

State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

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Letter No.-EC/SEIAA/2018-19/2105/2018/302

Ranchi, Date: 06.07.2019

To: **Sri Pranay Kumar (DGM)**
M/s Hindustan Petroleum Corporation Limited,
LPG Bottling Plant, Large Sector, AIADA
P.O. : Kandra, P.S. : Gamharia,
Distret : Jamshedpur, Saraikela-Kharsawan,
Jharkhand - 825405.

Sub: Prescribing of ToR to "LPG Bottling Plant of M/s Hindustan Petroleum Corporation Ltd. at Khata no. : 38, 55, 36, 78, 21, 64, Plot No. : 13/B at Vill.-Konra, Tehsil : Barhi, Dist. : Hazaribagh, Jharkhand" (Proposal No. : SIA/JH/IND2/35116/2019)- regarding.

Ref: Your application no. 22 dated - 22.04.2019.

Sir,

Reference is invited to your letter along with the application in the prescribed format (Form-1) and a copy of the pre-feasibility report to prescribe the ToRs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 6 (b) (Isolated storage & handling of hazardous chemicals) as per EIA notification, 2006.

Salient features of the project :

Particulars	Details
Company name	M/s Hindustan Petroleum Corporation Limited (HPCL)
New / Expansion / Modernization	New
Name of the applicant	Sri Pranay Kumar, DGM, LPG Region, Jamshedpur LPG RO.
Location	Khata no. : 38, 55, 36, 78, 21, 64, Plot No. : 13/B Barhi Industrial

[Signature]

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	Area, Vill. : Konra, Thana no. : 72, Block : Barhi, Dist. : Hazaribagh. Latitude : 24° 18' 12.86" N Longitude : 85° 26' 18.48" E.			
Total installed capacity	Construction of a new LPG bottling Plant of 120 TMTA capacity with 48 filling guns automatic electronic carousal with downstream facilities, LPG mounded bullet storage of 3x350 MT, 8 nos. of truck unloading bays and other allied facilities at Barhi, Hazaribagh.			
Land required	26 acres			
Green belt / Plantation area	8.8 acres (34% of the total plot area)			
Estimated project cost	Rs. 16150 Lacs			
Manpower requirement	Total manpower : 61			
Nearest highway	The proposed plant is 35 km away from the Hazaribagh town and well connected by road. NH-2 is adjacent to proposed plot towards SW direction. NH -33 is about 2.5 km towards SW direction.			
Nearest Railway station / Airport	Nearest railway station is Barhi about 3 km from project site. Nearest airport is Ranchi about 110 km from project site.			
Nearest major city	Barhi – 2 km away in West direction.			
Rivers in 10 km radius	Barakar river is about 5.7 km North West direction.			
Total water requirement	20 KLD water requirement will be met through Bore well.			
Total power requirement	The power requirement for plant operations is 500 KVA. Power will be drawn from the nearest substation of Jharkhand State Electricity Board. Details of D. G. sets			
	Capacity (KVA)	Number	Fuel used	Stack diameter
	500	1	HSD BS III	12

	125	1	HSD BS III	705

Basic Process Parameters

Particulars	Proposed plant
Storage capacity	3x350 MT
Volumetric Water Capacity each vessel	700 m ³
Plant layout & fire fighting system	As per OISD -144
Liquid to be handled	LPG
Density of LPG	0.5 gm/cm ³
Design code	BS 5500 (Latest edition)
Design pressure	14.5 kg/cm ² gauge at Top 1.856 kg / cm ² gauge
Radiography	100 % before and after post weld heat treatment.
Operating pressure	8-9 kg /cm ² , ambient
Hydraulic test pressure	As per code
Design temperature	-27° C to + 55° C
Corrosion allowance	1.5 mm
Wet fluorescent magnet particle testing	Required
Hardness checking of Heat Affected Zone (HAZ)	Required after PWHT
Mapping of plate thickness	Required
Joint efficiency	1
Length of pressure vessel	33000 mm (approx.)
Diameter of vessel	6000 mm
Post Weld Heat Treatment (PWHT)	Required
Wet fluorescent magnetic particle testing	Required after PWHT
Cylinder capacity to be filled	5 / 14.2 / 19 / 35 / 47.5 / 5 / 450 (kg)

