



भारत सरकार

GOVERNMENT OF INDIA

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन

Petroleum and Explosives Safety Organisation

(पूर्व नाम - विस्फोटक विभाग)

(Formerly- Department of Explosives)

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कार्यालयीन उद्देश्य के सभी पत्रादि
“मुख्य विस्फोटक नियंत्रक” के पदनाम से
भेजे जाए उनके व्यक्तिगत नाम से नहीं.

संख्या /No. PV(T) Genaral/2022

नागपूर, दिनांक /Nagpur, dated 20/08/2026

Circular

Subject: - Stakeholder consultation on Draft Standard Operating Practices (SOP's) & Term of Reference (TOR) under SMPV (U) Rules, 2016.....reg.

Objections and suggestions, wherever applicable, are invited from fabricators of pressure vessels under the Static and Mobile Pressure Vessels (Unfired) Rules, 2016, Third Party Inspection Agencies (TPIAs) recognised under the SMPV(U) Rules, 2016, and transporters of compressed gases on the enclosed draft Standard Operating Procedures (SOPs) and Terms of Reference (TOR).

Stakeholders are advised to carefully examine the draft SOPs and TOR and submit their specific comments, objections and suggestions through this form on or before 28.08.2026. The comments received will be examined by the competent authority and may be considered while finalising the SOPs/TOR.

Note: Stakeholders are requested to provide specific clause-wise comments, wherever applicable. Google Form Link: <https://forms.gle/AwzYcwCqbXr9Gfyy5>

QR Code: -



(K. S. Rao)

Dy. Chief Controller of Explosives
For Chief Controller of Explosives

To,

All the Fabricators of pressure vessels/TPIA/Transporter of compressed gases (Through peso website www.peso.gov.in only).

SOP for Fabrication, Certification by TPIA and License for Transportation of Pressure (U) Rules, 2016

1. SOP for Pressure Vessel Fabricator: -

- i. Fabrication of pressure vessels shall be carried out in Chief Controller of Explosives approved Premises only.
- ii. The pressure vessel fabricators approved under SMPV(U) Rules 2016 shall maintain and preserve documentary evidence of the purchase invoice of materials giving details of heat no., Sheet/plate no., thickness and grade of material including MOC details, vessel tare weight, test certificates, travel details of INSPECTOR/TPIA.
- iii. The material balancing records shall be kept by the fabricator for uploading in in PESO portal to maintain digital data base.
- iv. All above details shall be incorporated in the Certificate of Control of the vessel issued by INSPECTOR/TPIA under Rule 13(2) after verification of these documents as well as in fabrication certificate issued by the fabricator.
- v. Videography of the stage wise inspections of the pressure vessel conducted by the competent person and third party inspector shall be carried out with date and securely preserved and to produce the licensing authority on demand.
- vi. Declaration shall be given in regard to capacity for manufacturing of pressure vessels consistent with available infrastructure, manpower, machineries, etc, once in every six months, i.e. as on 30th June and 31st December every year by the fabricator. Any change in infrastructure and man power shall be informed to Chief Controller of Explosives.
- vii. The records shall be maintained duly signed by the fabricators from inception of procurement of materials, MOC, stage-wise fabrication, radiography, photographs/radiographic films, stress relieving, quality control checks, hydro-testing, installation of safety fittings including Safety Relief Valves, excess flow valves etc. and mounting of the pressure vessels. These records shall be countersigned by the INSPECTOR/TPIA during stage wise inspection. Records retention period shall be minimum 10 years.
- viii. The pressure vessel fabrication shall have in house facilities for shell and dish end fabrications. These facilities shall not be outsourced. The fabricators, who are not having in-house dish end fabrication facilities; shall install the same within one year (Circular dt. 11.03.2025) of issue of this letter and submit requisite documents under Rule 4 for further course of action.
- ix. All new pressure vessels shall be installed with new safety fittings such as SRVs, excess flow valves, level gauges duly approved by the Chief Controller of Explosives. The purchase invoice no. containing serial no. of the SRVs shall be mentioned in the fabrication certificate and the Certificate of Control of the vessel issued by INSPECTOR/TPIA
- x. No used Safety Relief valves and other fittings of any used/scrapped/condemned vessels shall be reused/installed in new pressure vessel.
- xi. The provision of Rule 6 of SMPV Rules 2016 shall be adhered to for repair and modification to pressure vessels. The directions issued vide PESO Circular no. PV(T) General/2022 dated 06/09/2022 shall be scrupulously followed and strictly complied by all fabricators for modification/reconditioning of pressure vessels.
- xii. The SOP for all operations carried out in the fabrication shop shall be displayed conspicuously in the fabrication shop. The same shall be scrupulously followed and checked by employees, INSPECTOR/TPIA during stage wise inspection of fabrication and testing of vessels.

