

# **GUIDELINES FOR ISSUING LICENSES UNDER PETROLEUM RULES, 2002**

Note:

*This SOP is only for reference and providing basic understanding. In case of any doubt or lack of clarity the provisions of the rules and conditions of the license FORM published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (i) vide notification G.S.R. 204 (E), dated the 13<sup>th</sup> March, 2002 and subsequently amended vide G.S.R 857(E) dated 1<sup>st</sup>, December 2011, G.S.R 938(E) and G.S.R 762 (E) dated 10<sup>th</sup> August 2018 shall prevail at all the times.*

## SOP for approvals / licenses issued under the Petroleum Rules, 2002

The Petroleum Rules, 2002 covers law relating to the import, transport, storage, production, refining and blending of petroleum.

1. As the Petroleum Act, 1934:-
  - a. **“Petroleum”** means any liquid hydrocarbon or mixture of hydrocarbons and any inflammable mixture (liquid, viscous or solid ) containing any liquid hydrocarbon.  
*(acetone, ethyl alcohol, methyl alcohol and wood naptha are also classified as petroleum)*
  - b. **“Flash point”** of any petroleum means the lowest temperature at which it yields a vapour which will give a momentary flash when ignited,
2. Based on flash point, petroleum is classified as follows:-
  - a. Petroleum Class ‘A’ - means petroleum having a flash point below 23 °C
  - b. Petroleum Class ‘B’ - means petroleum having a flash point of 23 °C and above but below 65 °C
  - c. Petroleum Class ‘C’ - means petroleum having a flash point of 65 °C and above but below 93 °C.
3. **‘Non-bulk storage’** means storage of petroleum in receptacle / container/tank of water capacity not exceeding 1,000 litres
4. **‘Bulk storage’** means storage of petroleum in container/tank of capacity exceeding 1,000 litres.
5. No licence needed for:-
  - a. import, transport or storage of petroleum Class ‘A’ not intended for sale if the total quantity in possession does not exceed 30 litres However, such quantity of petroleum Class ‘A’ not requiring licence shall be kept in securely stoppered receptacles of glass or stoneware of capacity not exceeding 1 litres or in receptacle of metal of capacity not exceeding 25 litres.
  - b. Petroleum Class ‘B’ (Non Bulk) in quantity not exceeding 2500 litres and in receptacle not exceeding 1000 ltrs.
  - c. Petroleum Class ‘C’ (In Bulk) in quantity not exceeding 45,000 ltr
  - d. Any petroleum which has its flash point not below 93°C
  - e. Railway Administration for the import or transport of any petroleum in its possession in its capacity as carrier.

Under the Petroleum Rules, 2002 following licenses and approvals are issued by PESO:-

<b>Sr No</b>	<b>FORM</b>	<b>Purpose</b>	<b>Licensing Authority</b>
1	XI	To carry petroleum by land on mechanically propelled vehicles	Circle / Sub Circle Offices of PESO
2	XIV	To store petroleum in tank(s) in connection with pump outfit for fuelling motor conveyances	Circle / Sub Circle Offices of PESO
3	XV	To import and store petroleum in an installation	PSU Oil Marketing Companies: Head Office  All others: Circle Offices
4	XVI	To import and store petroleum otherwise than in bulk Class A exceeding 300 litres Class B exceeding 25000 litres Class C exceeding 45000 litres Partly one class and partly two classes of petroleum	Circle Offices
5	XVIII	To decant kerosene from mechanically propelled vehicle in container	Circle Offices
6	XIX	To transport petroleum Class A or B in bulk on land for on site refueling of aircrafts, heavy vehicles, machinery, stationary equipments by a mechanically propelled vehicle	Circle / Sub Circle Offices of PESO
7	Special FORM	To import and store petroleum of any Class	Chief Controller of Explosives
8	Approval	Approval of Ex Electrical Apparatus	Head Office
9		Approval of containers for Class A or B	Head Office
10		Approval of refinery	Head Office
11		Approval / alteration of design route of pipelines transporting petroleum	Head Office
12		Approval of ports into which petroleum may be imported	Head Office
13		Approval for loading / unloading of petroleum in bulk from ship / barge	Head Office
14		Approval of workshop for fabrication of petroleum road tankers, refuellers and safety fittings	Head Office
15		Prior report for storage of petroleum Class C not exceeding 45000 litres	Circle Office
16		Recognition of competent persons / TPIA	Head Office

Following licenses are issued by authorities other than PESO:-

<b>Sr No</b>	<b>FORM</b>	<b>Purpose</b>	<b>Licensing Authority</b>
1	III	To carry petroleum in bulk by water	Any officer appointed by the Central Government

2	XII	To import and store petroleum Class A in quantity not exceeding 300 litres	District Authority
3	XIII	To import and store petroleum Class B in quantity not exceeding 25000 litres	District Authority
4		No Objection Certificate under Rule 144	District Authority

**Note:** As such there are no provisions under the Petroleum Rules, 2002 for inspection / endorsement of the premises.

**To carry petroleum by land on mechanically propelled vehicles**

**License FORM: XI** has following transactions and power is delegated as follows:

Sr No	Transaction	Delegation
1	Grant of license	Circle and Sub Circle Offices of PESO
2	Renewal of license	
3	Transfer of license	
4	Amendment of license	
5	Penal Action: Surrender / Accident Case	

Sr No	Documents required	Grant	Renewal	Transfer	Amendment	Penal Action
1	Application FORM VII PART A duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓
2	FORM VII PART B with safety fitting certificate and hydro / pneumatic test certificate	✓		✓	✓	
3	Certificate issued by fabricator	✓		✓	✓	
4	Registration Certificate of vehicle	✓	✓	✓	✓	
5	Fitness Certificate issued by RTA	✓	✓	✓	✓	
6	Type approval letter for the vehicle	✓		✓	✓	
7	Type approved drawing for the vehicle	✓		✓	✓	
8	Consent of previous owner for transfer / surrender of vehicle			✓	✓	
9	No Change letter and Declaration regarding fitness of vehicle and non involvement in police case / litigation, etc		✓			
10	Accident Report / FIR					✓

The petroleum road tankers shall conform to all the provisions of Chapter III, Part IV of the Petroleum Rules, 2002 and Third Schedule of the said Rules.

**To store petroleum in tank(s) in connection with pump outfit for fuelling motor conveyances**

**License FORM: XIV** has following transactions and power is delegated as follows:

Sr No	Transaction	Delegation
1	Prior approval / In-supersession of Prior approval	Circle and Sub Circle Offices of PESO
2	Grant of license	
3	Renewal of license	
4	Prior approval for amendment	
5	Amendment of license	
6	Transfer of license	
7	Penal Action: Surrender / Accident Case	

Sr No	Documents required	Prior approval / In-supersession of Prior approval	Grant of license	Renewal of license	Prior approval for amendment	Amendment of license	Transfer of license	Penal Action
1	Application FORM IX duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
2	Covering letter duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
3	Undertaking for legal physical possession of land as per standard format	✓	✓	✓	✓	✓	✓	
4	Undertaking for compliance of the provisions of CPCB guidelines	✓	✓		✓	✓		
5	No Objection Certificate issued under Rule 144 of these rules (applicable for change in premises dimensions also)		✓			✓		
6	Drawing drawn to scale indicating the manner in which provisions of the rules shall be complied, surrounding and all protected works within 100 meters from the edge of all the facilities which are proposed to be licensed, the position, capacity, material of construction, ground and elevation views of all storage tanks, valves, fill points, discharge points, vent pipes, dip pipes, storage and filling shed, pumps, fire fighting facilities and all other building and facilities forming part of the premises proposed to be licensed	✓	✓	✓		✓	✓	
7	Drawing with details mentioned in Sr No 4 duly colour coded: Red: Proposed to amended, yellow: proposed to be deleted and green: approved but not installed				✓			

8	Tank test certificate issued under Rule 126 of these rules		✓			✓		
7	Certificate of safety issued under Rule 130 of these rules		✓			✓	✓	
8	Surrender letter / FIR							✓
9	Any other document*							

*\*The granting officer may call for any additional document / drawing if he is of the opinion that the document / drawing is required to ensure that the provisions of the rules and conditions of license FORM are fulfilled at all the times.*

Regarding safety distance to be observed:- Refer to conditions of license FORM XIV for details.

