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कार्यालयीन उद्देश्य के सभी पत्रादि "मुख्य विस्फोटक नियंत्रक" के पदनाम से भेजे जाए उनके व्यक्तिगत नाम से नहीं।
All communications intended for this Office should be addressed to the 'Chief Controller of Explosives' and NOT to him by name.



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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No.: PV(T) General/2022

Dated: 06/09/2022

To,

1. All the PESO approved pressure vessel fabricators
2. All the Bulk LPG Transporters

Sub: **Modifications in the existing mobile pressure vessels for enhancing the carrying capacity from 18 MT to 21 MT - reg.**

Sir,

Please refer to the VC meeting held on 05/09/2022 with Pressure Vessel fabricators and Bulk LPG Transporters.

As per deliberations in the meeting the bulk LPG transporters conveyed and unanimously expressed that modification in the existing pressure vessel which has already undergone stress, corrosion, fatigue due to cyclic loading and excessive wear & tear is not recommended. Further they clarified that instead of modifying the existing pressure vessels, new pressure vessels of higher capacity may be fabricated.

The pressure vessel fabricators conveyed that repairs & modification to the pressure vessel is permitted as per Rule 6 of the SMPV (U) Rules, 2016 & IS 2825. They informed that PESO had already issued such approvals in the past and the pressure vessels are operating safely on road. Further, they conveyed that the existing pressure vessels may be considered for modification after due assessment of the shell thickness, rate of corrosion and subject to non destructive testing (NDT).

In view of above facts and circumstances, fabricators may undertake modification in the existing pressure vessel for enhancing the carrying capacity from 18 MT to 21 MT as per Rule 6 of the SMPV (U) Rules, 2016 subject to following conditions:

1. Pressure vessels fabricated within last 3 years shall only be eligible for modification. In this regard, Certificate of Control (COC) for the pressure vessel to be submitted.
2. The modification shall be carried out by original fabricator (*i.e. fabricator who has initially designed and fabricated the pressure vessel*).
3. Fresh design calculations, design appraisal certificate and drawings duly vetted by the Inspector shall be submitted for modification on case to case basis with vessel number.
4. The pressure vessels having valid license issued in FORM LS-2 of the SMPV (U) Rules, 2016 shall only be considered for modification on case to case basis only.

5. No repairs, additions or alterations to licensed vessels shall be undertaken until the proposed repair and its method of execution has been vetted by the Inspector recognized under the SMPV (U) Rules. Modification shall be of the highest quality of workmanship executed in a manner and by practices acceptable under the provisions of the design code and under proper supervision. Complete records of repairs, alterations and additions shall be made and maintained for future reference.
6. As per Clause 6.1 (g) of IS 28225, No modification shall be made to the approved design except with prior agreement between the purchaser (road tanker owner) and the manufacturer (original road tanker fabricator).
7. The vessels shall be first subjected to non destructive tests (NDT) for issuance of re-usability certificate by TPIA. 100 % radiography of the original tank along with Magnetic Fluorescent Particle Test, Hardness Test & Ultrasonic Flaw Detection test to ascertain the health of the tank & its eligibility for enhancement of capacity from 18 MT to 21 MT shall be submitted for each vessel along with photographic evidence of the inside surface, bottom plates, baffle plates of the vessel. The results of the test shall be duly vetted by TPIA.
8. In case the bottom plate of the pressure vessel is observed to be corroded / pitting corrosion, then such pressure vessels shall not be considered for modification.
9. NDT, design appraisal & modification procedure, and Certificate of control shall not be conducted by a single inspection agency. All the three documents shall be issued by different inspection agencies of international repute having ASTM certified engineers for undertaking inspection and modifications in the existing pressure vessel.
10. Stress relieving and heat treatment of the modified vessel shall be at par with that adopted for new vessel. In addition to above, the vessel shall also be subjected to 100 % radiography of the weld joints post modification prior to the stress relieving.
11. The proposed addition of new shell plates for enhancing the carrying capacity from 18 MT to 21 MT shall not obstruct the existing nozzles, coupling, safety relief valves, safety fittings, valve box, etc. However additional saddle supports, baffle plates and safety relief valve shall be provided suitably.
12. The pressure vessel shall be provided with new couplings since old couplings needs to be discarded to avoid wear & tear of couplings as well as safety fittings.
13. After completing modifications new vessel number shall be allotted to the pressure vessel. Existing Certificate of Control and license in FORM LS-2 to be surrendered.
14. Relevant provisions of the Static and Mobile Pressure Vessels (Unfired) Rules, 2016 shall be complied at all the times.

The subject policy for modification of existing pressure vessel is liable to be reviewed or withdrawn at any time if considered necessary in the interest of safety or in case of violation of the SMPV (U) Rules, 2016.

Yours faithfully



(P. Kumar)
Chief Controller of Explosives