



Defence
Infrastructure
Organisation

Safety Alert

Part A, B & C

Subject: Non-gas Rated Valves Installed in Gas Pipework

Number: SA 2018/08

DIO Sponsor: Bryan Dunn

Date of issue: 13 Dec 2018

Contact if different from above Sponsor:

Jeremy Obbard, SME(Gas)
Engineering & Construction
Technical Services
Defence Infrastructure Organisation
Kingston Road, Sutton Coldfield, West Midlands, B75 7RL

Telephone: 0121 311 3695
Email: Jeremy.obbard100@mod.gov.uk

This Safety Alert 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. Heads of Establishments**
- 4. Others**

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

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

When it takes effect: immediately

When it is due to expire: When updated or rescinded.

Health and Safety

This Safety Alert does not necessarily cover all aspects of the subject matter and readers should make themselves aware of other potential issues. Readers should also not rely on DIO publications as their only means of becoming aware of safety, operational or technical issues, but they should consult widely across other media to maintain awareness.

Aim

1. To bring to the attention of appropriate persons the risks associated with non-gas rated fittings installed within gas distribution or installation pipework.

Introduction

2. Compliance with the content of this Alert will enable compliance with the Health & Safety at Work etc. Act 1974 and its subordinate Regulations, the Gas Safety (Installation and Use) regulations 1998 and the Gas Safety (Management) Regulations 1996.
3. The appropriate MOD officer shall arrange for the Maintenance Management Organisation (MMO) contractor to carry out all actions in accordance with this Safety Alert.
4. Any work required because of this Safety Alert 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 Alert. Where this Alert contains procedures, which differ significantly from USVF practice, DIO (USF) code of practice will be issued.

Background

6. Recent inspections have identified cases where valves, not rated for use with gas, have been found on gas installation pipework within SLAM block plant rooms. Examples of such non-gas rated valves are the 'Hattersley 100' and 'Hattersley 100 EXT' water valves, which may be fitted with a blue or green handle sleeve (Note: the presence of a yellow sleeve does not guarantee compliance with BS EN 331:2015, or indicate any suitability for use with gas).
7. Valves for use in gas installation pipework systems must comply with the appropriate British Standards (e.g. BS EN 331: 2015 for 'Manually operated ball valves and closed bottom taper plug valves for gas installations for buildings').
8. Valves designed for water only will have internal sealing materials that have not been designed to perform whilst exposed to natural gas (or LPG).
9. The principal risks associated with this will be:
 - a) potential leakage of gas through the spindle sealing material / gland.
 - b) potential failure to seal effectively when the valve is closed (i.e. when the valve is closed to isolate a gas appliance, gas may continue to pass through the seals).

Requirement

10. All pipework and fittings used on a gas supply must be suitable for that use. Valves used on gas installation pipework must conform to the appropriate British (or European / ISO standard).
11. Gas Safety Managers Responsible Persons (Gas) and Competent Persons should be aware of the potential existence of non-gas rated equipment. All operatives and managers must be aware of the potential risks associated with water valves installed on gas pipework. Where buildings

have already been inspected for non-compliant valves, under the auspices of an Industry Partner Instruction or Alert, and all non-compliances identified / rectified this will be deemed to satisfy the requirements of this SA.

12. Although the existence of non-gas rated valves may not be restricted to SLAM blocks, it is recommended that all SLAM blocks be inspected to ensure that all fittings are suitably rated for gas and in compliance with the relevant British / European / ISO standard.
13. Where non-gas rated valves are discovered on gas installation pipework, they must be replaced with appropriate gas-rated fittings.
14. HoE will hold accountability for all risks identified in this Alert. Responsibility for the risks should normally be met by the DIO Service Manager (or equivalent for non-NGEC contracts) on behalf of the HoE. Advice should be sought from RP(Gas), in the first instance.
15. HoEs are advised to assure themselves that they are aware of the risks associated with non-gas rated fittings installed within gas installation pipework.

