Aegis Logistics Limited.

DEVELOPMENT of Cryogenic LPG Terminal

Haldia

Project Feasibility Report

October 2014
Amendment Record:

<table>
<thead>
<tr>
<th>Amendment</th>
<th>Inserted by (Name printed)</th>
<th>Date</th>
<th>Signature</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table of Contents

1. EXECUTIVE SUMMARY ........................................................................................................... 4
2. INTRODUCTION OF THE PROJECT ..................................................................................... 6
3. PROJECT DESCRIPTION ......................................................................................................... 7
4. SITE ANALYSIS ..................................................................................................................... 12
5. REHABILITATION AND RESETTLEMENT PLAN: ............................................................... 14
6. PROJECT SCHEDULE & COST ESTIMATES: .......................................................................... 14
7. ANALYSIS OF PROPOSAL ................................................................................................... 14
   Annexure – I – Capacity Per Annum ....................................................................................... 15
   Annexure II – Project Cost ....................................................................................................... 16
   Attachment 1 – Prior Approval letter from PESO, Nagpur ......................................................... 18
   Attachment 2 – PESO Approved Layout .................................................................................. 20
   Attachment 3 – Image of Proposed Site .................................................................................. 21
   Attachment 4 - Environmental Clearance for HDC ................................................................. 22
1. EXECUTIVE SUMMARY

Aegis Group is one of India’s leading Logistics group providing total logistics solutions for Oil, Gas and Chemicals since 1977. We are an ISO-9001 company and the only Terminal in India to have been awarded ISO-14001 and OHSAS-18001 certification.

Aegis group owns / operates India’s largest integrated bulk Liquid cum LPG Terminal in the port of Mumbai and also the largest private bulk Liquid Terminal at Kochi port, apart from a pressurized LPG Storage Terminal at Pipavav Port and a LPG Bottling / Blending Unit at Kheda, Gujarat.

The Group aims to create ‘necklace’ of similar port terminals around the coastline of India. It has firmed up plans to put up new/additional storage capacity at Pipavav, Kochi and Haldia during the next 18-24 months at an investment exceeding INR 4,000 million.

Haldia is a strategically located port and connected very well with National Highways, Rail Network and is a gateway to Eastern and North Eastern Indian Market. The area of port has low population density and does not have Natural Forests and ecologically sensitive areas. These qualities of Haldia Dock Complex the new proposed development will complement the existing Business of Aegis Group on the Eastern coast of India.

The Proposed Project will be:

The development Cryogenic Propane/Butane/LPG Terminal with allied facilities for storage, Handling and distribution and Export of products. including Product Jetty Pipelines, unloading facilities, Allied Machinery, Loading Gantries for onward Distribution by Rail, road and Sea at the existing plot of the company allotted by the Haldia Dock Complex.

Construction will be started post all the statutory clearances and will require approx. 18 Months for completion.

The Gas storage terminal will have connectivity to the Jetty through dedicated pipelines.

The storage facility will comprise of two Cryogenic Atmospheric tanks of capacity 12500 MT each, of Propane/Butane/LPG and shall be constructed as per the applicable PESO, OISD NFPA and API recommendations, with all the safety features and the Fire Fighting Facilities as per international industry standards.

The Tank lorry gantries shall be constructed for loading/unloading the Trucks for onward distribution of the products.

The Haldia Site is primarily selected because:

1. Aegis has Land availability for the tank farms construction in the haldia dock complex which is as per the existing land use planning.
2. Dedicated port pipeline corridors to Haldia port oil jetties.
3. Existing Environmental Clearance for Storage and handling of Petroleum products as per the Annexure II of CRZ Notification 2011. (Attachment 4)
4. Availability of Power, Water and Road/Rail connectivity to Eastern as well as North eastern Indian states.
5. Low Population around Port area.
6. Absence of Natural Forests and ecologically sensitive areas within the port premises. Land is not within CRZ.

