



FIRE FIGHTING OPERATIONS AT OVERHEAD STRUCTURES AND OPERATIONAL PREMISES

OPERATIONAL SAFETY MANUAL - SECTION 12.11

PR-NET-OSM-082	Fire Fighting Operations at Overhead Structures and Operational Premises - Operational Safety Manual - Section 12.11		Applies to	
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1 Introduction

- 1.1 This document details the responsibilities and procedure in support of **Local Area Fire and Rescue Service (LAFRS)** fighting fires and assisting with major incidents near our **Overhead Structures** or **Operational Premises**.
- 1.2 This document defines the requirements and responsibilities for ensuring that **SSEN-D** operational staff (including **Control Engineers** and field staff) report and react to these incidents following correct procedures.

2 Scope

- 2.1 This document is designed to outline the responsibility and procedure in the event of a fire occurring in **Operational Premises** or near an **Overhead Structure**.
- 2.2 This document only relates to **Overhead Line Structures and Operational Premises** containing **Live** exposed **Conductors**, which form part of the **System** at all voltages.
- 2.3 This scope does not apply to:
- **Operational Premises** where there are no exposed **Conductors** (e.g. standard ground mounted distribution substations, primary substations where all switchgear is metal-enclosed and all connections are by cable with no exposed bushings, etc.). This is covered in PR-NET-OSM-043 Access to Substations and Switching Sites – Operational Safety manual – Section 6.1
 - **Overhead Line Structures** carrying only effectively insulated **Low Voltage Conductors**, (e.g. aerial bundled conductors (ABC) or ABC Hybrid, etc.), where the insulation is deemed “safe to touch”
 - **Any Overhead Line Structures and Operational Premises** forming part of a third-party owned **System**, unless the site is in joint ownership with **SSEN-D**

3 References

The documents detailed in Table 3.1 - Scottish and Southern Electricity Networks Documents, and Table 3.2 - External Documents, should be used in conjunction with this document.

Table 3.1 - Scottish and Southern Electricity Networks Documents

Reference	Title
PR-NET-OSM-006	SSEN Distribution Operational Safety Rules – Operational Safety Manual – Section 1.1
PR-NET-OSM-028	Switching Terminology and Approved Abbreviations - Operational Safety Manual - Section 4.4
PR-NET-OSM-043	Access to Substations and Switching Sites – Operational Safety manual – Section 6.1
WI-NET-OSM-002	Personal Protective Equipment and Workwear for Live Environments
N/A	SSEN SHE Handbook (Held in Safety, Health and Wellbeing SharePoint Site)

Table 3.2 - External Documents

Reference	Title
ESQCR	Electricity Supply, Quality and Continuity Regulations 2002 (as amended)

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4 Definitions

- 4.1 The words printed in bold text within this document are either headings or definitions. Definitions used within this **Approved** Procedure are defined within the list presented **immediately below, or within section 2 of the Operational Safety Rules.**
- 4.2 **Local Area Fire and Rescue Service (LAFRS)**
- 4.3 **Operational Premises**
Distribution substation, primary substation, grid supply point, **Switching** station, etc.
- 4.4 **Operational Safety Rules (OSR)**
The **SSEN-D** Distribution set of rules, as read with related documents and procedures, that provide generic safe systems of work on the **System** therefore ensuring the health and safety of all who are liable to be affected by any **Danger** that might arise from the **System.**
- 4.5 **Overhead Line Structure**
Steel lattice tower, wood pole, metal pole, composite pole, lattice mast, concrete pole or gantry or any similar structure that supports insulators carrying **Live** exposed **Conductors.**
- 4.6 **Public**
Members of the community who do not have a legitimate reason for accessing **SSEN-D** Assets.

5 General Responsibilities

- 5.1 All works and operational activities required in response to incidents of fire **Shall** be carried out in compliance with **SSEN-D** Safety, Health and Environmental Policy and procedures, including the **OSR.**
- 5.2 Staff who are required to respond to reports of major fires in support of the **LAFRS Shall** have a thorough understanding of the required procedures and **Shall** ensure that on-site risks are suitably assessed and that appropriate control measures are put in place before carrying out any procedures to address the situation at the site of the incident.
- 5.3 The procedures and instructions in this **Approved** procedure **Shall** only be carried out by suitably trained and **Authorised Persons.**
- 5.4 Staff **Shall** ensure that, at all times during the incident response activities, **General Safety** arrangements are maintained and that other areas and individuals are not adversely affected by the activities for which they are responsible in responding to the incident.
- 5.5 All other specific responsibilities in this **Approved** procedure **Shall** be followed.

6 Authorisation

- 6.1 All staff involved in responding to reports of fire and in support of the **LAFRS Shall** hold the requisite competence and authorisations for the procedures being undertaken in response to such incidents.
- 6.2 Competence and authorisation certificates **Shall** be retained personally and be made available upon request.

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7 Personal Protective Equipment

- 7.1 Persons who are required to work near the **System Shall** wear suitable Personal Protective Equipment (PPE) as identified in their risk assessment. Furthermore, where warning labels or signs identify the existence of a particular hazard, additional and appropriate PPE **Shall** be worn.
- 7.2 As a minimum, PPE **Shall** meet the requirements of WI-NET-OSM-002.