2. SOP for TPIA/Inspector: -

- i. The inspector is required to maintain travel documents, Log Books/inspection records, the reports of plate thickness, Test Reports, Heat No and quantum of sheet metal used for fabrication of pressure vessels as per procedure laid down in code of fabrication including statutory provisions under SMPV(U) Rules, 2016.
- ii. The inspector shall strictly adhere to the code of practice for fabrication of pressure vessels and the provisions of SMPV(U) Rules, 2016. The stage-wise inspection shall be carried out by Inspector recognized by CCE only and shall ensure to follow recognized fabrication code for a particular vessel and ensure the verification of supplier bill/ invoice / MOC/ Heat No./ thickness details and give declaration to effect that the vessel fully confirms to the design code, CCE fabrication approval granted under Rule 13(1).
- iii. Presence of inspector is mandatory during all phases of pressure vessel manufacturing like material identification; stress relieving, hydro-test, pickling and passivation etc. Records in this regard shall be maintained by inspector for each vessel. All stage wise inspection and testing shall be carried out under CCTV surveillance.
- iv. The inspector involved in the design appraisal of pressure vessel as per Rule 13 of SMPV (U) Rules 2016, shall ensure that the vessel fabrication drawing has a column of bill of material and empty weight of the vessel, and the design calculations shall include the calculations for vessel empty weight.
- v. The inspector shall check the empty weight of the fabricated vessel as per the bill of material mentioned in the approved fabrication drawing of the vessel and shall mention the actual empty weight in the Certificate of Control issued under Rule 13 of SMPV(U) Rules, 2016.
- vi. The inspector shall ensure that CCE approved pressure vessel safety fittings installed in one vessel shall not be reused in any other vessel. Thus, no used Safety Relief valves and other fittings of any used/scrapped/condemned vessels shall be allowed for reused/installed in other vessels.
- vii. The fabrication drawings along with Design Calculation & Safety Valve sizing calculation shall be endorsed by the inspector, in respect of each type of pressure vessel to conform compliance of the design code and the provisions of SMPV(U) Rules, 2016.
- viii. The certificate issued by the inspector under Rule 13(2) for a particular vessel, the same inspector and /or his associated Competency Firm/Competent Persons shall not issue any certificate under Rule 33/43 for the aforesaid vessel.
- ix. The issuance of Certificate of Control (COC) shall be restricted to maximum 4 (four) vessels per month by a one inspector.
- x. At the time of delivery of material sheets to the fabrication shop, its complete details must be entered in a dedicated register and entry must be signed jointly by competent person and the fabricator with date.

3. SOP for Transporter(LS-2 License): -Documents To Be Submitted For Grant Of Licences in Form LS-2 Of SMPV (U) Rules, 2016 & Other Details to be Provided on a Vessel.

- i. Self-attested Copy of RC bearing complete Vehicle details including laden / un-laden weight. RC shall contain permanent as well as local address for which a proof to be enclosed.
- ii. Copy of GST bill paid for finished vessel. The GST bill shall contain serial number of the vessel.
- iii. The Certificate of Control issued by the inspector and duly countersigned by the approved fabricator as required under Rule 13(2) of SMPV (U) Rules 2016, shall be submitted at the time of grant of license under SMPV (U) Rules 2016.
- iv. Fabrication certificate issued by the fabricator.
- v. Safety certificate issued under Rule 43 and SRV Test certificate under Rule 18 of SMPV(U) Rules, 2016 by the "Competent Person" recognized by PESO.
- vi. The Transporter shall ensure that no used Safety Relief valves and other fittings of any used/scrapped/condemned vessels has been used/installed in the vessel.
- vii. "Certificate of Control" issued by the Inspector under Rule 13(2) of SMPV(U) Rules, 2016. In the control certificate under para no. 1.6 purchase order and date to be mentioned.
- viii. Mounting and fabrication drawing approved by Chief Controller of Explosives, Nagpur.
- ix. 'As built' fabrication drawing of mobile pressure vessel signed by applicant and endorsed by the third party inspection agency.
- x. Computerized Weighing Slip of the Pressure Vessel tanker.
- xi. Undertaking to be submitted by both the fabricator & TPIA w.r.t. grade of material purchased and used for fabrication & testing of the vessel as per the code of fabrication.
- xii. Duly filled and signed online generated application in Form - II.
- xiii. Photographs of the vessel before and after painting to be submitted.
- xiv. The information on Scraping/Condemnation of Chief Controller of Explosives approved pressure vessels shall be reported to PESO. The scraping/Condemnation of approved pressure vessels shall be undertaken as per code in presence of recognized competent person/inspector subsequent to issuance of degassing certificate.
- xv. Transporter shall ensure submission of all supported documents (such as Payment receipt with GST no.s) from the scrapping agency for scrapping of pressure vessel along with surrender application.