7. The project is non-polluting as there is no processing or manufacturing involved. The project will bring the growth and development in the region and will generate direct and indirect employment, Revenues for Government by way of Customs duties, VAT, Sales tax and for Port by way of Lease rentals, Wharfages, Berthing Charges, thus contributing to state exchequer.

The other advantage will be availability of Cleaner fuels for Domestic, Commercial, Automotive and Industrial use which may replace the polluting solid and liquid fuels.
2. INTRODUCTION OF THE PROJECT

Identification of Project / Project Proponent:

Aegis Group is one of India’s leading Logistics group providing total logistics solutions for Oil, Gas and Chemicals. We are an ISO-9001 company and the only Terminal in India to have been awarded ISO-14001 and OHSAS-18001 certification.

Aegis Logistics Limited (ALL) is listed on BSE and NSE and has plans to develop the ‘necklace’ of similar port terminals around the coastline of India. It has firmed up plans to put up new/additional storage capacity at Pipavav, Kochi and Haldia during the next 18-24 months at an investment exceeding INR 4,000 million.

As part of this plans Aegis have acquired 100% share-holding of the entire LPG business and assets of Shell Gas (LPG) India Pvt. Ltd. in India. By virtue of this, Aegis have acquired their 2,700 MT LPG Storage Terminal at Gujarat Pipavav Port Ltd, (GPPL) Pipavav Gujarat. Since takeover of these assets, the company has gone for expansion of Terminal at Pipavav and successfully completed the expansion and commissioning of tank farms.

Aegis Logistic Limited, in their expansion plan has identified Haldia port as one of the most suitable site for the following reasons:

1. Aegis Logistics Limited already owns and operates Liquid Tank farm at Haldia dock complex.
2. Aegis Logistics Limited also has land available at Haldia to be used for construction of tank farms for petroleum product.
3. The development of this tank farm will give operational leverage to Aegis and will complement the already operational LPG Terminals on West Coast.
4. Haldia is strategically located all season port with excellent draft.
5. Haldia port has excellent liquid / gas jetties and has plan to expand the same.
6. This port is one of the nearest port for accessing the Eastern and North eastern markets and can supply the LPG to these deficient market and contribute to the national cause of promoting LPG as and eco friendly fuel.
7. The port area is a low population zone and does not have Natural forest and ecological sensitive area.

Need for Project:

The project being creation of Port support Infrastructure is very much needed for the economy, for better serviceability to end customer and to improve the primary / secondary logistic cost. The development of this project will help the industrial growth especially in Eastern and North Eastern part of India also help reducing the finished product cost.

The project creates the infrastructure to import the Eco friendly LPG, which in turn makes the fuel available for use in Domestic/Commercial/Automotive and Industrial sectors, replacing the highly polluting Solid and Liquid Fuels.

Such project will also create an environment for development in the region and create ample employment opportunities in the region directly or thru ancillary requirement for construction, operations and maintenance.
Currently the haldia port handles similar cargoes hence development of this project will create an opportunity for optimum utilization of the Port Infrastructure and contribute to the national and state exchequer.

**Import V/s Indigenous Production:**

The planned facility is mainly for import of LPG/Propane/Butane, storage of the same and distribution thereof to nearest markets/industries.

There is no manufacturing of any product involved at the proposed facilities. The import of the products will be carried out as per demand / supply gap in indigenous products.

The port and proposed facility are located in State of West Bengal, which acts as a gateway for Eastern and North eastern states, where there is deficit of LPG and the government is promoting the use of LPG in domestic as well as other sectors to minimise the impact on Environment.

Project would also be facilitating LPG Imports & handling for Public Sector Oil Companies, besides others, to cater to demand of “LPG for Domestic/Household Use” thus enabling the Public sector Oil Companies to effectively cater to the Public Distribution System/ Network of Domestic LPG, which is 89% of all LPG Consumption in India.

**Domestic / Export Markets:**

The proposed facility is mainly to cater to the requirement of Domestic market.