145

145

145

Product receipt	By road
LPG cylinder sheds	Yes
Property land demarcation	Yes
Licensed area demarcation	Yes
No. of tank lorry unloading bays	8
Captive power generating sets	2

DFO, Hazaribagh West vide letter no. 1211, dated - 11.03.19 certified that the distance of Battery Point as shown in the map in plot no. 1531 is 256 meters from nearest PF i.e. Konra. However, plot no. 1489, 1528, 1527, 1530, 1532, 1533 & 1529 of the project site are adjoining to Konra Protected Forest at a distance of Zero (0) meters. DFO, Wildlife Hazaribagh vide letter no. 2217, dated - 12.12.18 certified that the distance of Battery Point from Notified Wildlife Sanctuary Hazaribagh is 13000 m and proposed project is not situated in any ESZ.

Application was submitted to SEIAA dated 22.04.2019 for issue of TOR for LPG Bottling plant of M/S Hindustan Petroleum Corporation Ltd at Village Konra, Block, Barhi, District Hazaribag in consonance with EIA Notification 2006.

SEAC had taken up the proposal to determine the Terms Of Reference (TOR) in their 71st meeting of SEAC held on 16th and 17th May, 2019. SEAC examined the proposal and committee did not recommend issuing TOR stating the reason that the proposed project site is adjacent to notified forest and National Highway.

The PP submitted a representation to SEIAA & request for reconsideration of their proposal. SEIAA in its 72nd meeting held on 23.05.19 returned back to SEAC for reconsideration.

In the light of above, SEAC discussed the proposal again on 12.06.19. PP was advised to submit further their clarifications on SEAC observations earlier.

A. Distance from notified forest land :

PP submit the replies as under :

- The proposed LPG Plant would not be in contravention to the provisions of the Environmental (Protection) Act 1986 since the subject Act does not prescribe any such distance from the notified Forest & National Highway from the Project site.
- As per JSPCB Notification dated 17-10-2017 regarding Siting Criteria, Industries covered under EIA Notification 2006 are exempted from JSPCB Guidelines. The Proposed LPG Bottling Plant is covered under EIA Notification 2006 and therefore the subject Siting Criteria is not applicable.
- As per JSPCB Notification dated 17-10-2017 regarding Siting Criteria, Industrial Units established in Notified Industrial Area are exempted from the Siting Criteria. The Proposed

LPG Bottling Plant is located in a Notified Industrial Area and hence, the JSPCB Guidelines are not applicable.

- iv. As per EIA Notification 2006 the proposed LPG Plant site comes under 6(b) category, under which only general condition shall apply which stipulates distance norms for industry from Protected Areas notified under Wildlife (Protection) Act, 1972 & Critically Polluted Areas as notified by CPCB & Eco Sensitive areas & Interstate and International Boundaries for treating Category B Project as a Category A Project. The Project is not close to any of the above and shall be treated as a Category B Project only. The General Condition is given below for reference. There is no reference to Notified Forests in General Condition.
- v. In the JSPCB notification on 18th October, 2017 (Ref. No B-1966) siting criteria for Isolated storage projects are also not listed as seen in (LPG Bottling plant project is not included in this list)
- vi. To refer the 59th Meeting of SEIAA held on 9.8.2018 as per which recommendation of SEAC 49th MOM dated 16th and 17th October 2017 was accepted by SEIAA as a Guideline. The recommendations of SEAC 49th MOM dated 16th and 17th October 2017 is reproduced as follows:

Quote

- SEAC has recommended minimum distance of the notified forest (RF/PF) for the new project should be 250 mtr and for the renewal of legally existing project may be kept as 100 mtr from the said project site , so the irreversible damage may not be caused to the forest , environment and wildlife dwelling within , due to mining and other industrial activities.
- Beside ,the minimum distance as proposed above , it would be expedient to enhance the said limit depending upon the severity of pollution caused by the highly polluting industries.
- Site specific and project specific condition to be imposed by SEAC/SEIAA in consonance with Prevailing guideline of JSPCB.

PP submitted that the proposed LPG Bottling Plant is not a manufacturing unit, and only storage & bottling of LPG is carried out at the plant in closed loop system without any emission or damage to environment.

