated in oil & grease trap cum sedimentation tank and shall be reused.
34. Continuous online monitoring system both in the storm water drain and effluent drain at the appropriate place should be installed.
35. There shall not be any dumping of alkaline sludge near storm water drains or garland drains of red mud pond to prevent contamination of run off during monsoon. All the surface runoff generated from plant facilities shall be collected in a centralized collection system and the settled water may be discharged only during monsoon or heavy rains after ensuring adherence to specified standards prescribed for inland surface water. The storm water drains shall be maintained separately so that it does not mix up with effluent drains.
36. The industry shall explore the avenue to achieve 50% utilization of red mud in 5 years i.e. progressively @10% per year.

"True Copy Attested"

Rayagada

COLLECTOR : RAYAGADA



CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

37. The wastewater generated from leakages, blow downs and DM plant shall be treated individually and stored in the guard pond for utilization for plantation, dust suppression ash handling and green belt purpose inside the factory premises. Lining shall be provided in guard pond to prevent any seepage into ground to avoid ground water contamination.
38. Oil catch pits / skimmer shall be provided in oil handling area of power plant for collection of spillage.
39. Separate water meters with necessary pipe line for assessing the quantity of water used for each of the purposes mentioned as : a) industrial cooling, b) boiler feed. c) domestic purpose d) process shall be installed.
40. A garland drain around the red mud pond shall be provided. Under no circumstances, garland drain water should be contaminated with wastewater of red mud pond.
41. A garland drain of adequate size shall be constructed around the refinery plant outside the boundary wall so that rainwater from the hill slope can be prevented from entering the refinery premises.
42. Slope stability of dry red mud stack shall be monitored by adopting appropriate methods in consultation with any Institute of repute.
43. The unit shall have valid authorization under Hazardous Waste Management, Transboundary Movement Rules, 2016 and as amended thereof and shall comply with all the conditions thereof.
44. The industry shall prepare an onsite and offsite emergency and management plan and get it approved by the competent authority and copies of the same shall be submitted to the Board.
45. The recovered vanadium if any shall be stored in a covered area before it is sold to outside parties.
46. The maximum permissible sound pressure level for DG set shall be 75 dB(A) at 1 meter from enclosure surface.
47. The height of the stack connected to DG sets of capacity more than 800 KVA shall conform to the following:
 - i) $14Q^{0.3}$, Q = Total SO₂ emission from the plant in kg/hr.
 - ii) Minimum 6m. above the building where generator set is installed.
 - iii) 30 m.
48. The height of the stack connected to DG set of capacity less than and upto 800 KVA shall conform to the following:
 - i) $H = h + 0.2\sqrt{KVA}$
 - ii) h = Height of the building where it is installed in meter
 - iii) KVA = Capacity of DG set
 - iv) H = Height of the stack in meter above ground level.

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CONSENT ORDER

M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

49. All DG sets installed before 1.7.2004 shall be scrapped. DG sets complying with either State-I or Stage-II emission norms shall reduce Particulate Matter Emission by 70% by installing RECD without affecting any other emission parameters as per the CPCB guidelines and Board's letter vide No.17927, dated 14.11.2023, in this regard.
50. Lube oil from diesel generator shall be disposed to authorized waste oil recycler.
51. The stack emission quality shall be monitored through authorized agency who are authorized in the E(P) Rule, 1986 to carry out certification of the DG sets and report shall be submitted on annual basis. The monitoring method shall be done in accordance to the provision recommended in the E(P) Rule, 1986.
52. A separate Environmental Management Cell with adequate laboratory facility and suitably qualified people shall be set up to carry out various functions related to environment management.
53. The industry shall abide by the provisions of Environment (Protection) Act, 1986 and Rules framed thereunder.
54. An action plan with time limit for installation of red mud filtration shall be submitted by the industry.
55. Periodical progress status shall be submitted for the following jobs:
 - i) The surface run-off management facility of the factory premises shall be revisited to provide site specific settling ponds / guard ponds as per the contour of the premises.
 - ii) A settling pond shall be provided to collect the runoff water during rain, near to chicken neck bridge towards power plant near to Conveyor 5A, in order to prevent direct discharge of runoff water to the adjacent nallah crossing the factory premises.
 - iii) As the noise level is monitored to be exceeding the prescribed standard for residential area on day time, action shall be taken to reduce the noise level from the process plant in the vicinity.
56. Environmental statement shall be submitted in the prescribed format every year to the Board.
57. This consent to operate is granted subject to outcome of court case in W.P. No. 5697 of 2007 pending in the Hon'ble High Court of Odisha.
58. The unit shall not disturb the streams flowing adjacent to it and flowing within the plant premises.
59. The Board may impose further condition or modify the conditions are stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form.

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CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

60. In case the consent fee is revised upwards during this period of consent, if applicable, the unit shall pay the differential amount to the Board (for the remaining years) to keep the consent order in force. If the industry fails to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.

E (II) SPECIAL CONDITIONS (FOR FACILITY OF UPPER CARRIAGE MAINTENANCE FOR BTCS & BTAP WAGON):

1. Solid Waste such as scraps, Gaskets, Seals, 'O' rings, Flexible pipes, Fasteners, Valves, Couplings etc. Shall be stored under covered shed and disposed of through actual users.
2. Measures shall be taken for control of noise level in workshop environment. Workman to be engaged shall be provided with appropriate PPEs.
3. Paint chips/particles to be generated during scrapping/buffing of old paint of the wagon shall be collected in an impervious pit and disposed off through authorised recycler.
4. Compressed air shall be used for cleaning of old paints to avoid use of water.

To

The Unit Head,
M/s Utkal Alumina International Ltd. (Alumina Refinery),
At: Doraguda, PO: Kucheipadar,
Dist: Rayagada-765015

CHIEF ENV. ENGINEER (M)
STATE POLLUTION CONTROL BOARD, ODISHA

Memo No. _____ /Dt. _____ /

Copy forwarded to :

- i) Regional Officer, SPC Board, Rayagada.
- ii) District Collector, Rayagada
- iii) D.F.O., Rayagada
- iv) CES, Central Laboratory, SPC Board, Bhubaneswar
- v) ACEE, H.S.M. Cell (Head Office)
- vi) Consent Register

ADDL. CHIEF ENV. ENGINEER
STATE POLLUTION CONTROL BOARD, ODISHA

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CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

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Annexure-I

**GENERAL STANDARDS FOR DISCHARGE OF
ENVIRONMENTAL POLLUTANTS PART - A : EFFLUENTS**

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/ Odourless as far as practicable	--	See 6 of Annex-I	See 6 of Annex-I
2.	Suspended Solids (mg/l)	100	600	200	a. For process wastewater - 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	--	--	--
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	--	--	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	--	--	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	--	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	--	--	100
11.	Free ammonia (as NH ₃) mg/l max.	5.0	--	--	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	--	--	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	--	0.001
16.	Lead (as pb) mg/l max.	01.	1.0	--	2.0

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CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
17.	Cadmium (as Cd) mg/l max.	2.0	1.0	--	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	--	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	--	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	--	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	--	15
22.	Selenium (as Se) mg/l max.	0.05	0.05	--	0.05
23.	Nickel (as Ni) mg/l max.	3.0	3.0	--	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	--	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	--	--	--
27.	Sulphide (as S) mg/l max.	2.0	--	--	5.0
28.	Phenolic compounds as (C ₆ H ₅ OH) mg/l max.	1.0	5.0	--	5.0
29.	Radioactive materials				
	a. Alpha emitter micro curie/ml.	10 ⁷	10 ⁷	10 ⁶	10 ⁷
	b. Beta emitter micro curie/ml.	10 ⁶	10 ⁶	10 ⁷	10 ⁶
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	--	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	--	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	--	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	--	--	20 mg/l

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CONSENT ORDER
M/S UTKAL ALUMINA INTERNATIONAL LTD. (ALUMINA REFINERY)

NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual * 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM ₁₀ µg/m ³	Annual * 24 Hours **	60 100	60 100	- Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual * 24 Hours **	40 60	40 60	- Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃) µg/m ³	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m ³	Annual * 24 Hours **	0.50 1.0	0.50 1.0	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m ³	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃) µg/m ³	Annual* 24 Hours**	100 400	100 400	- Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆) µg/m ³	Annual *	05	05	- Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)- Particulate phase only, mg/m ³	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), mg/m ³	Annual*	06	06	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper
12.	Nickel (Ni), mg/m ³	Annual*	20	20	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper

Signature Not Verified

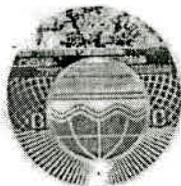
Digitally Signed by : SARITA PATNAIK

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site to be taken twice a week 24 hourly at uniform intervals.
 ** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be completed with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days.