If the officer, after scrutiny of the specification and plans and after making such enquiries as he deems fit, is satisfied that petroleum may be stored in the premises proposed to be licensed, he shall return to the applicant one copy each of specification and plan signed by him conveying his sanction subject to such conditions as he may specify.

**To import and store petroleum in an installation**

**License FORM: XV** has following transactions and power is delegated as follows:

Sr No	Transaction	Delegation
1	Prior approval / In-supersession of Prior approval	Only PSU Oil Marketing Company: Head Office. All other installations: Circle Offices of PESO
2	Grant of license	
3	Renewal of license	
4	Prior approval for amendment	
5	Amendment of license	
6	Transfer of license	
7	Renewal of license	Circle and Sub Circle Offices of PESO
	Penal Action: Surrender / Accident Case	



Sr No	Documents required	Prior approval / In-supersession of Prior approval	Grant of license	Renewal of license	Prior approval for amendment	Amendment of license	Transfer of license	Penal Action
1	Application FORM IX duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
2	Covering letter duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
3	Land documents for legal physical possession of land and Undertaking for legal physical possession of land as per standard format	✓	✓	✓	✓	✓	✓	
4	No Objection Certificate issued under Rule 144 of these rules (applicable for change in premises dimensions also)		✓			✓		
5	Drawing drawn to scale indicating the manner in which provisions of the rules shall be complied, surrounding and all protected works within 100 meters from the edge of all the facilities which are proposed to be licensed, the position, capacity, material of construction, ground and elevation views of all storage tanks, valves, fill points, discharge points, vent pipes, dip pipes, storage and filling shed, pumps, fire fighting facilities and all other building and facilities forming part of the premises proposed to be licensed	✓	✓	✓		✓	✓	
6	Drawing with details mentioned in Sr No 4 duly colour coded: Red: Proposed to amended, yellow: proposed to be deleted and green: approved but not installed				✓			
7	Tank test certificate issued under Rule 126 of		✓			✓		

	these rules							
8	Certificate of safety issued under Rule 130 of these rules		✓			✓	✓	
9	Surrender letter / FIR							✓
10	Any other document*							

*\*The granting officer may call for any additional document / drawing if he is of the opinion that the document / drawing is required to ensure that the provisions of the rules and conditions of license FORM are fulfilled at all the times.*

Regarding safety distance to be observed: - Refer to conditions of license FORM XV for details.

If the officer, after scrutiny of the specification and plans and after making such enquiries as he deems fit, is satisfied that petroleum may be stored in the premises proposed to be licensed, he shall return to the applicant one copy each of specification and plan signed by him conveying his sanction subject to such conditions as he may specify.

**To import and store petroleum otherwise than in bulk**

**Class A exceeding 300 litres**

**Class B exceeding 25000 litres**

**Class C exceeding 45000 litres**

**Partly one class and partly two classes of petroleum**

**License FORM: XVI** has following transactions and power is delegated as follows:

Sr No	Transaction	Delegation
1	Prior approval / In-supersession of Prior approval	Circle Offices of PESO
2	Grant of license	
3	Prior approval for amendment	
4	Amendment of license	
5	Transfer of license	
6	Renewal of license	Circle and Sub Circle Offices of PESO
7	Penal Action: Surrender / Accident Case	

Regarding safety distance: Refer to conditions of license FORM XVI for details.

Sr No	Documents required	Prior approval / In-supersession of Prior approval	Grant of license	Renewal of license	Prior approval for amendment	Amendment of license	Transfer of license	Penal Action
1	Application FORM IX duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
2	Covering letter duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓	✓	✓
3	Land documents for legal physical possession of land and Undertaking for legal physical possession of land as per standard format	✓	✓	✓	✓	✓	✓	
4	No Objection Certificate issued under Rule 144 of these rules (applicable for change in premises dimensions also)		✓			✓		
5	Drawing drawn to scale indicating the manner in which provisions of the rules shall be complied, surrounding and all protected works within 100 meters from the edge of all the facilities which are proposed to be licensed, the position, capacity, material of construction, ground and elevation views of storage shed, fire fighting facilities and all other building and facilities forming part of the premises proposed to be licensed	✓	✓	✓		✓	✓	
6	Drawing with details mentioned in Sr No 4 duly colour coded: Red: Proposed to amended, yellow: proposed to be deleted and green: approved but not installed				✓			
7	Surrender letter / FIR							✓
8	Any other document*							

*\*The granting officer may call for any additional document / drawing if he is of the opinion that the document / drawing is required to ensure that the provisions of the rules and conditions of license FORM are fulfilled at all the times.*

If the officer, after scrutiny of the specification and plans and after making such enquiries as he deems fit, is satisfied that petroleum may be stored in the premises proposed to be licensed, he shall return to the applicant one copy each of specification and plan signed by him conveying his sanction subject to such conditions as he may specify.

**To transport petroleum Class A or B in bulk on land for on site refueling of aircrafts, heavy vehicles, machinery, stationary equipments by a mechanically propelled vehicle**

**License FORM: XIX** has following transactions and power is delegated as follows:

Sr No	Transaction	Delegation
1	Grant of license	Circle and Sub Circle Offices of PESO
2	Renewal of license	
3	Transfer of license	
4	Amendment of license	
5	Penal Action: Surrender / Accident Case	

Sr No	Documents required	Grant	Renewal	Transfer	Amendment	Penal Action
1	Application FORM VIII PART A duly signed by applicant mentioning his name and designation below the signature	✓	✓	✓	✓	✓
2	FORM VIII PART B with safety fitting certificate and hydro / pneumatic test certificate	✓		✓	✓	
3	License Number of the premises wherein the refueller / bowser shall be filled / parked	✓		✓	✓	
4	List of machinery / vehicles which will be used refueled using refueller / bowser	✓		✓	✓	
5	Certificate issued by fabricator	✓		✓	✓	
6	Registration Certificate of vehicle	✓	✓	✓	✓	
7	Fitness Certificate issued by RTA	✓	✓	✓	✓	
8	Type approval letter for the vehicle	✓		✓	✓	
9	Type approved drawing for the vehicle	✓		✓	✓	
10	Consent of previous owner for transfer / surrender of vehicle			✓	✓	
11	No Change letter and Declaration regarding fitness of vehicle and non involvement in police case / litigation, etc		✓			

12	Accident Report / FIR					✓
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The refueller / bowser shall conform to all the provisions of Chapter III, Part IV of the Petroleum Rules, 2002 and Third Schedule of the said Rules.

