

## Agenda Item: 653-2053

**Title:** Extent of Radiography in Shell Inserts and Door Sheets

**Date:** 13 January 2022

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**Purpose:** Clarification of API 653 12.1.3.2 to emphasize “weld repairs” are repairs of existing defective welds.

API 653 12.2.1.6 as written is confusing. Clarify the extent of radiography at weld repairs in shell inserts and door sheet installations.

**Source:** Agenda Item based on SCAST Fab Inquiry 653-2021-F2

**Revision:** 0

**Impact:** The business impact of this item is neutral.

**Rationale:** The title, **12.1.3 Examination of Repaired Weld Defects**, is indicative that paragraph 12.1.3.2 is about repair of existing welds. Utilize existing API requirements and language to clarify 12.2.1.6.

**Proposal:** **Original Wording**

*12.1.3.2 Completed weld repairs of butt welds shall be examined over their full length by radiographic or ultrasonic methods. However, for completed repairs to butt welds found in shell plate to shell plate joints, the additional radiographs, as required in 12.2.1.1.c), 12.2.1.2.c), and 12.2.1.3.c), do not apply.*

### **Proposed Wording**

*12.1.3.2 Completed weld repairs of **defective** butt welds shall be examined over ~~their~~ **the** full length **of the repair** by radiographic or ultrasonic methods. ~~However, f~~ **For** completed repairs to butt welds found in shell plate to shell plate joints, the additional radiographs, as required in 12.2.1.1.c), 12.2.1.2.c), and 12.2.1.3.c), do not apply.*

### **Original Wording**

*12.2.1.6 New and replaced shell plate and door sheet welds shall be radiographed. All junctions between repair and existing welds shall be radiographed. If defects are found, 100 % radiography shall be performed on the repaired weld.*

### **Proposed Wording**

*12.2.1.6 New and replaced shell plate and door sheet welds shall be radiographed. All junctions between ~~repair~~ **new** and existing welds shall be radiographed. ~~If defects are found, 100 % radiography shall be performed on the repaired weld.~~ **If unacceptable defects are found in new welds, the extent of unacceptable welding shall be determined as described in API 650 8.1.6 and repaired. Defects in existing welds shall be evaluated in accordance with 12.2.2 of this Standard.***

**NOTES:**