Date: 2024.03.23 16:53:45 IST

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Sarita Patnaik
COLLECTOR : RAYAGADA



FAX : 2562822/2560955
Tel : 2564033/2563924
EPABX : 2561909/2562847
E-mail: paribesh1@ospboard.org
Web site : www.ospboard.org

OFFICE OF THE STATE POLLUTION CONTROL BOARD, ODISHA

(Department of Forest & Environment, Govt. of Odisha)
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII
Bhubaneswar - 751012

By. Regd. Post

No. 6086 /

IND-II-NOC - 6127

Date 17.05.2018

OFFICE MEMORANDUM

In consideration of online application no. 1779876 for obtaining Consent to Establish for M/s. Utkal Alumina International Ltd the State Pollution Control Board is pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for expansion of Alumina Refinery from 1.5 MTPA to 3.0 MTPA and Captive Power Plant from 90 MW to 150 MW inside the existing premises at - Village - Doraguda, Po - Kucheipadar (plot nos & khata nos. as mentioned in application form) over an area of 1069.51 ha. with project cost of ₹ 5,432 Crore in the district of Rayagada with the following conditions

GENERAL CONDITIONS.

1. This Consent to establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for five years. The proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.
2. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time, Hazardous Chemical Rules, / Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
3. This consent to establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.

SPECIAL CONDITIONS:

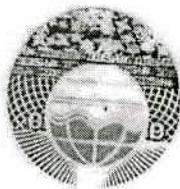
A. GENERAL CONDITIONS.

1. The proponent shall seek Environmental Clearance as per EIA notification 2006 and amendment thereafter and construction activity for the proposal shall commence after obtaining Environmental Clearance.
2. The capacity enhancement of 1.5 MTPA to 3.0 MTPA shall be achieved in three stages as follows:

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- i) By Process modification and capacity utilisation, the present capacity can be enhanced by about 14% (by 0.2 MTPA).
 - ii) By adding additional equipment another 20% increase in capacity is envisaged (by 0.3 MTPA) without any capacity enhancement of the present Captive Co-generation Power Plant taking the capacity of the existing two lines to 2.0 MTPA.
 - iii) One more parallel and similar line of 1.00 MTPA will be added to achieve the 3.0 MTPA capacity along with 60 MW power plant.
3. R & D activities towards the recovery of metal values or conversion to value-added products shall be used for the removal of arsenic and chromium from drinking water or sulphur-impregnated red mud for water treatment and environmental remediation application shall be undertaken in-house (preferably) or as sponsored projects in Institutes or Laboratories of national repute.
 4. The capital investment for the expansion of the plant is ₹ 5,432 crores out of which, pollution control measures takes up ₹ 255 crores (corresponds to around 4.7%). For this type of potentially polluting industries, this value shall be as high as 8-10% of the capital investment. Additional pollution control measures necessary for a safe and more eco-friendly operation shall be incorporated.
 5. This consent to establish is granted for the capacity as mentioned above and any expansion in the capacity, change or modification in the process, addition, alternation any nature has to be undertaken with prior approval of the Board. For any change in the site or area fresh NoC has to be obtained from the Board. The proponent shall carry out construction activity as per approved lay out map (enclosed). If the proponent wants to change the approved plant layout map, they can submit a modified plant layout map with adequate justification for such modification.
 6. The transportation of raw material during construction and operation on road shall be carried out in covered trucks/ vehicles. Industry shall regulate vehicles movement inside to avoid traffic congestion.
 7. The civil construction shall be carried out with the fly ash bricks. If the fly ash bricks are not available locally the civil construction may carried out with other bricks with prior intimation to the concerned Regional Office of SPC Board. A statement indicating use of fly ash bricks during construction period shall be submitted to the Board quarterly for record.
 8. Good housekeeping practices shall be followed to improve the work environment. All roads and shop floors shall be cleaned regularly.
 9. The proponent shall comply to the provisions of E-waste (Management) Rules, 2016 and shall handover E-waste to authorized collection centers / register dismantlers / recyclers for proper disposal of e-waste.
 10. All the plastic waste generated from industry during construction and commissioning shall be collected and sent for co-processing to the nearby cement kilns.
 11. All compliance shall be made with respect to manufacture, storage and import of Hazardous Chemical Rule, 1989 and as amended thereafter.

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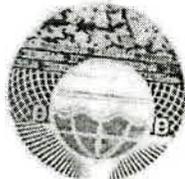


12. The industry shall take up adequate measure for routine health check-up of its employees / workers and the people residing in the neighborhood of the plant free of cost.
13. The proponent shall not divert earmarked green belt area of 353.30ha (i.e., existing plant-334.74ha and proposed expansion-18.56ha) for any other purpose.
14. The Board may impose further conditions or modify the conditions stipulated in this order during installation and /or at the time of obtaining consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and /or any information suppressed in the application form.
15. The industry shall apply for grant of Consent to operate under section 25/26 of Water(Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board. No production activity shall commence prior to installation of all pollution control measures.
16. The industry shall abide by Environment (Protection) Act. 1986 and Rules framed thereunder.

B. WATER POLLUTION:

17. Captive Power Plant shall meet specific water consumption up to maximum of 2.5 m³/MWh and achieve zero waste water discharged.
18. The domestic wastewater generated from the plant and colony shall be treated in Sewage Treatment Plant (STP) to meet the standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for gardening and plantation. Under no circumstances there shall be any discharge of treated waste water to outside the factory premises.
19. Continuous online monitoring system both in the storm water drain and effluent drain at the appropriate place should be installed.
20. The refinery process shall be designed based on zero discharge philosophy. In built measures such as dykes, pits etc. shall be provided for effective collection of spillage and recycling to system.
21. No over flow from red mud pond to nearby areas or to any water body or on land is allowed.
22. The proposed garland drain around the red mud pond should be at higher elevation than the red mud pond level. Under no circumstances, garland drain water should be contaminated with waste water of red mud pond.
23. The unit shall provide at least two layer protection systems to control & prevent any discharge of caustic effluent from the plant or from Red Mud pond areas during emergency.
24. The unit shall properly plan, design & implement Red Mud Pond & ash pond for expansion proposal to contain the red mud & ash within the pond and to avoid the impact of the ground water, agricultural field & in surrounding streams since both ponds are constructed at top of hillocks.
25. The industry shall ensure complete recycling of process waste water.

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26. The cooling blow down and boiler blow down shall be properly treated and stored in guard pond for reuse.
27. DM plant effluent shall be neutralized and stored in guard pond for reuse.
28. The effluent generated from process and cooling blow down shall be treated in an ETP comprises of screen, oil & grease trap, equalization tank, RO to biological contactors, lamella, pressure sand filter and activated carbon filters. Treated effluent shall be stored in a guard pond and shall be reused.
29. The blow down shall meet the following standards before it is discharged to the common basin.