Terms of Reference for Competent Person/TPIA/ Inspector

PESO is administering Static and Mobile Pressure Vessels, SMPV(U) Rules, 2016:-

Following is the statutory requirements to be performed by the TPIA/Inspector/Competent Person under the aforesaid rules: -

1. Rule-6- Repair and modification to pressure vessels.—

- i. No person shall carry out any repairs or modifications to any vessel unless the prior approval of repairs or modifications, procedure and their method of execution is obtained from the Chief Controller or Controller authorized by him on payment of a scrutiny fee as specified in clause B of Schedule I. Any such repairs or modifications shall be carried out in the manner and by practices acceptable under the design code referred to in rule 13 including **NDT and pressure testing under stage wise inspection of inspector recognized by the Chief Controller**: Provided that nothing in this rule shall apply to the replacement of any of the fitments of the vessel which does not involve any heating.
- ii. Complete record of repairs, additions or alterations referred to in sub-rule (1) shall be maintained and made available to the Chief Controller or Controller authorized by him and his permission shall be obtained before re commissioning of the vessel.

2. Rule -13- Design code.— (1) Vessels shall be designed, constructed and tested in accordance with IS 2825; ASME Section VIII Division 1 or Division 2, PD5500, EN 13458, EN 13530, AD:2000 code as amended from time to time, or such other standard or code accepted by the Chief Controller.

(2) A test and inspection certificate issued by the **Inspector and countersigned by the approved fabricator** in the prescribed proforma that the vessel meets with the requirements of the standard or code referred to in sub-rule (1) shall be furnished to the Chief Controller or Controller authorised by the Chief Controller.

3. Rule-18 (xiii)- Safety relief valves shall be tested by a **Competent Person** for correct operation at least once in a year and a record of such test shall be maintained. The test certificate shall be issued in the prescribed proforma.

4. Rule 19: -Periodic testing of pressure vessels in service.—

(1) (a) Except specifically otherwise provided in this rule, all vessels shall be hydraulically tested by a **Competent person, Third Party Inspection Agency (TPIA)** at a pressure marked on the vessel at intervals of not more than five years after the date of first test, provided that in the case of vessels, containing corrosive or toxic gases, the periodic test shall be done at an interval of two years. Internal inspection along with residual thickness measurement shall be carried out during the periodic testing.

(7) The Competent person/ Third Party Inspecting Agency (TPIA) carrying out the test as required under sub-rule (1) to sub-rule (6) above shall issue online certificate of test in the prescribed proforma along with the Annexures giving the details of NDT inspections prescribed above.

5. **Rule-33- Certificate of safety.** — A certificate of safety in the proforma prescribed by the Chief Controller and signed by a **Competent person/ Third Party Inspection Agency (TPIA)** shall be furnished to the licensing authority before any vessel is used for the storage of any compressed gas or whenever any addition or alteration to the installations or foundations for the vessel is carried out.
6. **Rule-43- Certificate of Safety.**—A certificate of safety in prescribed proforma signed by a **Competent person/ Third Party Inspection Agency (TPIA)** shall be furnished to the licensing authority before any vehicle is used for the transportation of any compressed gas to the effect that the vehicle meets with the provisions of the rules in this Chapter.

As you are a Recognized Competent Person/TPIA/Inspector for carrying out the aforesaid work under SMPV(U) Rules, 2016 you shall adhere to the followings: -