**Employment Generation:**

Aegis Logistics Limited has planned the terminal that will generate the direct employment of around 50-75 personal at various levels to operate the terminal in 3 shifts.

Other than the direct employment there will be huge indirect employment in terms of transportation business, associated service station, restaurant, hotels, travel agencies, maintenance contractors, suppliers etc. With the completion of this expansion, we anticipate a healthy increase in indirect employment for the local people.

**3. PROJECT DESCRIPTION**

Haldia being an all weather port & at a strategic location, with excellent connectivity to National Highways, Railways and gateway to Eastern India markets, is an ideal location for Aegis Group to develop the Tank Farm which will complement the existing presence of Aegis Group on the western Coast. This will be leveraged to serve the existing customers and also to rope in the new Markets and segments.

**Type of Project:**

Aegis proposes to develop the tank farm for Import, storage and distribution of LPG/propane and Butane. This terminal will primarily cater to import / export, storage of Propane/Butane and LPG through Haldia Oil jetties. So the proposed project has highest dependability with the existing facilities of Haldia Dock Complex.

The Proposed development will be:

Construction of Propane/Butane/LPG Cryogenic tank farm along with allied infrastructure like Jetty Lines, Pumps, compressors and Loading gantries.

There is no processing or manufacturing involved in the tank farm and hence there are no trade emissions or effluents to the environment.
ALL Development plan

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cryogenic Atmospheric tanks with double wall double containment type</td>
</tr>
<tr>
<td>2.</td>
<td>Pressurised Tanks for Condensate collection</td>
</tr>
</tbody>
</table>

The Tanks will be connected to Jetties, with Suitable Pipelines for Import/Export of Products.

The Estimated pipelines would be 2 nos. of approx. 6 Km Long of 12 “ Dia. of suitable material.

Normally the evacuation of the product from the terminal is planned by road through the licensed vehicles for the transport of LPG/propane/Butane

There is also planning for Evacuation by Railways in future by extending the railway line and creating the Rail Loading Gantry, if feasible.

Required number of Gantries with suitable pumping capacities shall be constructed for filling of Tankers within the terminal area.

The Layout shall be designed as per the recommendations of Oil Industries Safety Directorate (OISD) Standards – 144/169/150, Static and Mobile Pressure Vessels Rules and the necessary prior approvals shall be obtained from:

- Petroleum and Explosives Safety Organisation (PESO). – Attached is the prior approval from PESO for the Tank farm layout. – (Attachment 1)
- PESO Approved layout Plan is attached. (Attachment 2)
- Director, Industrial Safety & Health, West Bengal.
- Ministry of Environment & Forests.
- West Bengal Pollution Control Board.
- Port Authorities

A detailed Quantitative risk assessment (QRA) is made to assess the risk posed during the normal operations of the tank farm.

**Location Map:**
Please refer the attached Site image showing location Attachment – 3.

**Alternate Sites:**
With the type of operation and the requirement and foreshore and waterfront, it is necessary to have the site close to the port facilities.

Also since Aegis has suitable site available as allotted land by HDC, free from population, forest and other ecological sensitive area, hence no other site have been
evaluated for the purpose of above mentioned expansion and construction of new facilities.
The planned use is as per the Terms and Conditions of Allotment from HDC.

Size and Magnitude of Operation:
The proposed facilities will be for importing the Propane/Butane and LPG and distribution of the same through road/rail route.
However there are possibilities for certain export through dedicated pipeline between proposed facilities and HDC jetties.
The products proposed to be handled along with the estimated annual throughput quantities are attached as Annexure I for reference.

Project Description with Process Details:
The schematic layouts drawing for development of new facilities are given in following drawing:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Location</th>
<th>Area in M²</th>
<th>Drawing Reference No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aegis Logistics Limited, Haldia Dock Complex, Mauza Jagat Chak, Village Durachak, J.L No. 140 &amp; 138 Dist: Purba Medinipur, West Bengal</td>
<td>16265Sqm With Builtup area of 3612 Sqm</td>
<td>LAYOUT – PIP - 01</td>
</tr>
</tbody>
</table>

The construction of new facilities is mainly for importing/exporting, storage and distribution LPG/Propane/Butane.

