

Safety Information Message

Reference **SIM2110** Issued **01 October 2021** Review Date **01 October 2022**

HSE Safety Notice on lubrication of circuit breakers: risk of catastrophic failure / fire

Summary

A Health and Safety Executive (HSE) investigation into a High Voltage (HV) circuit breaker explosion revealed that, during maintenance, the same product was used for both cleaning and lubricating the operating mechanism. However, the product was in fact only suitable for cleaning and NOT lubrication.

As a result, HSE published a safety notice on the lubrication of circuit breakers ([Bulletin No: STSU2-2021, issued 09/2021](#)) and IRIC would like to raise awareness of this safety notice as it applies to health services in Scotland.

Action

- Bring this notice to the attention of all appropriate managers, staff and contractors

Background

Investigation into an explosion of a HV circuit breaker indicated that recently carried out maintenance may have been a causal factor. The incident resulted in catastrophic failure of the HV circuit breaker leading to fire / explosion and could have resulted in fatal injuries.

Maintenance of High Voltage (HV) and Low Voltage (LV) circuit breakers typically involves both cleaning and lubrication of the operating mechanism. The HSE investigation found that the same physical product was used for both maintenance activities, but evidence shows the product was in fact only suitable for cleaning and NOT lubrication. This situation may have arisen because of the availability of different products, (for different purposes), within the same product range, or changes to the products composition over time whilst retaining the original name. It is essential that the correct product is used for each task.

The safety notice is targeted at all duty-holders (including contractors) with responsibilities for operation and maintenance of High Voltage (HV) and Low Voltage (LV) circuit breakers (excluding LV MCCB's and MCB's) and includes health services in Scotland

Recommendations are made for Duty-holders and Specialist Electrical Contractors to ensure their maintenance procedures associated with cleaning and lubrication of HV and LV circuit breakers meet the requirements of relevant HSE and BSI guidance and the manufacturer's instructions. In particular, the maintenance procedure should ensure that the manufacturer instructions on

cleaning and lubrication of the circuit breaker mechanism are followed at appropriate intervals, including the selection and application of the correctly specified lubricants (products) for the task.

The full HSE Safety Notice can be accessed [here](#)

Suggested onward distribution

Authorising Engineers (HV)
Authorising Engineers (LV)
Authorised Persons (HV)
Authorised Persons (LV) Fire
Safety Advisors
Hard FM
Health and Safety Relevant PFI / PPP staff
Risk Management

Enquiries

Enquiries and adverse incident reports should be addressed to:

Incident Reporting & Investigation Centre (IRIC)

NHS National Services Scotland
Gyle Square, 1 South Gyle Crescent, Edinburgh
EH12 9EB
Tel: 0131 275 7575
Email: nss.irc@nhs.scot

For information on how to report an incident: [How to report an Adverse Incident](#)

General information about adverse incidents and safety alerts can be found in [CEL 43 \(2009\)](#) or by contacting IRIC at the above address.

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<https://www.nss.nhs.scot/>

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