

## चेकलिस्ट क्र.-08 प्रोजेक्ट पर विस्तृत टीप

### INTRODUCTION: -

GAIL (India) Limited, India's principal Gas Transmission and Marketing Company, was set up by the Government of India in August 1984 to create gas sector infrastructure for sustained development of the Natural gas sector in the country. The 1800 km Hazira – Vijaipur - Jagdishpur (HVJ) pipeline became operational in 1989. During 1991-93, three LPG plants were constructed and some regional pipelines acquired, enabling GAIL to begin its regional gas distribution in various parts of India.

GAIL (India) Limited, is India's flagship Natural Gas company, integrating all aspects of the Natural Gas value chain (including Exploration & Production, Processing, Transmission, Distribution and Marketing) and its related services. In a rapidly changing scenario, GAIL is spearheading the move to a new era of clean fuel industrialization, creating a quadrilateral of green energy corridors that connect major consumption center in India with major Gas Fields, LNG terminals and other cross border gas sourcing points. GAIL is also expanding its business to become a player in the International Market.

GAIL (India) Limited, intends to develop Natural Gas Transmission & Distribution Networks in the form of Mumbai – Nagpur – Jharsuguda Pipeline. M/s. GAIL (India) Limited is planning to lay 1780 kms. (approx.) of Mumbai – Nagpur – Jharsuguda Pipeline (Mainline & Spurline). The proposed pipeline shall be of minimum 10.0 MMSCMD initial capacity (including common carrier), Bi-directional and pass through the states of Maharashtra, Chhattisgarh and Odisha while the Jabalpur pipeline will pass through Maharashtra and Madhya Pradesh. One end of this pipeline would connect to GAIL's Jagdishpur – Haldia – Bokaro – Dhamra Pipeline (JHDPL) at Jharsuguda (Dhamra Bokaro section of JHDPL) and another end at Mhaskal with GAIL's Dahej – Uran / Dabhol – Panvel Pipeline.

GAIL India owns largest Natural Gas transmission network of about 12000 kms (approx.) in the country. The existing major cross country Natural Gas Pipelines is transporting gas to the West, North, South and the East (under execution) of India. At present, there is no provision / connectivity of these pipelines to Central India except for the yet to be completed Mallavaram – Bhilwara Pipeline of M/s. GITL which would be passing through Nagpur. In order to bring this region into the National Gas Grid and to interconnect the East and West coast along with the central region, this pipeline is required. Further, the concept of National Gas Grid envisaged connectivity of Natural Gas Pipeline on Pan India basis to ensure equitable distribution of natural gas across the length and breadth of the country, which aims to remove regional imbalance fuel throughout the country. MNJPL would form the part of National Gas Grid (NGG) and connect the region of Central India to the NGG.

GAIL (India) Limited has been awarded authorization by Ministry of Petroleum and Natural Gas to lay a network of gas pipeline and associated facilities for the transportation of natural gas to

fulfill the requirement of various consumers in the states of Maharashtra, Chhattisgarh, Odisha & Madhya Pradesh. Proposed project is divided into 3 Parts. Part - A from Mumbai to Nagpur, Part - B from Nagpur to Jharsuguda with Spurline to NTPC Korba and Part-C Pipeline from Nagpur to Jabalpur.

This Part – B & C section of pipeline is passing through four states Maharashtra, Chhattisgarh, Odisha & Madhya Pradesh. The length of the pipeline from Nagpur to Jharsuguda is app. 700 km and Nagpur to Jabalpur is app. 320 km.

The proposed Nagpur – Jharsuguda & Nagpur - Jabalpur Pipeline will be laid across forest land falling along / across the ROU (Right of Use) and various utilities such as railways, national / express highways, roads, canals, rivers etc. The said pipeline shall be laid at the minimum depth of 1.2 mts. below NGL (Natural ground level).

