

Proposal for amendments to UN Regulation No. 110

The text reproduced below has been prepared by the expert from Germany to require a mandatory exterior protection of cylindrical gas tanks instead of leaving the decision up to the manufacturer. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Annex 3, paragraph 6.12., amend to read:

"6.12. Exterior environmental protection

The exterior of cylinders shall meet the requirements of the environmental test conditions of paragraph A.14. (Appendix A). Exterior protection ~~may~~ **shall** be provided by using any of the following:

- (a) A surface finish giving adequate protection (e.g. metal sprayed on aluminium, anodizing); or
- (b) The use of a suitable fibre and matrix material (e.g. carbon fibre in resin); or
- (c) A protective coating (e.g. organic coating, paint) that shall meet the requirements of paragraph A.9. (Appendix A).

Any coatings applied to cylinders shall be such that the application process does not adversely affect the mechanical properties of the cylinder. The coating shall be designed to facilitate subsequent in service inspection and the manufacturer shall provide guidance on coating treatment during such inspection to ensure the continued integrity of the cylinder.

Manufacturers are advised that an environmental performance test that evaluates the suitability of coating systems is provided in the informative Appendix H to this annex."

II. Justification

In Germany, a case of damage occurred due to corrosion of cylinders which led to a dangerous situation (explosion). This amendment aims to increase protection against corrosion with requirements regarding the exterior of cylinders.
