



SAFETY ALERT

Subject: ROLLER-SHUTTER DOOR MECHANISM FAILURE

Number: 03/13

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Who should read this: Top Level Budget Holders, MOD Project Managers, Organisations appointing Authorising Engineers (AE) and Authorised Persons (AP) including: Commanding Officers/Heads of Establishment, Defence Infrastructure Organisation (DIO) Deputy Heads (Estates), DIO Advisors, DIO Facility Managers and Maintenance Management Organisations, who are advised to draw it to the attention of the Works Services Teams.

When it takes effect: Immediately

Review date: February 2016

Document Aim:

To draw attention to roller-shutter door failure and ensure proper measures are in place to prevent a reoccurrence of this event.

1. Introduction

A roller-shutter door mechanism failed in an industrial portal type building, resulting in the failed gear wheel falling from the mechanism and narrowly missing an employee. The incident occurred whilst the door lifting mechanism was being operated via the control switch located below the motor and drive mechanism. Those nearby described a loud clunk-type sound followed by the mechanism ejecting a gearwheel that was still attached to its failed motion shaft (see Annex A below).

2. Background

This type of roller-shutter door, which is used for vehicle access, is estimated to be 40-50 years old. It is not uncommon for such doors to be subject to vehicle shunts and this particular door had been subject of an impact in 2012. The door and all of its' motive parts are believed to have been installed as an original part of the building, however the manufacturer is unknown.

3. Action Required

- All roller-shutter doors operated by this mechanism are to be inspected for a tray beneath the mechanism that is able to contain any failed parts ejected from the mechanism. Those without trays are to be taken out of service until a tray is procured and fitted to the mechanism or equally effective controls are put in place.
- Similar aged doors should have their motive parts demounted, cleaned and be subject to a thorough examination by a competent person. A proportion of similar types should have motion shafts withdrawn and tested for similar flaws by non destructive testing.
- Newer doors of similar type should receive an in situ and thorough examination of shafts and gears specifically, with any concerns fed into reactive works.

Annex A

Rollershutter Door Mechanism – remaining parts:



Door controls:



Gearwheel and Shaft:



Gearwheel and shaft showing shear plane:

