



ANDHRA PRADESH POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN, A - 3, INDUSTRIAL ESTATE,
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REGD. POST WITH ACK. DUE

CONSENT ORDER FOR ESTABLISHMENT

Order No. 103/PCB/CFE/RO-TPT/HO/2007 **86**

Dt. 11.04.2007

Sub: PCB - CFE - M/s. Tummalapalle Uranium Project at Tummalapalle, Mobbuchintapalle, Bumayigaripalle, Rachakuntapalle and Kottalu villages in Kadapa District - Consent for Establishment of the Board under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.

- Ref:**
- 1) Industry's application received through SWCC on 24.7.2006
 - 2) Public hearing conducted on 10.9.2006 at MPP School premises, M.Tummalapalle Village, Vemula (M), Kadapa District.
 - 3) R.O's inspection report dt. 22.9.2006
 - 4) T.O. In dt. 30.10.2006
 - 5) Environmental Clearance dt. 21.2.2007 issued by MOE&F, GOI submitted by the industry In dt. 5.3.2007
 - 6) CFE Clearance Committee meeting held on 03.04.2007

In the reference 1st cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for establishment of both Uranium Mines & Ore processing unit to produce the following products with installed capacities as mentioned below, with a project cost of Rs. 1029.57 Crores (Plant - Rs. 645.50 crores & Mines - Rs. 384.07 crores)

Sl. No.	Products	Capacity
1.	Mining of Uranium Ore (underground captive mines) Full depth of ore body - 275 m Life of mine - 30 years.	(3000 TPD) 9 lakh TPA
	Sodium Di Uranate	256.4 TPA
	By-Product	
1.	Sodium Sulphate	29187 TPA

As per the application, the above activity is to be located at Velpula, Midipentla, Kotala, Tummalapalle, Mobbuchintapalle, Bumayigaripalle, Rachakuntapalle and Kottalu villages in Kadapa District.

The above site was inspected by the Environmental Engineer, Regional office, Teupati, A.P. Pollution Control Board on 2.8.2006 and found that the site is surrounded by

- North** : Vacant / Agricultural lands followed by Bestavani petla village located at distance of about 4 Km away.
- South** : Vacant / Agricultural lands followed by Rachakuntapalli village located at distance of about 2 Km away.
- East** : Vacant / Agricultural lands followed by Vemula village located at distance of about 3 Km away.
- West** : M.Tummalapalli village habitation.

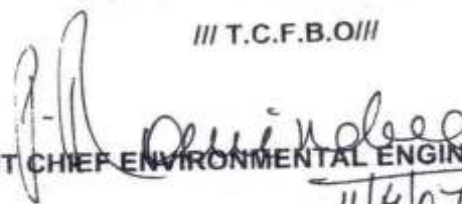
4. The Board, after careful scrutiny of the application and verification report of Regional Officer, hereby issues CONSENT FOR ESTABLISHMENT to your unit / activity Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to produce the products as mentioned at para (1) only.**
5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'
Schedule 'B'

Sd/-
MEMBER SECRETARY

To
M/s. Tummalapalle Uranium Project,
5th Floor, NMDC Building, Masab Tank.
Hyderabad – 500 028.

/// T.C.F.B.O ///


JOINT CHIEF ENVIRONMENTAL ENGINEER (CFE)
11/4/07

SCHEDULE - A

1. Progress on implementation of the project shall be reported to the Regional Office, Tirupati, A.P. Pollution Control Board once in six months.
2. Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
3. The proponent shall obtain Consents for operation from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
4. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
5. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
6. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
7. 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. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall constructed around storage of chemicals.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.
9. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public liability insurance Act, 1991 shall be followed.
10. This order is valid for period of 5 years from the date of issue.

SCHEDULE - B

Water:

1. The source of water is Chitravathi Reservoir is located at a distance of 50 km away from the proposed project area and the maximum permitted water consumption is 56-10 KLD.
2. The Effluent Treatment Plant (ETP) shall be constructed and commissioned and Air Pollution control equipment shall be installed along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution.
3. The effluents shall be treated to the on land for irrigation standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof.

4. The maximum Waste Water Generation (KLD) shall not exceed the following:

Sl. No	Source	Quantity (KLD)
a)	Ore processing	2000
b)	Tailing slurry	864
c)	Drinking & Pit Head bath	80
d)	Equipment washing	40
	Sub total	2984
e)	Town Ship	430
	Total	3514

Source of Effluent	Treatment	Mode of Final disposal
Trade effluent, Workshop and vehicle washings	ETP	Recycled in the process after necessary treatment.
Domestic & Town ship	STP	Sewage shall be treated to comply with onland for irrigation standards. The treated sewage shall be used for development of green belt

5. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
- Industrial cooling, spraying in mine pits or boiler feed.
 - Domestic purposes.
 - Processing, whereby water gets polluted and pollutants are easily bio-degradable.
 - Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

Air:

6. The proponent shall comply with the following for controlling air pollution.

Radon Gas in Mines:

The proponent shall provide proper ventilation systems to disperse and control the Radon Gas and Radon daughters. Radon Gas shall be diluted with atmospheric Air for better dispersion. Regular Maintenance of HEMM shall be done to minimize the emissions from the machinery.

7. Noise shall be controlled by providing suitable acoustic enclosures wherever required.
8. Latest techniques are to be adopted in mining the uranium ore to minimize impact on the surroundings as suggested by the Director General of Mines and Safety.

