

19. टैंक ट्रक विनालदाई क्षेत्र के समीप कम से कम दो, नौ कि० ग्रा० क्षमता के ड्राई रसायनिक प्रकार के अग्निशामक यंत्रों का उपबंध होना चाहिए और एक इसी प्रकार का अग्निशामक यंत्र प्रत्येक डिस्पेन्सर और ट्रान्सफर पम्प के समीप उपलब्ध होना चाहिए। इसके अतिरिक्त अनुसूची-4 में विनिर्दिष्ट अग्निशामक सुविधाओं का भी उपबंध करना चाहिए।
20. टैंक ट्रक से भण्डारण पात्र में एनएनजी की उतराई की अवधि में, यानों में डिस्पेन्सिंग कार्य नहीं करना चाहिए।
21. स्थानीय अग्निशमन टेलिफोन नंबर पर कार्यालय पुलिस और प्रधान विपणन कंपनी और अपातकालीन निर्देशों के अनुज्ञापन परिसर में सहज दृश्य स्थान पर दर्शित किया जाना चाहिए।
22. परिसर में पात्र के सभी वाल्व्स और पाइपिंग में आरंभ और बंद की दिशा को उपदर्शित करते हुए स्थाई रूप से चिह्नित किया जाना चाहिए।
23. नियम 70 में विनिर्दिष्ट किसी भी अधिकारी को, सभी सुसंगत समय पर अनुज्ञप्त परिसर में प्रवेश करने दिया जाएगा और उक्त अधिकारी को यह सुनिश्चित करने के लिए कि नियमों और शर्तों का सम्यक पालन हो रहा है, सभी सुविधाएं दी जाएंगी।
24. यदि अनुज्ञप्ति प्राधिकारी अनुज्ञप्तिधारी को लिखित में अनुज्ञप्त परिसर में कोई मरम्मत कार्य करने की सूचना देते हैं, जो उनकी राय में परिसर की सुरक्षा हेतु आवश्यक है, नोटिस में उल्लिखित समयावधि में अनुज्ञप्तिधारी को उक्त मरम्मत कार्य पूर्ण करना होगा।
25. अनुज्ञप्त परिसर के भीतर अग्नि या विस्फोट से होने वाली दुर्घटना या किसी अघटन की तत्काल सूचना मुख्य नियंत्रक, नियंत्रक, निकटतम पुलिस स्टेशन और जिला मजिस्ट्रेट को संचार के सर्वाधिक तेज़ माध्यम से देना होगा।”

[फा. सं. 2(1)/2017-विस्फो.]

शैलेन्द्र सिंह, अतिरिक्त सचिव

टिप्पण: मूल नियम भारत के राजपत्र, असाधारण, भाग II खंड 3, उपखंड (i) में अधिसूचना सं. सा.का.नि.1109(अ) द्वारा तारीख 1 दिसंबर, 2016 को प्रकाशित किए गए थे।

MINISTRY OF COMMERCE AND INDUSTRY

(Department of Industrial Policy and Promotion)

NOTIFICATION

New Delhi, the 20th April, 2018

G.S.R. 388 (E).— WHEREAS, the draft rules to amend the Static and Mobile Pressure Vessels (Unfired) Rules, 2016, was published, vide Notification of the Government of India in the Ministry of Commerce and Industry (Department of Industrial Policy and Promotion), number, G.S.R. 887 (E), dated the 17th July, 2017 in the Gazette of India, Extra-ordinary, Part-II, Section 3, Sub section (i), inviting objections or suggestions from all persons likely to be affected thereby before the expiry of forty five days from the date on which the notification was made available to the public;

AND WHEREAS, the said notification was made available to the public on the 17th July, 2017;

AND WHEREAS, objection and suggestions received from the public on the said draft rules have been duly considered by the Central Government;

NOW THEREFORE, in exercise of the powers conferred by sections 5 and 7 of the Explosives Act, 1884 (4 of 1884), the Central Government thereby makes the following rules to amend the Static and Mobile Pressure Vessels (Unfired) Rules, 2016, namely: -

1. **Short title and commencement (1).**- These rules may be called the Static and Mobile Pressure Vessels (Unfired) (Amendment) Rules, 2018.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Static and Mobile Pressure Vessels (Unfired) Rules, 2016, (hereinafter referred to as the said rules), in rule 2,-
- (a) after clause (iii), the following clause shall be inserted, namely:-
- ‘(iiia) "Auto LNG" means a liquefied natural gas for automotive fuel;’;
- (b) after clause (iv), the following clause shall be inserted, namely:-
- ‘(iva) “Auto LNG dispensing station” means a premises used for storing and dispensing auto LNG as automotive fuel to the motor vehicles;’;
- (c) after clause (v), the following clause shall be inserted, namely:-
- ‘(va) “Auto LNG or LCNG dispensing installer” means a company recognised by the Chief Controller for installation and maintenance of Auto LNG or LCNG dispensing station having qualification and experience specified in Schedule IV;’;
- (d) in clause (xiv), for the words “thermosyphon tanks and includes”, the words “thermosyphon tanks including” shall be substituted;
- (e) in clause (xv), after the words “liquefied petroleum gas (LPG) container”, the words “or liquefied natural gas (LNG) container” shall be inserted;
- (f) for clause (xviii), the following clause shall be substituted, namely:-
- ‘(xviii) “dispenser” means an equipment installed in liquefied petroleum gas dispensing station or liquefied natural gas dispensing station, as the case may be, meant for dispensing liquefied petroleum gas or liquefied natural gas as automotive fuel to motor vehicles;’;
- (g) for the clause [xxxi(a)], the following clauses shall be substituted, namely:-
- ‘(xxxia) “liquefied natural gas (LNG)” means a fluid in the cryogenic liquid state composed predominantly of methane;
- (xxxib) "LCNG" means CNG produced at the fueling station from LNG by pumping and vapourisation.
3. In the said rules, for rule 29, the following rule shall be substituted, namely:-
- “29. Dispenser for auto LPG or auto LNG dispensing station.- The dispenser and connected fittings used for dispensing auto LPG or auto LNG in motor vehicles provided in the auto LPG or auto LNG dispensing station shall be designed, constructed, tested and maintained in accordance with the requirements laid down in Schedule II or Schedule IV of these rules, as the case may be, and be of a type approved in writing by the Chief Controller.”
4. In the said rules, for rule 30, the following rule shall be substituted, namely:-
- “30. Special Provisions for filling fuel tanks of motor vehicles and unloading of tank-truck in auto LPG or auto LNG dispensing station.- (1) Auto LPG or Auto LNG shall not be filled in fuel tank of motor vehicle while the engine of the vehicle is running.
- (2) During the period of unloading of Auto LPG or Auto LNG from tank-truck to the storage vessels, operation of dispensing Auto LPG or Auto LNG to motor vehicles shall not be carried out.”
5. In the said rules, in rule 49, in sub-rule (4), after the letters and figure "LS-1B", the letters and figure "LS-1C" shall be inserted.
6. In the said rules, in rule 50, in clause (i), in sub-clause (a), after the words and letters “and dispense Auto LPG as automotive fuel”, the words, letters and figure “and Form LS-1C to store and dispense Auto LNG as automotive fuel” shall be inserted.
7. In the said rules, in rule 51, in sub-rule (1), after the letters and figure “LS-1B”, the letters and figure “or LS-1C” shall be inserted.

