

BPCL DEPOT AT RADHANAGAR (BOKARO) :
PROJECT REPORT

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BPCL DEPOT AT RADHANAGAR(BOKARO) : PROJECT REPORT

PREAMBLE

The Jharkhand Region has experienced industrial growth including that of petroleum products in the recent years and the same high trend is continuing. The petroleum products registered high growth both in 2013-14 and 2014-15. In 2013-14, the growth in petrol and diesel sales was 14.50% and 17.70% respectively whereas in 2014-15 the growth in petrol and diesel sales is 19.10% & 7.10% respectively. To serve the state of Jharkhand at present, BPCL has 3 petroleum oil depots, one each at Ranchi, Tatanagar and Dhanbad.

Bharat Petroleum Corporation Ltd., a major Public Sector Oil Company under overall administrative control of the Ministry of Petroleum and Natural Gas, Govt. of India, owns a petroleum oil depot at Ranchi, located adjacent to the Ranchi Railway station on the land licensed from Railway. Bharat Petroleum Corporation Ltd. also owns an oil depot at Dhanbad located near Dhanbad Railway Station. These two depots caters to the customers in the districts of Sahebganj, Godda, Pakur, Dumka, Deighar, Giridih, Dhanbad, Bokaro, Hazaribagh, Kodarma and Chatra. The old depots are highly congested, land locked and the existing facilities are grossly inadequate with no scope for expansion and hence are unable to meet the petroleum oil requirement of the above-mentioned districts of Jharkhand.

Input to Ranchi and Dhanbad Depots are through Tank Wagons loaded mainly from Numaligarh Refinery. The Tank Wagon siding located outside the depot is age-old and wagons are placed in two placements on two spurs and takes long time for the decantation.

It is also felt that the existing depots are already stretched to more than its distribution capacity and will not be in a position to meet the enhanced demand in this region in near future. Hence, in order to serve the progressive region of Jharkhand, we are left with no option but resite the depot to a safer/provision for future expansion and most importantly to ensure uninterrupted supply of essential petroleum products.

The depot should be located near the Highway and should have a broad approach road for movement of tank lorries. Also sufficient distances should be maintained between tanks, tank lorry filling gantry and other facilities as per Petroleum Rules for safety reasons. The total land requirement of the depot is about 27 Acres.

An exhaustive survey was conducted in and around Ranchi and Dhanbad and finally we have narrowed down to the choice of about 78 Acres of Govt. land in Village: Radhanagar near Radhagoan Railway station at Bokaro as site is feasible for Railway Siding facility, it is mandatory for oil Depot.

The Depot at Radhanagar(Bokaro) will be used for storage and distribution of petroleum products i.e. petrol, diesel, kerosene, furnace oil. The major activities of the depot will be as below :

- a) Receipt of products through tank wagons and store in above ground tanks.
- b) Filling of different products in tank lorries and dispatching the same to dealers and industrial customers at above-mentioned II districts.

PROJECT AT A GLANCE

Name of the Industrial Unit : Bharat Petroleum Corporation Limited, a major Public Sector Oil Company under overall administrative control of the Ministry of Petroleum and Natural Gas, Govt. of India.

Constitution	: Board of Directors
Nature of business	:
A. Company	: Refining. Storing Distribution and Marketing of Petroleum products in India
B. Bokaro Depot	: Storing and Distribution of petroleum products.
Project Cost	: 350 Crores (Approx)
Location	: Radhanagar
Land Requirement	: 78 Acres
Power Requirement	: 50,000KW per year
Water Requirement	: 600 KL per annum
Working Hours	: 8 hours
Working Days	: 6 days / week
Commissioning Schedule	: 24 months from the date of taking over the Land

INTRODUCTION

BPCL wishes to put up a Petroleum Depot for the storage and distribution of petrol, diesel, kerosene, furnace oil and premium grade petrol and diesel for the 11 districts of Jharkhand. The depot will be situated at Bokaro, the scope of which is to resite the existing depots near Ranchi and Dhanbad Railway Stations located on Railway land.

The proposed petroleum depot will have modern high-tech facilities conforming to international standards besides complying to Oil Industry Safety Directorate standards. The depot will be provided with all modern fire-fighting facilities as per OISD standards.

Constitution :

A Public Sector Undertaking Company Registered under Companies Act, 1956, governed by a Board of Directors.

Site :

78 Acres of Govt land situated at Village Radhanagar near Radhagoan Railway station, Bokaro.

RAW MATERIAL

The proposed depot will store petrol, diesel, kerosene, furnace oil received through tank wagons. The depot once established would be in a position to cater to the demand of a wide range of essential petroleum products in the adjoining 11 districts of Jharkhand and various industries in these districts.

Manpower requirement :

The depot will be run by BPCL itself with its own staff – management, clerical and labour staff, presently working in the existing depots at Ranchi & Dhanbad who will be moved to the new depot after its commissioning. The employee strength will be as below :

Management	:	5 Nos.
Clerical	:	2 Nos.
Labour	:	3 Nos.

Power Requirement and Source

A total electrical load of 250 K V A will be sufficient for the petroleum depot.

The power supply will be obtained from Jharkhand State Electricity Board. However, back up power through diesel generator set will be provided. There is High Tension Electrical Lines of Jharkhand State Electricity Board passing close to the proposed site.

Water Requirement and Source :

The average water requirement of the depot will be 600KL per annum. The source of water supply will be from bore well which will be installed under the project.

FACILITIES TO BE SET UP

1. Land after take over would be leveled and consolidated to the required standards.
2. The entire land would be protected with a boundary wall and barbed wire fencing conforming to the guidelines of the Ministry of Home Affairs (MOHA) related to security of petroleum installation.
3. Suitable Administrative Building (25 mtrs x 10 mtrs) with modern amenities which will house the personals operating the installation and the latest equipments related to IT/communication.
4. Car/cycle shed (20 mtrs x 5 mtrs) for parking of vehicles of employees and visitors.
5. Diesel Generator room (10 mtrs x 8 mtrs) to accommodate required numbers of DG sets to meet the power requirement of 250 K V A.
6. High Tension electrical room (10 mtrs. x 10 mtrs.) for high tension. Power connection and metering from Jharkhand State Electricity Board.
7. Low Tension electrical room (10 mtrs. x 8 mtrs) for providing low tension electrical equipments.
9. Motor Control Centre (10 mtrs. x 8 mtrs.) for providing motor control equipments.
10. Engineering Store for storing various engineering materials for regular maintenance and operation of the depot.
11. Pump House (20 mtrs.x 8 mtrs) to accommodate 8 No. of pumping units for tank lorries filling.
12. Tank Lorry filling gantry with 10 No. of bays for loading 8 No. tank lorries at a time.
13. Tank Lorry filling driveway : A large area around the tank lorry filling gantry is required to be provided with RCC

driveway for the movement of tank lorries for placement and exit from tank lorry filling gantry. The large area for driveway is required for maneuvering of large tank lorries up to 20 Kilolitres capacity.

14. Bore well of capacity 4 Kilolitres per per day to meet the water requirement of the depot.
15. Control Room and Security Room (20 mtrs x 10 mtrs) to house the security personnel and employees to plan and control movement and filling of tank lorries.
16. 2 Tank Farms will accommodate 6 No. of above ground and 6 nos of Underground tanks to store different products. The tanks are 20 mtrs. in diameter with 15 mtrs height. The tanks should be constructed leaving a space of minimum 20 meters or the diameter of the tank whichever is more from the compound wall to meet the Petroleum Rules for safety reasons. An inter distance equivalent to average radius of two adjacent tanks will be maintained to meet the Petroleum Rules for safety reasons.
17. Tank Truck parking area : About 60 tank lorries will be filled every day from this depot in the next 5 years. A Tank Truck parking area will be constructed to avoid any parking of Tank Truck on the public road to avoid any congestion in the public road. Rest Room and washing facilities for about 150 tank lorries crew members will be constructed to meet the need of their amenities. A total area of 3.50 acres has been ear-marked for these facilities.
18. Fire Protection/Fighting facilities:
 - a) Fire Water Tank : 2 No. of Fire Water tanks of capacity 4500 Kiloliters each will be constructed to meet the fire fighting water requirement for 4 hours as per petroleum Rules.
 - b) A Fire Water Pump House (10 mtrs x 8 mtrs) will be constructed to install about 6 No. of diesel operated fire pumps to meet the fire water requirement of the depot.
 - c) All Petrol tanks will be provided with foam pourer.

- d) Well spread fire water network with hydrants aqua foam monitors covering all the facilities.
 - e) Various type of the fire extinguishers such as dry chemical power extinguishers of 10 KG and 75 KG capacity, CO2 fire extinguishers etc, HVLR and sprinkler system etc.
19. High capacity and efficient power pumping units which will be used for unloading, loading and blending of various products handled.
20. Future Facilities :
- a) Training Centre, duly equipped with all modern aids to impart training to our own staff, contractors workmen, tank lorry crews etc.
 - b) Laboratory facilities to test the quality of POL products.