Raw Material:
No manufacturing or processing activities are envisaged in the project, hence no raw material is required for the proposed facilities.
The project will provide the logistics solutions like imports, Storage, export and Distribution of Propane/Butane/LPG.

Resource Optimization:
In the proposed facilities the water will be required mainly for cooling tower and is estimated at the rate of 25 KL per day during regular operations. The Water shall be sourced from Haldia Dock Complex/Port Authority.
Other than the above, we plan for rain water harvesting at the proposed facility.
**Water and Power Requirement:**

**Water requirement:**
Since there is no manufacturing activity envisaged in the project, Water requirement is as follows:
- App.100 KL per Day during construction and 25 KL per day during regular operations.
- The Water shall be sourced from Haldia Dock Complex/Port Authority/Haldia Development Authority.
The Water will primarily be used for Cooling Towers and domestic use.

**Power requirement:**
Estimated Power requirement would be 2.4 MVA. The Power will be sourced from the State Power Company.

A Suitable infrastructure for Power take off from the source shall be constructed and maintained by Aegis.

**Wastes Management and Disposal:**
There is no manufacturing process envisaged in the project and hence there is no process generated waste estimated in the project.

The typical waste generated would be:
1. **Used /Spent oils from the Plant and machinery:**
   - The quantity of used oil is estimated to be 10 Litres per day. The used oil will be stored properly in Barrels in demarcated place and will be disposed off to the Authorised recycling units.

2. **Domestic effluent.**
   - The domestic effluent is estimated to be 1 KL per day and the same shall be treated within the Septic tank and soak pits. In future the domestic effluent shall be connected to municipal drainage network of HDC/HDA.

3. **Solid wastes:**
   - Metallic Waste from Tank fabrication etc. shall be disposed as ferrous scrap during the construction Phase.

**Other Environmental Aspect:**

The Air & Ground water assessment shall be done every six months or as recommended, for monitoring the quality of the same.

Noise Level shall be also monitored within the Tank farm areas every six months and the arrangements shall be made like acoustic enclosures etc to minimize the noise in DG sets/Compressor and pump rooms

The Pollution control measures of the Port shall be applied at the jetty while receiving the cargoes on jetties and the marine vessels would be subjected to the same.

The Oil Spill Response Plan is available with Aegis Group to handle the Spills and Leaks over the jetty. This shall be suitably modified to include the operations of the Aegis Logistics limited at Haldia.
The Quantitative Risk Assessment (QRA) has been completed and the report is attached. The risks from explosions, spillages, fires etc from storage, handling, of Liquifiable gases is within acceptable limits.

HAZOP studies shall be done for the entire Activities and the remedial Action Plans shall be incorporated in the Standard Operating Procedures and the Emergency Procedures.

Safety Management at Site:
Safety of the Personnel, Assets and Environment is very important and Aegis Group is committed to the same.

Aegis Logistics Limited has the Health, Safety, Security and Environment Management System (HSSE MS) with the objectives to:

- Demonstrate that HSSE management controls on a Corporate level, supported by procedures and documentation, are in place within the organization
- Assure management that major hazards are identified through the HSSE Cases and effectively managed throughout the worksites.

This HSEMS shall be suitably modified to include the proposed Expansion and a “Change Control Management” shall be applied to control the Hazards and Effects of the Proposed Expansion.

The Regular operations shall be controlled by the suitable Standard Operating Procedures (SOPs) and the Non Routine Activities in the Terminal shall be controlled by the “Permit to Work” systems. (PTW).

A scheduled Preventive Maintenance plan is available which shall be modified to include the expanded operations and thus minimizing the risks of breakdown of Plant and Machinery.

Security of the terminal is ensured by the 24 Hrs CCTV Surveillance, Security Staff and Access Control systems.

Additionally, the terminal is Located within the port Premises, which itself operates under the Level II of INTERNATIONAL SHIP & PORT FACILITY SECURITY (ISPS) CODE.

During the proposed construction the Safety of current assets shall be managed by providing approved shielding and applying the “PTW” System with 100% Supervision of ALL’s responsible officers.
4. SITE ANALYSIS

Haldia Port is located in West Bengal on the east coast of India. Approximately 140 kilometers southwest of Kolkata, it is situated at a latitude of 22° 02’ North Longitude : 88° 06’ East.

Connectivity:

Haldia being all weather port & at strategic location, with excellent connectivity to National Highways, Railways and acts as a gateway to Eastern and north eastern parts of India.

The port of Haldia acts as the guiding factor to trade and commerce of vast hinterland comprising the entire Eastern India including Bihar and Eastern Uttar Pradesh and the two land-locked Himalayan Kingdoms of Nepal and Bhutan.

The National Highway 41 (Port Connectivity) connects the port city with National Highway 6 (part of Golden Quadrilateral) at Kolaghat. From Kolaghat NH-6 connects Orissa, Jharkhand, Kharagpur, Bankura and Purulia and also Durgapur, through NH-34 to North Bengal, Bangladesh via Petrapole and Bhojadanga Land Custom Stations. A State Highway also connects Haldia with Kolaghat via Tamluk town which is the district headquarters as an alternate connectivity. Besides the major Highways the Haldia township has an extensive network of roads that serve the different parts of the city and the industrial area.

Also a 4-Lane Expressway linking Haldia to Kolkata upto Airport (via Raichak-Kukrahati) is has already become visible on the horizon. The Land acquisition for the road is nearing completion. There is a proposal to build up a 4 lane bridge connecting Raichak with Kukrahati which will improve connectivity with Kolkata and reduce the travel time from present 2 hours to 1 hours between Kolkata and Haldia.

Currently the Port has dedicated Berths for Oil and Gas Vessels and can handle the large vessels at Haldia upto 277 m long and with 10.5 mtrs draft.

Land Form / Use / Ownership:

The Port land is in possession of HDC and is not being used for any agricultural activity or farming. The existing plot is within Port Limits and is having land use of Non-Agricultural type. The land is earmarked for development of tanks and allied infrastructure for petroleum products.

The said plot of land was offered to the users under the tendering process for development of Tank farm for Petroleum Products.

The same was allotted to Aegis Logistics Limited for development of petroleum tank farm by HDC.
Existing Land Use Pattern:

The port has permitted the use of land as per the Aegis Business requirement subjected to the agreed land use for development of petroleum tank farm, including setting up tank farm infrastructure for storage of petroleum including gas storage tanks, connecting pipelines from jetty to tank farm, cargo discharging facilities at the jetty and other allied tank farm infrastructure facilities at the port required for operating its Business. The land allotted to Aegis is currently lying vacant.

The Allotted land is 16265 Sqm, as follows:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Location</th>
<th>Area in M²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aegis Logistics Limited, Haldia Dock Complex, Mauza Jagat Chak, Village Durachak, J.L No. 140 &amp; 138, Dist: Purba Medinipur, West Bengal</td>
<td>16265 Sqm</td>
</tr>
</tbody>
</table>

Soil Classification:

The Soil classification at the Haldia Port is generally Alluvial, black, reger and red terrogineous.

The detailed soil testing report is not ready but will be done prior to start of the work.

Climatic data:

Relative Humidity:
Around 45% Average.

Temperature range:
Haldia has a typical moderate climate with winter temperatures ranging from a low of around 7 degrees Celsius to a high of 22 degrees Celsius. Summers can be very hot and humid. Usual summer temperatures in May, the hottest month range from a low of 24 degrees to highs around 39 degrees.