8. In the said rules, in rule 55, in sub-rule (2), after the letters and figure “LS-1B”, the letters and figure “LS-1C” shall be inserted.
9. In the said rules, in Schedule-I, -
- (a) in Part A, in the table, “Sl. No. 3” and the entries relating thereto shall be renumbered as “Sl. No. 4” thereof and before the “Sl. No. 4” as so renumbered, the following Sl. No. and entry shall be inserted, namely :-

“3.	LS-1C	To store and dispense auto-LNG in auto-LNG dispensing station as automotive fuel to motor vehicles and/or store LNG in connection with LCNG dispensing.	Chief Controller or Controller authorised by him.	Same as the licence in Form LS-1A”;
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- (b) for Part B, the following Part shall substituted, namely:-

“B: Fee other than licence fee

Sl. No.	Purpose	Fees (In rupees)
1.	Approval or renewal of shop approval to manufacture pressure vessel, vapouriser and fittings under rule 4 (3) (i) and (ii).	5000/- per year
2.	Approval of design drawing of pressure vessel, vapouriser & fittings under rule 4(3) (iii).	2500/-
3.	Import of pressure vessel under rule 4(5).	5000/-
4.	Repairing of pressure vessel under rule 6.	2500/-
5.	Recognition/Revalidation of competent person/inspector under rule 12.	5000/- per year
6.	Approval of vehicle mounting drawing for transport of compressed gas under rule 35(2).	2000/-
7.	Prior approval of specification and plans of vessels and premises under rule 46.	2000/-
8.	Issue of authenticated copy of licence under rule 49(3).	1000/-
9.	Prior approval of alternation in the licensed premises under rule 53(2).	2000/-
10.	Amendment of licence under rule 54(1).	1000/-
11.	Transfer of licence under rule 54(2).	1000/-
12.	Issue of new licence in case of death or disability of licensee under rule 60(2).	1000/-
13.	Issue of duplicate copy of licence under rule 61.	1000/-
14.	Grant / renewal of recognition for installer/operator as mentioned in Schedule –II and IV	5000/- per year.”

10. In the said rules, in the Schedule II, after clause (M), the following clause shall be inserted, namely: -

“(MA) Procedure for granting recognition to Auto LPG operator:

- (i) Any organisation intending to be recognised as Auto LPG operator shall submit their application giving details of company’s credentials with regard to their experience in the field of management and operation of Auto LPG dispensing station to the Chief Controller of Explosives.
- (ii) Every such application shall be accompanied by a scrutiny fee as specified in Part B of Schedule I.
- (iii) The Chief Controller shall within a period of ninety days from the date of receipt of the application either—

- (a) prima facie after having satisfied himself with regard to competence and professional ethics, for recognition of the applicant as a Auto LPG dispensing station operator, shall call the applicant along with his technical team for an interview by a team of officers nominated by the Chief Controller for assessing the technical and practical knowledge and capability of the applicant; or
- (b) if the applicant does not prima facie meet the requirement for recognition, shall reject the application with reasons; or
- (iv) (a) if the applicant in the interview conducted under this rule is found to have adequate knowledge and capability for the recognition applied for, the Chief Controller shall grant the recognition under the rules; or
- (b) in case any applicant is not found suitable, the Chief Controller shall reject the application specifying the reasons.
- (v) Initially the recognition granted under sub-clause (iv) shall be valid for a period of one year and subsequently, based on performance report, validity of recognition may be renewed for a further period of two years.
- (vi) The Chief Controller may revoke or suspend recognition granted to the operator, if the operator does not fulfill the obligations as mentioned in this Schedule.
- (vii) The Chief Controller may after giving an opportunity to the operator of being heard, may revoke the recognition-
- (a) if he has reason to believe that the operator, has violated any condition stipulated in the letter of recognition or has acted in a manner inconsistent with the intent or the purpose of these rules; or
- (b) for any other reason to be recorded in writing.”
11. In the said rules, for Schedule IV, the following Schedule shall be substituted, namely:-

“SCHEDULE IV

[See rule 2 (va), 21 (15) and 29]

LNG Storage, Handling, Transportation, Operation, Maintenance and Dispensing

These provisions shall apply to the following, namely:-

- (A) The requirements of the design, fabrication and installation and commissioning of LNG storage facility using cryogenic vacuum insulated containers of double wall constructed in accordance with approved pressure vessel codes and the requirements for safe vaporization, transfer and handling.
- (B) The requirements of the road transportation of LNG in a cryogenic double walled vacuum insulated pressure vessel for the safe transportation and handling.
- (C) Operation, Maintenance and Training.
- (D) LCNG stations or Auto LNG dispensing:

Provided that the Chief Controller, may, under exceptional circumstances and for reasons recorded in writing, waive any of the requirements of this Schedule.

SECTION-I

STORAGE INSTALLATIONS AND HANDLING

A. INSTALLATION DESIGN:

- (1) (a) For LNG cryogenic pressure vessels storage installation, the minimum safety distances between the vessel and to the nearest building or line of adjoining property shall be in accordance with the distances specified in Table (1) of this Schedule and the maximum aggregate capacity of each such LNG installation shall not exceed 1060m³.

