

APPENDIX-II A

[See rules 2(viii) and 2 (xxviii)]

QUALIFICATION AND EXPERIENCE OF INSPECTOR OR COMPETENT PERSON

Sl. No.	Rule under which competency is recognised	Qualification and other requirements	Experience for the purpose	Minimum facilities
1.	Rules 6(1) and 13(2)	(1) Degree in chemical or Mechanical or Metallurgical or Marine Engineering from a recognised university or equivalent professional qualifications. (2) Physically fit and mentally sound for carrying out tests and examination.	(1) A minimum experience of 10 years in design, fabrication and stage-wise inspection during fabrication of pressure vessels and equipments operating under pressure. He shall be – (2)(a) Conversant with the relevant codes of fabrication and test procedures relating to pressure vessels and their fittings. (b) Conversant with the statutory requirements concerning design and safety of unfired pressure vessels.	Standard gauges and instruments conforming to national/international standards for test and examination at every stage of fabrication. Either the Inspector shall have these or these shall be available to him. The Inspector shall be responsible for ensuring the quality and accuracy of these gauges and instrument used by him. A documented system to ensure this shall be maintained by the Inspector.
2.	Rule 18, 19, 33 and 43.	(1) Degree in Chemical or Mechanical Engineering or Marine Engineering or Metallurgical Engineering or equivalent professional qualifications. (2) Physically fit and mentally sound for carrying out tests and examinations	(1) A minimum experience of 10 years in— (a) Design and fabrication, erection, operation, maintenance and; (b) testing examination and inspection of pressure vessels or equipment operating under pressure. (2) He shall be- (a) conversant with the relevant code of practice and test procedures relating to pressure vessels; (b) conversant with statutory requirements concerning safety of unfired pressure vessels installations & transport vehicles. (c) conversant with non-destructive testing techniques as are applicable to pressure vessels. (d) able to identify defects and arrive at a reliable conclusion with regard to the safety of pressure vessels.	Standard gauges, pumps and gadgets for hydraulic and pneumatic pressure tests, non-destructive tests, equipments for ultrasonic thickness test, ultrasonic flaw detection magnetic particle inspection and any other test that may be required by Chief Controller in specific cases. Either the Competent Person shall have these facilities or these shall be available to him. The Competent Person shall be responsible for ensuring the quality and accuracy of the gauges and equipments and the competence of any person that may be employed for performing a non-destructive test. Competent person intending to carry out the inspection and testing of mobile pressure vessels meant for transportation of flammable or toxic or corrosive gases under Rule 18 and or 19 may have required facilities for carrying out degassing, inspection and testing as stipulated in Appendix IIB at his command. In case, if he does not have his own approved degassing station, he may enter into agreement with owner of approved degassing station to undertake degassing, periodic inspection and testing of mobile pressure vessels meant for transportation of flammable/toxic/corrosive gases

Note:- The constituent members of an organisation shall fulfil the requirements under Column-3 individually and those under Column-4 collectively.

APPENDIX—II B

[See rule 2 (xxvii)]

Minimum required Facilities at Gas Tanker Degassing Station**(I) LPG, Propane and other Flammable Gases:**

- (1) Minimum 7,500 litre water capacity static pressure vessel to hold compressed gas temporarily covered under licence in Form LS-1A.
- (2) Minimum safety distance of 30 metres around the vent stack to release the excess gas. The vent shall be at least 11 metres high & adequately supported and shall be provided with device to prevent reverse flow of the vent gas. The venting of the gases shall be kept to the bare minimum.
- (3) Minimum 100 KL Water Storage Tank, connected pumps, piping and fittings, compressor etc with safety inter locks for carrying out the de-pressurising, de-gassing, purging, hydraulic test.
- (4) Necessary facilities to carry out the Internal Visual Inspection, NDT and Hydraulic test as per the design code and re-commission/purge the vessel for safe re-filling of the gas for which it is licensed.
- (5) Facilities to service/repair, calibrate, test and check the proper functioning of safety valves, excess flow valves, internal type excess flow valve, level gauges, pressure gauges, connected piping, valves and other fittings.
- (6) Facilities for cold repair of dents and non pressure parts like baffle plates, replacement of corroded bolts/studs, nuts, gaskets, fitments of internal excess flow valves.
- (7) Levelled hard ground, lifting jacks, ramps, proper illumination for the Tanker Parking Area, flammable gas detectors, oxygen content meter, and other safety equipments.
- (8) Fire fighting facilities consisting of water monitors and sufficient numbers of DCP type fire extinguishers.

(II) Toxic and or corrosive gases:

- (1) Minimum 7,500 litre water capacity static pressure vessel to hold compressed gas temporarily, if required, covered under licence in Form LS-1A.
- (2) Direct venting of the gas in to the atmosphere is prohibited.
- (3) Facility shall have the arrangement of dedicated water storage tanks for each type of gas, and shall be of adequate capacity to fill water in the mobile pressure vessels for dissolving the water soluble gases and neutralisation of the water used in this process.
- (4) Efficient scrubbing and neutralisation system and connected facilities for safe disposal of the contaminated water.
- (5) Facilities to service/repair, calibrate, test and check the proper functioning of safety valves, excess flow valves, internal type excess flow valve, level gauges, pressure gauges, connected piping, valves and other fittings.
- (6) Facilities for cold repair of dents and non pressure parts like baffle plates, replacement of corroded bolts/studs, nuts, gaskets and fitment of internal excess flow valves.
- (7) Levelled hard ground, lifting jacks, ramps, proper illumination for the Tanker Parking Area, flammable and toxic gas detectors, oxygen content meter and other safety equipments.
- (8) Fire fighting facilities consisting of water monitors and sufficient numbers of DCP type fire extinguishers.

The approved mobile pressure vessel degassing station shall maintain record pertaining to degassing and purging of pressure vessels and shall issue degassing and or purging certificate in the proforma prescribed by the Chief Controller and shall be generated online as and when notified by the Chief Controller.

(III) Procedure for obtaining prior approval for degassing station.—

- (a) Mobile tankers for any flammable, toxic or corrosive gas, before being tested or examined under rules 18 or 19, shall be degassed to remove hazardous contents so as to ensure safety. Such degassing shall be carried out only at location approved by the Chief Controller either in plants or stations where such tankers are

loaded or unloaded or in dedicated degassing station erected with facilities specified in this Appendix and approved by the Chief Controller;

- (b) Any person intending to set up a dedicated Mobile tanker degassing station referred in clause (a), shall submit his application to the Chief Controller for obtaining prior approval along with a project report comprising of following information-
- (i) introduction about his organisation's status and capability to undertake the degassing job;
 - (ii) particulars of the site location, its accessibility, means of protection to prevent entry of unauthorized persons and its suitability for the specific purpose;
 - (iii) list of all facilities proposed to be provided including civil, mechanical electrical, degassing, fire fighting, pumps, compressors, communication etc;
 - (iv) step by step procedure to be followed for degassing and purging for the test and inspection;
 - (v) nature of deployment of technical manpower for supervision and execution of the job in safe manner;
 - (vi) four copies each of site, layout, Piping and Instrumentation (P&I), and other required drawing(s);
 - (vii) HAZOP study and Risk analysis report;
 - (viii) Three copies of layout drawing for obtaining prior approval under Form LS-1A;
 - (ix) NOC or consent letter of State Pollution Control Board if already obtained or same can be submitted along with the documents for grant of licence in Form LS-1A; and
 - (x) A scrutiny fee as specified in clause (B) of the Schedule I for prior approval under Rule 46.