Part A

16. The Maintenance Management organisation (MMO), on direction from the DIO Service Manager (or equivalent) are to arrange for a suitably qualified person, e.g. an RP(Gas), to inspect gas installation pipework supplying appliances at SLAM blocks by 28th Feb 2019.
17. On discovery of a non-compliant fitting, IGEM/G/11 Gas Industry Unsafe Situations Procedures should be applied. This may lead to the issue of an Immediately Dangerous (ID) finding which would normally require immediate isolation, capping and labelling of the gas supply until the valve can be replaced with the correct fitting. However, in all cases, a suitable and sufficient risk assessment should be used to defer the replacement of the fitting by a number of days in order to avoid extensive temporary rehousing and other disruption. Any risk assessment should take cognisance of the details of Annex A of this Alert which has been developed following industry consultation.
18. Where following risk assessment the replacement of non-gas valves has been deferred, the establishment 4Cs Duty Holder should be informed, and the site 4Cs register updated.
19. Where such non-gas rated fittings (e.g. valves) are discovered, these must be reported to the HSE as a dangerous fitting under the requirements of RIDDOR.
20. A RIDDOR report may contain multiple examples of the same fault, at the same or different locations, but must be completed within fourteen days of the date of the first discovery. All findings of non-gas-rated fittings MUST be captured under a RIDDOR report.
21. Findings of all non-gas-rated fittings MUST be captured under an IMS incident/near miss report, which also references the RIDDOR report number.
22. A summary report of all findings (including nil-returns) must be sent to SME(Gas) at address shown on Page 1 of this Alert.

Part B

23. Any non-compliant fitting MUST be replaced with a suitable gas-rated component.
24. Where following risk assessment the replacement of non-gas rated valves has been deferred arrangements MUST be made to replace the non-gas rated valve with a suitable gas rated component within the period specified within the risk assessment.

25. Where the deferred replacement of non-gas valves has been completed, the establishment 4Cs Duty Holder should be informed, and the site 4Cs register updated.
26. Routine gas inspections, audits or surveys carried out in all other plant rooms and other gas installations should check for correct, gas-rated fittings.

Part C

- 27 The MMO is to notify the DIO Service Delivery Performance Management Team, DIO SD-Perf Mgt Team (MULTIUSER) account, through their respective DIO Service Manager of the date actions detailed in Part B, Paras 23 or 24 was completed.

Ends

Annex A to DIO Safety Alert 2018/XX

Risk Assessments

A detailed risk assessment should consider the requirements of this Safety Alert and the following subject areas and shall be carried out by a suitable competent person, such as a Gas Safety Manager (GSM) or Responsible Person (Gas).

The Risk Assessment should consider, but not be limited to the following:

- a. Conditions at site of non-gas rated fitting:
 - i. Internal / External?
 - ii. Operating pressure of the installation (e.g. MP, LP)?
 - iii. Adequate ventilation?
 - iv. Visible condition of fitting? (Rust etc.)
 - v. Alternative means of isolation?
 - vi. Is valve leaking to atmosphere?
 - vii. Is the plant room occupied?
 - viii. Does the plant room connect directly with occupied rooms?

- b. Temporary mitigation measures:
 - i. Gas leak detection (initial and periodic monitoring)
 - ii. Locking or fixing valve in open position to prevent operation
 - iii. Wrapping valve in 'Denso Tape' to help secure valve in open position and to serve as leakage mitigation
 - iv. Affixing adequate local signage
 - v. Briefing of nearby personnel

- c. Time limits for replacement of fitting (or isolation of gas supply), depending upon outcome of risk assessment:
 - i. Minimum – 0 days – i.e. immediate isolation until replacement can be arranged
 - ii. Maximum – 35 days. Subject to specific conditions and temporary risk mitigations the supply can be left connected 'At Risk' for a maximum of 35 days

- d. The likely inconvenience and disruption caused by the immediate isolation of the affected gas appliance(s)