- (b) For non-pressurised LNG storage installation, the minimum safety distances specified in NFPA 59A, may be followed.
- (2) The LNG installation shall be designed to withstand the following without loss of structural or functional integrity -
- (a) The direct effect of wind forces;
 - (b) Loading due to seismic effect;
 - (c) Erosive action from a spill;
 - (d) Effect of the temperature, any thermal gradient, and any other anticipated degradation resulting from sudden or localised contact with LNG.
- (3) The structural members of the impoundment system shall be designed and constructed to prevent impairment of the impoundments reliability and structural integrity as a result of the following-
- (a) Imposed loading from full hydrostatic head of impounded LNG;
 - (b) Hydro dynamic action from injected material.
- (4) Impoundment or dyke areas shall be designed so that all areas drain completely to prevent water collection and drainage pumps and piping may be provided to remove water from collecting in the impoundment area provided where automatically controlled drainage pumps are used they shall be provided with cut off devices that prevent their operation when exposed to LNG temperature.
- (5) Compressors, CNG Cascades, Odorizers etc. shall not be located inside the impounding area.
- (6) The Ambient vaporizers and remotely heated vaporizers may be located inside impounding area.
- (7) The impounding system for LNG storage vessel shall have a minimum volumetric liquid capacity of-
- (a) maximum liquid capacity of vessel for an impoundment serving a single vessel;
 - (b) 100% of maximum liquid capacity of the largest vessel serving for more than one vessel.
- (8) The height of the impoundment wall shall be adequate to contain spillage of any LNG and the Dyke wall height of 0.6 meter to 1 meter is recommended from the dyke floor level and the height of the foundation of the vessel shall be minimum 0.4 meter or designed in such away to prevent exposure of carbon steel material to the spilled LNG.
- (9) No other flammable liquid or storage vessel shall be located within an LNG impounding area.
- (10) A clear space of at least 0.9 meters shall be provided for access to all isolation valves serving multiple vessels and the isolation valve of LNG vessel piping shall be as close to outer vessel as possible.
- (11) LNG vessels, cold boxes, piping and pipe supports and other cryogenic apparatus installed within dyke shall be designed and constructed in a manner to prevent damage to these structures and equipment due to freezing or frost heaving in the soil.
- (12) Adequate flameproof lighting arrangement shall be done for facilities transferring LNG during night.
- (13) Electrical grounding and bonding shall be provided.
- (14) Layout shall ensure unobstructed access and exit of the consumers and supply vehicles at all times.
- (15) Entrance, exit and paving shall be arranged in a manner, so as to minimise the risk of collision.
- (16) The operating personnel shall have an unobstructed overall view on the facilities both from the sales room and from the delivery area.
- (17) The designated tanker unloading location shall be so located that it does not hinder other traffic and at the same time permits tanker to be in drive out position for allowing it to come out of the premises easily in case of an emergency.
- (18) Crash or Impact barriers shall be installed to protect vulnerable equipment against accidents involving vehicle movements.

- (19) The storage area which includes the pumps and the related piping shall be suitably segregated from the rest of the premises and located in a manner that it is away from the area frequented by public during their movement within the station and also from the path of vehicles entering and leaving the premises.

TABLE-1
DISTANCES FROM IMPOUND WALL AND PROPERTY LINE

Sl. No.	Water Capacity of the vessel (m ³)	Minimum distance from edge of impoundment or vessel drainage system to property line	Minimum distance between storage vessels
1.	Not above 3.8	3 m	0.5 m
2.	Above 3.8 but not above 7.6	5.0 m	1.0 m
3.	Above 7.6 but not above 56.8	8.0 m	1.5 m
4.	Above 56.8 but not above 114.0	15.0 m	1.5 m
5.	Above 114.0 but not above 265.0	25.0 m	1/4 of the sum of the diameters of adjacent vessel (minimum 1.5 m)
6.	Above 265.0 but not above 379	vessel diameter (minimum 30.0 m)	

TABLE-2
MINIMUM DISTANCE BETWEEN VESSEL AND DYKE WALL

Sl. No.	water capacity of vessel (m ³)	Inner edge of the dyke wall and outer shell of the storage vessel or $D/2$ (whichever is higher)
1.	Not above 3.8	0.5 m
2.	Above 3.8 but not above 7.6	1.0 m
3.	Above 7.6 but not above 56.8	1.5 m
4.	Above 56.8 but not above 114.0	1.5 m
5.	Above 114.0 but not above 265.0	1/4 of the sum of the diameters of adjacent vessels (minimum 1.5 m)
6.	Above 265.0 but not above 379	

TABLE-3

**MINIMUM DISTANCES BETWEEN EQUIPMENTS / ITEMS INSTALLED OUTSIDE THE DYKE WALL
AND OUTER EDGE OF DYKE WALL**

Sl. No.	Equipment / Items	Dyke wall (Outer Edge)
1.	Property Line / Fencing	As per Table 1 of this schedule
2.	Center of Truck Unloading Platform	Min. 4.0 m (and also min 9 m from the adjoining boundary/property). The fill point shall observe 9.0 meter safety distance to the adjoining boundary.
3.	Priority panel	Outside dyke wall
4.	CNG Cascade (For LCNG station)	The safety distance as per Table I A of Gas Cylinders Rules, 2016 from edge of the dyke. The cascade shall be segregated from LNG facility by providing concrete wall up to the height of the cascade.
5.	On site building/ Control room/sales office	Outside the safety distances as per Table 1 of this schedule.
6.	LNG and CNG dispensers (if LCNG station)	Min. 6.0 m (and also min 6.0 m from centre of hard stand).
7.	Distance between Dispenser Islands	Min. 6.0 m (and also min 6.0 m from

(B) LNG STORAGE VESSEL - General design requirements:

(a) Foundation :

- (1) LNG vessels foundations shall be designed by a qualified engineer and constructed in accordance with recognised structural engineering practices and prior to the start of design and construction of the foundation, a subsurface investigation shall be conducted by a qualified soils engineer to determine the stratigraphy and physical properties of the soils underlying the site.
- (2) The design of saddles and legs for the LNG vessel shall include erection load, wind loads and thermal loads.
- (3) Foundation and support shall have a fire resistance rating of not less than two hrs.
- (4) LNG vessels installed in areas subject to flooding shall be secured to prevent release of LNG or floatation of the vessel in the event of a flood.

(b) Vessel Design :

- (1) The vessel meant for storage of LNG including piping between inner and outer vessel shall be designed in accordance with ASME Boiler and Pressure Vessel Code Section VIII Div I / EN13458 / ASME: B.31.3, process piping or equivalent code acceptable to Chief Controller.
- (2) Design pressure of auto LNG storage vessel shall not exceed 20.0 Kg/cm².
- (3) The inner vessel shall be designed for the most critical combination of loading resulting from internal pressure, liquid heads and the Inner vessel supports system shall be designed for shipping, seismic, and operating loads.

- (4) The outer vessel shall be equipped with a relief or other device to release internal pressure and shall have discharge area of at least $0.34 \text{ mm}^2/\text{lit}$ of the water capacity of the inner vessel but not exceeding 2000 cm^2 and have pressure setting not exceeding 25 psi.
- (5) Thermal barriers shall be provided to prevent outer tank from falling below its design temperature.
- (6) Those parts of LNG vessels which come in contact with LNG and all materials used in contact with LNG or cold LNG vapor shall be physically and chemically compatible with LNG and intended for service at -162°C .
- (7) All piping that is a part of LNG vessel including all piping internal to the vessel, within void space, and external piping connected to the vessel up to the first circumferential external joint of the piping shall be in accordance with ASME Boiler and Pressure Vessel Code, Section VIII or ASME B 31.3 or equivalent.
- (8) LNG vessels shall be designed to accommodate both top and bottom filling unless other positive means are provided to prevent stratification.
- (9) Any portion of the outer surface area of an LNG vessel that could accidentally be exposed to low temperatures resulting from the leakage of LNG or cold vapor from flanges, valves etc., shall be intended for such temperatures or protected from the effects of such exposure.
- (10) Seismic loads shall be considered in the design of the LNG vessel support systems.

