



Defence
Infrastructure
Organisation

Safety Alert

Parts A, B, & C

Subject: Control measures for work on Fire Alarm Panels with multiple points of isolation

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DIO Sponsor: Bryan Dunn

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This Safety Alert is to be read by the following so appropriate action can be taken:

1. **DIO's Maintenance Management Organisations and their Supply Chains**
2. **DIO Regional Delivery Manager (or equivalent for non-NGEC contracts)**
3. **Head of Establishments**
4. **Others**

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

Defence Fire Safety Professionals, Heads of Establishments, Assurance Managers, Estate Facility Managers, Assurance Managers in Regional (Service) Delivery Health & Safety Advisors, Top Level Budget Holders, Prime Contractors, Project Managers, Infrastructure Managers and Property Managers with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs), Authorised Persons (Electrical), Authorising Engineer (Electrical) etc.

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When it is due to expire: When updated or rescinded.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 issues, but they should consult widely across other media to maintain awareness.

Aims

1. The aim of this Safety Alert is to bring to the attention of appropriate persons or organisations a recent incident involving the replacement of a fire alarm panel (FAP) and the need to ensure suitable and sufficient control measures and warning notices are in place.

Introduction

2. Compliance with the contents of this Safety Alert will enable compliance with the Health & Safety at Work etc. Act 1974 and Electricity at Work Regulations 1989.
3. Any work required as a result of this Safety Alert must be carried out in accordance with the Management of Health & Safety in Ministry of Defence - JSP375.

Background

4. A new fire alarm system was being provided within a building which required the decommissioning of the existing fire alarm system including the removal of the signalling box.
5. Prior to working on the fire alarm panel, the electrical supply to the panel was isolated by the technician and tested to confirm dead. The technician tested the first mineral insulated (MI) cable, found this to be dead and continued to cut the cable using insulated cable snips. Assuming that all the other cables were dead, work continued to cut and strip out all remaining cables. During the cutting-out of the remaining cables contact was made with a live conductor resulting in a '*large bang and smoke*'.
6. An investigation by the MMO identified:
 - a. The live cable was for an interconnecting link control circuit, supplied at 230V, from an air conditioning system and independently powered from this system and switched through the fire alarm panel.
 - b. There was no appropriate labelling to advise the technician of the presence of a second voltage supply and no record information was available prior to the commencement of the work.
 - c. The technician had not been appointed as a Skilled Person in accordance with JSP375 Vol3.
7. The Contractor had prepared a Risk Assessment and Method Statement for the planned works which covered the provision of a new addressable fire alarm panel including the installation of new field devices, but it failed to address the removal of the existing redundant fire alarm panel.

Part A

8. This Safety Alert concerns all fire alarm panels, although is more likely to be applicable to older conventional type of fire alarm panel where it is more likely to have multiple sources of supply.
9. The Management Maintenance Organisation (MMO), on direction from the DIO Regional

Delivery Manager (RDM) or equivalent, shall initiate the following task:

- a. For fire alarm panels with multiple sources of supply provide assurance to the DIO RDM or equivalent that: -
 - i. Processes are in place and are being followed for the appointment of Skilled Persons in accordance with the requirements of JSP 375 Vol 3.
 - ii. Contractors' Risk Assessments and Method Statements (RAMS) are thoroughly reviewed by competent persons to confirm they are appropriate for the planned scope of the work and are being followed.

10. The requested assurance is required within 2 calendar months the from issue date of this Safety Alert.

Part B

11. The Management Maintenance Organisation (MMO), on direction from the DIO Regional Delivery Manager (RDM) or equivalent, shall initiate the following tasks at the next routine fire alarm panel maintenance visit:

- a. Ensure all interfacing equipment within the fire alarm panel is recorded within the fire alarm panel records. Any missing equipment shall be included in the records. (A check / test of the NO / NC fire contacts or any relays that have been inserted within the fire alarm panel should identify any interlinking equipment.)
- b. Ensure that any cable forming part of the fire alarm panel but not supplied from the same source as the fire alarm panel is suitably identified and labelled in accordance with BS 7671:2018: Clause 514.11 Warning notice: isolation

12. The above tasks shall be completed at the next planned maintenance visit and be concluded with 12 calendar months the from issue date of this Safety Alert.

Part C

13. The MMO is to notify the DIO Regional Delivery Safety Alerts Team (DIO-RDSafetyAlerts@mod.gov.uk), through their respective DIO Regional Delivery Manager or equivalent, of the actions, if any, resulting from implementing the actions in Part B, Paragraphs 11 when completed.

References.

14. The following documents provide further information: -

- a. BS7671 : 2018. Requirements for electrical installations.
- b. BS5839 -1 : 2017. Fire detection and fire alarm systems for buildings.
- c. HFM Standards and Tasks: Task 339 & 340,
- d. SFG schedule 22-01