**Permission to import ISO Tank Container filled with petroleum or empty ISO Tank Container**

The subject import permission shall be issued from PESO Head Office only. The import permission shall be of three types namely:-

1. Import of ISO Tank Container filled with petroleum to be unloaded in India and empty ISO Tank Container and returned back to country of origin
2. Import of empty ISO Tank Container proposed to be filled with petroleum in India and exported from India to other country.
3. Import of empty ISO Tank Container proposed to be used in India for transport of petroleum within the Indian Territory only.

**A) The transaction for import of any ISO tank container filled or intended to be filled with petroleum (Sr No 1 and 2 as mentioned above) are as follows:-**

1. Import permission
2. Penal action

Following documents shall be submitted:-

Sr No	Documents / Transaction	Import permission	Penal Action
1	Covering letter containing the purpose to import, use, etc duly signed by the applicant mentioning his name and designation below the signature	✓	
2	Application in FORM VIIA duly signed by the applicant mentioning his name and designation below the signature	✓	
3	Valid copy of license FORM XV with adequate capacity to accommodate entire contents of the ISO Tank Container	✓	
4	Valid copy of Initial inspection certificate and periodic inspection certificate (if applicable) issued by the competent agency of the country of origin	✓	
5	Fabrication drawing of the ISO Tank Container duly vetted by the competent agency of country of origin	✓	
6	Mounting drawing of the ISO Tank Container duly approved by the Chief Controller	✓	
7	Safe operating procedure for handling and transportation of ISO Tank Container from port of import to the end use location	✓	
8	Filler certificate mentioning the Serial number of the	✓	

	ISO Tank Container, Manufacturer's Serial Number, Name of the petroleum, Class of petroleum, Quantity, flash point, date of filling, last date of hydro test of ISO Tank Container, etc duly signed by the authorised representative of the filler of petroleum. The representative shall mention his name and designation below the signature		
9	Self declaration for approximate date of return of ISO Tank Container after unloading or after loading and proposed to be exported	✓	
10	FIR Report / Accident Report		✓
11	Any other document*	✓	✓

*\*the officer may call for additional document or drawing if he of the opinion that the document and drawing are required by him to ensure that the rules and conditions of license FORM are complied the same shall be submitted by the applicant.*

In case the Chief Controller or Controller is satisfied that the documents and drawings submitted by the firm are in order he shall grant import permission valid for a maximum period of three years.

**B) The transaction for import of empty ISO tank container intended to be used in India for transport of petroleum within the Indian Territory only filled (Sr No 3 as mentioned above) are as follows:-**

1. Approval of design drawing of the empty ISO Tank Container proposed to be imported in India for use in Indian Territory.
2. Approval for mounting drawing of the ISO Tank Container mounted on a vehicle or attached to a semi trailer for plying within Indian Territory.
3. Permission to transport petroleum by road within Indian Territory.
4. Penal action

Following documents shall be submitted for obtaining **approval of design drawing of the empty ISO Tank Container** proposed to be imported in India for use in Indian Territory:-

- a. Covering letter containing the purpose to import, use, etc duly signed by the applicant mentioning his name and designation below the signature.
- b. Application in FORM VIIA duly signed by the applicant mentioning his name and designation below the signature.
- c. Two copies of design drawing of the ISO Tank Container as per fabrication code showing the design details of the ISO Tank Container, its fittings and particulars of specifications of the materials used in construction thereof duly endorsed by the third party inspecting agency of the country of origin.
- d. Design calculations of the ISO Tank Container as per fabrication code duly vetted by the competent agency of the country of origin.
- e. A test and inspection report of the ISO Tank Container from the manufacturer and initial inspection certificate or periodic inspection certificate (if applicable) duly endorsed by the inspecting agency of the country of origin.



- f. List of safety fittings installed on the ISO Tank Container with their test reports valid as on date duly vetted by the competent agency of the country of origin.

Approval of design drawing shall be issued only to the importer of the ISO Tank Container.

After obtaining approval of design drawing of the empty ISO Tank Container having unique serial number and manufacturer's number, the applicant (importer of the ISO Tank Container) shall seek mounting drawing approval for the ISO Tank Container.

Following documents shall be submitted for **mounting drawing of the ISO Tank Container mounted on a vehicle or semi trailer for plying within Indian Territory:-**

- a. Covering letter containing the purpose to import, use, etc duly signed by the applicant mentioning his name and designation below the signature.
- b. Application in FORM VIIA duly signed by the applicant mentioning his name and designation below the signature.
- c. Two copies of mounting drawing of the ISO Tank Container mounted on the vehicle / semi trailer mentioning the axle load calculations, stability calculations, vehicle model details, etc duly vetted by the competent person / TPIA.
- d. A copy of fabrication drawing approval letter and drawing of ISO Tank Container mentioning the unique serial number and manufacturer's number issued by the Chief Controller of Explosives.
- e. A complete copy of ARAI report.
- f. Registration Certificate and fitness certificate of the vehicle issued by the Road Transport Authority in the name of the applicant (importer of the ISO Tank Container). In case the importer of the ISO Tank Container is not the end user / transporter he shall submit a copy of valid registered agreement between the importer of ISO Tank Container and end user / transporter.
- g. A test and inspection report of the ISO Tank Container from the manufacturer and initial inspection certificate or periodic inspection certificate (if applicable) duly endorsed by the inspecting agency of the country of origin.

In case the Chief Controller or Controller is satisfied that the documents and drawings submitted by the firm are in order he shall grant mounting drawing approval to the importer / end user or transporter as the case may be valid for a period of **one year**.

After obtaining the design drawing approval and mounting drawing approval, the importer / end user / transporter shall submit application for obtaining permission to transport petroleum in ISO Tank Container within Indian Territory.

**Prior intimation for storage of petroleum Class C not exceeding 45000 litres (Only approval)**

The subject approval has following transactions and power is delegated as follows:

Prior intimation / Prior approval:	Circle office of PESO.
Penal Action: Surrender / Accident case:	Circle and Sub Circle Office of PESO

Regarding safety distance: Refer to Chapter VI of the Petroleum Rules, 2002.

Sr No	Documents required	Prior approval	Penal Action
1	Online Application FORM duly signed by applicant mentioning his name and designation below the signature	✓	✓
2	Covering letter duly signed by applicant mentioning his name and designation below the signature	✓	✓
3	Undertaking for legal physical possession of land as per standard format	✓	
6	Drawing drawn to scale indicating the manner in which provisions of the rules shall be complied, surrounding and all protected works within 100 meters from the edge of all the facilities which are proposed to be licensed, the position, capacity, material of construction, ground and elevation views of all storage tanks, valves, fill points, discharge points, vent pipes, dip pipes, storage and filling shed, pumps, fire fighting facilities and all other building and facilities forming part of the premises proposed to be licensed	✓	
8	Surrender letter / FIR		✓
9	Any other document*		

*\*The granting officer may call for any additional document / drawing if he is of the opinion that the document / drawing is required to ensure that the provisions of the rules and conditions of license FORM are fulfilled at all the times.*

### **Recognition of Competent Persons / TPIA:-**

For details refer to Rule 130 and FORM XX for details.

The procedure for recognition of competent person / TPIA shall be as per the policy guidelines laid down by DPIIT from time to time.

The qualification and experience of Competent Person and Third Party Inspection Agency shall be as follows:

Sr No	Competency granted	Qualifications	Experience
1	Rules 8, 126 and 130	1. Degree in any branch of engineering from a recognised University or equivalent; 2. Physically fit and mentally sound for carrying out tests and examination	Minimum experience of five years in testing, fabrication or installation or inspection of petroleum tanks or operation and maintenance of petroleum storage installations.
2	PART B of Forms VII and VIII	1. Degree or Diploma in any branch of engineering from a recognised University or equivalent;	Minimum experience of five years in testing and fabrication or mounting of petroleum transport

		2. Physically fit and mentally sound for carrying out tests and examination	tanks and operation and maintenance of petroleum tank vehicles.
3	Rule 93	1. Degree in Chemical or Mechanical or Metallurgy engineering from a recognised University or equivalent; 2. Physically fit and mentally sound for carrying out tests and examination.	Minimum experience of five years in testing, fabrication or installation, maintenance of petroleum or liquefied petroleum gases or Natural Gas pipelines.”;

### **Manufacture of Safety fittings under the Petroleum Rules, 2002**

The third schedule of Petroleum Rules, 2002 provides that each compartment of the top loading petroleum road tanker used for transportation of Petroleum Class A & B should comprise of below mentioned fittings for safety of tank truck during transportation and operation.

The fittings required to be provided are as under :-

1. **Pressure Vacuum Valve** :

The purpose of this valve is to provide normal venting of the compartments of the tanker. The valve prevents development of pressure inside the compartment and at the same time also avoids development of vacuum while petroleum is being drained of. The pressure vacuum valve should have a minimum area of 3 sq.cm and is required to be covered with 2 layers of non corroding metal gauge wire and having maximum size of 11 mesh/linear cm. Further the valve is required to be designed so as not to allow the pressure not to exceed 0.21 kg/cm sq., and the vacuum not to exceed 5 cm water gauge.

2. **Emergency Vent** :

In addition to normal venting as above each compartment of the tanker is required to have a emergency vent of the fusible type with a minimum area in sq.cm equal to 8 plus 4.3 times the gross capacity of the compartment in kiloliter. The fusible part of the vent is required to fuse at a temperature not exceeding 93 °C.

3. **Emergency shut off valve** :

Each compartment of the tanker is required to be provided with an effective and reliable shutoff valve located inside the shell or in a sump forming an integral part of the shell with a secondary means of operation provided at an easily accessible position which should be removed from the discharge faucet.

4. **Fusible link** :

The operation of remotely operated valve is required to be conducted through a fusible section which will permit the shut off valve to close in case of fire. The material of this link shall be such as to fuse at the temperature not exceeding 93 °C.

5. **Spark Arrester** :

The exhaust of each tanker has to be provided with an arrester for not allowing the sparks escaping from the exhaust of the vehicle to cause ignition of hazardous vapours which may be present at the location where tanker is loading/unloading petroleum.

**PURPOSE**

The purpose of the approval is to ensure that the quality of workmanship and uniformity in design and manufacture of safety fittings.

Documents required for approval of safety fittings.

S.NO	Documents Required	Approval for Fabrication Shop of Tank Truck	Approval for Safety Fitting Manufacturing Shop
1.	Application Form with fees.	√	√
2.	Covering letter addressed to the Chief Controller of Explosives	√	√
3.	List of Machinery available with the firm.	√	√
4.	List of Manpower available with the Firm, List of Employees (Name, Education Qualification and Experience)	√	√
5.	The documentary evidence (i.e. work order/invoices, purchase orders) having carried out fabrication jobs.	√	√
6.	Work shop site plan showing the detailed Road, Highway/ Mile stone (within 100 meter radius area), location of the machineries.		
7.	Brief write up of Fabrication & Quality Control of Petroleum Tank.	√	√
8.	Certificate of DIC/MSME	√	√
9.	Copy of PAN card.	√	√
10.	GST registration certificate.	√	√
11.	Certificate of Technical Education ,Degree/Diploma Holder in Mechanical Engg.	√	√
12.	Acceptance letter of competent person.	√	√
13.	Land/plot allotment document or Rent agreement (Registered)	√	√
14.	Inspection Report from Circle/Sub Circle	√	√
15.	Test Report from NAPES and TS		√

If on the basis of above assessment and scrutiny, verification of the design drawings of the safety fittings, it is found that the firm is capable of manufacturing safety fittings. Reference is made to the Circle/sub Circle in which the fabrication unit for safety fittings is located . The Inspecting Officer of the Circle and sub-circle will visit the location and confirm the details provided by the firm regarding its infrastructure and capability. The Inspecting officer also makes his own assessment on the capability of the firm to undertake manufacture of safety fittings. Besides the above he also performs functional tests on the prototype of the safety fittings which

have been manufactured in his presence. The functional tests are to be witnessed by the Inspecting Officer. The tests performed and the set up for the same is described as under

**1. Spark arrestor :**

A spark arrestor when fitted to the exhaust of a diesel driven tank truck shall not allow escape of any spark capable of igniting a flammable mixture. The internal component with vanes shall be made of LM-6 alloy (Aluminum) A tray (30cm x 25cm) containing 11 liter of motor spirit shall be placed before the spark arrestor at a distance of 20 to 30 cm. in such a way that the exhaust is directed onto the tray. A small quantity of motor spirit shall be sprayed over the exhaust gases through a hand pump (like a Flit pump). No ignition shall occur. The tray shall be fitted with a handle for operational convenience and at least one bucket having dry sand shall be kept ready during the test, for extinguishing fire, if any.

**2. Emergency Vent (Fusible type):**

The fusible plug shall be flushed with the upper and lower surface of the opening of the vent cover and should have adequate mechanical strength. The material shall have an approved composition with the Melting Point not below 90 0 C and not above 91 °C. A simple apparatus consisting of a glass beaker with water as heating medium and an appropriate thermometer can be used for undertaking this type of test.

**3. Fusible Link :**

The material shall have composition and Melting Point as in 2 above. The link shall be tested for its mechanical strength by subjecting it a horizontal pull of at least 35 kgs. The test may be carried out by fixing the link along with an appropriate spring balance, horizontally with a wire rope similar to the one used in tank trucks and then applying tension manually. Any other arrangement using pulleys and fixed weights may also be used.

**4. Emergency Shut off valve :**

This shall be operable with convenience by pulling lever at the rear of the tank truck and shall not allow leakage of the product through it. Each valve shall be operated at least ten times and it shall open and close with ease. It shall be then subjected to water head of atleast 2.5 m. for 15 minutes. No leakage of water shall occur. A simple apparatus as shown in the enclosed sketch or any other approved arrangement may be used.

**5. P.V. Valve :**

The pressure valve shall open at a pressure or 0.21+ 0.02 kg/cm<sup>2</sup>g (16+-1.5 cm. of Hg) and the vaccum valve shall open at the vaccum of 5+-1cm. of water gauge. An apparatus as shown in the enclosed sketch can be used. Each P V valve shall be tested.

After the above tests have been carried out the Inspecting Officer shall forward his report on the capability of the firm to undertake manufacture of safety fittings and also the results of the functional tests witnessed by him. Based on these above reports and the assessment of the Approving authority the approval

for manufacture of safety fittings or otherwise is issued. The design drawings of the Safety fittings are also endorsed as a token of approval.