C. FITMENTS :

- (1) Each LNG double walled vessel shall have at least 2 numbers of safety relief valves capable of achieving the required relief capacity on standalone basis and shall be sized to relieve the flow capacity determined for the largest single contingency or any reasonable and probable combination of contingencies and shall include conditions resulting from operational upset, vapor displacement and flash vaporization.
- (2) Relief devices shall be vented directly to the atmosphere and each safety relief valve for LNG vessel shall be able to be isolated from the vessel for maintenance or other purposes by means of a manual full opening stop valve or a flow diverter valve.
- (3) Safety relief valve shall be designed and installed to prevent any accumulation of water, or other foreign matter at its end.
- (4) The minimum pressure relieving capacity in kg/hr shall not be less than 3% of the full tank contents in 24 hours.
- (5) All liquid connections to the LNG vessel except relief valve and instrumentation connection shall be equipped with automatic fail safe product retention valves.
- (6) The automatic shut off valves shall be designed to close on occurrence of any of the following conditions, namely:-
 - (i) fire detection;
 - (ii) uncontrolled flow of LNG from vessel;
 - (iii) manually and remotely operated.
- (7) Such of the automatic shutoff valves that require excessive time to operate during emergency i.e. sizes exceeding 200mm shall be pneumatically operated and also have means of manual operation.
- (8) All LNG vessels shall have a device that prevents the vessel from becoming liquid full or from covering the inlet of the relief valve with liquid when the pressure in the vessel reaches the set pressure of relieving device under all conditions.
- (9) Every LNG vessel may be provided with one independent high liquid level alarm which may be part of the liquid level gauging devices, however, the high liquid level flow cutoff device shall not be considered as a substitute for the alarm.
- (10) Every LNG vessel shall be equipped with at least one liquid level gauging device and the devices shall be designed and installed so that they can be replaced without taking the tank out of operation and the level and pressure shall be visible to the operating personnel during unloading or loading and transfer.
- (11) Each LNG vessel shall be equipped with a high liquid level flow cut off device.
- (12) Each LNG vessel shall be equipped with pressure gauge connected to the vessel at a point above the maximum intended liquid level.

- (13) Instrumentation for storage and vaporization facilities shall be so designed so that if a power or instrument air failure occurs, the system will proceed to a failsafe condition and maintain that condition until the operator takes appropriate action to reactivate or secure the system.

D. EQUIPMENT :

- (1) Pumps and compressors employed in LNG source shall be provided with a pressure relieving device on the discharge to limit the pressure to the maximum safe working pressure of the casing and downstream piping and equipment.
- (2) Each pump shall be provided with adequate vent, relief valve, or both that will prevent over-pressuring the pump casing during the maximum possible rate of cool down.
- (3) The discharge valve of each vaporizer and the piping components and relief valves installed upstream of each vaporizer outlet valve/ spec break flange shall be designed for operation at LNG temperatures.
- (4) Two inlet valves shall be provided to isolate an idle, manifolded vaporizer to prevent leakage of LNG into the vaporizer and a safe means of disposing of the LNG or gas that can accumulate between the valves shall be provided in case the vaporizers are of size having inlets more than 50 mm diameter.
- (5)
 - (i) The ambient air vaporizers shall be installed inside the containment area.
 - (ii) Where the heated vaporizer is located 15 meter or more from the heat source, the remote shutoff location shall be at least 15 meter from the vaporizer.
 - (iii) Where the heated vaporizer is located less than 15 meter from the heat source, it shall have an automatic shut off valve in the LNG liquid line located at least 3 meter from the vaporizer and shall close when either of the following occurs :
 - (1) Loss of line pressure (excess flow),
 - (2) The occurrence of a fire is detected by an instrument designed for the purpose and located to detect a fire in the covered area,
 - (3) Low temperature in the downstream of the vaporizer,
 - (4) Manual ESD trip;
 - (iv)
 - (a) Any ambient vaporizer or a heated vaporizer installed within 15 meter of an LNG vessel shall be equipped with an automatic shutoff valve in the LNG liquid line;
 - (b) The automatic shutoff valve shall be located at least 3 meter from the ambient or heated vaporizer and shall close in either of the following situations, namely: -
 - (1) Loss of line pressure (excess flow).
 - (2) Abnormal temperature sensed in the immediate vicinity of the vaporizer (fire)
 - (3) Low temperature in the downstream of the vaporizer.
 - (4) Activation of Emergency Shut Down System (ESD).
 - (c) If the facility is attended, manual operation of the automatic shutoff valve shall be from a point at least 15 meter from the vaporizer, in addition to the requirement as specified in para (b) above.
 - (v) The above conditions shall be applicable for LNG vaporizers for purposes other than pressure building coils or LNG to CNG (LCNG) systems.
- (6) A distance of minimum 1 meter shall be maintained between vaporizers.
- (7) Vaporizers shall be designed, fabricated and inspected as per the requirements of ASME Boiler and Pressure Vessel Code, Section VIII Div. 1 or any other equivalent code acceptable to Chief Controller.
- (8) The material of construction of LNG vaporizers is recommended as Austenitic Stainless Steel piping with outer Aluminium fins.
- (9) Manifold vaporizers shall be provided with both inlet and discharge block valves for each set of vaporizer.
- (10) Any ambient vaporizer installed within 15 meters of the LNG vessel shall be equipped with an automatic shutoff valve in the liquid line and this valve shall be located minimum at least 3 meters from the vaporizers and shall close when loss of line pressure occurs or abnormal temperature is sensed in the immediate

vicinity of the vaporizer or when low temperature in the vaporizer discharge line occurs.

- (11) Each set of vaporizer shall be provided with a safety relief valve(s) sized in accordance with the following requirements, namely:-
- (a) Ambient vaporizers—relief valve capacity shall allow discharge equal or greater than 150% of the rated vaporizer natural gas flow capacity without allowing the pressure to rise 10% above the vaporizer maximum allowable working pressure.
 - (b) Relief valves on heated vaporizers – same as sub-clause (a) above, however, it shall be located such that they are not subjected to temperatures exceeding 60°C. during normal operation.
- (12) Automation shall be provided to prevent the discharge of either LNG or vaporizer gas into a distribution system at the temperature either above or below the design temperature of the send out system.
- (13) Vaporizers shall be provided with outlet temperature monitors.

E. PIPING SYSTEM :

- (1) All piping system and components shall be designed –
- (a) To accommodate the effects of thermal cycling fatigue to which the systems shall be subjected.
 - (b) To provide for expansion and contraction of piping and piping joints due to temperature changes.
- (2) Piping material including gaskets and thread compounds shall be compatible throughout the range of temperature to which they are subjected.
- (3) The valves provided in the installation shall be of extended bonnet type with packing seals in a position that prevents leakage or malfunction due to freezing.
- (4) Shut-off valves shall be provided for all vessel connections except connections for liquid level alarms and connections that are blind flanged or plugged.
- (5) All the piping section between the two valves where the liquid may be trapped shall have the thermal relief valve.
- (6) Aluminium shall be used only downstream of a product retention valve in vaporizer service.

