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Part 2

Test criteria: FCCs and Flexitank Materials

Section A

Flexitank/Container Combination Rail Impact Test Criteria

1. General

- 1.1. This test method is intended to prove the ability of Flexitanks and their installations in ISO shipping containers to withstand the effects of a longitudinal impact.
- 1.2. Testing shall be conducted by facilities that meet the test provisions required for the COA impact test and are approved for this purpose by the COA.
- 1.3. The test container shall be built according to ISO standards to meet ISO criteria and shall be a used container, with normal wear and tear and be rated at 30 tonnes gross for 20ft units and 32 tonnes gross for 40ft units, which represents containers in general service.
- 1.4. Any scheduled test shall be announced to the COA with at least 3 weeks lead-time.

2. Permitted design variations

- 2.1. The following variations in Flexitank design from an already tested prototype are permitted without additional testing:
 - a. A decrease in the tested design capacity, not reducing material layer thickness or strength characteristics.
 - b. Installation of a top-valve.
 - c. An increase in any material layer thickness provided the thickness stays within the range permitted by the material testing procedures specifications.
 - d. Specifically, any modification to or removal of any ancillary equipment applied during any testing shall not be permitted without submission of the changes or removal request to the COA's Flexitank Management Group for approval or without further testing in accordance with the requirements set out in this document.
- 2.2. Any other change in specification of the material, construction or fittings will not be covered and should be tested separately. Specifically no increase in the capacity of the flexitank is permitted.

3. Test apparatus

3.1. Test platform

The test platform may be any suitable structure capable of sustaining without significant damage a shock of the prescribed severity with the container-under-test mounted securely in place. The test platform shall be:

- a. equipped with means of ensuring a direct load transfer through the bottom corner fittings at the end of impact, e.g.