ESTIMATED COST

Land	:	Rs. 50.00 Crore
Land Development	:	Rs. 5.00 Crore
Boundary Wall	:	Rs. 5.00 Crore
Buildings ,pumps & machinery	:	Rs. 100.00 Crore
Tanks & Pipelines	:	Rs. 50.00 crore
Electrical Works & DG Sets	:	Rs. 50.00 Crore
Fire Fighting facilities	:	Rs. 15.00 Crore
Road & Driveway	:	Rs. 10.00 Crore
Railway Siding	:	Rs. 50.0 Crore
Tank Lorry Filling Gantry (with meters)	:	Rs. 10.00 Crore
Computers & IT Equipments And Furniture	:	Rs. 5.00 Crore

TOTAL : Rs.350.00 Crore

Funding of the Project :

The total cost of the project will be approximately Rs.350 Crore which will be met from internal resources.

VOLUMES

Estimated Volumes/ products that would be handled at the time of commissioning i.e. in 2017 will be as under :

<u>Srl No.</u>	<u>P r o d u c t</u>	<u>Volume handled in KLS / annum</u>
1	Motor Spirit	100000
2	High Speed Diesel	500000
3	Premium Petrol	5000
4	Premium Diesel	15000
5	Superior Kerosene	36000
6	Furnace Oil	6000

PROJECT JUSTIFICATION FOR OIL DEPOT AT RADHANAGAR, BOKARO:BPCL

PREAMBLE :

Jharkhand is one of the most important states in Eastern Region and is known for minerals and heavy industries . The major industries in Jharkhand are TISCO, TELCO, BCCL, CCL, ECL, SAIL, IEL, NTPC (Patratu) etc.

The State contributes to about 14.78% of HSD and 12.77% of MS volumes to BPCL Eastern Region.

Our market share of HSD is 28.1% and of MS is 25.6% in the state of Jharkhand.



Bharat Petroleum Corporation Limited, a major Public Sector Oil Company (A Government of India Enterprise) under overall administrative control of the Ministry of Petroleum and Natural Gas, Govt. of India, owns petroleum oil depots at following places :

- (1) Ranchi, located adjacent to the Ranchi Railway station
- (2) Dhanbad, Near Dhanbad Railway Station

(3) Tatanagar, Near Tatanagar Railway station.

First two depots caters to the customers in the districts of Sahebganj, Godda, Pakur, Dumka, Jamtara, Deoghar, Giridih, Dhanbad, Bokaro, Hazaribagh, Kodarma, Chatra, Ranchi, Ramgarh and, Daltanganj and third depot at Tatanagar takes care of rest of the districts of Jharkhand.

NEED TO HAVE A DEPOT AT RADHANAGAR, (BOKARO)

All the above three Depots in Jharkhand are very old & small (in 1-2 acres of land) and partly compliant to OISD and MBLRC. These depots have only 4-bay Tank Lorry Filling Gantry with multi-spur Tank Wagon unloading facilities. They are fully saturated and mushroomed with population around it. Further there is no scope of expansion to meet our growing demand of petroleum products in the state. It had been planned since long to re-site these depots and we have been in search of land since then but could not find suitable piece of land. Now, as mentioned above, based on extensive search and feasibility studies conducted by RITES (a Railway PSU) and our internal teams have zeroed down to a site at Radhanagar, Bokaro, to construct a oil storage and distribution depot there.

LAND :

We being a PSU, our first priority is to construct the depot at Govt Land. Thus in order to re-site the above depots at a centrally placed location We approached DC, Bokaro and appraised him our requirement and current situation of our existing depots at Ranchi and Dhanbad and Tatanagar.