- 1) The present proposal is for laying of underground Natural Gas Pipeline along with Optical Fiber Cable (OFC) from Nagpur to Jharsuguda (Chattisgarh section). The Nagpur - Jharsuguda natural gas pipeline, Maharashtra Section by GAIL (India) Ltd involves 15.6909 ha. of forest land and 616.7159 ha of non- forest land passing through 208 villages in Chattisgarh section. The proposed pipeline involves 05 forest divisions namely Kairagarh, Bilaspur, Korba, Janjgir Champa & Raigarh and 06 Districts namely Rajandgaon, Bloda Bazar, Bilaspur, Korba, Janjgir Champa & Raigarh.

#### Forest and Non forest area Details

| Sl. No. | Division       | Forest land involved (Ha) |        |                | Total Area (Ha.) | Non Forest Land Area (Ha.) | Grand Total (Ha.) |
|---------|----------------|---------------------------|--------|----------------|------------------|----------------------------|-------------------|
|         |                | RF                        | PF     | Revenue Forest |                  |                            |                   |
| 1       | Khairagarh     | 1.6925                    | 1.2081 | 1.8823         | 5.2033           | 161.3748                   | 166.5781          |
| 2       | Baloda Bazar   | 0                         | 0      | 0              | 0                | 101.6268                   | 101.6268          |
| 3       | Bilaspur       | 0                         | 0      | 0.0191         | 0.0191           | 77.2259                    | 77.245            |
| 4       | Korba          | 0                         | 0      | 2.0873         | 2.0873           | 21.2696                    | 23.3569           |
| 5       | Janjgir Champa | 0                         | 3.9278 | 0.8776         | 4.8054           | 130.5426                   | 135.348           |
| 6       | Raigarh        | 0.797                     | 0.1517 | 2.6271         | 3.5758           | 124.6762                   | 128.252           |
|         | Grand Total    |                           |        |                | 15.6909          | 616.7159                   | 632.4068          |

### Division / District wise Break-up

| Sl. No.     | District       | Division       | Village Details        |                                   | Length of Pipeline (mt) | Forest Area (Ha.) | Non Forest Area (Ha.) |
|-------------|----------------|----------------|------------------------|-----------------------------------|-------------------------|-------------------|-----------------------|
|             |                |                | Start Village / Tehsil | End village / Tehsil              |                         |                   |                       |
| 1           | Rajnandgaon    | Khairagarh     | Sitagota (Dongargarh)  | Temri (Rajnandgaon)               | 5203.3                  | 5.2033            | 161.3748              |
| 2           | Baloda Bazar   | Baloda Bazar   | Binauka (Simga)        | Bagbudhwa (Bhatapra)              | 0                       | 0                 | 101.6268              |
| 3           | Bilaspur       | Bilaspur       | Udantal (Bilha)        | Eramsahi (Masturi)                | 19.1                    | 0.0191            | 77.2259               |
| 4           | Korba          | Korba          | Chicholi (Kartala)     | Nawapara (Kartala)                | 2087.3                  | 2.0873            | 21.2696               |
| 5           | Janjgir Champa | Janjgir Champa | Piparsatti (Akaltara)  | Amaldiha (Sakti)                  | 4805.4                  | 4.8054            | 130.5426              |
| 6           | Raigarh        | Raigarh        | Lodhia (Kharsiya)      | Kalapahad Mountain range (Pussor) | 3575.8                  | 3.5758            | 124.6762              |
| Grand Total |                |                |                        |                                   | 15690.9                 | 15.6909           | 616.7159              |

### PROJECT OVERVIEW: -

The proposed project includes approx. 1030 km of underground natural gas pipeline network with associated facilities such as Sectionalizing Valve (SV) / Tap off / metering / receiving / dispatch / intermediate pigging / compressor stations.

As a consequence of rapid rate of industrialization in India, fuel needs are increasing at an equally rapid rate and the supply – demand gap is widening and steps must be taken to address the issue.

Overland transport of fuels by trucks is uneconomical, unsafe and is a contributor to environmental degradation in terms of pollutants released by vehicles in transit and by accidents and spillage.

Pipelines are internationally recognized as the preferred alternative for transport of fuel for safety, economy and environmental friendliness.

