Defence Infrastructure Organisation

Technical Bulletin

Subject: Underside Fuel Tank Corrosion

Number: TB 2022/01

Health and Safety

DIO Sponsor: Bryan Dunn	**Date of issue**: 10/02/2022

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This Technical Bulletin is to be read by the following so appropriate action can be taken:

1. DIO Service Manager (or equivalent for non-NGEC contracts)

2. DIO's Maintenance Management Organisations

3. TLB's

Others interested in the content of this Safety Alert might include:

Prime Contractors, Private Finance Initiatives, Public-Private Partnership and other traditionally procured contracts, Infrastructure Managers and Property Managers with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs), Health & Safety Advisors

When it takes effect: Immediately	**When it is due to expire**: When updated or rescinded.

Aim

1. To provide guidance for the attention of appropriate persons regarding fuel tanks and the potential for underside corrosion.

Introduction

2. Compliance with the contents of this Technical Bulletin (TB) will enable compliance with the Health & Safety at Work etc Act 1974 and The Control of Pollution (Oil Storage) Regulations 2001.
3. The appropriate MOD officer shall arrange for the User and Owner to be made aware of the requirements of this TB.
4. Any work required as a result of this Technical Bulletin must be carried out in accordance with JSP 375 Part 2 Volume 3 – High Risk Activities on the Defence Estate.
5. On MOD Establishments occupied by United States Visiting Forces (USVF) responsibility is jointly held by USVF and DIO(USF). At base level this jointly managed organisation is to take appropriate action to implement the contents of this Technical Bulletin.
6. For Non-EU locations, the Secretary of State has stated[1] that; “Overseas, we will comply with the laws of Host States, where they apply to us, and in circumstances where such requirements fall short of UK requirements, we will apply UK standards so far as it is reasonably practicable to do so”.

   [1] Health, Safety and Environmental Protection in Defence, A Policy Statement by the Secretary of State for Defence, April 2020
7. The estates occupied by BF(G) apply their own local (German) regulations. The competency of the contractor is established prior to contract let and local procedures apply to the selection and appointment of the Competent Person. For this reason, while the general principles mentioned in this document may be applicable, the document will be of limited use to BF(G) staff.

Background

8. There are many of rectangular metallic tanks across the estate. These may be either single skin or double skin integrally bunded tanks. It has become evident that these tanks may be susceptible to corrosion on the underside which may not be visible during a routine visual inspection.
9. The figures below show a typical metallic rectangular integrally bunded tank and the corrosion failure is evident on the underside of the tank.

Figure 1: Example of a typical above ground metallic rectangular integrally bunded storage tank

Figure 2: Underside corrosion of secondary tank skin

10. For single skin tanks, failure of the primary containment will lead to immediate release of product into the environment.
11. For double skin tanks, the risk is that the corrosion goes unnoticed and leads to a failure of the secondary tank skin. As the primary containment cannot be easily inspected, a failure of this would not be detected through the interstitial monitoring and thus could lead to product entering the local environment.

Requirement

12. The flowchart below should be followed to assess the tanks ongoing suitability for use: