



MINISTRY OF DEFENCE

# Defence Infrastructure Organisation

## SAFETY ALERT

Subject: Roller Shutter Doors

Number: SA 07/12

DIO Secretariat Sponsor: RA Cawthorne

Date of issue:  
6 July 2012

Contact if different from above Sponsor:

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Who Should Read this:

Who Should Read this: CEStOs, Top Level Budget Holders, Project Sponsors, MOD Project Managers and others within the IPT (for both Prime, PFI/PPP and traditionally procured contracts), Defence Infrastructure Organisation Advisors and Property Managers/Site Estate Representatives with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs).

When it takes effect: Immediately

When it is due to expire: No Expiry  
except on update.

Health and Safety

### 1. Document Aim:

To alert all personnel responsible for maintaining roller shutter doors on the MoD estate to the potential danger of serious injury arising from falling components.

### 2. Introduction

- a. COMPLIANCE WITH THE CONTENTS OF THIS ALERT WILL ENABLE COMPLIANCE WITH THE HEALTH & SAFETY AT WORK ETC ACT 1974 AND ITS SUBORDINATE REGULATIONS.

- b. The appropriate MOD officer shall arrange for the Regional Prime Contractor (RPC) and Maintenance Management Organisation (MMO) to carry out all actions in accordance with this Safety Alert.
- c. Any work required as a result of this Safety Alert must be carried out in accordance with legislation and relevant industry standards
- d. 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 Safety Alert. Where this Alert contains procedures which differ significantly from USVF practice, DIO (USF) code of practice will be issued.

### 3. Requirement

- a. **URGENT:** All establishments, RPCs, MMOs, and any other organisations involved in maintaining roller shutter doors on the MoD estate are to carry out the following actions:
  - (1) Physically check all roller shutter doors and make an assessment to determine if they have a drop-weight mechanism. This is probably limited to fire-rated doors, but due to a lack of the manufacturer's details, this is not yet known.
  - (2) Check the Operation and Maintenance Manuals (O&Ms) for all industrial doors and ensure they are up to date. Check O&Ms
    - for mention of this mechanism and
    - check if the installation is correct and complete.
  - (3) Carry out an inspection of all suspect roller shutter doors, to assess if this vulnerability or defect prevails.
  - (4) If so, consult the manufacturer (if known) and investigate a suitable means to prevent the drop-weight from becoming dislodged; e.g. by adding stop lugs or brackets by bolting or welding. Make the necessary alterations to installation.
  - (5) If any establishment office has a copy of Amber's original operational and maintenance instructions, then please can you scan and forward a copy to the subject contact point in DIO PTS.

### 4. Background

- a. DIO was notified of an incident where a heavy metal bar weighing approximately 50kg fell from the top of a roller shutter door. This narrowly missed causing serious injury or a fatality to site personnel standing in the open door at the time.
- b. The door in question was manufactured c.1993 by Amber Industrial Doors (now Crawford Amber), but the manufacturer say they no longer make this type of door system and have no historic information available. It is very possible that the same problem described below prevails on other makes of door.

- c. This particular Amber door is a 4 hour fire-rated roller shutter door that is manually operated via a chain mechanism. The door has a release mechanism that makes the door close when there is a fire, whereby the heavy metal bar acts as a drop weight when released by a fusible link when it gets hot. The heavy bar is vulnerable to becoming dislodged as the means to hold it in place is somewhat basic.
- d. The bar has a projecting pin at each end, and each of these sits on a simple pivoting bracket. One end of the bracket is fixed to the door guide by a single bolt while the other ends are tied together by the fusible link wire. In a fire condition, the fusible link breaks and under the weight of the bar, the brackets swing away to one side pivoting on the bolt such that the bar is no longer supported. The bar then drops onto ledge on the back of the door and its weight is sufficient to make the door close. An element of the vulnerability is that the bar also acts as a door stop when the door is at the top of its run. If the door is opened in a heavy handed manner up to the top of its run and is allowed to strike the bar, it is possible that the bar can become dislodged from one or both of its simple “pin and bracket” supports, and then it may freely fall from the top of the door with potentially fatal consequences.
- e. Photos illustrate the installation.



Looking up at top of door showing drop-weight bar in guide rails



Looking up at top of door showing drop-weight bar support bracket



Drop-weight bar on the floor



Close-up of bracket supporting steel pin