ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environmental Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), GUJARAT)

To,

The Sr. Manager - Environment

M/s Vedanta Limited(Division Cairn Oil & Gas)

Cairn Oil & Gas, Vedanta Limited, DLF Atria, DLF Phase-2, DLF City, Gurgaon, Haryana - 122002 Cairn Oil & Gas, Vedanta Limited, DLF Atria, DLF Phase-2, DLF City, Gurgaon, Haryana - 122002 -122002

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/GJ/IND2/435908/2023 dated 30 Sep 2023. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC24B002GJ131409**
2.	**File No.**	SIA/GJ/IND/113008/2023
3.	**Project Type**	New
4.	**Category**	B
5.	**Project/Activity including Schedule No.**	1(b) Offshore and onshore oil and gas exploration, development & production
6.	**Name of Project**	Offshore & Onshore Oil and Gas Exploration & Appraisal in GK-OSHP-2017/1 Block in Gulf of Kutch, Kutch & Devbhumi Dwarka Districts of Gujarat.
7.	**Name of Company/Organization**	M/s Vedanta Limited(Division Cairn Oil & Gas)
8.	**Location of Project**	GUJARAT
9.	**TOR Date**	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed)
Asav P. Gadhvi
Member Secretary
SEIAA - (GUJARAT)

Date: 06/05/2024

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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- ASAV P. GADHVI
MEMBER SECRETARY
SEIAA (GUJARAT)

सत्यमेव जयते

GOVERNMENT OF INDIA
MOEF & CC
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
GUJARAT

No. SEIAA/GUJ/EC & CRZ /1(b)/ 635 /2024 **Date: 3 MAY 2024** *BY R.P.A.D.*
Time Limit

Sub: Environment & CRZ Clearance to M/s. Vedanta Limited (division Cairn Oil & Gas) (New Name) M/s. Vedanta Transforming Elements (VTE) (Old Name) for setting up of manufacturing plant of 'offshore Oil and Gas Exploration' at Offshore & Onshore Oil and Gas Exploration & Appraisal in GK- OSHP-2017/1 Block in Gulf of Kutch, Kutch & Devbhumi Dwarka Districts of Gujarat. In Category 1(b) of Schedule annexed with EIA Notification dated 14/09/2006.

Ref: **1. Your Proposal No. SIA/GJ/IND2/435908/2023.**
2. GCZMA Letter vide no. ENV-10-2022-172-T Dated 07.10.2023
3. SEAC recommendation Letter Dated 26.03.2024

Dear Sir,

This has reference to your application along with form-1, Pre-Feasibility Report, Environment Management Plan and other supporting documents dated 14/08/2023, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006 as well as application for CRZ clearance along with Form-I dated 26/12/2022 seeking CRZ clearance submitted to the Gujarat Coastal Zone Management Authority (Forests & Environment Department -F&ED), Gujarat.

The proposal is for Environmental & CRZ Clearance to onshore Oil and Gas Exploration in the Appraisal and early production in the Block GK- OSHP-2017/1 in **Gulf of Kutch, Kutch & Devbhumi Dwarka** Districts, Gujarat. It is a proposed project is offshore Oil and Gas Exploration, Appraisal and well testing in GK-OSHP-2017/1 Block in Gulf of Kutch, Kutch & Devbhumi Dwarka Districts of Gujarat.

The block GK-OSHP-2017/1 in Gulf of Kutch, Kutch & Devbhumi Dwarka Districts of Gujarat. It encloses an area of 2960Sq. Km and is bounded by the points having coordinates provided in Table.