Boiler Blow Down

Suspended Solids	---	100.0 mg/l (Max.)
Oil & Grease	---	20.0 mg/l (Max.)
Copper (Total)	---	1.0 mg/l (Max.)
Iron (Total)	---	1.0 mg/l (Max.)

Cooling Tower Blow Down

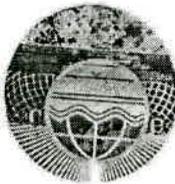
Free available Chlorine	---	0.5 mg/l (Max.)
Zinc	---	1.0 mg/l (Max.)
Chromium (Total)	---	2.0 mg/l (Max.)
Phosphate	---	5.0 mg/l (Max.)

30. The wastewater generated from leakages, blow downs and DM plant shall be treated individually to meet the prescribed standard of effluent discharge to inland surface water and stored in a common basin (i.e. guard pond) for utilization for plantation, dust suppression ash handling and green belt purpose inside the factory premises. Lining shall be provided in guard pond to prevent any seepage into ground to avoid ground water contamination.
31. The surface run-off from ash pond area during monsoon shall be properly treated to meet prescribed standard for in-land surface water.
32. Regular inspection of the dykes shall be carried out with reference to the following aspects:
 - (i) Presence of cracks, rat holes, etc.
 - (ii) Any sign of foundation heaving, sink holes, etc.
 - (iii) Developments of any wet area or seepage flow on the embankment slope or on the foundation surface near the toe of the dyke.
33. The overflow from the ash pond if any along with seepage water if any shall be completely recycled and in no case shall be allowed to be discharged to outside. The collection facility shall be developed for surface run off from ash pond during rain and the same shall be recycled after treatment. The entire process shall be made automatic. Run off water from red mud stack area shall be held in a holding pond and shall be reused for dust suppression in red mud pond.
34. Effluent from workshop shall be treated in oil & grease trap cum sedimentation tank and shall be reused.

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35. All effluents generated in plant facilities shall be collected in the central effluent treatment plant and treated effluent shall be discharged after ensuring adherence to specified standards prescribed for inland surface water before its release in Barha nadi. The concept of Zero Liquid Discharge (ZLD) shall be adopted to a maximum possible extent.
36. The storm water drains shall be maintained separately without being mixed up with the industrial effluent or sewage effluent. The storm water shall be collected in a common monitoring basin and shall be discharged after meeting the prescribed norms.
37. Rain water harvesting structure shall be developed inside the plant premises and maximum efforts shall be made to reuse harvested rain water, with a definite plan and programme to reduce the draw of fresh water from water bodies.
38. The proponent shall provide garland drains around bauxite and coal storage area followed by series of settling tanks to retain the solids if any in order to prevent damage to the surrounding land and water bodies.

C. AIR POLLUTION:

39. The unit shall comply the following prescribed stack emission standards attached to the ESP as per the Gazette of MoEF&CC, Govt. of India vide S.O. 3305(E), dt. 07.12.2015.

Sl. No.	Parameters	Prescribed standard (mg/Nm ³)
1.	Particulate Matter (PM)	30
2.	Sulphur Dioxide (SO ₂)	100
3.	Oxides of Nitrogen (NO _x)	100
4.	Mercury (Hg)	0.03

40. Necessary preventive measures shall be taken during construction phase so that the Ambient Air Quality including noise shall conform to National Ambient Air Quality Standards and standards for noise in industrial area as per **Annexure - I & II**.
41. Work zone area including the roads surrounding the plant shall be asphalted or concreted. Permanent high pressure water spraying system shall be installed for regular spraying or water on roads and work zone to minimizing fugitive dust emission.
42. Truck mounted water spraying tankers shall be made to spray / sprinkle water on roads and other dust generating points.
43. Atleast 7 continuous Ambient Air Quality monitoring stations around the industry shall be set up to monitor Suspended particulate matter, SO₂, NO_x, CO and other important parameters within at least to the distance in down wind direction and where maximum ground level concentration is anticipated. The exact location if the monitoring stations shall be finalized in consultation with the State Pollution Control Board.
44. The proponent shall provide adequate nos. of fog cannons at all loading & unloading points of Bauxite, coal, Lime & Ash handling & storage area for effective control of fugitive dust emissions.

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45. Bauxite shall be transported through closed conveyor with appropriate air pollution control measures at transfer points to control fugitive emission.
46. The unit shall provide bag filter as well as dry fog system at Bauxite handling area, bag filter and scrubber at lime handling area, bag filter at alumina handling area and dust suppression measures at mud stacking area.
47. Air pollution control devices shall be maintained properly. Fabric bags and cages in bag house shall be checked regularly and replaced whenever required. Adequate availability of spares shall be ensured for immediate replacement.
48. The unit shall provide water spraying facility to keep the red mud wet in the pond to prevent it from being air borne.
49. The height of the stack of CPP boilers shall as per formula $H = 14, Q^{0.3}$ (where Q is the emission rate of SO_2 in Kg/hour and H is stack height in meter).
50. The unit shall provide ESP in the stack attached to Calciners so that particulate matter emission shall not exceed 50 mg/Nm^3 .
51. The proponent shall install Pneumatic dust handling system in Electro Static Precipitator (ESP) and Bag Filters. Mechanical operated system for timely collection and removal of the flue dust generated in air pollution control device shall be installed.
52. Pneumatic conveyor system shall be provided as dust collection system for ESP dust. Silos shall be provided for collection of bottom ash and fly ash. Conveyor belt shall be closed and bag filter shall be provided at transfer points of conveyor system to control fugitive emission.
53. Desulphurization of flue gas from different sources if and when asked for shall be adopted by the industry. Therefore in future for such installation adequate space shall be earmarked at the installation stage.
54. The industry shall provide water sprinkling arrangement (fixed type) to prevent fugitive emission at dry surface of ash disposal area.
55. The industry shall provide both dust suppression and extraction system at all potential dust generating sources.
56. During construction the excavated materials shall be properly stored and disposed off without causing environmental nuisance in its surroundings.
57. Adequate steps shall be taken to control fugitive dust emissions during construction.
58. Industry shall furnish specific action plan to minimize GLC w.r.t. PM_{10} , $PM_{2.5}$ & SO_2 in consideration with valley effect at the time of submission of Consent to Operate application.
59. Online continuous monitoring system with recording facilities shall be installed at stacks of different units for various critical pollutants and the monitoring result shall be submitted to the Board quarterly.

D. SOLID AND HAZARDOUS WASTE:

60. Red mud and ash shall be disposed of using High Concentration Slurry Disposal (HCSD) technology to minimize water requirement for this purpose.

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61. The alkalinity in the red mud shall be reduced to the minimum and the red mud shall be disposed off in dry/semi dry condition into impervious ground. Adequate numbers of leach pit shall be located in the red mud disposal area.
62. The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
63. Bottom ash and fly ash shall be transported in covered truck with moistened condition from plant site to ash disposal site.
64. The solid waste generated as ETP sludge and from other sources shall be suitably disposed off without causing any public nuisance or environmental contamination.
65. Ash generated shall be used in a phased manner as per provisions of the notification on fly ash utilization issued by the Ministry of Environment and Forest, Govt. of India in 03.11.2009.
66. The additional Hazardous Waste and Solid Waste to be generated due to plant expansion shall be disposed off in accordance with the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Solid Waste Management Rules, 2016 respectively.

Encl: Approved plant lay out map & Annexures

[Signature]
MEMBER SECRETARY

To,

The Unit Head and President,
M/s Utkal Alumina International Ltd.
At -Doraguda, PO - Kuchelpadar,
Dist - Rayagada, Odisha.