**SOP for bottom loading fittings shall be specified separately**

### Documents Required for Pipeline approval

S.NO	Documents Required	Laying Approval	Final Commissioning	Post Facto
1.	Application Form with fees	✓	✓	✓
2.	Covering letter addressed to the Chief Controller of Explosives	✓	✓	✓
3.	PNGRB Authorization copy	✓		✓
4.	QRA Study Reports and recommendations made in these reports.	✓	✓	✓
5.	HAZOP Study Reports and recommendations made in these reports.	✓	✓	✓
6.	Independent Safety Audit report and compliance of recommendations		✓	✓
7.	EIA Study Reports and recommendations made in these reports	✓	✓	✓
8.	Design basis indicating code, calculation of minimum wall thickness considering design pressure including surge pressure justifying selection of pipe chosen adding corrosion allowance etc.	✓	✓	✓
9.	Notification under Section 6(1)of P.M.P Act1962 regarding acquiring ROW or application for Notification under Section3(1)/6(1).	✓	✓	✓
10.	Permission/consent from authority/bodies through whose land pipeline is passing, if not covered under Notification 3(1)/6(1) P.M.P Act 1962.	✓	✓	✓
11.	Any other statutory permission /clearance	✓	✓	✓
12.	MoEF Clearance/Undertaking regarding non submission, copy of permission from SPCB/CRZ, Port NOC if Pipelines passing under notified area of Port Jetties.	✓	✓	✓
13.	Port /Jetties approval in case of pipeline passing through Port /Jetties	✓	✓	✓
14.	Hydraulic gradient of entire route of the pipeline.	✓	✓	✓
15.	If SPUR line exact location of tap off point& reference of Pipeline from which tap offistakento be indicated in the proposal	✓	✓	✓
16.	Detailed feasibility report and pipeline thickness calculation			
17.	Layout of originating stations	✓	✓	✓
18.	Layout of terminating stations	✓	✓	✓
19.	P&IDs of intermediate stations	✓	✓	✓

20.	P&IDs of originating stations	✓	✓	✓
21.	Methods of protection against corrosion with full details.	✓	✓	✓
22.	Route map in colour in a state political/TOPO map/anyothersuitable mapshowing route of pipeline passing through various villages/towns of districts of concerned states ofourcountry.	✓	✓	✓
23.	Schematic diagram of systems envisaged in the proposal clearly indicating precise site details like survey number, name Revenue Village/Taluka, District and State etc.of these stations.	✓	✓	✓
24.	Schematic diagram of systems envisaged in the proposal like location of sectionalising valves	✓	✓	✓
25.	Schematic diagram of systems envisaged in the proposal like tap off/dispatch station	✓	✓	✓
26.	Summary list of crossings in entire pipeline with crossing length, type of crossing, method of crossing etc	✓	✓	✓
27.	Typical crossing drawings.	✓	✓	✓
28.	Schedule 7	✓	✓	✓
29.	Schedule 8		✓	✓
30.	“As Built” Profile map in colour.	✓	✓	✓
31.	“As Built” Route map in colour(except red, green & yellow).Existing pipelines should be shown in different colour.	✓	✓	✓
32.	50%,75%,Thermal stabilization calculations and readings.		✓	✓
33.	Air volume calculation, hydro test evaluation, acceptance test of each section to be clearly prepared without any cutting overwriting etc.		✓	✓
34.	Chainage in Km &decimal place up to minimum of 3digits to be mentioned against each section subjected to hydro test.		✓	✓
35.	Chainage of different sections subjected for hydro test to be serially placed. Chainage of preceding &succeeding section should exactly match.		✓	✓
36.	As Built Layout of intermediate stations		✓	✓
37.	As Built Layout of originating stations		✓	✓
38.	As Built Layout of terminating stations		✓	✓
39.	As Built P&IDs of intermediate stations		✓	✓
40.	As Built P&IDs of originating stations		✓	✓
41.	As Built P&IDs of terminating stations		✓	✓
42.	Copy of license in FormXV/LS-1A, E and F in case pipeline terminates in refinery/marketing Terminal	✓	✓	✓
43.	Approved drawing		✓	✓
44.	Pipeline Integrity Management, ILI Report and Fitness for use			✓
45.	PESO offline approval			✓



46.	Inspection Report		√	√
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**A. The documents required for prior approval for Laying Pipeline.**

- (a) Schematic drawing showing length of the pipeline, location and chainage of Dispatch Terminal, Receipt Terminal, Intermediate stations, major crossings, sectionalizing valve locations etc
- (b) Route map showing the pipeline in the political or topographic map, showing location and chainage of turning points, Dispatch Terminal, Receipt Terminal, Intermediate stations, major crossings, sectionalizing valve locations etc.
- (c) Layout of Dispatch station showing hook up location
- (d) Layout of receipt station showing hook up location
- (e) Piping and instrumentation diagram
- (f) Intermediate stations layout showing pipeline
- (g) Fee of Rs 5000/-
- (h) EIA report and compliance of EIA recommendations
- (i) QRA report and compliance of QRA recommendations
- (i) HAZOP study report and compliance of HAZOP recommendations
- (k) Copy of RoW/RoU notification
- (l) Copy of permission from concerned authorities on whose land the pipeline is laid
- (m) Copy of crossing permissions
- (n) Detailed feasibility report and pipeline thickness calculation
- (o) Methodology for corrosion protection
- (p) Signed online application form
- (q) Duly filled and signed Schedule-7
- (r) PNGRB authorization copy for common carrier pipelines and CGD pipelines
- (s) Copy of permission from MoEF/SPCB/CRZ

**B. The documents required for commissioning permission for Pipeline**

- (a) As built Schematic drawing showing length of the pipeline, location and chainage of Dispatch Terminal, Receipt Terminal, Intermediate stations, major crossings, sectionalizing valve locations etc.
- (b) As Built Route map showing the pipeline in the political or topographic map, showing location and chainage of turning points, Dispatch Terminal, Receipt Terminal, Intermediate stations, major crossings, sectionalizing valve locations etc
- (c) As built Layout of Dispatch station showing hook up location
- (d) As Built layout of receipt station showing hook up location
- (e) As Built Piping and instrumentation diagram
- (f) As Built Intermediate stations layout showing pipeline
- (g) As Built profile map (h) EIA report and compliance of EIA recommendations
- (i) QRA report and compliance of EIA recommendations
- (i) HAZOP study report and compliance of EIA recommendations
- (k) Copy of RoW/RoU notification
- (l) Copy of permission from concerned authorities on whose land the pipeline is laid
- (m) copy of crossing permissions
- (n) Detailed feasibility report and pipeline thickness calculation
- (o) Methodology for corrosion protection
- (p) Signed online application form
- (q) Duly filled and signed Schedule-7
- (r) Duly filled and Signed Schedule-8
- (s) Independent Safety Audit report and compliance of recommendations
- (t) PESO inspection report

