Double magnum can only be used to store PE pipe. (volumes typically 250kg).

Wheeled bin (1.1 m^3 capacity) – may be used for office waste.

Non-lithium batteries in battery boxes should always have a lid and be stored in a magnum segregated by type.

Battery box (0.1 m^3) storing lithium batteries in a dry environment.

UN approved drums storing various individual hazardous/special waste streams (0.22 m^3).

Mixed or single hazardous/special waste safe container rented to us by waste management company (approx. 0.8 m^3).

Office waste examples

Office recycling bins clearly labelled

Office food waste pedal bin

External bin for mixed recycling

External food waste wheelie bin

APPENDIX F - SGN Waste Catalogue (Always back load non-hazardous waste wherever possible).

Listed below are our most common waste types and their EWCs:

Description	Preferred container	EWC
Batteries – alkaline (mercury free)	Battery drum and segregated by type. Lithium and other hazardous batteries must be stored separately (see Appendix E).	**16 06 04**
Batteries- Lead		**16 06 01***
Batteries – Zinc Chloride		**16 06 05**
Batteries – Lithium (tape terminals, dry storage)		
Metals (mixed) **Iron & Steel**	Skip or backloading stillage (max 1 tonne).	**17 04 07** **17 04 05**
Cardboard and paper	Backloading magnum, wheelie bin or front-end loader.	**20 01 01**
Food waste (biodegradable)	Wheelie bin	**20 01 08**
Clothes	Backloading magnum	**20 01 10**
PE	PE skip/RoRo or backloading magnum (max 250kg).	**17 02 03**
Soft plastics (packaging, milk/drink bottles, recyclable cups etc)	Backloading magnum or wheelie bin.	**20 01 39**
Hard plastics (boards, barriers, plastic etc)	Backloading magnum or skip.	**20 01 39**
Wood (non-hazardous)	Backloading magnum or skip.	**20 01 38**
Non-Hazardous WEEE	Backloading magnum or skip.	**16 02 14**
Hazardous WEEE	Backloading magnum (see Appendix G).	**16 02 13***
Non-recyclable waste (general waste)	Backloading magnum or front-end loader/skip.	**20 03 01**
Spent anaerobic cartridges, cured foam off kits, used bar seals etc	*Treat as Non-recyclable (general) waste* Backloading magnum or skip. *See Appendices D	**20 03 01**
Part used anaerobics and other hazardous leakage repair materials	UN approved drum or waste safe. *See Appendices D & K	**15 01 10***
Mains spray containers and contents	Supplier Approved container if being returned to them.	**08 04 10**
Mains/pipe line dust	UN approved drum or waste safe. In some cases the hazardous waste collector may require an additional analysis to be done on the waste to prove if it has any NORM (Naturally Occurring Radioactive Material) present. This may include radioactive sampling.	**05 07 01***
Pipe line filters	UN approved drum or waste safe.	**15 02 02***
Oil contaminated wipes, spill kits etc.	UN approved drum or waste safe.	**15 02 02***

Aerosols (paint, oils, cleaner de-icer)	UN approved drum.	**15 01 10***
Sharps (used syringes etc)	Sharps container. Dispose via local hospital or surgery if possible	**18 01 01**
Mains siphon water containing MEG	Double skinned bulk liquid container.	**16 10 01***
Interceptor water containing oil	Interceptor (collected by specialist contractor)	**13 05 07***

Reinstatement activities

Excavated material description	Examples	EWC
Soil and stones containing hazardous substances	Building rubble Clay - contaminated Contaminated sand Contaminated soil (all types of soil)	**17 05 03***
Soil and stones	Other than those mentioned in 17 05 03* e.g. rock, soil, clay, vermiculite	**17 05 04**
Bituminous mixtures containing coal tar	Asphalt (containing tar) Bitumen Mastic Pitch Tar residues	**17 03 01***
Bituminous mixtures	Other than those mentioned in 17 03 01*	**17 03 02**
Coal tar and tarred products	Asphalt (containing tar) Coal tars Pitch	**17 03 03***
Construction and demolition wastes containing mercury	Construction waste containing chemicals, Demolition waste - contaminated	**17 09 01***
Construction and demolition wastes containing PCB	PCB containing; Sealants, Resin based floorings Sealed glazing units Capacitors	**17 09 02***
other construction and demolition wastes containing hazardous substances	General demolition waste Lime - spent Lime sludge Rubble - contaminated Sand - contaminated	**17 09 03***
Mixed construction and demolition wastes	General demolition waste Mixed brickwork and mortar Skip waste (mixed)	**17 09 04**
Concrete	Concrete or Cement products	**17 01 01**
Bricks	Bricks or building rubble	**17 01 02**

Note: * = Hazardous/special waste

APPENDIX G - Waste Electronic & Electrical Equipment Regulations (WEEE)

What is WEEE?