Natural gas is used in a variety of applications such as feed stock in fertilizer, petrochemical industry and as fuel in power generation, manufacturing steel, textile, ceramic, glass and other industrial products. As a fuel natural gas competes with alternative products such as coal, lignite

and petroleum products such as liquefied petroleum gas, naphtha, high speed diesel, light diesel oil and fuel oil. However due to lower fuel operating cost and better combustion characteristics, natural gas has distinct economic advantage over other sources of energy. In addition, natural gas has substantial environmental advantage over other energy sources due to lower emissions.

#### **NEED AND BASIS OF PIPELINE: -**

The projected demand and supply of natural gas in the states of Maharashtra, Chhattisgarh, Odisha and Madhya Pradesh are provided by the Marketing department of GAIL. The Gas demand is going to come from existing anchor industries like NTPC etc. and other demands for domestic / Industrial / Commercial / Transport sectors. This pipeline will connect various RLNG terminals like, Dhamra, Dahej, etc. to the customers in Eastern region through JHBDPL and Central region through MNJPL. Therefore it will provide connectivity to multiple sources to the enroute customers also. In view of the same, it has strategic importance and part of the National Gas Grid.

Natural gas is recognized as one of the fast growing primary energy sources and is becoming a preferred fuel of the future. It has the advantages of being a clean and eco-friendly fuel with better heat efficiency. It is widely distributed geographically in the country. The proposed project will make a turnaround in the economic face of the region in the days ahead.

#### **PROJECT IMPLEMENTATION SCHEDULE: -**

The project is expected to be completed within 3 years. Pre-project activities such as detail route survey, engineering design, obtaining ROU etc. are expected to be completed by May 2023. M/s. GAIL (India) Limited has already conducted pre-project activities like Detail Route Survey and Engineering Design till date. The further, obtaining RoU and Statutory permission activities is going on and at advance stage.

#### **PIPELINE ROUTE: -**

The tentative route of the proposed pipeline is Nagpur to Jharsuguda & Nagpur to Jabalpur. As per the DERS survey, the length of the pipeline from Nagpur to Jharsuguda is app. 700 km and Nagpur to Jabalpur is app. 320 km. The Nagpur - Jharsuguda pipeline route is proposed to pass through approximately 13 districts in the three states (3 in Maharashtra, 9 in Chhattisgarh and 1 in Odisha). The Nagpur - Jabalpur pipeline route is proposed to pass through 4 districts in the two states (1 in Maharashtra and 3 in Madhya Pradesh). The ground profile is mostly flat with a few undulations having mostly open countryside and forests in the region.

#### **JUSTIFICATION FOR ROUTE SELECTION: -**

The criteria for route selection are

- Optimum distance between source of supply and consumer location (demand points)
- Avoidance of Wild Life Sanctuaries, Reserved Forest, Mining area and Defense establishment to the best possible.
- Avoidance rocky, marshy and low-lying areas.

- Safety of people and environment.
- Easy access to route during construction and operation.

The route was selected based on least disturbance to environment, forest, human habitation and aquatic bodies. It avoids National Parks and Wild Life Sanctuaries.

The selected route is optimized considering the above factors and connectivity between supply source and consumer location.

#### **FINANCIAL & SOCIAL BENEFITS OF PROJECT**

The project will provide cleaner fuel stock for the industries and the population in the region and thus will help improve the environment considerably while inducing development.

The project would enhance employment 300 to 400 People opportunities through contractors for the local people during construction phase approximate.

Consequent development activities due to availability of natural gas in the region shall generate employment opportunities for the population and may improve their standard of life.

There will not be any adverse impact on communication and transportation.

Residential and populated areas will not be acquired for this project. Hence, there will be no displacement of population.

Transportation of natural gas by pipeline is comparatively less expensive than other modes of transport both in capital and operating cost. This will ensure that this alternative source of energy is available to the consumers at a lower cost.

An additional advantage of transporting natural gas by pipeline is that the scope of economic offenses like theft, pilferage, adulteration will be negligible and consumers will get value for money.

Place:

Date:

**M/s. GAIL (India) Limited**



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