### Documents Required for Port/Jetties approval

S.NO	Documents Required	Approval	Final
1.	Application Form with fees	✓	✓
2.	Covering letter addressed to the Chief Controller of Explosives	✓	✓
3.	(a) specification and plans drawn to scale in quadruplicate, clearly indicating- (i) surroundings and all protected works within 500 metres of the unloading facilities on all sides showing therein the location, available draft, navigation channel, turning circle, route of transfer pipeline(s), (ii) mooring or berthing facilities, service platform/berth, mode of unloading , fire fighting facilities, illumination arrangements, navigational facilities, control room, spill collection/ containment arrangements etc., and (iii) piping and instrumentation diagram of the petroleum pipeline(s) at the unloading area; (b) comprehensive project report elaborating the scheme and methodology of import, safety and security features including those mentioned in (a) (i), (ii)	✓	✓
4.	QRA Study Reports and recommendations made in these reports. probable failure scenarios, LFL distances and consequent hazards and damages with damage distances and remedies recommended;	✓	✓
5.	HAZOP Study Reports and recommendations made in these reports.	✓	✓
6.	Independent Safety Audit report and compliance of recommendations		✓
7.	EIA Study Reports and recommendations made in these reports	✓	✓
8.	MoEF Clearance/ copy of permission from SPCB,CRZ, Port NOC, Clearance Ministry of Shipping or State Maritime Board, Ministry of Environment and Forests Commissioner of Customs.	✓	✓
9.	Detailed feasibility Report	✓	✓
10.	Undertaking regarding Lights fittings and other electrical equipments or apparatus suitable for such hazardous area which shall comply with the provisions of Chapter IV under Petroleum Rules 2002.	✓	✓

11.	Adequate fire fighting facilities as per OISD 156 Compliance letter	√	√
12.	Port approval by the Ministry of Shipping, Government of India, in consultation with the Chief Controller and declared as Custom's ports by the Commissioner of Customs.	√	√
13.	Any other statutory permission /clearance	√	√
14.	Inspection Report		√

**Documents Required for Fabrication Shop and Safety fittings of Petroleum Tank Truck, Refueller, Bowser**

S.NO	Documents Required	Approval for Fabrication Shop of Tank Truck	Approval for Safety Fitting Manufacturing Shop
1.	Application Form with fees.	√	√
2.	Covering letter addressed to the Chief Controller of Explosives	√	√
3.	List of Machinery available with the firm.	√	√
4.	List of Manpower available with the Firm, List of Employees (Name, Education Qualification and Experience)	√	√
5.	The documentary evidence (i.e. work order/invoices, purchase orders) having carried out fabrication jobs.	√	√
6.	Work shop site plan showing the detailed Road, Highway/ Mile stone (within 100 meter radius area), location of the machineries.		
7.	Brief write up of Fabrication & Quality Control of Petroleum Tank.	√	√
8.	Certificate of DIC/MSME	√	√
9.	Copy of PAN card.	√	√
10.	GST registration certificate.	√	√
11.	Certificate of Technical Education ,Degree/Diploma Holder in Mechanical Engg.	√	√
12.	Acceptance letter of competent person.	√	√
13.	Land/plot allotment document or Rent agreement (Registered)	√	√
14.	Inspection Report from Circle/Sub Circle	√	√
15.	Test Report from NAPES and TS		√



**Documents Required for Prototype approval of Design Drawing of Petroleum Tank Truck, Refueller, Bowser, Mobile Dispenser**

S.NO	Documents Required	Approval for Fabrication Shop of Tank Truck
1.	Application Form with fees.	√
2.	Design Drawing as per Petroleum Rules 2002, showing Make and Model of vehicle, capacity, ARAI report, Volumetric calculations, Stability calculation, Load distribution, P & ID diagram in case of refueller, Bowser and Mobile Dispenser, Description of various parts, Equipments in drawing, Safety fittings details, other details in drawing etc.	√

**Documents Required for Refinery.**

S.NO	Documents Required	Approval	Final	Prior approval for amendment	Amendment
1.	Application Form with fees	√	√	√	√
2.	Covering letter addressed to the Chief Controller of Explosives	√	√	√	√
3.	(1) Copy of the project report along with specifications and plans showing the general arrangements of tanks, stills, furnaces, electrical installations, pump houses, arrangement for drainage treatment and disposal of effluents, arrangement for fighting fire, fencing gates and all plants and buildings at the place where it is proposed to refine, crack, reform or blend petroleum (hereinafter in this chapter referred to as the refinery) has been approved by the Chief Controller.  (2) The design and layout of the various blocks/facilities/process units in new crude oil refineries shall be as per design philosophy given in OISD standard-118. This will apply to new crude oil refineries/gas processing installations approved by the Chief Controller after publication of this rule.	√	√	√	√

4.	Alterations in refinery Specifications and plans involving the general arrangements or the design of tanks, stills, furnaces, plants, pump-houses, electric installation or firefighting facilities .			√	√
5.	Permit as per OISD standard 105 issued by a competent person authorized by the occupier of the refinery.			√	√
6.	Report of crude oil refinery protected against fire by a well organized and trained fire fighting service with necessary materials and fixed, mobile and portable equipments for fighting fires in line with the OISD Standard –116.	√	√	√	√
7.	QRA Study Reports and recommendations made in these reports.	√	√	√	√
8.	HAZOP Study Reports and recommendations made in these reports.	√	√	√	√
9.	Independent Safety Audit report and compliance of recommendations	√	√	√	√
10.	EIA Study Reports and recommendations made in these reports		√		
11.	Any other statutory permission /clearance	√	√	√	√
12.	MoEF Clearance/Undertaking regarding non submission, copy of permission from SPCB/CRZ etc	√	√	√	√
13	Inspection Report		√		√

#### **Approval of Ex Electrical Apparatus:**

Requirement under Rule 102 of the Petroleum Rules, 2002 lays down that no electrical wiring shall be installed and no electric apparatus shall be used in petroleum refinery, storage installation, storage shed, service station or any other place where petroleum is refined, blended, stored, loaded / filled or unloaded unless it is approved by the Chief Controller of Explosives.

As per Rule 22 of the Gas Cylinders Rules, 2016 and Rule 31 of the Static and Mobile Pressure Vessels (Unfired) Rules, 2016 the premises for filling & storing flammable gas(es) in cylinders or storing flammable gases in pressure vessel, the Ex Electric Apparatus installed shall be of the type approved by the Chief Controller of Explosives.

The Composite CNG dispensing unit & CNG dispenser shall be of the type approved by the Chief Controller of Explosives as per Condition 1(b) and 8 of the license FORM G issued under the Gas Cylinders Rules, 2016. Auto LPG and Auto LNG dispenser shall be of the type approved by the Chief Controller of Explosives as per Rule 29 of the Static and Mobile Pressure Vessels (Unfired) Rules, 2016.



In this context for the above, electric apparatus which has to be used in an hazardous area covered under Petroleum Rules, 2002 or Gas Cylinders Rules, 2016 or Static and Mobile Pressure Vessels (Unfired) Rules, 2016 shall require approval from the Chief Controller of Explosives.

For the purpose of installation of electric apparatus, the areas have been divided into 3 categories of hazardous areas namely:

- i. Zone—0 area where inflammable gas and vapours are expected to be continuously present eg., inside the tank.
- ii. Zone—1 area where inflammable gas and vapours are expected to be present under normal operating conditions e.g., on the mouth of the vent pipe or near fill point, unloading point etc., during the operation.
- iii. Zone—2 area where inflammable gas and vapours are expected to be present under abnormal operating condition e.g., during the failure or rupture of the equipment.