Ore Transportation from Mine:

- Only authorized transporters of hazardous material shall be engaged for driving trucks carrying the ore.
- The road from the Mine to the Plant will be routinely patrolled and the spillages, if any, shall be collected and transported to the plant immediately.

- c) To avoid spillages, it shall be ensured that transport vehicles are closed to prevent wind blowing off ore fines and spillage-proof and not overloaded.
- d) In case of any accidental overturning of trucks, emergency plans shall be implemented as follows:
 - i) The spilled ore will be stacked in one place and covered with tarpaulin.
 - ii) On information, standby trucks and loading equipment shall be sent forthwith to the accident site.
 - iii) The road will be cleared after loading the ore into the standby truck for transporting it to the plant, and accident site cleaned of the ore material.
 - iv) The overturned truck will be repaired at site if possible, otherwise, the same shall be towed to the repair shop.
 - v) All safety standards under a normal Code of Practice must be followed.
- e) The industry shall make arrangements for spraying water to control fugitive dust emissions produced during loading, unloading operations and from stacks of ore.
- f) Metal roads shall be provided from the mine site to the process plant to minimize fugitive dust emissions in transportation.
- g) The un-metalled roads, if used, shall be adequately compacted before being put into use. Periodically, water shall be sprinkled on these roads to keep them moist.
- h) The industry shall take up avenue plantation along both sides of haul roads with double row staggered plantation.
- i) The industry shall ensure preventive maintenance and stringent overhaul schedule of machinery used for both loading and unloading equipment and trucks.

10. Processing Plant:

- a) There should be no development of habitations within a distance of 2.0 km from the boundary limits of the proposed plant site to prevent any human development activity except farming. The District Collector may have to notify this with exceptions to existing agricultural operations. It is recommended that State Government should consider declaring 2 km distance around the plant as "No Development Zone". The proponent shall take necessary steps for declaring the No Development Zone.
- b) The plant shall have safe ore storage facilities with adequate enclosures to prevent any flying around of the ore. The unloading of the ore will be strictly controlled with the best available technology to prevent any escape of particulate matter. Transport of the ore from and to the Stockyard shall be by totally enclosed conveyor systems.

- c) All requisite safeguards for the ore-processing shall be provided as per AERB regulations.
- d) The proponent shall adopt the following mitigative measures to control pollution.

Details of Process Emissions:	Control Equipment
1. Process emissions generating from ore processing plant.	1. Dust extraction system consisting of suction hoods, fans & ducts followed by filtration of Air through HAPE filters for dust removal.
2. Process emissions generating during Chemicals handling.	2. Fume extraction system routed through wet scrubbers
3. Noxious emissions of diesel equipment.	3. Auxiliary ventilation system
4. Process equipment (Ball mills, rod mills, sag mills) etc.,	4. Provision of glass enclosure with separate de-dusting system for SDU production, drying and packaging areas against spreading of radio active dust.
	5. Bag filters and cyclones proposed to control process emissions.

11. The oil fired boilers of capacity – 3 x 10 TPH shall be provided with a stack of 64 m above the ground level for dispersion of gases.
12. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
13. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time. Adequate stack height shall be provided as stipulated by the CPCB.

Solid Waste:

14. The proponent shall comply with the following:

S. No.	Solid Waste generated from	Quantity (TPA)	Method of disposal
1)	Tailings	9,00,000	Tailing Pond - Once tailings pond is filled, Tailings shall be covered with a layer of soil and greenbelt shall be developed over the same
2)	Calcium Carbonate	20,200	
3)	Raw Water treatment Plant Sludge	120	
4)	Filter media	24	
5)	ETP sludge	300	
6	Total	9,20,644	

15. Tailing Disposal System:

- a) The Thickened Tailings Disposal (TTD) area shall be lined with Bentonite with minimum 500 mm layer with 250 micron of polyethylene layer with adequate protective layer of clay or sand of 250 mm. The pond shall be provided with a holding pond to collect drainage from deposit and also rainfall precipitation. The water from holding pond shall be pumped for treatment. There will no water escape from the pond.
 - b) The treated effluent shall be recycled back to the ore processing plant and mine for industrial use. The ETP sludge shall be pumped back to the tailings pond
 - c) Recognising that radon radioactivity fades at 50 m from the edge of the pond the TTD system area will have fencing around atleast 100 m from the boundary to prevent any entry of human being or animal in the area. The TTD System should also have "No Development Zone" for 1.0 km from its boundary and this may be processed as recommended for the main processing plant.
 - d) For hazardous and inflammable substance storage, there will be at least 20 m gap between storage tank and storage yard/shed.
16. The following rules and regulations notified by the MOE&F, GOI shall be implemented.
- a) Hazardous waste (Management and Handling), Rules, 1989
 - b) Manufacture, storage and import of hazardous chemicals Rules, 1989.

Other Conditions:

17. Green belt of width 50 m shall be developed along the boundary of the project. Green belt development shall be started along with the construction activity. The total area of greenbelt shall be 360 ha as indicated at page no. 6-9 of EIA /EMP report.
18. The recommendations / commitments made during the Public Hearing held on 10.9.2006 at MPP School premises, M.Tummalapalle Village, Vemula (M), Kadapa District shall explicitly be followed from pollution control point of view.
19. The Proponent has obtained Environmental Clearance from MOE&F, Govt. of India dt. 21.02.2007 for the proposed project.

Sd/-
MEMBER SECRETARY

To
M/s. Tummalapalle Uranium Project,
5th Floor, NMDC Building, Masab Tank.
Hyderabad – 500 028.

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