Sr. No.	Name of Products	CAS No.	Quantity (MT/month)	End use of Product
1.	Drilling of Exploratory (including appraisal) wells and well testing/ extended well testing	--	32 nos. of exploratory/ appraisal wells	32 nos. of exploratory/ appraisal wells for crude oil and natural gas

Tentative Locations of Proposed Wells:

S. No	Well Id	Longitude	Latitude
1.	1	68° 46' 28.192" E	22° 11' 18.745" N
2.	9	68° 45' 8.997" E	22° 13' 5.977" N
3.	20	68° 53' 20.794" E	22° 14' 24.570" N
4.	28	68° 53' 20.683" E	22° 16' 34.663" N
5.	31	68° 53' 20.572" E	22° 18' 44.756" N
6.	38	68° 55' 9.077" E	22° 23' 59.063" N
7.	39	68° 50' 29.126" E	22° 26' 8.946" N
8.	41	68° 55' 9.002" E	22° 26' 9.154" N
9.	42	68° 50' 28.978" E	22° 28' 19.036" N
10.	44	68° 50' 28.829" E	22° 30' 29.126" N
11.	45	68° 52' 5.195" E	22° 30' 6.385" N
12.	47	68° 57' 26.783" E	22° 29' 39.507" N
13.	48	68° 50' 28.681" E	22° 32' 39.215" N
14.	49	68° 52' 48.728" E	22° 32' 39.336" N
15.	50	68° 57' 28.822" E	22° 32' 39.477" N

16.	52	68° 52' 48.615" E	22° 34' 49.424" N
17.	63	68° 55' 8.623" E	22° 36' 59.600" N
18.	98	68° 57' 28.585" E	22° 45' 40.000" N
19.	105	68° 52' 47.936" E	22° 47' 49.943" N
20.	106	68° 55' 8.240" E	22° 47' 50.031" N
21.	107	68° 57' 28.545" E	22° 47' 50.086" N
22.	113	68° 50' 10.854" E	22° 50' 8.218" N
23.	118	68° 45' 9.165" E	22° 52' 44.970" N
24.	119	68° 47' 50.325" E	22° 52' 18.144" N
25.	120	68° 49' 51.998" E	22° 51' 51.283" N
26.	124	68° 45' 46.349" E	22° 55' 1.288" N
27.	125	68° 50' 27.178" E	22° 54' 20.071" N
28.	129	68° 48' 6.574" E	22° 56' 29.995" N
29.	130	68° 50' 27.026" E	22° 56' 30.153" N
30.	133	68° 46' 14.992" E	22° 58' 31.570" N
31.	134	68° 48' 6.385" E	22° 58' 40.077" N
32.	135	68° 50' 26.874" E	22° 58' 40.235" N

Note: Actual geo-graphical surface coordinates of exploratory & appraisal well locations will be within 4000 m radius of the proposed (tentative) coordinates.

 # Brief Note of Product Profile:

1. No. of Manufacturing Plants: Exploratory/ appraisal drilling of 32 nos. of wells.
2. Brief Note regarding number of Products to be manufactured considering plant capacity: Exploratory/ appraisal drilling of 32 nos. of wells.

Apex Co-ordinates of Block GK-OSHP-2017/1 boundary

Apex Points	Longitude (E)	Latitude (N)
1	69 0'	22 10'
2	68 45'	22 10'
3	68 45	22 11'
4	68 44'	22 11'
5	68 44'	22 12'
6	68 38'	22 12'
7	68 38'	22 13'
8	68 37'	22 13'
9	68 37'	22 19'
10	68 49'	22 19'
11	68 49'	22 36'
12	68 34'	22 36'
13	68 34'	22 54'
14	68 45'	22 54'
15	68 45'	23 0'
16	69 0'	23 0'

The project activity is covered in 1(b) and is of 'B' Category. Since, the project falls in B2 category as per the MoEF&CC's amendment EIA Notification vide S.O. 236(E) dated 16.01.2020, the public consultation is not required as per paragraph 7(i) (III) (i) (e) of the Environment Impact Assessment Notification-2006.