F. TRANSFER OF LNG :

- (1) Isolation valves shall be installed so that each transfer system can be isolated at its extremities and where power-operated isolation valves are installed, an analysis shall be made to determine the closure time so that it does not produce a hydraulic shock capable of causing line or equipment failure.
- (2) Adequate check valves shall be provided to prevent backflow and shall be located as close as practical to the point of connection to any system from which backflow might occur.

G. PUMP AND COMPRESSOR CONTROL:

In addition to a locally mounted device for shutdown of the pump or compressor drive, a readily accessible, remotely located device shall be provided at least 7.5 meters away from the equipment to shut down the pump in an emergency.

H. TANK VEHICLE UNLOADING FACILITIES:

- (1) The tank vehicle unloading area shall be of sufficient size to accommodate the vehicles without excessive movement or turning.
- (2) Transfer piping, pumps, and compressors shall be located or protected by barriers so that they are safe from damage by vehicle movements.
- (3) Isolation valves and bleed connections shall be provided at the unloading manifold for both liquid and vapour return lines so that hoses and arms can be blocked off, drained of liquid, and depressurized before disconnecting and bleeds or vents shall discharge in a safe area.

I. EMERGENCY SHUT DOWN SYSTEM (ESD System) :

- (1) Each LNG facility shall incorporate an ESD system that when operated isolates or shuts off sources of LNG and shuts down equipment that add or sustain an emergency if continued to operate.
- (2) The ESD system shall be of a failsafe design and shall be installed, located, or protected from becoming inoperative during an emergency or failure at the normal control system.
- (3) Initiation of the ESD system shall be manual, automatic, or both manual and automatic. Manual actuators shall be located in an area accessible in an emergency and at least 15 meters away from the equipment they serve, and shall be distinctly marked with their designated function.

J. FIRE PROTECTION FACILITIES:

- (1) Each LNG storage facility shall be provided with flammable gas detectors, which shall activate visual and audible alarms at the plant site and at constantly attended location, if the facility is not attended continuously.
- (2) Flammable gas detection system shall activate an audible and a visual alarm at level not higher than 25% of the LEL of the gas being monitored.
- (3) Fire detectors shall activate an alarm at the plant site and at a constantly attended location if the plant site is not attended continuously and if determined by an evaluation that it is necessary then fire and gas detectors shall be permitted to activate the ESD system.
- (4) A fire water supply and delivery system shall be provided based on the risk analysis. However, as a minimum a fire water storage tank of 10 % of LNG storage tank capacity or 5000 liter whichever is higher with pumping facilities and hose reel system away from the LNG storage facility shall be provided for dispersion of LNG vapor cloud in case of leakage or spillage.
- (5) Portable or wheeled fire extinguishers of DCP and/or foam type shall be made available at strategic locations and at least 4 such extinguishers of 10 kg. capacity each shall be provided.
- (6) Fire extinguishers provided in the LNG installations shall be based on high expansion foam and dry chemical powder.

K. PERSONAL PROTECTION:

Every person operating the equipment in the LNG installation shall be equipped with the following personal protective equipment, namely:-

- (i) Suitable goggles for protection of eyes from LNG spray,
- (ii) Hand gloves suitable for cryogenic liquid handling,
- (iii) Protective apron,
- (iv) Safety Shoes.

SECTION 2**ROAD TRANSPORTATION****(A) DESIGN - GENERAL REQUIREMENTS :**

The safety relief valves provided on the inner vessel of the LNG transport tank shall be sized to meet most stringent condition of simultaneous occurrence of loss of vacuum and external fire and the combined capacity of the safety valves shall be sufficient to limit the pressure in the vessel to the test pressure -

- (1) The transport vessel shall be designed and constructed as per the ASME Boiler and Pressure Vessel Code Section VIII Div I pressure vessel code, EN13530 or equivalent code approved by Chief Controller and also to meet the requirements of ISO 20421 and the design temperature of the vessel, piping and valves shall be such that it is suitable for requirement sustaining cold shock caused by a loading of liquid Nitrogen into the vessel during its testing and commissioning.

- (2) Each vessel shall have adequate insulation that will prevent the vessel pressure from exciting the relief valve set pressure within the specified holding time when the vessel is loaded with LNG at the design condition of –
 - (a) Specified temperature and pressure of the LNG,
 - (b) The exposure of the vessel to the average ambient temperature of 40°C.
 - (3) The outer vessel or jacket of the cryogenic vessel for transportation of LNG shall be made of no other material other than steel.
 - (4) No Aluminium valve or fitting external to the wetted outer vessel shall be installed on LNG transportation vessels and each transportation vessel shall consist of a suitably supported welded inner vessel enclosed within an outer shell with vacuum insulation between the two.
- (B) STRUCTURAL INTEGRITY:
- (1) The design and construction of each vessel used for transportation of LNG shall be in accordance with ASME Boiler and Pressure Vessel Code Section VIII Div. 1, EN13530 or any other code approved by Chief Controller and the vessel design shall include calculation of stress due to design pressure, the weight of lading, the weight of structure supported by the vessel wall, and the effect of the temperature gradients resulting from lading and ambient temperature extremes.
 - (2) In order to account for stresses due to impact in an accident, the design calculation of the vessel shell and heads shall include the load resulting from the design pressure in combination with the dynamic pressure resulting from a longitudinal deceleration of 2g. For this loading condition, the stress value used shall not exceed 75% of the yield strength of the material of construction.
 - (3) The fittings and accessories mounted on the vessel shall be protected in such a way that damage caused by overturning can not impair operational integrity and this protection may take the form of cylindrical profile of the vessel, of strengthening rings, protective canopies or transverse or longitudinal members so shaped that effective protection is given.
 - (4) The welding of the appurtenances to the vessel wall shall be made of attachment of the mounting pad so that there shall be no adverse effect upon the loading retention integrity of the vessel.
- (C) PRESSURE RELIEF DEVICES, PIPING, VALVES AND FITTINGS :
- (1) Hoses shall be suitable for the service and shall be designed for a bursting pressure of at least five times working pressure.
 - (2) If a threaded pipe is used, the pipe and fitting shall be Schedule 80 or higher rating.
 - (3) Each hose coupling shall be designed for a pressure of at least 120% of the hose design pressure and there shall be no leakage when connected.
 - (4) Piping shall be protected from damage due to thermal expansion and contraction, jarring and vibration and slip joints shall not be used.
 - (5) Each valve shall be suitable for the vessel design pressure at the vessel design service temperature.
 - (6) All fittings shall be rated for the maximum vessel pressure and suitable for the coldest temperature to which they will be subjected in actual service.
 - (7) When a pressure building coil is used on the vessel, the vapor connection to that coil shall be provided with a valve or check valve as close to the vessel shell as practicable to stop flow in case of damage to the coil and the liquid connection to the coil shall also be provided with a valve.
 - (8) Each vessel shall be rated for its holding time, the holding time being the time as determined by testing that will elapse from loading until the pressure of the contents, under equilibrium conditions reaches the level of the lowest pressure relief valve setting.
 - (9) All the discharge lines of relief valves, vent valve, bleed valves etc., shall be connected to a vent stack which shall vent at a safe height.
 - (10) Bursting discs shall not be used on the LNG transport vessels.