The extent of the hazardous area for petroleum refinery / processing plant storage installation, storage shed and service station shall be determined as laid down in Fourth Schedule of the Petroleum Rules, 2002.

Various types of protection techniques have been developed to make these electrical equipments safe for use in hazardous areas, viz –

1. **Flameproof protection:** -In this type of protection the enclosure which houses the electric apparatus is designed in a manner that the explosion inside the enclosure due to ingress of explosive/flammable gas or vapour will not be transmitted/ communicated to outside hazardous atmosphere.
2. **Intrinsically safe :-**In this type of protection the equipment is designed in such a manner that the electrical energy which can enter explosive environment is so low or restricted in a manner that it cannot ignite a explosive gas air mixture.
3. **Pressurised protection:** -In this type of protection the pressure inside the enclosure housing the electric apparatus is maintained at a positive pressure (higher than atmospheric pressure outside enclosure) so as not to allow ingress of inflammable/explosive gas air mixture thus avoiding possibility of explosion.
4. **Encapsulated protection:** -The principle of this type of the protection is that the apparatus to be protected is submerged / potted in a suitable substance in liquid state which is then allowed to cool and form a solid block. This prevents direct contact between the electric apparatus and the explosive atmosphere.
5. **Increased safety type of protection:** - This type of protection is achieved by adopting measures in the design and manufacture of electric apparatus to ensure security against occurrence of arcs, sparks and excessive temperature. In addition to the type of protection provided the nature of explosive gas which will occur in the atmosphere around the equipment as also to be borne in mind.

6. **Non sparking or Restricted Breathing or or type:-**For achieving this type of protection, it is to be ensured that the equipment is so constructed and maintained that no incendive spark is formed in normal operation and no fault is likely to occur in equipment which can lead to ignition of explosives gas mixture
7. **Oil Immersion:** - When an electric apparatus capable of igniting explosive gas mixture is protected by immersion in mineral oil or other suitable protective liquid so that explosive gas mixture cannot come in contact with electric apparatus i.e. oil/liquid acts as a barrier between them .
8. **Powder Filling:** - A low energy spark producing equipment, if covered with a layer of appropriate thickness made of granulated material, such as quartz or solid glass particles (electrical non-conducting inorganic materials) of particle size 0.5 mm to 1 mm will prevent propagation of flame from interior of the layer to explosive atmosphere present above the surface of filling material. Such protection can even prevent flame propagation of Hydrogen-air mixture (having lowest experimental safe gap valve MESG = 0.29 mm) if granule size smaller than 1 mm & a layer thickness of 10 mm is used as filling material.

As per the Indian standards the explosive gases are classified under two broad categories viz,

Group I–Methane

Group II is sub divided into three types, viz IIA, IIB, IIC

IIA	represents Propane
IIB	represents Ethylene
IIC	represents Acetylene
IB+H <sub>2</sub>	represent Ethylene + Hydrogen

Since areas coming under the Petroleum Rules, 2002 will have presence of hydrocarbons consisting of Carbon chain of C<sub>2</sub> and above, the equipment to be used should be appropriate to IIA & IIB classification. However, if the electric apparatus is to find application in petroleum refineries where presence of hydrogen cannot be ruled out, approval under Group IIC would be required in such case.

## **PROCESS OF APPROVAL FOR ELECTRIC APPARATUS FOR USE IN HAZARDOUS AREAS**

**Most Important:-** Only those electric Apparatus / Instruments / Fittings (generally denoted by Ex Equipments) finding application / use in hazardous areas of petroleum refineries / Installations / Terminals and other licensed premises covered under Petroleum Rules, 2002 ,Gas Cylinders Rules, 2016 and SMPV(U) Rules 2016 are only be considered for approval by Chief Controller of Explosives, Nagpur.

It is also mandatory to install CCE approved electric apparatus in the licensed premises where storage, filling and dispensing of flammable gases like LPG, LNG, CNG, CBG, Hydrogen, Acetylene and other hazardous gases and chemicals are used, as mandated in respective statutory Rules.

The selection of Ex-Electrical Apparatus shall be as per equipment protection level (EPL) as defined in IS 16724:2018 / IEC 60079-14 or IEC 60079-14.

Requirement of documents for approval of —Ex Electric Apparatus is based on type i.e. whether the equipment is manufactured **indigenously** in India or **imported** in India.

**Documents required for approval for indigenously manufacturing**

1. Online application form indicating name of the firm, correspondence address, manufacturing address and details of the Ex Electric Apparatus duly signed (*name, designation of the signatory along with seal of firm*).
2. Profile of the manufacturer including documentary evidence of the company such as:
  - a. Certificate of Incorporation issued by Registrar of Companies or
  - b. FORM G issued by Registrar of Firms and Registered Partnership deed or
  - c. Declaration on non judicial stamp paper stating that the firm is a proprietorship firm duly notarized along with PAN, TAN and GST Certificate
3. Test report issued by Indian test laboratory recognized by the Chief Controller of Explosives and valid copy of BIS license (*only for Ex Electric Apparatus having flameproof type protection*) or IECEX Certificate of Conformity, valid copy of IECEX Quality Assessment Report (*summary*) and IECEX Test Report.
4. General assembly drawing of the electric apparatus duly vetted by the test laboratory.
5. Technical details of the electric apparatus indicating working of the electrical apparatus, zone of installation, gas group, temperature and other relevant information.
6. Details of manufacturing facilities available for manufacturing / assembly of electric apparatus including machinery, equipment, instruments for manufacturing and quality control.
7. List of technically trained personnel for manufacturing, quality control and after sales service.
8. Declaration that equipment has not been installed in hazardous premises as per standard format (*Standard format is available on PESO's online application portal*).
9. Scrutiny fee of Rs 2000 per type / model /safety marking of the electrical apparatus. Maximum 5 nos of equipments with different test certificate is only being allowed in one online application.

**Documents required for approval for electrical apparatus imported in India**

1. Online application form indicating name of the firm, correspondence address, manufacturing address and details of the Ex Electric Apparatus duly signed (*name, designation of the signatory along with seal of firm*).
2. Profile of the Indian distributor / sister concern / service provider and documentary evidence of the company such as:

- a. Certificate of Incorporation issued by Registrar of Companies or
  - b. FORM G issued by Registrar of Firms and Registered Partnership deed or
  - c. Declaration on non judicial stamp paper stating that the firm is a proprietorship firm duly notarized along with PAN, TAN and GST Certificate
3. Test report issued by Indian test laboratory recognized by the Chief Controller of Explosives and valid copy of BIS license or
- IECEX Certificate of Conformity, valid copy of IECEX Quality Assessment Report (*summary*) and IECEX Test Report. or
- EU Type Examination Certificate (*Applicable for manufacturers having manufacturing locations in countries covered under the European Union*), valid copy of Production Quality Assessment / Assurance Notification.
4. General assembly drawing of the electrical apparatus duly vetted by the test laboratory.
5. Technical details of the electric apparatus indicating working of the electrical apparatus, zone of installation, gas group, temperature and other relevant information.
6. List of technically trained personnel vetted by the principal manufacturer for quality control and after sales service present in India, working with Indian distributor / sister concern / service provider and duly trained by the principal manufacturer. (*Minimum 5 personnel*)
7. A letter of authorization by original equipment manufacturer / principal manufacturer addressed to the Chief Controller of Explosives, authorizing the Indian distributor / sister concern / service provider to apply and obtain approval on their behalf. The authorized representatives shall specify the name and designation below the signature along with the seal affixed.
- The Indian distributor / sister concern shall have its own set up for providing after sales service, technical support, repairs, supply of spares, etc. Outsourcing of any of the facilities is not permitted.
8. A bi-party service agreement between the original equipment manufacturer / principal manufacturer and Indian distributor/ service provider indicating set up of the Indian distributor / service provider in India, qualified and trained technical service team assigned with responsibilities of initial installation / commissioning of the electric apparatus as well as post sales, technical back-up, repair, maintenance & supply of original spares etc.
- The bi-party service agreement shall be signed by authorized representatives of principal manufacturer as well as Indian distributor. The authorized representatives shall specify name and designation below the signature along with seal affixed. The service agreement shall be valid for minimum five years.
9. Declaration that equipment has not been installed in hazardous premises as per standard format (*Standard format is available on PESO's online application portal*).