- i. PESO may conduct your factory inspections as well as field inspections to verify your adherence to approved design standards, stage-wise manufacturing inspection, and hydrostatic testing.
- ii. You may be called anytime to assist PESO in carrying out inspections of the facilities as informed to you with no added cost to PESO.
- iii. You have to ensure independent reporting, by prohibiting inspectors who issued stage wise fabrication certificates from performing subsequent in-service or PESO modification inspections on the same vessel.
- iv. You may be asked to impart training to any of the personnel as decided by PESO with no added costs to PESO.
- v. You are required to report the work orders executed by you to PESO annually.
- vi. You shall maintain records & submit annual return in prescribed format in respect of certificate issued by you, indicating Chief Controller of Explosives/Jt. Chief Controller of Explosives approval reference no. in respect of proposed licensed premises; Certificate number; Name & address of the applicant company/client; complete address of the site/premises; Name of contact person of the company/client; etc.
- vii. You are advised to strictly follow the standard design codes approved by CCE for fabrication of pressure vessels and report any malpractices observed by you in fabrication of pressure vessels to PESO, if it comes to your notice even for vessels not being inspected by you
- viii. Any change in technical manpower in your organization shall be reported to PESO immediately.
- ix. The recognition granted above may be revoked at any time in case of any violations of any condition of this recognition letter or if your performance is not considered satisfactory or found involved in any unethical and unprofessional conduct or not found physically fit and mentally sound for carrying out tests and examinations.
- x. **Any malpractices or false certification etc. may lead to suspension/revocation of recognition of TPIA. In addition to above TPIA shall be liable to be punished under Section 9B of the Explosives Act, 1884 and relevant sections of BNS, 2023.**

Term of Reference for Fabricators of Pressure Vessels under SMPV (U) Rules, 2016

PESO is administering Static and Mobile Pressure Vessels, SMPV(U) Rules, 2016:-

Following is the statutory requirements to be followed during fabrication of pressure vessels: -

Rule 4.- Restriction on filling, manufacture and import of pressure vessels including fittings and vapouriser.—

(1) No person shall fill any compressed gas in any vessel or transport any vessel filled with any compressed gas unless such vessel has been manufactured in accordance with a type or standard or code as specified under Rule 13 and fitted with fittings approved by the Chief Controller.

(2) No person shall manufacture any vessel and fitting thereof, under sub-rule (1) including vaporiser without the prior approval of the Chief Controller.

As you are an approved fabricator for the fabrication of pressure vessels by the Chief Controller of Explosives, You shall strictly adhere to the followings: -

- i. Fabrication of pressure vessels shall have to be carried out strictly in accordance with the provisions of SMPV(U) Rules 2016 and following the fabrication code IS:2825 / ASME Sec. VIII or any other standard approved by Chief Controller of Explosives under the stage wise inspection of any 3rd Party Inspecting Agency recognized by this office. Any other recognized fabrication code for a particular vessel shall only be followed after getting specific approval for the same from this office.
- ii. The fabrication drawings along with Design Calculation & Safety Valve sizing calculation duly endorsed by the Inspecting Agency referred above, in respect of each type of pressure vessel to be fabricated by you, shall have to be submitted to this office for prior approval.
- iii. Any change in the technical personnel and fabrication machineries shall be intimated to this office in immediately. The recognition granted above may be withdrawn at any time if your performance is not considered satisfactory and not followed CCE Circular.
- iv. Quality control shall be ensured as per the design code for the fabrication of pressure vessels and its fittings.
- v. The provision of Rule 6 of SMPV Rules 2016 shall be adhered to for repair and modification to pressure vessels. The directions issued vide PESO Circular no. PV(T) General/2022 dated 06/09/2022 shall be scrupulously followed and strictly complied by all fabricators for modification/reconditioning of pressure vessels.

- vi. The records shall be maintained duly signed by the fabricators from inception of procurement of materials, MOC, stage-wise fabrication, radiography, photographs/radiographic films, stress relieving, quality control checks, hydro-testing, installation of safety fittings including Safety Relief Valves, excess flow valves etc. and mounting of the pressure vessels. These records shall be countersigned by the INSPECTOR/TPIA during stage wise inspection. **Records retention period shall be minimum 10 years.**
- vii. All new pressure vessels shall be installed with new safety fittings such as SRVs, excess flow valves, level gauges duly approved by the Chief Controller of Explosives. The purchase invoice no. containing serial no. of the SRVs shall be mentioned in the fabrication certificate and the Certificate of Control of the vessel issued by INSPECTOR/TPIA.
- viii. The provision of Rule 6 of SMPV Rules 2016 shall be adhered to for repair and modification to pressure vessels. The directions issued vide PESO Circular no. PV(T) General/2022 dated 06/09/2022 shall be scrupulously followed and strictly complied by all fabricators for modification/reconditioning of pressure vessels.
- ix. The SOP for all operations carried out in the fabrication shop shall be displayed conspicuously in the fabrication shop. The same shall be scrupulously followed and checked by employees, INSPECTOR/TPIA during stage wise inspection of fabrication and testing of vessels.
- x. **Any malpractices or false certification etc. may lead to suspension/revocation of recognition of TPIA. In addition to above TPIA shall be liable to be punished under Section 9B of the Explosives Act, 1884 and relevant sections of BNS, 2023.**