Rainfall:
Port Haldia receives an average rainfall of
Average – 1580 mm

Wind:
Mean speed – 5.5 to 9.9 km per hour

Seismic Zone:
The port falls under the seismic Zone IV - High Damage Risk Zone.

Cyclonic Zone:
The port also falls under Very High Damage Risk zone for Wind and cyclones.

Social Infrastructure:

The other facilities available in the port and nearby areas are:
- Hospitals.
- Schools & Colleges.
• Banks.
• Transport Services run by Govt and Private operators.

With the ongoing development of the port and nearby industries the overall infrastructural growth is expected in the region.

5. REHABILITATION AND RESETTLEMENT PLAN:

The proposed development is planned within the port premises on our existing land allotted by HDC and which does not fall under population area hence the rehabilitation and resettlement not required for this project.

6. PROJECT SCHEDULE & COST ESTIMATES:

Attached as Annexure II.

7. ANALYSIS OF PROPOSAL

The Tank Farm project will be beneficial for the region in terms of financial and social benefits.

There will be revenue generation for the for the Port by way of Lease rentals, Wharfages and other Port charges for marine operations, estimated to be INR 5 Crores PA.

The revenue generation for government will be thru Imports duties, VAT, etc. estimated to be INR 80 Crores PA by way of Service tax..

By terminal Operator by way of operations the revenue is estimated to be Rs.65 Crores PA.

The project will generate employment for local people in all about 75 person, the skilled, Semi-skilled and unskilled categories.

The Tank farm operations will encourage the ancillary/supporting units in the nearby areas which will further generate indirect employment.
# Annexure – I – Capacity Per Annum

<table>
<thead>
<tr>
<th>Products</th>
<th>Handling Capacity MT/Annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane, Butane, LPG,</td>
<td>600000</td>
</tr>
</tbody>
</table>
### PROJECT HALDIA CRYOGENIC

#### Annexure II – Project Cost

**PROJECT COST:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>Existing land already leased from HDC</td>
</tr>
<tr>
<td>Storage Terminal</td>
<td>Rs. 150 crores</td>
</tr>
<tr>
<td>Time Frame</td>
<td>Estimated completion date from zero date</td>
</tr>
<tr>
<td>Expansion Work</td>
<td>18 months</td>
</tr>
<tr>
<td>IRR</td>
<td>15%-25%</td>
</tr>
</tbody>
</table>

#### MEANS OF FINANCE:

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
<th>Cost (Rs. in Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>40%</td>
<td>Rs. 60 Crores</td>
</tr>
<tr>
<td>Debt</td>
<td>60%</td>
<td>Rs. 90 Crores</td>
</tr>
<tr>
<td>Debt Instrument</td>
<td>ECB/Project Term Loan</td>
<td></td>
</tr>
<tr>
<td>Debt Tenor</td>
<td>5-7 years</td>
<td></td>
</tr>
</tbody>
</table>
# PROJECT HALDIA CRYOGENIC

## PROJECT DETAILS:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>16265 Sqm</td>
</tr>
<tr>
<td>Storage Terminal Capacity</td>
<td></td>
</tr>
<tr>
<td>LPG/Propane/Butane capacity</td>
<td>25100 MT</td>
</tr>
<tr>
<td></td>
<td>12500 MT X 2 Cryogenic Tanks</td>
</tr>
<tr>
<td></td>
<td>50 MT X 2 Pressurized Tanks.</td>
</tr>
<tr>
<td>Thru Put Expected (PA)</td>
<td>600000 MTPA</td>
</tr>
</tbody>
</table>