- A broad range of goods and appliances are classified as EEE. These include large and small appliances, IT equipment, radio and audio equipment, electrical tools, toner cartridges and telecommunications equipment. Once these products reach the end of their useful life they become waste, or Waste from Electrical and Electronic Equipment (WEEE).

- The Regulations cover equipment that depends on electrical currents or electromagnetic fields, for which the products main power source must be electricity (including batteries). However, if the product is more than 1,000v AC or 1,500v DC then it is not covered by these Regulations.

- Typical equipment we use is covered by these Regulations would include dataloggers, correctors, pressure and temperature recorders/ transmitters, electrical control panels, gas detectors, electrical test equipment, electric drills etc.

Exemptions

The following categories of products are exempt from these Regulations:

- Household luminaries;
- Filament light bulbs – all light bulbs which emit light through a filament;
- Large-scale stationary industrial tools – permanently fixed at a given place in an industrial machine or an industrial location; intended for a specific national security and/or military purpose; and implanted medical equipment and infected medical equipment.

Dealing with WEEE

IT & Office Telecoms equipment - our IT Department have separate arrangements in place to facilitate disposal of this type of equipment, i.e. office phones, computers, printers, damaged screens etc. Other WEEE can be arranged via backloading to Thatcham and Eurocentral. Waste magnums containing WEEE should be covered with a magnum lid and/ or stored undercover to avoid water damage.

Batteries should be removed before disposal and recycled as per section 1.6. Bulbs should be recycled separately, ideally in a light tube recycling container or a separate collection arranged through our waste provider.

Hazardous WEEE waste should be segregated, stored and collected as hazardous waste as described in section 1.1.

APPENDIX H - Site Waste Management Plan (SWMP) guidance

Background

The Site Waste Management Regulations, which came into effect, within England in April 2008, were repealed in December 2013. However, carrying out a site waste management plan (SWMP) can still be beneficial for many sites, particularly major construction sites. The purpose of the SWMP is to protect the environment by helping to manage and reduce the amount of waste produced by construction projects and thereby reduce the waste going to landfill. Other benefits include a tidier, safer site, reduced energy consumption, less and a greater take up of recycled materials.

Who is affected?

Managers responsible for construction projects with a value estimated to exceed £300,000 (exc. VAT); or those managing projects of a lesser value where SGN believes that a SWMP will be beneficial.

What we need to do

Appropriate projects should produce an SWMP at the design stage, which is a live document and must be updated during the project. This will be passed to the principal contractor when and if appointed. It will typically identify:

- **WHO** will be responsible for resource management.
- **WHAT** types of waste will be generated.
- **HOW** the waste will be managed – will it be reduced, reused, recycled?
- **WHICH** contractors will be used to ensure the waste is correctly recycled or disposed of responsibly and legally.
- **HOW** the quantity of waste generated from the project will be measured.

How to produce a SWMP

- A single person must be responsible for the plan.
- The plan must identify the types and quantities of waste that may be produced at each stage of the project and what materials will be used, whilst trying to eliminate waste.
- The plan must estimate waste quantities that will be produced and set realistic targets for reuse, recycling or disposal. This should include on and off-site operations and special arrangements for any hazardous wastes produced.
- The plan would have to include details of what kind of waste the site produces; how the waste is disposed of; a waste carrier registration number; and details of the environmental permit or exemption number of where waste from the site is being sent to.
- Additionally, for projects valued at over £500,000, waste carrier licence details, description of waste, details of where the waste will be taken to and environmental permit or exemption held by the site where the material is taken should be recorded.
- The plan must consider the best options for recycling or disposal ensuring that all waste is stored and disposed of responsibly and that records of waste transfer notes are retained.
- The SWMP will: -
    - identify where and how the waste will be disposed of
    - Ensure on-site materials and waste handling is well organised
    - Be communicated and the right training carried out
    - Measure project waste and track progress
- The responsible person must monitor the success of the SWMP and take action accordingly
- The actual waste data will be collated during the project and compared to the predicted values, at the end of the project.
- A generic template can be found here.