Memo No. 6087 /Date 17.05.2018

Copy forwarded to:

1. The Collector and District Magistrate, Rayagada
2. The Director of Factories & Boiler, Bhubaneswar
3. The DFO, Rayagada
4. The Regional Officer, SPC Board, Rayagada.
5. Consent to Operate Cell, SPC Board, Odisha.
6. Hazardous Waste Management Cell, SPC Board, Odisha.
7. Copy to Guard file

[Signature]
SR. ENV. SCIENTIST, L-I (N)

[Signature]

"True copy attested."

[Signature]
COLLECTOR : RAYAGADA

Annexure - XII(A)

F No. J-11011/753/2007- IA II (I)
Government of India
Ministry of Environment and Forests
 (I.A. Division)

Paryavaran Bhawan
 CGO Complex, Lodhi Road
 New Delhi - 110 003

E-mail : pb.rastogi@nic.in
 Telefax : 011: 2436 7668
 Dated 29th January, 2008

To
 M/s Utkal Alumina International Ltd.
 6, Jaydev Vihar
 Bhubaneshwar - 751013
 Orissa

E-mail : prsmeni@adityabirla.com / sachidanand@adityabirla.com ;
 Fax No. : 085558-222381

Subject: Expansion of Alumina Refinery (1.0 MTPA to 3.0 MTPA) alongwith Co-generation Power Plant (50 MW to 90 MW) at Village Doragurha, Tehsil Kashipur, District Rayagada, Orissa by M/s Utkal Alumina International Ltd. - Environmental clearance reg.

Sir,

This has reference to your letter no. UAIL/ENV/2252/2007 dated 25th June, 2007 alongwith application, EIA/EMP and related project documents and subsequent clarifications furnished by you vide your letters dated 14th September, 2007 for environmental clearance of the above mentioned project

2.0 The Ministry of Environment and Forests has examined your application. It is noted that the proposal involves expansion of Alumina Refinery (1.0 MTPA to 3.0 MTPA) alongwith Co-generation Power Plant (50 MW to 90 MW) at Village Doragurha, Tehsil Kashipur, District Rayagada, Orissa. Total area acquired is 1015.3 ha. No additional land will be required for the expansion project. 102 ha. forest land is involved in the existing project and forest clearance has been accorded by the Ministry vide letter no 8-43/96-FC dated 19th April, 1999. Sirigurha R.F (8.8 km N), Balia Kharha R.F. (6.4 Km., ENE), Masimandi PF (2.5 km. S), Leliguma R.F. (9 km. ENE), Titigurha R.F (10 Km, ESE) are located around the project site. Construction of 1.0 MTPA Alumina Refinery is under progress. Environment clearance for the existing Alumina Refinery (1.0 MTPA) was accorded by the MOEF vide letter no. J-11011/76/94-IA-II(I) dated 27th September, 1995. No rehabilitation and resettlement is involved. Total cost of the project is Rs. 4,393.00 Crores. Rs. 2.00 Crores and Rs. 43.00 Crores are kept towards capital cost and recurring cost/annum respectively for environmental protection measures.

3.0 ESP will be provided to power boilers to control emissions within 50 mg/Nm³. Total water requirement from Indravati Reservoir will be 22,330 m³/day. Prior permission for the drawl of 5 MGD is accorded by the Department of Water Resources, Govt. of Orissa.

4.0 Public hearing meeting was held on 17th October, 2006.

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5.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2007 subject to strict compliance of the following specific and general conditions.

A. SPECIFIC CONDITIONS:

- i. Adequate air pollution control measures shall be provided to control particulate matter emissions within 50 mg/Nm³. On-line monitoring of particulate matter shall be carried out and reports submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and OSPCB. The height of the stacks shall be as per the CPCB guidelines.
- ii. The company shall install electrostatic precipitators (ESPs) to power boilers to control emissions within 50 mg/Nm³. The emissions shall conform to the standards prescribed by the Ministry/CPCB/OSPCB whichever is more stringent. Fugitive emission from red mud disposal area shall be controlled by mud stacking and water sprinkling. Bag filters with dust collectors shall be provided to Alumina loading area, bauxite crushing area, coal & ash handling areas and lime handling area to control the particulate emissions. Dust suppression and dry fog system shall be provided in Bauxite and coal handling areas. Garland drain shall be created at red mud and fly ash disposal areas.
- iii. The poly-aromatic hydrocarbons (PAH) shall be monitored quarterly and report submitted regularly to the Ministry and its Regional Office at Bhubaneswar / CPCB / OSPCB.
- iv. Total water requirement from San River (Upstream of Indravati Reservoir) shall not exceed 22,330 m³/day as per the permission accorded by the Department of Water Resources, Govt. of Orissa. The wastewater shall be treated in ETP and reused in the process. 'Zero' discharge shall be adopted. Multi-effect evaporator shall be installed to recover water and recycle for process consumption to reduce the fresh water consumption. The domestic wastewater shall be treated in the Sewage Treatment Plant (STP) and treated wastewater conforming to the standards for land application shall be reused for green belt development.
- v. Red mud, sand scales and lime grit shall be disposed off in red mud disposal area. Red mud disposal shall be done as per the CPCB guidelines. HDPE lining shall be provided to avoid any leakage to the ground. Leachate collection facilities shall be provided to the secured landfill facility (SLF). Proper care shall be taken to ensure no run off or seepage from the red mud disposal site to natural drainage. The location and design of the landfill site shall be approved by the OSPCB as per Hazardous Wastes (Management and Handling) Rules, 2003. Efforts shall also be made to find out productive uses of red mud in brick and ceramic products etc. STP sludge shall be utilized as manure for green belt development. All the used oil and batteries shall be sold to the authorized recyclers/reprocessors.
- vi. Regular ground water monitoring shall be carried out all around the fly ash and red mud disposal area by installing Peizometers in consultation with the OSPCB / SGWB / CGWB and data submitted to the Ministry' Regional Office and OSPCB.

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COLLECTOR : RAYAGADA

- ii. Fly ash shall be utilized as per Fly Ash Notification, 1999 and as amended in 2003. The industry shall also take steps to utilize ash to maximum extent by itself and shall provide all facilities to other potential users viz. cement and brick manufacturers.
- viii. Green belt of adequate width and density around the project site shall be developed in 338 ha. out of total 1015.3 ha. (33 %) in consultation with the DFO as per the CPCB guidelines.
- ix. Prior permission and recommendations of the State Forest Department regarding impact of the proposed expansion of the Alumina Refinery on the Sirigurha R.F. (8.8 km. N), Balla Kharha R.F. (6.4 Km., ENE), Masimandi PF (2.5 km, S), Leliguma R.F. (9 km. ENE), Titigurha RF (10 Km, ESE) shall be obtained and recommendations suggested, if any, shall be implemented.
- x. All the environmental conditions stipulated for the existing Alumina Refinery Plant (1.0 MTPA) mentioned in the in the environment clearance letter accorded by the Ministry vide letter no. J-11011/76/94-IA-II(I) dated 27th September, 1995 shall be implemented satisfactorily in a time bound manner.
- xi. This environmental clearance is subject to the outcome of the Court Case in W.P. No. 5697 of 2007 (Prafulla Samantray vs. Union of India and Others) pending in the Hon'ble High Court of Orissa.

B. GENERAL CONDITIONS :

- i. The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board (OSPCB) and the State Government.
- ii. No expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. The gaseous emissions from various process units shall conform to the standards prescribed by the concerned authorities from time to time. The OSPCB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time the emissions level shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. Adequate number of ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and OSPCB once in six months.
- v. In-plant control measures for checking fugitive emissions from spillage/raw materials handling etc. shall be provided and particulate matter from Bauxite transport and crushing shall be provided with highly efficient bag filters and covered conveyers and adequate water sprinkling shall be done.