## ECONOMIC VIABILITY:

<table>
<thead>
<tr>
<th>New Capacity created at port for Liquefiable Gases storage</th>
<th>25100 MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated additional volumes generated at port</td>
<td>600000 MT PA</td>
</tr>
<tr>
<td>Revenues expected to be generated every year</td>
<td></td>
</tr>
<tr>
<td>By Port</td>
<td>Rs. 5 Crores</td>
</tr>
<tr>
<td>By Terminal Operator</td>
<td>Rs. 65 Crores.</td>
</tr>
<tr>
<td>By Service Tax</td>
<td>Rs. 80 Crores</td>
</tr>
<tr>
<td>By Customs towards duties</td>
<td>Public Distribution Scheme – Essential Commodity</td>
</tr>
<tr>
<td>By VAT</td>
<td>Public Distribution Scheme – Essential Commodity</td>
</tr>
</tbody>
</table>
The Approval is Granted Subject to the Following Conditions:

1. The distance between the mounted vessels to be shown.
2. The licence cryogenic vessels should have safety valve pressure setting less than 1 atmosphere, pressures should be segregated by booking.
3. Elevation plan, P & I diagram, Hazardous area classification drawing to be submitted along with other relevant documents.

Please note that the vessels shall be fabricated by an approved manufacturer as per design drawings approved by this department under stage inspection by a recognised 3rd Party Inspecting Agency.
AEGIS LOGISTICS LIMITED – HALDIA CRYOGENIC LPG TERMINAL EXPANSION PROJECT

An application for the establishment of a cryogenic LPG terminal expansion project has been submitted. The application details include:

1. **Location**: Haldia, West Bengal
2. **Application Form**: Form I (in triplicate)
3. **Technical Drawings**: P&ID drawings and fabrication drawings of each pressure vessel
4. **Certificates of Competence**:
   - Test & inspection certificates under Rule 12(2) of SMP(V)/U Rules (certificate of control) issued by recognized 3rd Party Testing Agency.
   - Safety certificates under Rule 33 (Original + 2 copies) issued by recognized competent person.
5. **Copies of Certificate**:
   - 3 copies of periodic test of vessel and safety valve under rules 18 & 19 for testing.
   - No Objection Certificate Original Under Rule 46-A of Static & Mobile pressure vessels (Unfired) Rule 1981 from District Authority along with a site plan any endorsed by him (not required for non-toxic/non-flammable gas) (Original + 2 copies)
   - Application for the establishment of a cryogenic LPG terminal expansion project.

This approval is subject to obtaining necessary permission/clearance from other authorities and due compliance.

Yours faithfully,

[Signature]

Chief Controller of Explosives

For more information regarding status, fees and other details, please visit our website [http://poio.gov.in](http://poio.gov.in)
Attachment 2 – PESO Approved Layout.
Attachment 3 – Image of Proposed Site
Sub: Environment Clearance for construction of 3rd Oil Jetty project of Haldia Dock Complex, Haldia.

The undersigned is directed to refer to Haldia Dock Complex letter No. AD/0029/96 Oil Jetty/1053 dated 30.7.1996 and letter No. M/(LCF)/415/OJ/3/Enq/Clearance/205 dated 10.11.1995 on the subject mentioned above and to say that the proposal has been considered by this Ministry from environmental angle and clearance is hereby accorded subject to strict implementation of the following safeguard measures:

(i) All construction designs/drawings relating to construction activities must have the approval of the concerned State Government Departments/Agencies. Ground water should not be tapped for construction activities as the draw of groundwater for industrial use from the CRZ area is a prohibited activity.

(ii) Adequate provision for all infrastructural facilities such as water supply, fuel, sanitation etc. must be extended for labours during the construction period in order to avoid damage to the environment.

(iii) Dredging operations, if any, should be undertaken in consultation with either the Central Water and Power Research Station, Pune or National Institute of Oceanography. Goa to ensure that dredging operations do not cause adverse impact on water quality and marine productivity in the vicinity. Dredging operation as far as possible should be kept to the minimum for avoiding any adverse impact on marine life.

(iv) Disposal sites for excavated material should be designed that the revised land use after dumping and changes in the land use pattern do not interfere with the natural drainage.