Further to the above, we also wish to submit the Siting Criteria adopted by few other State PCBs for your kind reference, which is as given below:

State	Siting Criteria
Punjab	Considered distance from Sanctuaries/zoo – 500 m distance. No mention of Forest Land.
Telangana	No mention of Forest Land
West Bengal	No mention of Forest Land

Andhra Pradesh	No mention of Forest Land. However, it is mentioned that forest area only to be kept as sensitive zone and no further buffers to be created
Bihar	No mention of Forest Land

B. Distance of plant boundary from National Highway :

The proposed site is at a distance of 30 meters from NH-2 median.

In this regard, PP submitted the following :

- The Environmental (Protection) Act 1986 does not prescribe any distance from the National Highway from the Project site.
- The EIA notification 2006 (for our project category which come under 6(B) category) does not prescribe any distance norms from National Highway.
- The Jharkhand State Pollution Control Board has issued Notification no. B-15 , Ref No. B-1966 dated 18/10/2017 regarding distance of industries regarding distance of industries from NH, SH, Railway Line, River, Habitation & Forest Land (PF/RF) and Wildlife Sanctuary / National Park. The proposed LPG Bottling Plant does not fall under the industries listed in this notification.

Under the above circumstances, there is no distance norms specified for the proposed LPG Bottling Plant site.

PP would be guided by Table no. 4 mentioned in IRC 73-1980. as per which no permanent structure/building would be constructed by us within 40 meters from the median of NH except for the boundary wall for protecting our property.

PP also cited the examples of environmental Clearance, which were earlier granted for the following projects in the recent past, which are adjacent to Highways as listed.

PP has submitted the latest technology of mounded / buried bullets storage vessels to project from direct flame impingement and fire protection & fire fighting facilities and forming buffer zone on both sides is NH2 and towards forest by planting trees & protection well.

Further, PP submitted that the proposed new LPG Plant at Barhi is vital for meeting the huge LPG demand in the state of Jharkhand, and also is one of the major projects monitored at PMO level. We would like to highlight that any delay in the project will affect the completion of plant on time, and may affect the LPG supplies since the demand is going up considerably with the increased penetration of LPG in domestic households due to large scale release of LPG connections under the Prime Minister Ujjwala Yojana (PMUY) scheme.

Under the facts & circumstances explained above, submit to the committee to reconsider its decision and issue TOR and thereafter permit us to submit EIA Report without reference to the distance norms from Forest land & National Highway

SEAC deliberated on the issues raised earlier and replies submitted by the PP.

Some of the documents are very relevant like general condition application and JSPCB list of industries as well as Uttar Pradesh Govt. grant of bottling plant in 30 m distance from the NH 56 in the year 2018 as mentioned in the replies of PP.

PP has also realigned the design plan where in the bottling unit will be in safe distance from NH as well as the forest boundary.

After detailed deliberations, the SEAC prescribed following ToRs for undertaking detailed EIA/EMP study.

SEAC, Jharkhand has recommended to grant of ToRs in its 73th meeting dated 12th, 13th, & 14th June, 2019 and SEIAA, Jharkhand has approved the ToRs in its meeting held on 04th July, 2019.

The TORs prescribed for undertaking detailed EIA study are as follows:

A. STANDARD TERMS OF REFERENCE

1. Executive Summary of the project.

2. Introduction

- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent.
- iii. Importance and benefits of the project

3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities.
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion / modernization proposals.
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification

2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).
- iii. Details w.r.t. option analysis for selection of site.
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Land use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area).
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects).
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy.

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the

map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon.

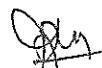
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/ MoEF & CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/ MoEF & CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environmental Management Plan:

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.



- ii. Water Quality modelling - in case of discharge in water body.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E (P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not

within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.

- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. A tabular chart with index for point wise compliance of above TOR.

B. SPECIFIC TERMS OF REFERENCE

1. Details on list of hazardous chemicals to be stored alongwith storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.







6. Risk Assessment & Disaster Management Plan.
 - Identification of hazards
 - Consequence Analysis
 - Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
 - Onsite and offsite emergency preparedness plan.

C. OTHER

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015 / 109 / 2013 – IA.II (M), dated 12.01.2017.

Sd/-

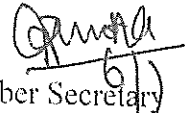
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No.-EC/SEIAA/2018-19/2105/2018/302

Dated: 06.07.2019

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
2. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.


Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.