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COLLECTOR : RAYAGADA

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- vi. Industrial wastewater should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be recycled in the plant as well as utilization for plantation purposes.
- vii. The project authorities must strictly comply 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 OSPCB must be obtained for collection, storage, treatment and disposal of hazardous wastes.
- viii. The overall noise levels in and around the plant area shall 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 shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- ix. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x. 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/Board.
- xi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium sector shall be strictly implemented.
- xii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP /risk analysis and DMP report.
- xiii. As proposed in EIA/EMP, Rs. 2.00 Crores and Rs. 43.00 Crores earmarked toward the capital cost and recurring expenditure/annum for environmental protection measures shall be used judiciously to implement the conditions 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.
- xiv. The Regional Office of this Ministry at Bhubaneswar / Central Pollution Control Board / OSPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.
- xv. 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 Orissa 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.
- xvi. 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.

" True copy attested."

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COLLECTOR : RAYAGADA

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6.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

7.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

8.0 The above conditions shall 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, the Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(Signature)

(Dr. P. B. Rastogi)
Additional Director

Copy to:-

1. The Secretary, Department of Environment, Govt. of Orissa, Bhubaneswar, Orissa.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. Chairman, Orissa Pollution Control Board, Parivesh Bhavan, A/118, Nikanthanagar, Unit-8, Bhubaneswar - 751 012, Orissa.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar - 751 023, Orissa.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File.
7. Record File.

(Signature) 29/11/0

(Dr. P. B. Rastogi)
Additional Director

"True Copy attested."

(Signature)

COLLECTOR : RAYAGADA

Annexure - XI(3)

~~SECRET~~

F. No. J-11011/753/2007-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi - 110003
E-mail: sharath.kr@gov.in
Tel: 011-24695319

Dated: 25th June, 2018

To,

Unit Head & President,
M/s Utkal Alumina International Limited,
J-6, JaidevVihar,
Bhubenshwar - 751013,
Odisha
e-mail: n.nagesh@adityabirla.com

Subject: Proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha - Environmental Clearance - Regarding.

Sir,

This has reference to your online application vide proposal no. IA/OR/IND/64028/2017 dated 15th January 2018 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006, your letter dated 24th November, 2017, 21st February 2018, 9th March 2018, 10th April, 2018 and 16th April, 2018 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of EIA Notification, 2006 and the proposal is appraised at Central level.

Details of the project as per the submissions of the project proponent:

2.0 The application for EC of M/s Utkal Alumina International Ltd. located in Village - Doraguda, Tehsil - Kashipur, District - Rayagada, State - Odisha was initially received in the Ministry on 20.04.2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 18th meeting held on 3rd to 5th May, 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 22.05.2017 vide Lr. No. F. No. J-11011/753/2007-IA-II(I).

3.0 The project of M/s Utkal Alumina International Ltd. located in Village - Doraguda, Tehsil - Kashipur, District - Rayagada, State - Odisha is for enhancement of production capacity of Alumina Refinery (from 1.5 to 3.0 MTPA) along with Cogeneration Power Plant (from 90 to 150 MW). The existing project was accorded environmental clearance vide letter

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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COLLECTOR : RAYAGADA

no. F. No. J-11011/753/2007-1A-II(I), dated 29.01.2008. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneswar vide letter no. 101-375/EPE dated 25.10.2017 and letter. no. 101-375/EPE/134, dated 15.01.2018 and 1st March 2018. The proposed capacity for different products for new site area as below:

Particulars	Existing Configuration	Post Expansion Final Configuration
Alumina Refinery (Calcined Alumina)	Line-I: 0.75 MTPA	Line-I: 1.0 MTPA
	Line-II: 0.75 MTPA	Line-II: 1.0 MTPA
		Line-III: 1.0 MTPA
Co-generation Power Plant	90 MW [3x30 MW]	150 MW [5 x 30MW]

4.0 The total land required for the project is 1069.51 ha, out of which 0 ha is an agricultural land, 800.784 ha is grazing land and 164.391 ha is others (164.391 ha Government Land). 104.335 ha of forest land is involved. The entire land has been acquired for the project. The Barha River passes through the project area. It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is undulated and reported to lies between 19° 10' 31.5408" to 19° 12' 8.532" N Latitude and 83° 01' 19.65" to 83° 01' 57.1764" E Longitude in Survey of India topo sheet No. E44 F/4 at an elevation of 800m to 823m AMSL. The ground water table reported to ranges between 1.14 mbgl to 11.62 mbgl below the land surface during the post-monsoon season and 5.05 mbgl to 10.99 mbgl below the land surface during the pre-monsoon season. There will be no drawl of ground water.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The approval w.r.t. the "Site Specific Conservation Plan & Wildlife Management Plan" is given at Annexure - 3.1 in EIA/EMP Report.

7.0 The Bayer's process for extraction of Alumina using the basic raw material (Bauxite, Caustic Soda, Lime, Furnace Oil and Coal) and the various processes involved (Bauxite crushing, Grinding, Predesilication, Digestion, Clarification, Mud washing, Security filtration, Hydrate classification, Seed filtration, Precipitation, Hydrate washing and Calcination to produce the Calcined alumina. Waste generated in Bayer's process is Red Mud, Lime Grit (From lime slaking) and Fly ash from the captive power plant.

8.0 The targeted production capacity of the Alumina refinery is 3.0 million TPA of Calcined Alumina. The ore for the plant would be procured from Captive Bauxite Mine (Baphlimali Bauxite Mine). The ore transportation will be done through Long Distance Conveyor.

9.0 The water requirement of the project is estimated as 20,000 m³/day, out of which 19,800 m³/day of fresh water requirement will be obtained from the San River. The permission for drawl of surface water is obtained from Department of Water Resources, Govt. of Odisha vide Lr. No. 3326/WR., Irr-II-WRC-154/2009, dated 11.02.2010.

10.0 The power requirement of the project is estimated as 150 MW, which will be obtained from the Co-generation Power Plant.

11.0 Baseline Environmental Studies were conducted during Pre-Monsoon season i.e. from March to May, 2017 Ambient air quality monitoring has been carried out at 11 locations
EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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during 01.03.2017 to 31.05.2017 and the data submitted indicated: PM₁₀ (42.1 to 73.2 µg/m³), PM_{2.5} (21.7 to 40.7 µg/m³), SO₂ (11.5 to 24.6 µg/m³) and NO_x (11.6 to 25.2 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.3075 µg/m³ (0.11394 µg/m³ w.r.t. Point Source Emission and 0.19356 µg/m³ w.r.t. Line Source Emission) µg/m³ with respect to the PM₁₀; 0.82689 µg/m³ (0.63333 µg/m³ w.r.t. Point Source Emission and 0.19356 µg/m³ w.r.t. Line Source Emission) with respect to the SO₂; 0.82689 µg/m³ (0.63333 µg/m³ w.r.t. Point Source Emission and 0.19356 µg/m³ w.r.t. Line Source Emission) µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.5 to 7.5, Total Hardness: <0.05 to 172 mg/l, Chlorides: 7.6 to 95 mg/l, Fluoride: 0.06 to 0.65 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 10 locations. pH: 6.5 to 8.0; DO: 6.6 to 7.4 mg/l and BOD: 4.0 to 14.0 mg/l. COD from 19 to 81 mg/l.

13.0 Noise levels are in the range of 45.9 to 67.1 dB(A) for daytime and 40.0 to 61.8 dB(A) for night time.

14.0 It has been reported that there are no people in the core zone of the project. No/ R&R is involved. It has been envisaged that no families to be rehabilitated, which will be provided compensation and preference in the employment.