The SEAC, Gujarat vide their letter dated **26/03/2024** had recommended to the SEIAA, Gujarat, to grant the Environment & CRZ Clearance for the above-mentioned project based on its meeting held on **04/03/2024.** The GCZMA had also vide their letter dated **07/10/2023** had recommended to the SEIAA, Gujarat, to grant the CRZ Clearance for the above-mentioned project based on its meeting held on **03/06/2023.** The proposal was considered by SEIAA, Gujarat in its meeting held on **09/04/2024** at Gandhinagar. After careful consideration, the SEIAA hereby accords Environmental & CRZ Clearance to above project under the provisions of EIA Notification dated 14th September, 2006 & CRZ Notification, 2011 subject to the compliance of the following conditions.

A.CONDITIONS :

A.1SPECIFIC CONDITION :

1. **PP shall carry out exploration activities only of 32 wells of off shore area at Block GK-OSHP2017/1 of hydro carbon block in Gulf of Kutch.**
2. **Generated drilling cutting of @ 2250 Ton per well will be collected in pit, will be given treatment as per MOEF & CC provision.**
3. **Exploration activities shall not be carried out in any forest land/ protected area/ ESZ area involved, in proposed exploratory activity.**
4. **No well drill site proposed in national park, wildlife sanctuary and its eco sensitive zone.**
5. **Wastewater from drilling activities will be treated on board effluent treatment plant (ETP). Domestic wastewater will be treated in on board sewage treatment plant. Bilge water will be collected into a sludge tank and then to a water/oil separator on board drilling rig before offshore disposal with less than 15 mg/l of oil and grease content. Drilling rigs and drilling logistics will comply with the MARPOL requirements for disposal of the bilge water, sewage in to the sea.**
6. **PP shall have to take precaution during dredging operation and reduce dispersal of suspended load will be employed including scheduling dredging operation during a tidal condition so as to cause test increase suspended load and siltation.**
7. **The MODUs have onboard drill cuttings separation, washing facility, cutting drier & centrifuge and wastewater (sewage and wash water) treatment facility. The drill cuttings and spent mud will be discharged offshore complying with the MOEFCC notification on drill cutting and drilling waste disposal (GSR- 546(E)).**
8. **In drilling campaign, water based mud (WBM) and synthetic based mud (SBM) will be used. SBM shall be recycled, collected & reused in subsequent drilling operations. The WBM will be disposed off shore. The cuttings shall be washed to ensure reduction in oil content. The wastes will be discharged to sea as per MOEF&CC notifications GSR 546(E).**
9. **Used oil and other oily wastes will be brought back to onshore and disposed through authorized recyclers.**
10. **Sewage will be treated at the MODU and the sludge shall be discharged to sea as per MARPOL regulations or shall be brought to shore for disposal.**
11. **Proponent shall strictly adhere to all conditions given by GCZMA vide order no. ENV/10/2022/172/T. Cell dated 29.08.2023.**
12. The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project.
13. Drilling & testing activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No Drilling & testing activity other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. Proponent shall obtain the CRZ Clearance for their project.
14. Project proponent (PP) shall obtain separate Environmental Clearance for commercial drilling and exploration as this proposal is for drilling of Exploration activity only as per EIA Notification 2006 and amendment dated 16.01.2020 [Category B2 of activity 1(b)]
15. No drilling shall be carried out in protected areas.
16. The company shall make all arrangements at the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated waste water shall confirm to CPCB/GPCB standards.
17. Drill cuttings separated from drilling fluid shall be adequately washed and disposed according to HWMH rule, 2016. No effluent /drilling mud /drill cutting shall be discharged /disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR. 546 dated 30 the August ,2005
18. Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
19. After completion of drilling activities, in case of non-availability of hydrocarbons the site shall be restored back to its normal condition as per the prevailing Rules/Guidelines/Site restoration policy.
20. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
21. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
22. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.

23. The company shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
24. Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures and measures to be taken for protection. One set of environment manual shall be made available at the drilling site /project site. Awareness shall be created at each level of management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
25. Safety & Health:
    a. PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
    b. PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
    c. The consequence arising out of incidents such as Well Blow Out, Fire, Explosion, Natural Calamities etc. shall be accurately predicted with the help of latest technique available by various Risk Analysis Studies and unit shall submit Disaster Management Plan (DMP) to the concern authority based on such probable scenarios.
    d. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
    e. First Aid Box shall be made readily available in the unit.
    f. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken on regular basis as per Factories Act & Rules.
    g. The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed.
    h. Blow out preventer system shall be installed to prevent well blowouts during drilling operations.
    i. Emergency response plan shall be based on the guidance prepared by OISD, DGMs and Govt. of India.