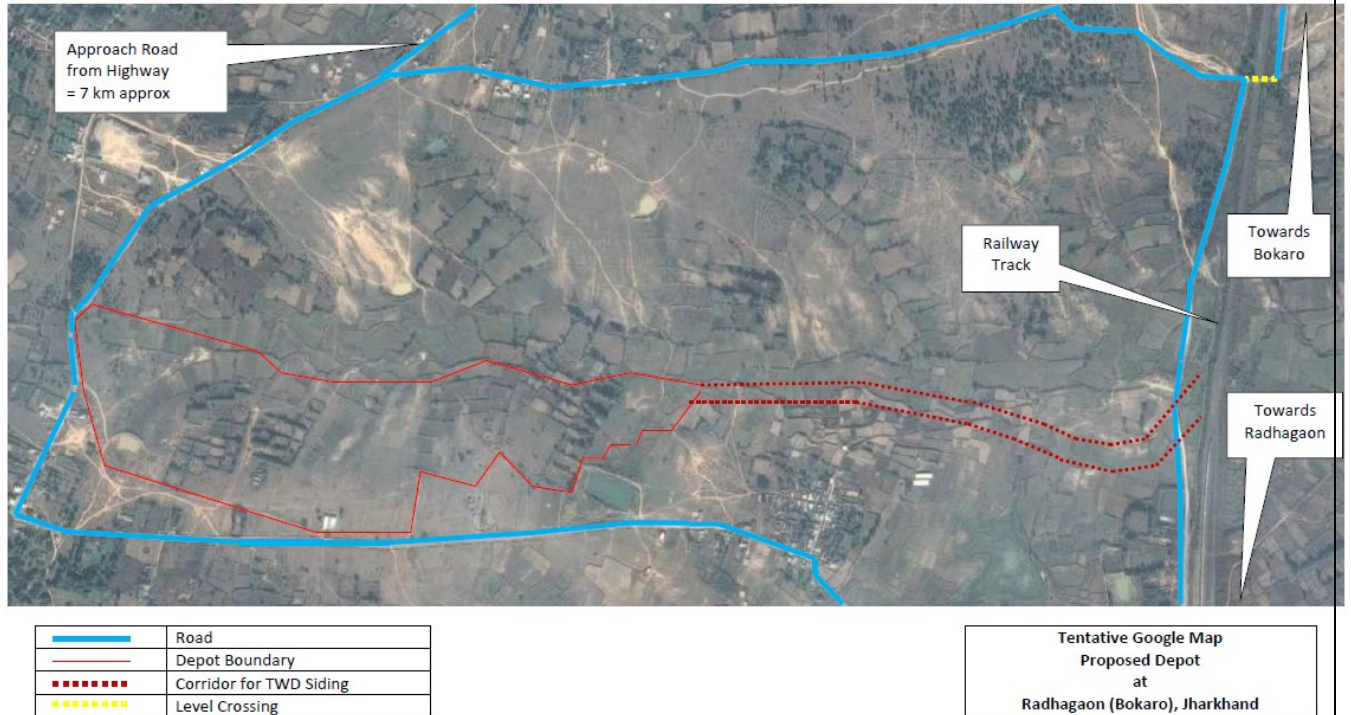
We had also applied to BIADA for allotment of land for our proposed depot just adjacent to HPCL Depot at Bokaro, However due to some administrative constrains from BIADA end, we have not been allotted land at Industrial Estate, BIADA.

He then advised us to look for Govt Land available at village Radhanagar. Subsequently we engaged M/s RITES (i.e. PSU under Ministry of Railways) for initial feasibility study on rail access to proposed oil depot land at Radhanagar. Based on their extensive study and survey they have found it feasible to lay a railway corridor to our proposed depot. In consultation with CO Chas, Forest Department Bokaro and the survey conducted by us, we have located this site in such a manner that no notified forest land is falling under this area but is falling under Govt (JJ)land.

A piece of land admeasuring 73 acre has been identified at Radhanagar, Bokaro for setting up a new depot. In order to have an OISD & MBLRC compliant depot, the land utilization shall be as under :

- 24 Acre (approx) for green belt as per EC requirement (33 % of total plot area to be developed as green belt all around).
- 44 Acre (approx) for Depot and TW Unloading Facility including future expansion.
- 5 Acre (approx) for Tank Lorry Parking area.

Sketch map of the proposed site is as under :



Bokaro being located centrally in the State of Jharkhand ,it is logistically more advantages to move our essential products like Diesel, petrol,Kerosene and other petroleum product to entire state of Jharkhand.

This site has got both rail and road connectivity wherein we can receive our products through rail and distribute the same through road network.

At no other place on this stretch we found both the road and rail linkages near the railway station from where we can get rail access. We do not have any other alternate site near railway station having road linkage as well.

Thus We had put up our formal proposal to DC,Bokaro for allotment of this Government (JJ) land of around 73 Acres of land at village Radhanagar,Thana No.36,P.S. Balidih,Anchal-Chas,Dist:Bokaro for construction of State of Art and fully automated Depot there.

APPROVALS OBTAINED:

We have received NOC from Commissioner, Hazaribag and DC, Bokaro as per FRA and FC act for 65Ac of GM Land for our depot facilities and 4.65Ac for laying of Railway corridor. We are in the process of acquiring around 4.95Ac of Private land for laying of railway siding. Details are as follows:

S.No	Rev Vill	Thana no	Khata no	Plot no	Land /Area in Ac	Total Area in Ac
					GM(JJ)	
1	Radhanagar	36/201	136	303	65.00	65.00
2	Radhanagar	36/201	154	220	3.90	3.90
3	Radhanagar	36/201	154	230	0.75	0.75
TOTAL→					69.65	69.65

Balance land is Parti Kadeem in nature , which does not fall under the per-view of forest.

In view of above, it is requested to kindly issue us **FOREST CLEARANCE / "NO OBJECTION CERTIFICATE"** for above plot details/site.

SD/...

RAMANA KUMAR DEEPALA
MEMBER INFRA(T/F)EAST.