A copy of this plan should be retained within the project safety File. Paperwork is to be retained for 2 years (Non-hazardous/special) and 3 Years for (hazardous/special).

APPENDIX I – Hazardous Waste and Duty of Care

See sections 1.1. and 6.2 for more information on the below documents. These documents can be found on Digital Hub.

Hazardous Waste Logbook

Duty of Care

Guidance in undertaking Duty of Care checks:

Waste disposal routes must be subject to periodic checks, to confirm that our waste is being disposed of legally and in accordance with our procedures. More information can be found in our Duty of Care leaflet as shown below. Duty of care checks must be carried out at least on an annual basis.

Duty of care leaflet

environment

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Duty of Care

Your annual Duty of Care checks are a legal responsibility to make sure our waste is being stored, transported and recycled/disposed of correctly.

You will need to:

- Complete the duty of care form at least annually, rotating waste stream each time if possible.
- Contact the contractor to validate the data on the waste transfer note and ensure it has been filled out correctly.

If you are in doubt:

- If there is any doubt about where waste is being taken to, further checks should be undertaken until it is clear the waste contractor is following the correct procedures.
- In certain circumstances, it may be necessary to follow a vehicle e.g. if suspicions arise as to the legality of the disposal process.

Additional checks:

- When there is a change of waste contractor, an additional contractor is used or a non-standard type of waste is collected, an additional check should be carried out to confirm the waste contractor is following the correct process.

SGN Waste Catalogue

For the most update to date EWC (European Waste Catalogue) codes please check on SGNnet under the Environment section.

1

Waste Transfer Note:

Check that the document contains all the required information. If in doubt, contact environment team.

The WTN must include:

- ✓ Name and address of both parties.
- ✓ Place and date of the transfer.
- ✓ Full description of the waste.
- ✓ SGN's Standard Industrial Classification code (SIC). (35.22)
- ✓ Quantity of the waste including the 6-digit European Waste Catalogue codes (EWC).
- ✓ For multiple collections (e.g. spoil) use separate sheets listing waste types, weights and locations of collections. The total weight and descriptions should match the information contained on the waste transfer document.
- ✓ Full signatures from both parties.

Copies of this completed form and associated waste transfer document should be retained in the Site/Depot Environmental folder for 2 years for non-hazardous waste and 3 years for hazardous waste.

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You Must:

Storage – Store your waste securely so it does not cause litter or attract vermin. Label your bins clearly so waste goes in the right place.

PAPER ONLY

Segregate - Segregate key recyclables for separate collections. These are; paper, cardboard, metal, glass, soft and hard plastics. For food waste see below.

WEEE (Waste Electrical and Electronic Equipment) – Recycle non-hazardous WEEE via backloading or by contacting our main waste contractor.

WEEE

Non-Hazardous Batteries - Back-load these to our logistics centres in battery boxes. Batteries generated on a site where back loading is not present, should be collected using the Batteryback service (contact the Environment team for more information).

Hazardous Batteries - Insulate lithium batteries terminals and full disposal should follow the Logistics 'Storage of Used Lithium Batteries' procedure.

Food waste – Separate all food waste. Bins and collections can be arranged for sites if required by contacting the Environment department (do not backload this to Thatcham or Eurocentral).

Hazardous/Special Waste - Separate hazardous/special waste from other types of waste, do not mix or cross contaminate. This will include untreated aerosols, anaerobic sealants, lithium batteries, waste chemicals, used solvents, waste oil/fuel. Keep records in the hazardous waste log book.

Do not store longer than 3 months.

Waste Management Procedure

Check SGN/PM/SHE/50 Waste Management Procedure for more details on waste

2

APPENDIX J- WASTE TRANSFER NOTE EXAMPLE

Duty of care: Waste Transfer Note

This form is a legilsative requirment in the UK and should be kept for a minimum of 2 years. By completing this form you are confirming that the waste hirerachy has been applied as far as resonably practicable

Unique consignment note number

Section A - Description of waste

Description of the waste being transferred

European Waste Catalogue (EWC) code/s

How is the waste contained?

◯ Loose ◯ Sacks ◯ Skip ◯ Drum

Other

How much waste? eg number of sacks, weight

Section B - Current holder of the waste - Transferor

Full name

Phone number

Company name and address

Postcode

Standard Industrial Classification (SIC) Code

Signature

Are you the waste producer or importer?

◯ Producer ◯ Importer

Do you hold a waste carriers licence? ◯ Yes ◯ No

Registration number

Expiry date

Do you have a registered waste exemption? ◯ Yes ◯ No

Details of exemption

Section C - Person collecting the waste - Transferee

Full name

Phone number

Company name and address

Postcode

Are you the local authority? ◯ Yes ◯ No

Signature

Are you a registered waste carrier, broker or dealer? ◯ Yes ◯ No

Registration number

◯ Carrier ◯ Broker ◯ Dealer

Do you have a registered waste exemption? ◯ Yes ◯ No

Details of exemption

Do you hold an environmental permit? ◯ Yes ◯ No

Permit number

Issued by

Section D - The Transfer

Address of transfer or collection point

Postcode

Date of transfer (DD/MM/YYYY)

Broker or dealer who arranged transfer (if applicable)

Name

Address

Postcode

Registration number

Time

APPENDIX K - ANAEROBIC SEALANT NEUTRALISATION PROCESS

Hazardous/special waste is both harmful to the environment and expensive to dispose of.

Anaerobic sealant waste accounts for up to 80% of our hazardous / special waste streams.

Whenever possible, all sealant should be used as part of the joint repair process so that no waste liquid is generated. Where this is not possible, neutralisation of part used anaerobic sealant tubes will eliminate the hazardous / special waste associated with this process. This waste can then be treated as solid plastic waste and recycled.

The following guidance describes the neutralisation process which must be followed.

Neutralisation Process

- The contents of part used anaerobic tubes are transferred to container (A) which is available from the stores. This can be undertaken on site or at the depot / stores. Different colours of anaerobics can be mixed and temporarily stored within the hazardous / special waste container within operatives' vehicles or in a suitable and bunded depot location.
- When container (A) is nearly full, it **must** be returned to the depot / stores for neutralisation by a competent person.

The competent person (wearing the correct PPE including gloves and eye protection) will:

a) Shake container (A), to mix contents (with lid on), empty the contents of the Anacure catalyst bottle into container (A) and replace the lid;

b) Container (A) is then shaken to mix the contents;

c) Container (A) is then placed in a suitable and bunded outside area with the lid removed. This is very important as during the neutralisation process some heat and vapours will be generated. The contents of container (A) will harden in approximately 1 to 2 hours;

d) Once hardened (container B), remove the label, insert the empty catalyst container, secure the lid and place the solid container on top of the hard plastics magnum for recycling, or if back loading has not been introduced dispose of via the general waste skip.

Anaerobic Tubes

Container A

Catalyst

Container B

Anacure container (A) stock code number – 228545

Catalyst stock code number - 228544

APPENDIX L – AEROSOL PUNCTURE KIT

The Aerosol Puncture Kit by Pressing Solutions, is used to empty non-hazardous aerosol cans so they can be recycled as metal waste.

Wherever possible, all non-hazardous aerosols should be punctured and recycled as metal waste.

Where this is not possible, aerosols must be segregated, placed in a drum containing a pressure relief valve or in a waste safe and stored in a well-ventilated area.

PLEASE DO NOT USE THE AEROSOL PUNCTURE KIT WITHOUT TRAINING.

Neutralisation Process

- The handle of the unit is depressed to pierce the aerosol and the remaining propellant is directed into the bottom chamber passing through carbon packs of verifying sizes to extract contaminants before being allowed into the atmosphere.

- To aid the movement a small ait flow is introduced with the pimp being sited away from the piercing unit.

The competent person (wearing the correct PPE including gloves and eye protection) will:

1. Ensure you are trained to use the unit and have read the user manual
2. Wear appropriate PPE (Gloves, Safety Specs)
3. Check aerosol can is near empty and is suitable to be punctured (not petroleum based, glue or foam filler)
4. Ensure the unit is in a well-ventilated area and the air pump is connected to it
5. Check unit is earthed
6. Remove cap of empty aerosol unit
7. Lift handle of unit and place aerosol into top chamber using lifter in narrow aerosols
8. Close lid and press gently downwards on handle keeping piercing pin depressed into the can
9. Keep the lid closed for 20 secs… to allow the escaping propellant to disperse through the piped vent in the chamber and into the charcoal filter in the bottom chamber
10. Open lid, remove aerosol and place in container for safe disposal and drying out
11. Change the carbon filters at least every 6 months or immediately if liquid escapes into the bottom of the chamber (always wear gloves wear carrying out this operation).

The user must:

- Ensure that full safety precautions have been carried out as per the training and user guide.

- Make sure that the until is earthed as directed from the training and user guide.

- The unit is fit for purpose and checked that full maintenance has and is carried out as per the recommendations from training and user guide.

If in any doubt, do not pierce and seek advice from the Environment team or Pressing Solutions

The full guidance manual is supplied on training and a copy is located on the Digital Hub.

APPENDIX M - Lithium Battery Disposal

Lithium batteries can react with water and explode or causes fires, so it is important they are kept in dry storage.

Their terminals must be taped with electrical tape and they should be stored in a sealed container such as a battery drum. The drum should be stored in a container or undercover if possible.

If vermiculite is available this should be used as an additional safety measure to store the batteries in within the container.

Lithium battery with terminals insulated.

Lithium batteries, one insulated, one requires insulating.

Lithium batteries with a trailing wire must be insulated with electrical tap or the wire detached and capped to minimise risk of shorting.

Trailing wires can be easily detached either by pulling off or snipping back.

Wire has been detached and lid replaced to ensure insulation of terminals. If a lid is not available apply tape to isolate

If batteries are damaged, they should not be returned with the other non-damaged batteries as they can be more reactive.

APPENDIX N- Simple Waste Exemptions

Some common examples of simple (mostly registerable) waste exemptions for each region are shown below:

Scotland

Contact SEPA to register

	Description	Type
Paragraph 12	Composting biodegradable waste of various types - expires every year	Registerable
Paragraph 17	Storage of specified waste in a secure place (including large quantities of PE and construction waste)	Registerable
Paragraph 27	Bailing, compacting, crushing or shredding waste at the place it was produced	Optional registration
Paragraph 40	Secure Storage of non-liquid waste other then at the place of production (up to 50 cubic metres solid for 3 months)	Non-registerable
Paragraph 41	Temporary storage of waste at place of production including liquids in secure containers up to 23000 litres and up to 80 cubic metres solid for 3 months	Non-registerable
Paragraph 48	The storage of WEEE pending recovery elsewhere	Registerable

Southern:

Contact Environment Agency to register

	Description	Type
T15	Neutralisation of aerosols	Registerable
S1	Storing various types of waste in containers	Registerable
S2	Storing waste in a secure place including bulk PE and construction materials	Registerable

Northern Ireland

Contact DAERA NI to register

Paragraph	Description	Type
12	The treatment and storage of waste with a view to recovery or reuse, according to specified conditions	Registerable
16	The beneficial use of waste	Registerable
21	The chipping, shredding, cutting or pulverising waste plant matter	Registerable
24	The crushing, grinding or other size reduction of waste bricks, tiles or concrete	Registerable
40	The storage of non-liquid waste including waste electrical and electronic equipment (WEEE) at any site other than the premises where it is produced	Registerable

Approval

This Management Procedure was approved by Carolina Karlstrom on 05/06/23 for use by managers, engineers and supervisors throughout SGN.

SGN documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the SHE & Engineering Document Library available on Digital Hub. Compliance with this safety and engineering document does not confer immunity from prosecution for breach of statutory or other legal obligations.

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KEY CHANGES (identify the changes from the previous version of this document)

Section	Amendments
Entire Document	Updated and made clearer to match internal and legislation changes. Including addition of circular economy mentions and new appendices for lithium batteries and registerable waste exemptions

DISCLAIMER

This safety and engineering document is provided for use by SGN and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

Mandatory and non-mandatory requirements

This document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

End note

Comments

Comments and queries regarding the technical content of this safety and engineering document should be directed to The SHE and Engineering Registrar at:

engineering.registrar@sgn.co.uk

Buying documents

Contractors and other users external to SGN should direct their requests for further copies of SGN safety and engineering documents to the department or group responsible for the initial issue of their contract documentation.