15.0 It has been reported that a total of 40,80,000 tons/m³ of waste will be generated due to the project and same will be dumped in the earmarked dump yard. It has been envisaged that an area of 353 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 It has been reported that the Consent to Operate from the Odisha State Pollution Control Board obtained vide Lr. No 5057/IND-I-CON-6101 dated 22.03.2016 and consent is valid up to 31.03.2021.

17.0 The Public hearing of the project was held on 15.11.2017 at village Baghriholla, Tahsil- Kashipur in Rayagada district under the chairmanship of Project Director, DRDA, Rayagada for production of Alumina Refinery from 1.5 to 3.0 MTPA and CPP from 90 to 150 MW. The issues raised during public hearing inter alia, include Barrier around Red Mud Pond & Ash Pond for protection of human & animals; Prevention of Dust pollution caused by the industry; River water Pollution in Bada Nadi due to discharge from plant; Plantation over surrounding bare hills; employment and development of social infrastructure; etc.

18.0 An amount of Rs. 135.8 Crores (2.5% of Project cost of Rs. 5432.00 Crore) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

Sl. No	Enterprise Social Commitment Activities	Year 1 (FY18)	Year 2 (FY19)	Year 3 (FY20)	Year 4 (FY21)	Year 5 (FY22)	Year 6 (FY23)	Total
1	Education	8	705	550	298	100	75	1736
2	Health & Hygiene	500	114	20	146	183	355	1318
3	Village	86	399	296	571	682	800	2834

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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	Infrastructure							
4	Skill development	0	300	190	530	485	0	1505
5	Livelihood & Entrepreneurship	0	90	0	2390	2090	1640	6210
	Total	594	1608	1056	3935	3540	2870	13603

All figures above are in Rs Lakhs

DETAILED ENTERPRISE SOCIAL COMMITMENT (ESC)

Sl	Project	Village	Type of intervention	Budget (in lakhs)						Total
				FY18	FY19	FY20	FY21	FY22	FY23	
1	Construction of School building upto +2 Science.	Oshapada			700	540	220	20	20	1500
2	Infrastructure for Govt. Schools in the periphery	Upper Kampore	School boundary wall, Bore well with OHT, Providing Equipments	2			7	3	8	20
		Khotlapadar	School boundary wall, Providing Equipments				6	3	2	11
		Gokulmunda	School boundary wall, Providing Equipments	2				5	3	8
		Kucheipadar	School Painting, Playground development, Kitchen building, Providing equipments, solar lighting system	2	3	3	35	2	6	51
		G.Koral	Bore well with OHT, Boundary wall, Electricity, Providing equipments			2	6	3	4	15
		Kapuguda	School boundary wall					5	3	8
		Thutiber	Toilets & Hand basins, Providing equipments	2	2		3	6	4	17
		Oshapada	Rising height of School boundary wall, Providing equipments				2	4	2	8
		Tikiri	Protection wall in Girls High School						6	6
		Bilamal	School boundary wall, Providing equipments	2			2	5	3	12
	Makapadar	School boundary wall, Playground,			3	5	3	8	19	

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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			Providing Equipments							
		Ratachuan	School boundary wall. Providing Equipments			2	7	2	11	
		Jogiparitunda	School boundary wall. Providing Equipments			5	2	2	7	
		Dangasil	Solar lighting system				30			
		Dwimundi	School building, Providing equipments, School boundary wall			5	4	2	13	
Sub Total				8	5	10	78	80	55	236
3.	Construction of Hospital Building at Ushapada			100						100
4	Hospital equipment's and assets for Utkal Hospital			350		30	30			440
5	Provision of 4 ambulances									
		Tikiri			10					10
		Dongasil				10				10
		Kucheipadar				10				10
		Chandragiri			10					10
Sub					20	20				40
Total					20	20				
6	Drinking water facility in the peripheral villages	Semiliguda	Handpump/Tubewell, OHT with borewell	2.5				45		47.5
		Tikiri	Handpump/Tubewell, OHT with borewell	2.5			3	100		105.5
		Ghuguput	Handpump/Tubewell				3	4		7
		Lacchuguda	OHT with borewell				40	3		43
		Bhitarmuskuni	OHT with borewell		17		2			19
		Doraguda	OHT with borewell			22		3		25
		Kucheipadar	OHT with borewell			7	40	7		54
		Gokulmun da	OHT with borewell			30				30
		Makapadar	OHT with borewell				35			35
		Ratachuan	OHT with borewell				30			30
		RR Colony I	OHT with borewell	45	40					85
		Dudighat	SwajalDhara,		7			9		16

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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Ashrafi

COLLECTOR : RAYAGADA

			Dugwells								
		Karli	SwajalDhara					15	15		
		Badlijhara	SwajalDhara, Tubewell			9		3	12		
		Ghatiguda	SwajalDhara			12		2	14		
		Dwimundi	SwajalDhara			6		4	10		
		D.Koral	OHT with bore well					100	100		
		Sub Total		50	64	0	86	153	295	648	
7	Community Toilet to facilitate SwachataAbhyan at Nuapada, Tikiri and Kashipur	Nuapada			30					30	
		Tikiri					30			30	
		Kashipur							30	30	
		Sub Total			30	0	30	0	30	90	
8	Creation of irrigation infrastructure in the peripheral villages		Check dam/ Irrigation Channel/ DBI etc.								
		Dwimundi	Water Harvesting Structure, Irrigation Channel		8	9	6	6	5	34	
		Bilamal	Dam, Irrigation Channel		9	7	5		4	25	
		Kodipari	Dam, Irrigation Channel		6	12	4	8	10	40	
		Gulmijhol a	Dam, Irrigation Channel		10		6		4	20	
		Tharli	Water Harvesting Structure, Irrigation Channel	4		5	3		4	16	
		Lundruko na	Dam, Irrigation Channel		7				5	12	
		G.Koral	Water Harvesting Structure, Irrigation Channel		4	4			6	14	
		Makapada r	Water Harvesting Structure, Irrigation Channel			9			7	16	
		Sanamatik ona	Dam, Irrigation Channel					12	6	18	
		Mailiguda	Dam, Irrigation Channel		7				8	15	
		Tikirapada	Irrigation Channel						6	6	
		Kucheipad ar	Irrigation Channel	6	7	4	8	5	4	34	
		Bariaguda	Irrigation Channel				4		3	7	
	Dongasil	Irrigation Channel		3		5		4	12		
	Tikiri	Irrigation Channel		13	14	6	5	5	43		
	TalaKamp ore	Irrigation Channel		4		3	5	6	18		
	Upper Kampore	Irrigation Channel			4		6	4	14		
	D.Koral	Irrigation Channel					8	5	13		
	Mundagao n	Irrigation Channel					4	6	10		
	Karli	Irrigation Channel					6	8	14		
	Dudukaba hal	Irrigation Channel					10	9	19		