(v) To meet any emergency situation, adequate foam containers should be kept ready with supporting fire fighting system and water pipeline.
The staff posted in sensitive areas should be trained in implementation of the Crisis Management Plan already drawn by the authorities. Mock drill(s) for this purpose should be conducted on a regular basis. Provisions of Dock Safety Act and the guidelines issued by the DG, FASLIUCL, Mumbai for the safety and health of the dock workers should be followed.

For development of green buffer including mangroves wherever feasible, the authorities should start growing large nursery of multipurpose species such as Eucalyptus, Casuarina, Dalbergia, Termites etc. The norm of about 2000-2500 trees per hectare may be adopted for reching of green belt. Necessary permission may be obtained from the concerned authorities for cutting of trees, if any, for the project.

To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided to the satisfaction of Calcutta State Pollution Control Board.

Adequate noise control measure must be provided to noise level at various work places within the standard prescribed by the competent authorities. If need be, ear plugs and ear muffs should be provided to the workers in the Haldia Dock Complex area.

The quality of treated effluents, solid wastes and emissions must conform to the standards laid down by the competent authority including Central State Pollution Control Board.

An Environmental Cell should be immediately made operational with adequate laboratory facilities, equipments and a mobile van for collecting all samples. The record and the data should be submitted with proper analysis and corrective measures required, if any, for maintaining the levels within the prescribed limits to the Regional Office of the Ministry of Environment & Forests at Calcutta which shall be monitoring these conditions stipulated for according the Environment clearance. The Environmental Cell should coordinate and monitor environmental mitigate measures executed in the Haldia Dock Complex area.

Necessary leakage detection devices with early warning system must be provided at strategic locations.

Standby DG must be provided to ensure uninterrupted power supply to the pump house and the fire fighting system.
(xiv) Third party inspection should be ensured during construction and operational phases with adequate insurance cover. The project authorities should inform the Ministry about the implementation of the suggested safeguard measures and the data/report should be opened for inspection by the team which would be constituted by the Ministry, if found necessary.

(xv) Full support should be extended to the Regional Office of the Ministry of Environment & Forests at Calcutta during inspection of the project for monitoring purposes by the project proponents by furnishing full details and action plans including action taken report or mitigative measures.

(xvi) Adequate funding provisions, year-wise and item-wise, must be made for implementation of the above mentioned safeguard measures.

(xvii) No other chemical product save those mentioned in the Annex III appended to Govt. of India Notification in the Ministry of Environment & Forests, S.O. No. 494(E) dated July 8, 1997 will be allowed to handle/store in the Dock area.

(xviii) The project authorities would ensure that safety regulations and guidelines issued by Oil Safety Directorate in the Govt. of India, Ministry of Petroleum & Natural Gas are implemented.

(xix) The approval of the Chief Controller of Explosives (CCO & E) shall be obtained for operational purpose before undertaking any storage/handling activity.

2. The above sanction is for handling/storage only for those POL Products which have been mentioned in Annexure III to the Notification dated 8-7-87. As the storage of non-POL Products such as edible oil, molasses etc. cannot be permitted in the CRZ area as these do not require waterfront and foreshore facilities, therefore, the proposal for handling/storage of non-POL Products may be referred to Ministry of Environment & Forests by the Project Proponents. The information/clarification furnished by Haldia Dock Complex vide D.O. No. ADM/45/235/C/98 dated 3rd June, 1998 may be followed strictly.

3. In case of any deviation or alteration in the project including the implementation agency, a fresh reference should be made to the Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project authorities would be responsible for implementing the above suggested safeguard measures.

4. The Ministry reserves the right to revoke clearance, if the conditions stipulated as above are not implemented to the satisfaction of the Ministry.
5. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment Protection Act, 1986 and the Public Liability (Insurance) Act, 1991 along with their amendments and rules.

(A.K. Aggarwal)
Desk Officer (Ports Development)

Tel No 371 371

1. Director (IA), Ministry of Environment & Forests, Prayagaraj Bhavan, CGO Complex, New Delhi.


3. Guard File.

(A.K. AGGARWAL)
Desk Officer (Ports Development)