A.2 WATER :

26. Total water requirement for the project shall not exceed 80.00KLD. No reuse of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 80.00KLD and it shall be met vessels from the nearest port and will be stored in onboard water storage tanks. Prior permission from concerned authority for withdrawal of water shall be obtained.
27. The industrial effluent generation from the project shall not exceed 50 KLD.
28. Management of Industrial effluent shall be as under:
29. 40 KLD effluent from Drilling Operation shall be treated in On-board ETP and 10 KLD bilge water will be disposed into sea as per MARPOL requirement.
30. PP shall obtain prior permission for disposal of treated effluent.
31. Management of domestic effluent shall be as under:
    - 24 KLD per well domestic effluent generated during onshore drilling activities well shall be treated through On-board STP system and disposed into sea as per MARPOL requirement.
32. The unit shall provide metering facility at the On-board ETP &On-board STP and maintain records for the same.

A.3AIR:

33. Unit shall not exceed fuel consumption for Testing Flare Stack and D G Sets as mentioned below.

S. No.	Source of emission with Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel KL/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
Drilling a well						
1.	DG Set (4000 KVA)	10	HSD	18	PM10, NOx	Exhausts of diesel generators will be positioned at the adequate height to ensure dispersal of exhaust emissions; Periodic maintenance of DG sets.
2.	DG Set (4000 KVA)	10	HSD		PM10, NOx	
3.	DG Set (4000 KVA)	10	HSD		PM10, NOx	
4.	DG Set (4000 KVA)	10	HSD		PM10, NOx	
5.	DG Set (500 KVA)	6	HSD	6	PM10, NOx	
6.	Testing Flare Stack	30	Natural gas	--	PM10, NOx, SO2	Engineering controls to ensure complete combustion of gas; No cold venting. Flaring will be done with combustion efficient elevated flare tip; and Location of flare stacks to be chosen considering the sensitive receptors adjoining the site.

34. Unit shall provide adequate APCM with flue gas generation sources to achieve the norms prescribed by GPCB.
35. There shall be no process gas emission from drilling & exploration activities and other ancillary operations.
36. The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards

prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety& Health). Following indicative guidelines shall also be followed to reduce the fugitive emission.

- Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
- Air borne dust shall be controlled with water sprinklers at suitable locations in the plant.
- A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.

37. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.
38. Regular monitoring of ground level concentration of PM10, PM2.5, SO2, NOx and VOCs shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.

A.4 SOLID / HAZARDOUS WASTE:

39. All the hazardous/ solid waste management shall be taken care as mentioned below.

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)	Management of HW
Hazardous Waste Generated during Drilling Phase					
1	Drill Cuttings excluding those from water base mud	Drilling	Sch-I Cat. 2.1	1500 tons/well	Disposal into sea as per G.S.R.546 (E).
2	Sludge containing oil	Drilling	Sch-I Cat 2.2	500 tons/well	Disposal as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
3	Drilling mud containing oil	Drilling	Sch-I Cat 2.3	500 tons/well	Disposal as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
4	Used oil or Spent oil	Drilling	Sch-I Cat 5.1	2 tons/well	Will be stored in barrels for disposal onshore through GPCB approved authorize recyclers.

NON-HAZARDOUS WASTE MANAGEMENT MATRIX

Sr. no.	Type/Name of non-hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of HW
1	Drill cuttings associated with WBM (Water Base Mud)	--	750 tons/well	WBM drill cuttings will be intermittently disposed offshore at a rate of 50 bbl/hour as per G.S.R.546 (E).
2	Spent WBM	--	500 tons/ well	WBM drill cuttings will be intermittently disposed offshore at a rate of 50 bbl/hour as per G.S.R.546 (E).
3	Food waste	--	30 kg/well	Food wastes will be macerated to less than 25 mm size and discharged offshore, as per the requirements of MARPOL Convention.
4	Non-combustible waste containing metallic residues, glass	--	1200 kg/well	Disposal through recyclers.
5	Packaging wastes including drums, wooden pallets, plastic containers, plastic foils.	--	600 kg/ well	Disposal through recyclers.
6	Leftover chemicals and materials, scrap metal, sludges, scales, batteries, spent acids, spent lubricants, filters etc.	--	300 kg/ well	Disposal through recyclers.

7	Cement, grit, blasting and painting wastes.	--	600 kg/ well	Disposal through recyclers.

40. Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
41. Unit shall explore the possibilities for environment friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively.
42. The project proponent has to obtain membership of TSDF site & CHWIF before obtaining CTO of GPCB.
43. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

A. 5OTHER:

44. Necessary permissions as mandated under water (Prevention and control of Pollution) act, 1974 and the Air (prevention and control pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
45. The project proponent shall allocate the separate fund of Rs 720 Lakhs [Public Health : Safe drinking water supply through installation of RO plant (Capacity 1000 Liter/day) at Dumra, Aarikhana, Mod Kuba, Suthri, Sandhan, Dhuvai, Sabhrai Nani, Mojap, Bhimrana, Makanpur, Shivrajpur, Vasai, Varvala, Tobar; Environment: Sanitation facility (Community Toilet complex with four seats with Septic Tank and Soak pit) at Dumra, Aarikhana, Mod Kuba, Suthri, Sandhan, Dhuvai, Sabhrai Nani, Mojap, Bhimrana, Makanpur, Shivrajpur, Vasai, Varvala, Tobar; Renewable Energy: Household Biogas plant/Solar lighting etc at Dumra, Aarikhana, Mod Kuba, Suthri, Sandhan, Dhuvai, Sabhrai Nani, Mojap, Bhimrana, Makanpur, Shivrajpur, Vasai, Varvala, Tobar, Dwarka; Health Care: Health care/PHCs improvement in local villages at Dumra, Aarikhana, Mod Kuba, Suthri, Sandhan, Dhuvai, Sabhrai Nani, Mojap, Bhimrana, Makanpur, Shivrajpur, Vasai, Varvala, Tobar ,Dwarka and Skill Development of local Human Resource: Skill development of local people for enhancing their livelihood opportunities, etc. (Training e.g. Fitter, welders, Tailoring, electronics item repairing, electrical, masonry work, etc.) of unskilled villagers at Dumra,Aarikhana,Mod Kuba,Suthri,Sandhan,Dhuvai,Sabhrai Nani, Mojap,Bhimrana,Makanpur,Shivrajpur,Vasai,Varvala,Tobar,Dwarka] proposed under CER and it shall be part of the Environment Management Plan (EMP) as per the MoEF&CC's OM no. F. No. 22-65/2017-IA.III dated 30.09.2020. This shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to the District Collector. The monitoring report shall be posted on the website of the project proponent.
46. All the environmental protection measures and safeguards proposed in the Form-1 & PFR submitted by the project proponent and commitments made in their application shall be strictly adhered to in letter and spirit.

B.GENERAL CONDITIONS:

B.1 CONSTRUCTION PHASE:

47. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.
48. Project proponent shall ensure that surrounding environment shall not be affected due to construction activity. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.
49. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
50. First Aid Box shall be made readily available in adequate quantity at all the times.
51. The project proponent shall strictly comply with the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Act 1996 and Gujarat rules made there under and their subsequent amendments. Local bye-laws of concern authority shall be complied in letter and spirit.
52. Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.
53. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.
54. Safe disposal of waste water and municipal solid wastes generated during the construction phase shall be ensured.
55. All topsoil excavated during construction activity shall be used in horticultural / landscape development within the project site.
56. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quantity of excavated earth shall be disposed off with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighbouring communities.
57. Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete [RMC] and lead free paints in the project.
58. Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time.
59. "Wind – breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided.

Individual building within the project site shall also be provided with barricades.

60. "No uncovered vehicles carrying construction material and waste shall be permitted."
61. "No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured."
62. Roads leading to or at construction site must be paved and blacktopped (i.e. – metallic roads).
63. No excavation of soil shall be carried out without adequate dust mitigation measures in place.
64. Dust mitigation measure shall be displayed prominently at the construction site for easy public viewing.
65. Grinding and cutting of building materials in open area shall be prohibited.
66. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
67. Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site. (If applicable).

B.2 OPERATION PHASE:

B.2.1 WATER:

68. The water meter shall be installed and records of daily and monthly water consumption shall be maintained.
69. All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously strive to reduce, recycle and reuse the treated effluent.

B.2.2 AIR:

70. In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & it's APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.
71. Acoustic enclosure shall be provided to the DG sets (If applicable) to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
72. Stack/Vents (Whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission.
73. Flue gas emission & Process gas emission (If any) shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards.
74. All the reactors / vessels used in the manufacturing process shall be closed to reduce the fugitive emission.

B.2.3 HAZARDOUS/SOLID WASTE:

75. The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016, as may be amended from time to time. Authorization of the GPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes.
76. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
77. The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (Whichever is applicable)
78. Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
79. The design of the Trucks/tankers shall be such that there is no spillage during transportation
80. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
81. Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

B.2.4 SAFETY:

82. The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963
83. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
84. Main entry and exit shall be separate and clearly marked in the facility.
85. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises.
86. Storage of flammable chemicals shall be sufficiently away from the production area.
87. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
88. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
89. All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be

obtained before commencing the expansion activities.

90. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
91. Only flame proof electrical fittings shall be provided in the plant premises.
92. Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks / containers instead of one single large capacity tank / containers.
93. All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke wails shall be provided for storage tanks for Hazardous Chemicals.
94. Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.
95. Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.
96. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
97. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
98. Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
99. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
100. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
101. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.
102. Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.

B.2.5 NOISE:

103. The company shall make all arrangement for control of noise from the drilling activities.
104. The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation, hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under Environment (Protection) Act & Rules, 1986 amended from time to time.
105. Noise levels for workers shall be as per the Factories Act & Rules.

B.2.6 CLEANER PRODUCTION AND WASTE MINIMISATION:

106. The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.
107. The company shall undertake various waste minimization measures such as :
    a. Metering and control of quantities of active ingredients to minimize waste.
    b. Reuse of by-products from the process as raw materials or as raw materials substitutes.
    c. Use of automated and close filling to minimize spillages.
    d. Use of close feed system into batch reactors.
    e. Venting equipment through vapour recovery system.
    f. Use of high pressure hoses for cleaning to reduce wastewater generation.
    g. Recycling of washes to subsequent batches.
    h. Recycling of steam condensate.
    i. Sweeping / mopping of floor instead of floor washing to avoid effluent generation.
    j. Regular preventive maintenance for avoiding leakage, spillage etc.

B.2.7 GREEN BELT AND OTHER PLANTATION:

108. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.
109. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

B.3 OTHER CONDITION:

110. Project Proponent shall contribute to conservation of Great Indian Bustard by way of sponsoring shifting of overhead cables to underground, in consultation with Deputy Conservator of Forests, Kutch(west) and Forests and Envrionment Department, Sachivalaya Gandhinagar. This condition is as per the clarification given in para 3 of OM of MoEF&CC, GOI dated 25.02.2021. The expenditure of supporting above activities will be within the total outlay of CER including the other activities committed by PP.
111. Project proponent shall install all environment management systems as per the CPCB/GPCB directives regarding the effluent discharge and air emission in working condition.
112. Project proponent shall display the copy of Environment Clearance at the site prominently.
113. Project proponent shall prepare and follow regular and preventive maintenance plan. The copy of same shall be submitted to SEIAA.
114. Project Proponent will have to display the safety procedure in working area.