10. Scrutiny fee of Rs 2000 per type / model /safety marking of the electric apparatus. Maximum 5 nos of equipments with different test certificate is only being allowed in one online application.

Acceptable standards for approval:

Sr No	BIS Standards	IEC Standards	EN Standards*	Description
1	IS/IEC 60079-0:2017	IEC 60079-0:2017	EN IEC 60079-0:2018	Equipment—General Requirements
2	IS/IEC 60079-1:2014	IEC 60079-1:2014	EN 60079-1:2014	Equipment Protection by Flameproof Enclosures "d"
3	IS/IEC 60079-2:2014	IEC 60079-2:2014	EN 60079-2:2014, EN 60079-2:2014/AC:2015	Equipment protection by Pressurized enclosure "p"
4	IS/IEC 60079-5:2015	IEC 60079-5:2015	EN 60079-5:2015	Equipment protection by Powder filling "q"
5	IS/IEC 60079-6:2016	IEC 60079-6:2015	EN 60079-6:2015	Equipment protection by Liquid immersion "o"
6	IS/IEC 60079-7:2017	IEC 60079-7:2015	EN 60079-7:2015 EN IEC 60079 7:2015/A1:2018	Equipment protection by Increased safety "e"
7	IS/IEC 60079-11:2011	IEC 60079-11:2023	EN 60079-11:2012	Equipment Protection by Intrinsic Safety "i"
8	IS/IEC 60079-15:2017	IEC 60079-15:2017	EN 60079-15:2010	Equipment Protection by Non Sparking "n"
9	IS/IEC 60079-18:2014	IEC 60079-18:2014	EN 60079-18:2015, EN 60079- 18:2015/A1:2017	Equipment protection by Encapsulation "m"
10	IS/IEC 60079-25:2020	IEC 60079-25:2020	EN60079-25:2010, EN 60079- 25:2010/AC:2013	Intrinsically safe electrical Systems
11	IS/IEC 60079-26:2021	IEC 60079-26:2014	EN 60079-26:2015	Equipment with Equipment Protection Level (EPL) Ga
12	IS/IEC 60079-28:2015	IEC 60079-28:2015	EN 60079-28:2015	Protection of equipment and transmission systems using optical radiation
13	IS/IE C60079-29: Sec 1:2016	IEC 60079-29-1:2016	EN 60079-29-1:2016	Gas detectors Section 1 Performance Requirements of Detectors for Flammable Gases
14	IS/IEC 60079-29: Sec 4:2009	IEC 60079-29-4:2009	EN 60079-29-4:2010	Gas detectors: Sec 4 performance requirements of open path detectors for flammable gases
15	IS/IEC/IEEE 60079-30: Sec 1:2015	IEC/IEEE 60079-30-1: 2015	EN 60079-30-1:2017	Electrical Resistance Trace Heating Section 1 General and testing

				requirements
16	IS IS/IEC / TS 60079- 46 : 2017	IEC TS 60079-46 : 2017		Assembly of electrical components only

\*(Applicable for manufacturing units located in the countries covered under European Union)

### **Assembly of Ex Electric Apparatus**

For ease of doing business and reduction in compliance burden, it has been proposed that hence forth with effect from 01/05/2024, Ex Electrical Apparatus pre-manufactured with combination of individual Ex-electrical apparatus, together with other parts as necessary, that are electrically or mechanically interconnected or that are pre-assembled prior to being placed into service at the end-user site, or that can be disassembled and then re-assembled at the end-user site shall not be considered for approval.

It shall be obligation of the assembler / manufacturer / Indian distributor / service provider and the end user to ensure that before commissioning / start up of the assembly, they shall ensure that all the Ex Electrical Apparatus used in assembly are approved by the Chief Controller of Explosives and the approval is valid as on date.

During inspection / endorsement of license, the PESO Officials shall inspect the Ex Electrical Apparatus used in the assembly and in case of non compliance, discrepancy letters may be issued.

However, if applicant desires to obtain approval for assemblies he may comply with IS/IEC / TS 60079-46 and IEC TS 60079-46 . For fuel dispensers , vaporizers, etc will be covered under the existing guidelines.

Vaporizers for liquefiable gas, Composite CNG dispensing Units and Portable Service Station shall be approved under the Static & Mobile Pressure Vessels (Unfired) Rules, 2016, the Gas Cylinders Rules, 2016 and the Petroleum Rules, 2002 respectively. The electrical components used in the assembly shall also be the type approved by the Chief Controller of Explosives and the approval shall be valid as on date.

**Fuel Dispensers** In case approval is sought for dispensers following additional documents to be submitted along with above mentioned documents

1. EU Type Examination Certificate conforming the fuel dispenser (*petrol/ diesel / ethanol / other blends as notified by MoRTH*) to EN 13617-1: 2012 or EN 13617-1: 2021 along with list of approved Ex electrical components duly endorsed by the notified body issuing EU Type Examination Certificate as well as a valid copy of Production Quality Assurance / Assessment Notification.
2. Third Party Audit Report issued by PESO approved Ex electrical testing Laboratory or IECEx Testing Body providing clause wise compliance of:
  - a. Clause 11 of ISO 16923: 2016 in case of CNG dispenser

- b. EN 14678-1:2013 in case of Auto LPG dispenser.
  - c. Clause 10 of EN ISO 16924: 2018 in case of LNG dispenser.
  - d. Clause 8 of ISO 19880-1: 2020 in case of Hydrogen dispenser.  
*Auto LPG, LNG and Hydrogen dispenser shall also conform to the relevant provisions of the Static & Mobile Pressure Vessels (Unfired) Rules, 2016.*
3. Scrutiny fees of Rs 2000 per component and additional Rs 2000 for entire assembly in case of fuel dispensers.

**Application submission:**

- ❖ All the documents and drawings to be submitted online only as a legible, readable and searchable PDF documents.
- ❖ All the applications and compliance to the discrepancies to be submitted through National Single Window Portal.
- ❖ After expiry of the current approval, fresh approval may be obtained by the manufacturer subject to condition that the apparatus conforms to latest standards as mentioned above. No renewal or re- validation will be issued.
- ❖ The link to access the portal is <https://www.nsws.gov.in/>
- ❖ In case of any difficult or doubt regarding online application submission, please contact on following:

<https://www.nsws.gov.in/contact-us>  
[support.ol@explosives.gov.in](mailto:support.ol@explosives.gov.in)  
1800-233-9011.