- (11) The outer vessel shall be protected by any accidental accumulation of pressure in the annular space by using a relief plate or plug or a bursting disc and the relief device shall function at a pressure not exceeding the internal design pressure of the outer tank, the external design pressure of the inner tank, or 25 psi whichever is less.

(D) ACCIDENT DAMAGE PROTECTION :

- (1) All valves, fittings, pressure relief devices and other accessories to the vessels, which are not isolated from the vessel by closed intervening shut off valves or check valves shall be installed within the motor vehicle framework or within a suitable collision resistant guard or housing and appropriate ventilation, shall be provided and each pressure relief device shall be protected so that in the event of the upset of the vehicle on to a hard surface, the device's opening will not be prevented and its discharge will not be restricted and the threaded end connection safety valves are preferred in stainless steel body construction.
- (2) Each protective device or housing and its attachment to the vehicle structure shall be designed to withstand static loading in any direction that it may be loaded as a result of front, rear, side or side wise collision or the overturn of the vehicle and all the valves of tank shall be at rear inside on operation box (cabinet) of suitable size and does not project out of tank diameter and the thickness of cabinet shall be minimum 3mm.

(E) REAR END PROTECTION:

- (1) Rear end vessel protection devices shall consist of at least one rear bumper designed to protect the transport vessel and piping in the event of a rear end collision and the rear end vessel protection device shall be designed so that it transmits the force of the collision directly to the chassis of the vehicle. The rear end vessel protection device and its attachments to the chassis shall be designed to withstand a load equal to twice the weight of the loaded cargo vessel and attachments, using a safety factor of four based on the tensile strength of the materials used with such load being applied horizontally and parallel to the major axis of the transport vessel.
- (2) Every part of the loaded transport vessel and any associated valve, pipe, and enclosure or protected fitting or structure shall be at least 35.5 cm above ground level.

(F) DISCHARGE CONTROL DEVICES:

- (1) Each liquid filling and liquid discharge line shall be provided with a shut off valve located as close to the vessel as practicable and unless this valve is manually operable at the valve, the line shall also have a manual shut off valve.
- (2) Each liquid filling and liquid discharge line shall be provided with an on vehicle remotely controlled self-closing shutoff valve.
- (3) Each control valve shall be of fail-safe design and spring- based.
- (4) Each remotely controlled shut off valve shall be provided with on vehicle remote means of automatic closure, both mechanical and thermal.
- (5) Each remotely controlled shut off valve shall be provided with on-vehicle remote means automatic closure, both mechanical and thermal. One means may be used to close more than one remotely controlled valve and remote means of automatic closure shall be installed at the ends of the tanker farthest away from the loading or unloading connection area.

(G) SHEAR SECTION:

Unless the valve is located in a rear cabinet forward of and protected by the bumper, the design and installation of each valve, damage to which could result in loss of liquid or vapor shall incorporate a shear section or breakage groove adjacent to and outboard of the valve and the shear section or breakage groove shall yield or break under strain without damage to the valve that would allow the loss of liquid or vapour.

(H) SUPPORTS AND ANCHORING:

In case, the transport tanker vehicle is designed and constructed in such manner that the vessel is not wholly supported by the vehicle frame, the transport vessel shall be supported by external cradles or load rings and the design calculations for the supports and load bearing vessel and the support attachments shall include

beam stress, shear stress, torsion stress, bending moment and acceleration stress for the loaded vehicle as a unit, using a safety factor of four based on the tensile strength of the material and static loading that uses the weight of the transport vessel and its attachments when filled to the design weight of the loading. Minimum static loadings shall be maximum of the following individually, namely:-

- (i) Vertically downward of two (2);
- (ii) Vertically upward of one and half (1.5);
- (iii) Longitudinally of one and half (1.5); and
- (iv) Laterally of one and half (1.5).

(I) GAUGING DEVICES:

(a) Liquid level gauging devices :

The vessel shall have one liquid level device that provides a continuous level indication ranging from full to empty and that is maintainable or replaceable without taking the vessel out of service

(b) Pressure gauges :

Each vessel shall be equipped with a pressure gauge connected to the vessel at a point above the maximum liquid level that has a permanent mark indicating the maximum allowable working pressure of the tanker and the pressure gauge shall be housed in a canopy of the tanker.

SECTION 3

OPERATION, MAINTENANCE AND TRAINING

A. Each LNG installation shall provide for written operating, maintenance and training procedures. Such procedures shall be drawn based on experience, knowledge of similar facilities.

B. Every installation shall meet the following requirements, namely:-

- (1) Have written procedures covering operation, maintenance and training.
- (2) Keep up-to-date drawings of plant equipments.
- (3) Have written emergency plan as part of the operations manual.
- (4) Shall be in liaison with local authorities like Police, Fire Department, Health Authorities and keep them informed about emergency plans and their role in emergency situations.
- (5) Have documents wherein safety related malfunctions are identified and analyzed for the purpose of determining their causes and preventing the possibility of reoccurrence.

C. OPERATING PROCEDURES MANUAL : Every installation shall have a written manual of emergency procedures that shall include a types of emergencies that are anticipated and shall include the following procedures, namely:-

- (1) Start up and shut down procedure including initial start up of the LNG facility.
- (2) Purging and inerting components.

- (3) Cooling down components.
- (4) Identify the possibility of abnormal conditions.
- (5) Safety precautions requirement to be taken while repairs or maintenance in the installation is being carried out.
- (6) Procedures for responding to controllable emergencies including notifying personnel and use of equipments i.e. appropriate to handling of emergency.
- (7) Procedure for recognising an uncontrollable emergency and for taking action to ensure that harm to the personnel in the premises and to the public outside is limited.
- (8) Procedure for immediate notification of the emergency to the local authorities.
- (9) Procedure for coordinating with local authorities in the preparation of any evacuation plan which may be required to protect the public in the event of emergency.

D. MAINTENANCE:

- (1) Every installation shall have a written procedure based on experience and knowledge of similar facilities and conditions under which the installation shall be maintained.
- (2) The procedure shall incorporate the need to carry out periodic inspection, tests on every equipment and system in service to verify that the equipment is maintained in accordance with the equipment manufacturer's recommendations.
- (3) The written manual shall set out inspection and maintenance programme for each components forming part of the installation and in addition to fixing a schedule for inspection and tests, the procedure to be followed during repairs so as to ensure safety of persons and property shall also be laid down.