8 Major incidents near Overhead Structures and Operational Premises.

- 8.1 In an emergency involving a serious incident firefighting operation need to start at the earliest opportunity.
- 8.2 It should be remembered that the **LAFRS** will prioritise operations on protecting life and not the preservation of our assets. However as far as possible, firefighting efforts should be concentrated on protecting transformers and oil-filled cables as these present a high risk due to the containment of the oil within and can have the greatest negative effect on the environment.
- 8.3 The opportunity to start firefighting as soon as possible means less risk of injury to firefighting staff and the possibility of extinguishing the fire before serious damage occurs, as well as improving the chances of identifying the cause of the incident.
- 8.4 While following these guidelines the **Control Engineer** will have to make the best decisions they can, based on the information available to them at the time.
- 8.5 Depending on the situation it may be necessary to request police assistance to get our staff to the site of an emergency quickly.
- 8.6 In addition to standard incident reporting / escalation procedures the NMC Manager / Duty Manager or equivalent should be notified of the incident at the earliest opportunity.

9 Incident at Operational Premises requiring Urgent Firefighting

The Control Engineer Shall:

- 9.1 Ensure the Emergency Services have been informed of the incident, its exact location and made aware that they must not enter the site or approach **Apparatus** until clearance has been given by the **SSEN-D Authorised Person** in charge of the incident.
- 9.2 **SSEN-D** emergency contact numbers:
- Southern Electric area emergency contact number **0800 210 999**
 - Scottish Hydro Electricity emergency contact number 0345 071 3998
- 9.3 If the site / **Apparatus** is jointly owned / operated with a 3rd party ensure they are aware of the incident and liaise with them as necessary during the incident.
- 9.4 Ensure an **SSEN-D Authorised Person** is on site or has been dispatched to site and note their estimated time of arrival.
- 9.5 If necessary, make the appropriate part of the site / **Apparatus Dead** from higher voltage supply (remote from the site if possible), where protection has not already operated to

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achieve this and check via the Network Management / Control System that there are no Live circuits supplying the site from other sources of supply. There is no requirement to provide full isolation at this time

- 9.6 Where practicable confirm de-energisation by checking a local transformer / supplies.
- 9.7 The **Control Engineer** will then give the **SSEN-D Authorised Person** permission to allow the **LAFRS** to commence fire-fighting operations under their supervision, without entering switch rooms or buildings containing **Live HV/LV Apparatus**. The **SSEN-D Authorised Person Shall** ensure the **LAFRS** are warned of potential hazards on site such as:
- **Live Conductors** (if any part of the site is still **Live**)
 - Oil / fuel in plant or storage (including oil-filled cables)
 - SF6, compressed air or gas cable pressure systems
 - Gas cylinders stored on site
 - Batteries and PVC insulated wiring
 - Porcelain or glass insulators
- 9.8 Where necessary, **Switching** to provide full Isolation should be started as soon as practicable, but without delaying firefighting operations.
- 9.9 Once the **Control Engineer** has given permission to the **SSEN-D Authorised Person** to allow the **LAFRS** to commence firefighting operations the responsibility for the full and correct application of the requirements of this **Approved** Procedure sits with the operational person on site at the incident. Where there is more than one operational person on site, then the responsibility for compliance is held both individually and collectively.

10 Incident on / near Overhead Structures requiring Urgent Firefighting

The Control Engineer Shall:

- 10.1 Ensure the Emergency Services have been informed of the incident and made aware that they must not approach **Apparatus** until clearance has been given by the **SSEN-D Authorised Person** in charge of the incident.
- 10.2 Ensure an **SSEN-D Authorised Person** is on site or has been dispatched to site and note their estimated time of arrival.
- 10.3 If necessary, make the appropriate **Apparatus Dead** from higher voltage supply where protection has not already operated to achieve this. There is no requirement to provide full isolation at this time.
- 10.4 Confirm identification of the line / circuit from available information.
- 10.5 Where practicable confirm de-energisation by checking a local transformer / supplies.
- 10.6 The **Control Engineer** will then give the **SSEN-D Authorised Person** permission to allow the **LAFRS** to commence fire-fighting operations under their supervision. The **SSEN-D Authorised Person Shall** ensure the **LAFRS** are warned of potential hazards such as:
- **Live Conductors** (if any part of the **Apparatus** is still **Live**)
 - Oil filled cable terminations and Pole Mounted Transformers
 - SF6, compressed air within Pole Mounted Switchgear
 - Pole impregnation materials

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- 10.7 Where necessary, **Switching** to provide full Isolation should be started as soon as practicable, but without delaying firefighting operations.
- 10.8 Once the **Control Engineer** has given permission to the **SSEN-D Authorised Person** to allow the **LAFRS** to commence firefighting operations the responsibility for the full and correct application of the requirements of this **Approved** Procedure sits with the operational person on site at the incident. Where there is more than one operational person on site, then the responsibility for compliance is held both individually and collectively.

11 Role of Non-operational SSEN-D Staff at the Incident Site

- 11.1 **SSEN-D** staff not immediately involved in the incident on site, **Shall** focus on ensuring that any emergency services personnel or other members of the **Public** do not place themselves in a position of **Danger** or undertake acts that could cause injury to themselves or others.
- 11.2 It will often be the case that onlookers will congregate around the site of an incident. If police are not yet in attendance, site staff should ensure that any onlookers are kept at a safe distance and take time to explain the reasons for any request to vacate an area or retreat to a safe distance from the incident location. The onlookers **Shall** be informed that such steps are required to safeguard them in the event of an unforeseen problem.

12 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	PR-PS-181	1.00	Richard Gough
02				