115. The project proponent shall obtain all required permissions for safety, health and fire from competent authorities like PESO/Fire Authority etc. and intimate SEIAA.
116. Project Proponent will intimate SEIAA/SEAC/GPCB after obtaining the membership of common facilities like CETP / TSDF / CHWIF / CMEE / Common Spray Dryer as the case may be.
117. Extra care will be taken by PP to avoid any accidental blast in boiler, reactor or any machinery in the plant.
118. Environment monitoring, training and disaster management plan should be undertaken and complied at regular interval.
119. Integrated Regional Office of MoEF&CC,Gandhinagar and GPCB will monitor all environment, safety & health norms as per the prevailing rules.
120. The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEFCC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.
121. Rain water harvesting of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface run off, pre-treatment must be done to remove suspended matter.
122. The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the Industrial Association or GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC.
123. Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision for solar water heating system shall also be provided.
124. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.
125. All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to.
126. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management.
127. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
128. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.
129. During material transfer there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
130. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
131. Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly.
132. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
133. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act,1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
134. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.
135. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
136. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
137. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
138. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

139. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
140. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
141. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
142. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.
143. The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
144. This environmental clearance is valid for seven years from the date of issue.
145. Any appeal against this environmental clearance 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.
146. Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.

B.4 COMPLIANCE OF ENVIRONMENT CLEARANCE/REPORTING/ADMINISTRATION/APPEAL:

147. Project proponent shall inform to all the concerned authorities including Municipal Corporation and District Collector and shall also give wide publicity through advertisement in minimum two local newspapers within seven days, about the Environment Clearance order accorded.
148. Project proponent shall appoint a key person in the organization who shall be responsible for compliance of above condition fully on behalf of the proponent. It will not mean that appointing a key person will exempt the project proponent from the responsibility of compliance. Any change in key person shall immediately be informed to SEIAA and all concerned authorities.
149. Designated key person shall submit six monthly compliance report to SEIAA/SEAC, MOEF&CC, GPCB and Nodal Department of the Government.
150. The Nodal Department or any authority or officer authorized by MOEF&CC/SEIAA can inspect the site of the project and all the facilities, for verification of compliances of environment clearance conditions.
151. In case of violation reported upon, the project proponent shall be responsible for all the legal actions as per Environment Protection Act, 1986 including SEIAA may cancel, withdraw or keep in abeyance, the Environment Clearance accorded.
152. Any person including the project proponent affected by this Environment Clearance order may file appeal to Honorable National Green Tribunal West Zone branch, Pune, preferably within a period of thirty days from the date of issue of Environment Clearance as prescribe under section 16 of National Green Tribunal Act 2010.
153. All complains and public grievance or representations may be addressed to SEIAA/SEAC in the email addresses (a) msseiaagj@gmail.com& (b) seacgujarat@gmail.com

(ASAV P. GADHVI)
Member Secretary

Issued to:

M/s: Vedanta Ltd. (Div: Cairn Oil & Gas) (New Name) M/s. Vedanta Transforming Elements (VTE) (Old Name), DLF Atria, Phase-2, Jacaranda Marg , DLF city, Gurgaon- 122002, Haryana

Copy to:-

1. The Secretary, SEAC, C/O. G.P.C.B. Gandhinagar - 382010.
2. The Additional Chief Secretary, Forests & Environment Department, Govt. of Gujarat, Block 14, 8th floor, Sachivalaya, Gandhinagar-382010.
3. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD -cum-Office Complex, East Arjun Nagar, New Delhi-110032
4. The Additional Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (WZ), E-5, Arera Colony, Link Road-3, Bhopal-462016, MP
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
6. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A, Gandhinagar-382010
7. Select File

Signature Not Verified
Digitally signed by: Asav P. Gadhvi
Designation: Member Secretary
Date and Time: 5/6/2024 4:16:29