E. TRAINING :

Every installation shall be provided with a training plan and the manner in which it will be implemented and maintained and the training manual shall comprise of under mentioned components-

- (1) Procedure of basic operation to be carried out in the installation in the normal course.
- (2) Carrying out of emergency procedures that relate to duties at the installation for each concerned personnel.
- (3) The characteristics and potential hazards of LNG during operation and maintenance of the facility, including dangers from frostbite that can result from contact with LNG.
- (4) The methods of carrying out duties of maintaining and operating the facility as set out in the manual of operating and maintenance procedures.
- (5) The LNG transfer procedure.
- (6) Fire prevention, including familiarization with the fire control plan of the installation, fire fighting, the potential causes of fire in a facility, and the types, sizes and likely consequences of a fire in the installation.
- (7) Recognising situations in which it is necessary to obtain assistance in order to maintain the security of the facility.

SECTION 4**LNG OR LCNG DISPENSING**

This section lays down the requirements for Auto LNG dispensing station and LCNG facilities.

(A) GENERAL :

- (1) LNG refueling sites dispensing saturated LNG with personnel in the immediate vicinity shall provide barrier walls or equal protection in order to protect the refuelling operator and vehicle.
- (2) All facility piping other than the refuelling hose to the vehicle shall be behind a barrier, which in the case of an equipment or device malfunction deflects the saturated LNG upward.
- (3) LNG dispenser shall observe minimum 6 m clear safety distance from the property line.

(B) SYSTEM COMPONENT QUALIFICATION:**(1) Vehicle Fuelling Dispenser :**

- (a) The type of the dispenser used for dispensing LNG shall conform to specification and be of a type approved by the Chief Controller.
- (b) The dispenser shall be protected from vehicle collision damage.
- (c) An ESD shall be provided that includes a shutoff valve for stopping liquid supply and shutting down transfer equipment.
- (d) An ESD actuator, distinctly marked for easy recognition with a permanently affixed, legible sign, shall be provided near the dispenser, vehicle unloading facility and in sales/control room.
- (e) The maximum delivery pressure at the fuelling nozzle shall not exceed the maximum allowable working pressure of the vehicle fuel tanks.
- (f) (i) Hose or arms shall be equipped with a shutoff valve at the fuel end and a breakaway device to minimise release of liquid and vapour in the event that a vehicle pulls away while the hose remain connected.
(ii) Such a device shall be installed and maintained in accordance with the OEM component manufacturer's maintenance/safety instructions.
(iii) A breakaway device shall be arranged to separate using a force not less than 102 kgf and not greater than 125 kgf where applied in any direction that the vehicle would move.
- (g) The hose shall be secured to protect it from damage when not in use.
- (h) (i) Where a hose or arm of nominal 76 mm diameter or larger is used for liquid transfer or where one of nominal 100 mm diameter or larger is used for vapour transfer, an emergency shutoff valve shall be installed in the piping of the transfer system within 3.1 meter from the nearest end of the hose or arm.
(ii) Where the flow is away from the hose, a check valve shall be permitted to be used as the shutoff valve.
(iii) Where either a liquid or vapour line has two or more legs, an emergency shutoff valve shall be installed either in each leg or in the feed line before the legs.
- (i) The OEM manufacturer's instructions shall be posted near the dispenser.
- (j) Operating instructions identifying the location and operation of emergency controls shall be posted conspicuously in the facility area.
- (k) LNG fuelling facilities transferring LNG during the night shall have permanent, adequate lighting at points of transfer and operation.

- (1) The transfer of LNG into vehicular onboard LNG containers shall be performed in accordance with the onboard LNG container and refuelling component OEM manufacturer's instructions.

(2) Vehicle Fuelling Connector:

- (a) A fuelling connector and mating vehicle receptacle shall be used for reliable, safe, and secure transfer of LNG or gas vapour to or from the vehicle.
- (b) The fuelling connector either shall be equipped with an interlock device that prevents release while the line is open or have self-closing ends that automatically close upon disconnection.

(3) Installation of Emergency Shutdown Equipment (ESD):

- (a) ESD shall be provided near to the dispenser, LNG unloading facilities and sales or control room.
- (b) Instrumentation for LNG fuelling facilities shall be designed so that, in the event of a power or instrumentation failure, the system goes into a fail-safe condition until the operators either reactivate or shut down the system.
- (c) All ESDs shall be manually reset.

SECTION 5

NON FUELING FACILITIES IN LNG OR LCNG STATIONS

Non fuelling facilities like small convenience stores, service station, ATM, PCO, whenever provided, shall be beyond safety distance mentioned in this schedule. In addition a minimum distance of 10 meter from the LNG/LCNG dispensers shall be maintained and the accessibility to such non fuelling facilities shall not be through operational area. While providing such facilities, factors like degree of congestion in the premises, easy entry and exit of the vehicle coming for refuelling and easy manoeuvrability of LNG road tanker while moving out of the premises in the event of emergency shall also be taken into consideration.

SECTION 6

BOIL OFF GAS MANAGEMENT

When LNG station is being set up, the capacity of storage tank may be optimized so as to minimize the BOG venting. For effective BOG management, the operator may use the gas to avoid venting with the approval of the Chief Controller.

SECTION 7

RECOGNITION OF AUTO LNG INSTALLER

- A. The company intending to install LCNG/Auto LNG dispensing station shall meet the following criteria for considering recognition by the Chief Controller. It shall -
 - (i) be proprietary firm or partnership firm or private limited company or limited company;
 - (ii) possess adequate tools and machinery to execute installation work;

- (iii) possess ISO certification;
- (iv) Have sufficient in-house specialists well conversant with-
 - (a) Installation of LCNG or Auto LNG equipments, their operations, maintenance and training of personnel;
 - (b) LCNG or Auto LNG regulations and the hazards associated;
 - (c) Codes of practice relating to setting up LCNG or Auto LNG stations;
 - (d) interpretation of drawing and schemes as far as relevant for the execution of the work;
- (v) strength of the personnel engaged by the firm or company shall be in agreement with the number of stations proposed to be installed or maintained;
- (vi) have professional administration and organisation with clear levels of responsibility;
- (vii) take responsibility for the development of professional skills of its personnel;
- (viii) take responsibility of operations, periodic maintenance and breakdown maintenance in the stations and enters into a legal agreement with its dealers in this respect for specific period;

B. Procedure for granting recognition of LCNG or Auto LNG installer:

- (i) Any organisation intending to be recognised as LCNG or Auto LNG dispensing station installer shall submit application giving details of their company's credentials with regard to their experience in the field of installation and maintenance of LCNG or Auto LNG dispensing station to the Chief Controller.
- (ii) Every application shall be accompanied by a scrutiny fee as specified in Part B of Schedule I.
- (iii) The Chief Controller shall within a period of ninety days from the date of receipt of the application either—
 - (a) prima facie after having satisfied himself with regard to competence and professional ethics, for recognition of the applicant as a LCNG/Auto LNG dispensing station installer, as the case may be, shall call the applicant along with his technical team for an interview by a team of officers nominated by Chief Controller for assessing the technical and practical knowledge and capability of the applicant; or
 - (b) if the applicant does not prima facie meet the requirement for recognition shall reject the application with reasons; or
- (iv) (a) if the applicant in the interview conducted under this rule is found to have adequate knowledge and capability for the recognition applied for, the Chief Controller shall grant the recognition under the rules.
 - (b) in case any applicant is not found suitable, the Chief Controller shall reject the application specifying the reasons.
- (v) initially the recognition granted under clause (iv) shall be valid for a period of one year and subsequently, based on performance report, validity of recognition may be renewed for a further period of two years.
- (vi) Chief Controller may revoke or suspend recognition granted to the installer if the installer does not full-fill the obligations as mentioned in this Schedule.
- (vii) the Chief Controller may after giving an opportunity to the installer of being heard, may revoke the recognition-
 - (a) if he has reason to believe that the installer, has violated any condition stipulated in the letter of recognition or has acted in a manner inconsistent with the intent or the purpose of these rules; or
 - (b) for any other reason to be recorded in writing.

