# Storage Tank TK-101

Out-of-Service Inspection Report (API 653)

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| **Client** | HARBOURVIEW TERMINALS (DEMO) |
| **Site** | Bayside Marine Terminal (fictional) |
| **Inspection dates** | 22 – 26 September 2026 |
| **Inspector** | J. Doe, API 653 No. 00000 |
| **Report date** | 1 October 2026 |

## 1. Executive Summary

Tank TK-101 was inspected while out of service for its scheduled internal inspection. The shell, bottom, roof and appurtenances were examined visually and with ultrasonic thickness (UT) testing. Overall the tank is in fair condition and is fit for continued service subject to the repairs listed in Section 4.

Localized bottom-plate pitting was found near the sump, with a minimum remaining thickness of 5.1 mm against a 2.5 mm minimum required. The calculated remaining life of the bottom is 11.4 years, which supports a 10-year next internal inspection interval.

## 2. Thickness Summary

| Component | Nominal (mm) | Min. measured | Min. required | Status |
|---|---|---|---|---|
| Shell course 1 | 14.0 | 12.6 | 9.8 | Acceptable |
| Shell course 2 | 12.0 | 11.2 | 8.1 | Acceptable |
| Shell course 3 | 10.0 | 9.4 | 6.3 | Acceptable |
| Bottom plate | 8.0 | 5.1 | 2.5 | Monitor |
| Roof plate | 5.0 | 4.2 | 2.3 | Acceptable |

## 3. Findings

3.1 Shell: no significant corrosion; minor coating breakdown at the 270° bottom corner weld.

3.2 Bottom: isolated pitting within 1.5 m of the sump, deepest pit 2.9 mm.

3.3 Roof: two rafters show surface rust; no section loss beyond 10 %.

3.4 Nozzles: N2 inlet flange face shows minor scoring; gasket to be replaced.

3.5 Foundation: ringwall in good condition; no settlement beyond API 653 Annex B limits.

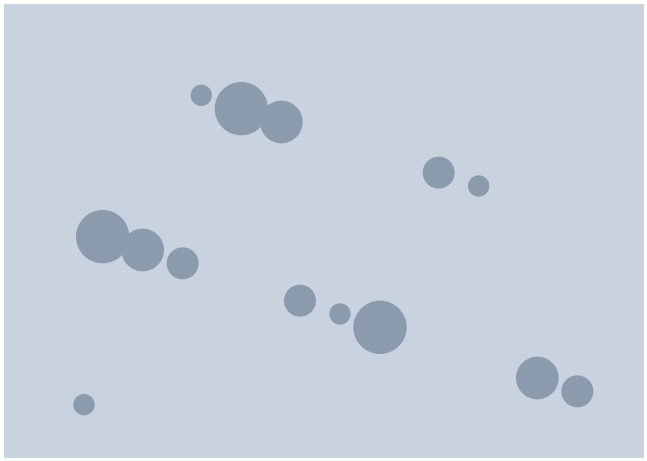


*Photo 1 – Bottom plate pitting near sump*

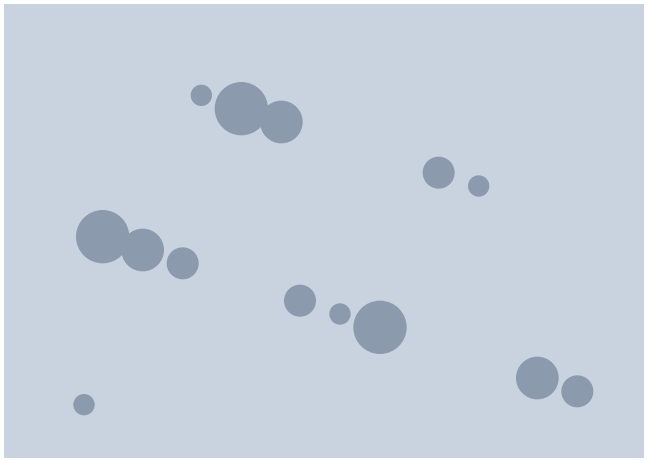


*Photo 2 – Shell course 1 at 270°*

## 4. Recommendations

R1 Install patch plates over pitting deeper than 2.0 mm within the sump area.

R2 Recoat the bottom corner weld from 240° to 300°.

R3 Replace the N2 inlet gasket and re-face the flange.

R4 Next internal inspection: 10 years. Next external: 5 years.

## 5. Sign-off

This report was prepared from the inspection data collected on site. It is a sample document created to demonstrate PDF review, markup and signing features.

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|---|---|
| Inspector | Date |
| Reviewer | Date |
| Client acceptance | Date |