



## SAFETY ALERT

### Fuel & Other Chemical Storage - TAV level switches manufactured by Cynergy3 Components Limited

Number: SA 04/10

Strategy & Policy Directorate Sponsor: Robin Cawthorne	Date of issue: 29 Sep 10
Contact if different from above sponsor: Mark Spooner, DE Ops North-PTS9d, <a href="mailto:mark.spooner@de.mod.uk">mark.spooner@de.mod.uk</a> , (9) 205238 5835/ 01638 54 5835.	
Who Should Read this: CEstOs, Top Level Budget Holders, MOD Project Managers, Organisations appointing Authorising Engineers (AE) and Authorised Persons (AP) including: Commanding Officers/Heads of Establishment, Defence Estates (DE) Deputy Heads (Estates), DE Advisors, DE 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	When it is due to expire: 30 Sep 2015

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

Reference: HSE Safety Alert <http://www.hse.gov.uk/safetybulletins/comah-large-tanks.htm>

Document Aim: To instigate checks to ensure that the correct and proper attention is given to the high level safety system which prevents tank overflow, in accordance with HSE advice (see Reference) .

#### Introduction

The investigation into the fire and explosion at the Buncefield oil depot on 11 Dec 05 is continuing. Enquiries into the workings of the high level safety system to prevent tank overflow have indicated that certain aspects of its installation and testing are critical in ensuring that it works properly. Operators of similar establishments are therefore advised to carry out immediate checks where TAV level switches manufactured by Cynergy3 Components Limited and supplied by them, their predecessor companies, or others, are fitted to their storage tanks.

The appropriate MOD officer shall arrange for the RPC/ Maintenance Management Organisation (MMO) contractor to carry out all actions in accordance with this Alert.

Any work required as a result of this Alert must be carried out in accordance with JSP 375 Vol 3 – MOD's Safety Rules & Procedures.

Defects are to be immediately reported to the MMO and the Authorising Engineer, who is to ensure that any appropriate Operating Restrictions are applied.

On MOD Establishments occupied by United States Visiting Forces (USVF) responsibility is jointly held by USVF and DE (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 DE (USF) code of practice will be issued.

## 2. Background:

This alert reinforces the importance of ensuring that checks are made on the high level safety system to prevent tank overflow. It is directed primarily at companies operating large oil/fuel storage facilities covered by the Control of Major Accident Hazards Regulations. These regulations do not apply to the Crown however the provisions are mirrored through the Major Accident Control Regulations and may also be relevant to other sites storing hazardous substances in large tanks where level gauges are used.

## 3. Requirement:

Operators of such establishments are advised to carry out immediate checks where TAV level switches manufactured by Cynergy3 Components Limited and supplied by them, their predecessor companies, or others, are fitted to their storage tanks. Please pass this information on to colleagues who may have this product or equipment and or operate this type of system or process.

- a. Operators should check immediately whether they have such switches fitted, and if so:
- b. Ensure they have all relevant manufacturers' information concerning installation and testing and maintenance;
- c. Ensure they have records of correct installation, testing and maintenance;
- d. Ensure they are currently installed in accordance with the manufacturer's instructions, with the locking device properly fitted; and
- e. Complete these checks as soon as possible. [[See checklist](#)]
- f. Where operators cannot confirm that the switches are working correctly other temporary measures may be adopted until the defects can be remedied to ensure safe operations. For example, close supervision and tank dipping.
- g. The manufacturer/supplier will be contacting known users and installers of these switches to alert them to this issue and will be providing revised instructions on the safe use, setting, cleaning and maintenance of these switches. HSE has served Improvement Notices on Cynergy3 Components Limited requiring it to carry out this work.

## 4. Further information

Any queries relating to the safety alert should be addressed to:

Health and Safety Executive  
Hazardous Installations Directorate  
Chemical Industry Division  
Redgrave Court  
Merton Road  
Bootle, Merseyside, L20 7HS  
Telephone: 0151 951 4078

## Annex A

1. Operators should check TAV level switches fitted with change-over (double throw) reed switches. These switches are normally used in 'de-energise' mode to maintain alarm/trip circuits in 'normal' status.
2. Since HSE published the original safety alert it has been identified that the guidance should also apply to some TAV switches with single pole, single throw (SPST) reed switches depending on the magnet configuration. The corrective action for these switches is the same as for double throw switches. Operators should check with their suppliers for further information about relevant model types and numbers.
3. The switches are tested by using a lever or plate fitted to the head of the switch, which can be raised to simulate a high level of liquid in the tank. If the switch is working, then alarms and trips connected to the switch should operate.
4. However, it is critical that after carrying out this test that the lever or plate is returned to the correct position and locked into place using a special padlock supplied by the manufacturer and in accordance with the manufacturer's instructions. *Failure to do this can lead to the switch being inoperative in normal operating mode even though it gives the appearance of functioning normally when tested.*
5. It is known that there are a number of these types of switches fitted at tank installations in GB and worldwide. HSE has taken urgent action to bring alert operators of similar sites through relevant industry bodies across GB, Europe, the USA, and Canada.