SECTION 8
EMERGENCY PLAN

Every LCNG or Auto LNG dispensing station shall have a written emergency plan in place to control the hazards from serious auto LNG leakage or fire and this plan shall contain instructions for emergency shutdown of the station, warning to customers and other people in the surrounding, calls for assistance, usage of fire fighting equipments among others and the plan shall be tested from time to time for evaluation of its adequacy and shall be updated and modified as required”.

12. In the said rules, after “Form LS-1B”, the following Form shall be inserted, namely:-
“FORM LS-1C

(See rules 50, 51, 54 and 55)

LICENCE TO STORE AND DISPENSE AUTO LNG IN AUTO LNG DISPENSING STATION AS AUTOMOTIVE FUEL TO MOTOR VEHICLES.

Licence No : _____ Fee Rs. _____

Licence is hereby granted to _____ for storage of auto-LNG in the cryogenic pressure vessels indicated below in the premises described below and dispensing of auto-LNG/ LCNG as automotive fuel to motor vehicles, subject to the provisions of the Indian Explosive Act, 1884 (4 of 1884) and the rules made there under and to the further conditions of this licence.

Vessel No.	Water capacity in cubic meter	Quantity of auto-LNG granted in Kgs

The licence shall remain in force up to the 30th day of September 20_____.

The _____20 _____ Chief Controller of Explosives /Controller of Explosives

DESCRIPTION OF LOCATION AND FACILITIES OF THE LICENSED PREMISES

The licenced premises, the layout, boundaries and other particulars of which are shown in the attached approved plan No. _____ dated _____ are situated at (address) _____ and consists(in addition to storage vessels mentioned above) of :-

(i) _____ numbers dispensers, make _____

(ii) other facilities _____

SPACE FOR ENDORSEMENT OF RENEWALS

The licence shall be renewable without any concession in fee for five years in the absence of contravention of the provisions of the Indian Explosives Act, 1884 or Static and Mobile Pressure Vessels (Unfired) Rules, 2016 framed there under, or of the condition of the licence.	Date of Renewal	Date of Expiry	Signature and Office Stamp of the Licensing Authority
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This licence is liable to be cancelled if the licensed premises are not found conforming to the description and conditions attached hereto and for contravention of any of the rules and conditions of this licence and the holder of this licence is also punishable under the Act.

CONDITIONS

1. The licensed premises shall conform to the description of location and facilities and to the approved plan, as mentioned on the body of the licence.
2. The licensed premises shall be used only for the purpose it is licensed for.
3. Every licensed premises under these rules shall have prominently marked thereon the number of the licence held for it.
4. The emergency telephone numbers of local fire service, police and the principal marketing company or supplier of the compressed gas, and emergency instructions shall be conspicuously displayed in the licensed premises.
5. Auto-LNG shall be stored only in one or more pressure vessels installed aboveground, as per provisions of these rules.
6. The storage vessel, pumps, dispenser, piping and other fittings shall be of a design suitable for auto-LNG.
7. Storage vessels shall not be installed within any building or shed.
8. A hard stand for parking the tank-truck for the purpose of unloading auto-LNG into the storage vessels shall be provided as per rules.
9. The facilities and equipments of the licensed premises shall meet the safety distance requirements as specified in Schedule IV.
10. Auto-LNG shall be dispensed only into those containers of motor vehicles, which are approved by the Chief Controller, and have passed the periodic statutory tests under Gas Cylinders Rules, conducted by a testing station recognised by the Chief Controller.
11. The dispenser used for dispensing auto-LNG shall conform to Schedule-IV and a specification approved by the Chief Controller.
12. All piping and fittings shall conform to Schedule-IV.
13. No person shall enter or cause to repair or repair either by the use of fire, welding, hot riveting or brazing any vessel used for the storage of flammable gas unless it has been thoroughly cleaned and gas-freed or otherwise prepared for safely carrying out such hot work and certified in writing, by a competent person.
14. The operation of the licensed premises shall be under the supervision of a person having knowledge of the equipments used in the premises and trained in handling compressed gas, and other operators shall be conversant with the hazards associated with the LNG, compressed gas and fire fighting operations.
15. Auto-LNG shall not be filled into or removed from the vessel except by means of transfer facilities shown in the approved plan attached to the licence.
16. Smoking, naked lights, lamps, source of fire or any other stimulant capable of igniting flammable vapours shall not be allowed inside the premises and every person managing or employed on or in connection with licensed premises shall abstain from any act whatsoever which tends to cause fire or explosion and which is not reasonably necessary and to the best of his ability, shall prevent any other person from doing such act.
17. The vessel shall not be filled between the hours of sunset and sunrise without written permission from the chief controller.
18. All electrically equipment such as motors switches, starters, etc, used for transfer of LNG shall be of flameproof construction conforming to IS/IEC 60079-1 to 11 or of a type approved by Chief Controller.
19. At least two numbers of nine kilograms capacity dry chemical type fire-extinguishers shall be provided near the tank-truck unloading area and one number similar extinguisher shall be provided near each dispenser and transfer pump location. In addition, fire fighting facilities specified in Schedule IV shall be provided.
20. During the period of unloading of LNG from tank-truck to the storage vessels dispensing operation to the vehicles shall not be carried out.
21. The emergency telephone numbers of local fire service, police and the principal marketing company, and emergency instructions shall be conspicuously displayed in the licensed premises.
22. All valves on the vessel and pipelines in the premises shall be permanently marked in a manner clearly indicating the direction of opening and closing.
23. Free access to the licensed premises shall be given at all reasonable times to any of the officers specified in rule 70 and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

24. If the licensing authority calls upon the holder of a licence by a notice in writing to execute any repairs in the licensed premises which are, in the opinion of such authority, necessary for the safety of the premises, the holder of the licence shall execute the repairs within such period as may be specified in the notice.
25. Any accident, fire, explosion or untoward incident occurred within the licensed premises shall be immediately reported to the Chief Controller, Controller, nearest police station and District Magistrate by quickest mode of communication.”.

[F. No. 2(1)2017-Expls]

SHAILENDRA SINGH, Add.1 Secy.

Note:— The principal rules were published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (i) *vide* notification number G.S.R. 1109(E), dated the 1st December, 2016.

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