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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		Lachhuguda	Irrigation Channel					8	7	15
		Ratachuan	Irrigation Channel					6	4	10
		Badlijhara n	Irrigation Channel					4	5	9
		Baliguda	Diversi on Based Irrigation	\$					2	
		Renganasi l	Irrigation Channel					7	4	11
Sub Total				15	78	68	50	100	141	452
9	Construction of Community Centres in peripheral villages									
		D.Koral	Community Hall			15				15
		Bagrijhola	Community Hall				15			15
		Tikiri	Community Hall		30					30
		Gokulmun da	Community Hall						15	15
		Ratachuan	Community Hall				15			15
		Ushapada	Community Hall						15	15
		Bhitarmus kuni	Community Hall		15					15
		Hadiguda	Community Hall				15			15
		Lacchugu da	Community Hall				15			15
		G.Koral	Community Hall					15		15
		Kucheipad ar	Community Hall				15			15
		Sorishapa dar	Community Hall					15		15
		Kodipari	Community Hall					15		15
		Semiligud a	Community Hall						15	15
		Bariaguda	Community Hall					15		15
		Karli	Community Hall					15		15
		Dongasil	Community Hall						15	15
		Pandakapa dar	Community Hall						15	15
		Sanamatik ona	Community Hall						15	15
		Gulmijhol a	Community Hall						15	15
Total				0	45	15	60	90	105	315
10	Setting up of Skill building centre (Mobile repairing, bike repairing, vermicomposting, mushroom cultivation, household equipment repairing, applique making, nursery raising, computer training, agricultural training, watch				200	190	530	485		1405

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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	repairing etc.)									
11	Lemon Grass promotion project	Bagrijhola Andirakan ch, D.Koral, Paikupakh al, etc.			50		50	50	50	200

19.0 The capital cost of the project is Rs 5432.00 Crores and the capital cost for environmental protection measures is proposed as Rs. 255.00 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.55 Crores. The employment generation from the proposed project/expansion is 375 direct employees and about 725 contractual workforces. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures are as follows:

Sl. No.	Particulars	Rs. in Lakhs
I	AIR POLLUTION CONTROL	
1	Electrostatic precipitator	10000
2	Chimney	3000
3	Flue Gas Desulphurization System unit for boilers	2000
4	Dust Collector – Bag Filters	500
5	Water Sprayer (Stationary)	200
II	WATER POLLUTION CONTROL	
1	Domestic effluent treatment plant	100
2	Industrial ETP	200
3	Storm water drains, Caustic drain	1500
4	Caustic Pond/Guard Pond	300
5	Sewage System	100
6	Ash Pond/Red Mud Pond lining	3000
7	Sump Pit & Pumps	2000
III	NOISE POLLUTION CONTROL	200
IV	ENV. MONITORING AND LAB INSTRUMENTS	200
V	OCCUPATIONAL HEALTH & FIRE FIGHTING SYSTEM	
1	Occupational Health Equipment	100
2	Fire Fighting Equipment & Network System	1500
VI	GREEN BELT AND PLANTATION	500
VII	RAIN WATER HARVESTING	100
	GRAND TOTAL	25500

Recurring Annual Cost for Environmental Protection

Sl. No.	Particulars	Rs. in Lakhs
1	Air pollution control	50
2	Water pollution control	70
3	Noise pollution control	30
4	Environmental monitoring and management	80
6	Occupational health	150
7	Green belt & Plantation	100
8	Others (Environmental studies, expert advice etc.)	75
	TOTAL	555

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashiapur, District Rayagada, Odisha

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20.0 Greenbelt will be developed in 353 Ha which is about 33% of the total acquired area. A 100-m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,00,000 saplings will be planted and nurtured in 353 hectares in 6 years.

21.0 The proponent has mentioned that there is court case (W.P.No. 5697 of 2007 in High Court of Odisha and No order/direction of the court as on today) and no violation under EIA Notification to the project or related activity.

22.0 The EIA/EMP has been prepared by EIA Consultant Organization M/s Kalyani Laboratories Pvt. Ltd. Accredited vide QCI/NABET Ref.:RAAC-137, dated 07.07.2017; Sl. No. 87 of the list in QCI Accreditation Register dated 5.01.2018.

23.0 The proposal was considered in the 28th Meeting of the Expert Appraisal Committee on Industry – 1 projects held during 5th- 7th February 2018; further considered in the 30th meeting of Expert Appraisal Committee held during 9th -10th April, 2018 and 31st meeting of EAC held during 7th to 9th May 2018. After detailed deliberations the committee recommended the instant proposal for environmental clearance with following Specific and General conditions.

24.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant Environmental Clearance for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha under the provisions of EIA Notification, 14th September, 2006, as amended, subject to strict compliance of the following Conditions:

1. The PP shall implement recommendations of the approved Site-Specific Conservation Plan & Wildlife Management Plan in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.
2. The red mud already generated from the existing plant shall be stored in the red mud pond lined with impervious clay prior to use to prevent leakage, designed as per the CPCB guidelines with proper leachate collection system. Ground water shall be monitored regularly all around the red mud disposal area and report submitted to the Regional Office of the Ministry. Proper care shall be taken to ensure no run off or seepage from the red mud disposal site to natural drainage. Plan shall be prepared and implemented for utilising the already generated red mud in a time bound manner.
3. Water spraying on the red mud pond shall be arranged to prevent fine dust from being blown off the stack. Longer- term treatment of the red mud shall include reclamation of the mud ponds, neutralization, covering with topsoil, and planting with vegetation.
4. Decanted water from red mud pond is collected in the Process Water Lake during the monsoon and the same water recycled back to the process through pumping arrangements.
5. 100 % of the fly ash generated shall be utilised.

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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6. The company shall construct separate RCC drains for carrying storm water inside the plant.
 7. The water drawl shall not exceed 20,000 m³/day (existing and the expansion project put together).
 8. An amount of Rs. 135.8 Crores (2.5% of Project cost of Rs. 5432.00 Crore) proposed towards Corporate Environmental Responsibility shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
 9. Green belt shall be developed in 353 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
 10. The Capital cost Rs. 255.00 Crore and annual recurring cost Rs. 5.55 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
 11. Kitchen waste shall be composted or converted to biogas for further use.
 12. The project proponent shall (Air Quality Monitoring):
 - a. install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 742 (E) dated 30th August 1990 and thereafter amended vide G.S.R 46 (E) dated 3rd February 2006 (Aluminium); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
 - b. monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
 - c. Install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions;
 - d. submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring for calibrations of CEMS and manual monitoring of air quality /fugitive emission to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring-report.
 13. The project proponent shall (Water Quality Monitoring):
 - a. install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 742 (E) dated 30th August 1990 and further amended vide G.S.R 46 (E) dated 3rd February 2006 (Aluminium); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- b. monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories; and
- c. submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

14. The project proponent shall (Air Pollution Control):

- a. ensure ambient air quality around the project site as prescribed under National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 (as amended from time to time)
- b. provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- c. provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags;
- d. provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
- e. ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation;
- f. provide covered sheds for raw materials like bauxite, coal, etc;
- g. recycle alumina dust collected in ESPs installed in calciner.

15. The project proponent shall (Water Pollution Control):

- a. adhere to 'zero liquid discharge';
- b. provide Sewage Treatment Plant for domestic wastewater; and
- c. provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

16. The project proponent shall (Water Conservation):

- a. practice rainwater harvesting to maximum possible extent; and
- b. reduce water consumption in bauxite beneficiation and alumina refinery by concentrating the solids in the tailings;

17. The project proponent shall (Energy Conservation):

- a. provide waste heat recovery system (pre-heating of combustion air) at the flue gases.
- b. provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly; and

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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[Signature]

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- c. Provide the project proponent for LED lights in their offices and residential areas.
18. Used refractories shall be recycled as far as possible.
 19. Oily scum and metallic sludge recovered from ETP shall be mixed, dried, and briquetted and reused.
 20. The project proponent shall prepare GHG emissions inventory and shall submit the programme for reduction of the same including carbon sequestration including plantation.
 21. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
 22. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
 23. The project proponent shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
 24. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses.
 25. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
 26. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium Industry shall be implemented.
 27. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
 28. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
 29. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 30. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 31. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
 32. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
 33. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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34. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.

35. The project proponent shall (Post-EC Monitoring):

- a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
- b. put on the clearance letter on the web site of the company for access to the public.
- c. inform the public through advertisement 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 that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
- d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
- e. monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company;
- h. 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.

25.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

26.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

27.0 The PP shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent

28.0 The above conditions shall 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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29.0 This EC is issued in supersession of the earlier EC vide F. No. J-11011/753/2007-IA-II(I), dated 29.01.2008.

30.0 This EC is subject to the out come of the court case in W.P.No. 5697 of 2007 (Prafulla Samantray Vs Union of India & Others) before High Court of Odisha.

31.0 Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

This issues with the approval of competent Authority.

Sharath
25/6/18
(Sharath Kumar Pallerla)
Scientist 'F' / Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
2. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandarsekharpur, Bhubaneswar – 751023.
3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector**, Rayagada, Odisha.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**

Sharath
25/6/18
(Sharath Kumar Pallerla)
Scientist 'F'/Director

EC for the proposed enhancement of production capacity of Alumina Refinery (1.5 MTPA to 3.0 MTPA) along with Cogeneration Power Plant (90 MW to 150 MW) by M/s Utkal Alumina International Limited at village Doraguda, Tehsil Kashipur, District Rayagada, Odisha

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 EPABX : 2561909/2562847
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 paribesh1@ospboard.org
 Website: www.ospboard.org

STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII
 Bhubaneswar - 751012, INDIA

BY SPEED POST

FORM 2

[See rule 6(2)]

RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE OCCUPIER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

1. Number of authorization: IND-IV-HW-931/ 9663 and date of issue: 14-07-2021
2. Reference of application (No. and date): 3290231, dtd. 29-12-2020 / 26-06-2021.
3. M/s Utkal Alumina International Limited is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, utilization, disposal or any other use of hazardous or other wastes or both in the premises situated
At : Doraguda, PO : Kucheipadar, Dist : Rayagada, Odisha.

Details of Authorization

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity/ Annum	Mode of Disposal
1.	Schedules - I Stream - 5.1	Used / Spent Oil	100 T	Storage in containers over impervious floor under well ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha
2.	Schedules - I Stream - 33.2	Contaminated Cotton Rags or Other Cleaning Materials	2 T	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCB, Odisha / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF), Jajpur

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Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity/ Annum	Mode of Disposal
3.	Schedules - I Stream - 35.2	Spent Ion Exchange Resin Containing Toxic Metal	10 T	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF, Jajpur
4.	Schedules - I Stream - 35.4	Oil and Grease Skimming Residues	50 T	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF, Jajpur
5.	Schedules - I Stream - 5.2/3.3/33.2	Waste / Residues Containing Oil	20 T	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF, Jajpur
6.	Schedules - I Stream - 3.3	Sludge Contaminated With Oil	50 T	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF, Jajpur
7.	Schedules - I Stream - 33.1	Empty Barrels / Containers / Liners Contaminated With Hazardous Chemicals / Wastes	5 T	Storage on impervious floor under well ventilated covered shed followed by captive reuse / disposal through original supplier / Actual Users authorized by SPCB, Odisha

- (1) The authorization shall be valid up to 31-03-2026 .
- (2) The authorization is subject to the following general and specific conditions.

A. General Conditions of authorisation:

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.

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2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
 3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
 4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation.
 5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
 6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty". Any accident in this respect shall be intimated to the Board immediately.
 7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
 8. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
 9. An application for the renewal of an authorisation shall be made as laid down under these Rules.
 10. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
 11. Annual return shall be filed by 30th day of June of every year for the preceding period from April to March.

B. Specific Conditions:

1. Authorization granted herewith does not relieve you in complying with other provision laid down under Water (PCP) Act, 1974, Air (PCP) Act, 1981 and Environment (Protection) Act, 1986, and the Rules made there under.
2. This authorization is subject to statutory and other clearances from Govt. of Odisha and / or Govt. of India as and when applicable.

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3. In case the quantity of generation of hazardous Waste exceeds the Authorized quantity, the industry / mine shall apply for amendment of Authorization order.
4. The industry / mine shall strictly comply to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and amendments made thereafter.
5. Annual returns in Form - 4 (See Rules- 6 (5), 13 (8), 16 (6) & 20 (2)) shall be submitted to the Board for the financial year by 30th June of every year. It shall contain the detail quantities of generation, storage and disposal of different type of hazardous wastes such as recyclable, incinerable, land disposable.
6. Steps shall be taken for reduction and prevention of the hazardous waste generated or for recycling or reuse.
7. Environmental Information with respect to Air, Water, Hazardous Waste and Hazardous Chemicals shall be displayed at the main gate for public view.
8. The transport of the hazardous and other waste shall be in accordance with the provisions of the Rule, 2016 and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.
9. The occupier shall provide the transporter with the relevant information in **Form 9**, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per **Form 8**.
10. In case of transportation of hazardous waste and other wastes for recycling or utilization including co-processing to outside the state, the sender shall intimate both the State Pollution Control Boards before handing over the waste to the transporter.
11. Manifest system (Movement document) shall be strictly followed as per Rule-19 and to be submitted to this office as per the Rule. The industry / mine shall check the authenticity of the way bill of the transport vehicle to ensure supply of hazardous waste to the authorized destination.
12. The hazardous waste shall be sold if required only to Actual User having valid authorization from the State Pollution Control Board, Odisha and concerned SPC Board. Details of such wastes shall be entered in the passbook issued by respective SPCB.
13. All the hazardous waste shall be stored in impervious pits / containers / floors under cover shed with adequate capacity having spill containment facility. The spilled hazardous waste shall be re-collected and stored in impervious pits / containers / floors under cover shed prior to sale / disposal.

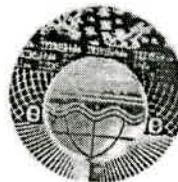
"True Copy attested."

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14. The schedule of hazardous waste and the quantity as specified shall only be disposed off as per the stipulation prescribed in this authorisation.
 15. This authorization does not permit you to either receive and process or generate hazardous waste in case validity of Consent to Operate of your industry / mine ceases. However you can carry out handling, storage, treatment, transport and disposal of hazardous waste and other wastes generated previously during such period to avoid accumulation of hazardous waste.
 16. The industry / mine shall store the accumulated hazardous waste for a period not exceeding 90 days and shall dispose as per the stipulation prescribed in this authorisation order. In case of any violation, authorization granted shall be suspended / cancelled.
 17. The industry / mine shall apply for renewal of authorization in Form - 1, 120 days before expiry of this authorization order enclosing Annual Return in Form - 4, Manifest copies in Form - 10 and compliance to the conditions stipulated in this order along with adequate processing fees.
 18. In case of transportation of hazardous and other waste, the responsibility of safe transport shall be either of the sender or the receiver whosoever arranges the transport and has the necessary authorisation for transport from the concerned State Pollution Control Board. This responsibility should be clearly indicated in the manifest.
 19. Hazardous Wastes having calorific value of more than 2500 Kcal/Kg shall not be landfilled. It can only be disposed through authorized actual users or incinerated in authorized Hazardous Waste incinerator or co-processing in authorized cement kiln.

[Signature]
14/7/21
Chief Environmental Engineer

To

The Unit Head
M/s Utkal Alumina International Limited
At : Doraguda, PO : Kucheipadar,
Dist : Rayagada, Odisha



Memo No. 9664 Dt. 14-07-2021
Copy to the :

1. Collector & District Magistrate, Rayagada.
2. Director, Factories & Boilers, Odisha, Bhubaneswar.
3. Regional Officer, State Pollution Control Board, Odisha, Rayagada.
4. Guard file.

[Signature]
14/7/21
Sr. Environmental Engineer, L-II
"True Copy attested."

[Signature]
COLLECTOR : RAYAGADA