Appendix 4 – Management Procedure for Waste Water

SGN/PM/SHE/52

Safety Management Framework

Management Procedure for Waste Water

JUNE 2020

Management Procedure for Waste Water

SGN/PM/SHE/52

Document Owner: Carolina Karlstrom

Issue Date: 23 June 2020

Context

Who is this Management Procedure for?

This management procedure applies to all employees involved in activities or plant that create waste water.

What does this Management procedure do?

This procedure describes our requirements to minimise water pollution by controlling the discharge of waste water from fixed and temporary sites to controlled waters and sewers. This is so we comply with environmental legislation and minimise the likelihood of environmental incidents. Waste water is any water containing, or likely to contain, contamination. This may include water from excavations, surface runoff, siphon water and water outflows from fixed or temporary sites requiring discharge consents e.g. holder stations, operational sites with condensing boilers and depots with wash down bays.

Scope

This management procedure applies to all our operations and activities that involve waste water.

Why do we need this Management procedure?

This management procedure is part of our Environmental Management System (EMS) and is necessary to comply with environmental legislation and the following requirements:

- All planned waste water discharges from fixed or temporary sites to controlled waters must be reported to the relevant Enforcing Agency e.g. EA or SEPA, who will grant a letter of authorisation/ exemption or a discharge consent as required.
- All planned discharges from fixed or temporary sites to sewers must be consented by the relevant Sewerage Undertaker where required.
- Discharge consent conditions may include: limits on composition, pH, temperature, quantity, and requirements for sampling, record keeping and notification of failures.
- The relevant Enforcing Agency or Sewerage Undertaker must be consulted at the planning stage where there is the possible need for a discharge consent to ensure that the consent, if required, is applied for and issued prior to the discharge occurring.
- Where a discharge consent has not been obtained from the relevant authorising authority, waste water must be removed from site (e.g. via a siphon tanker) and treated as liquid waste.
- Drainage maintenance, discharge monitoring and any necessary remedial measures must be implemented to ensure discharge consent conditions are met. Monitoring results must be recorded and retained.

- If it is identified that discharge consent conditions have been breached, the grantor of the consent must be notified. Corrective actions must be agreed and implemented. This must also be reported to SEARS.

- Sites emergency response plans must be in place to control any discharge of waste water under emergency conditions.

- Mains and other waste water must be dealt with in a manner that complies with the Duty of Care Regulations (under the Environmental Protection Act 1990).

- Employees and contractors responsible for the managing or monitoring of waste water must be competent to do so. This may include relevant training and competency assessment with all training records retained.

Contents

1. PLANNING REQUIREMENTS

1.1 **Planning** - the relevant enforcing agency or sewerage undertaker must be consulted at the planning stage where there is likely to be a requirement for a discharge consent, this includes operational gas sites, holder demolitions, major projects, offices/depots, works in or near water etc. This is to ensure that the consent, if required, is applied for and issued, prior to the discharge occurring.

The **Construction Manager** is responsible for ensuring:

1.1.1 The proposed discharge requirements and receptor(s) are determined prior to the application for a discharge consent and at the Planning stages of the project. Consultation should take place with the grantor of the consent in order to agree optimum consent conditions. Understanding the constituents, volume and other characteristics of the waste water before consent application should help reduce the likelihood of the grantor imposing arbitrary, irrelevant or inappropriate limits.

1.1.2 Necessary site investigation works are completed prior to the discharge consent application. This may include the digging of trial pits to establish groundwater flow, direction and depth for example.

1.1.3 The pollutants likely to be present in the waste water are identified and documented.

1.1.4 All conditions of a discharge consent are achievable.

1.1.5 Accurate site drainage plans are available and are updated where any changes are made. This may include detailed soakaway system designs where relevant.

1.1.6 Sampling points are installed as close as practicable to the boundary of the site or receiving drain; or at locations specified by the relevant consent grantor. If the site drainage enters a third party drain within the site boundary then the sampling point should be installed immediately upstream of the connection.

The **Site Nominated Manager** is responsible for:

1.1.7 A record of sampling points is maintained and their locations on site are clearly marked (both on drainage plans and on site) to ensure that samples are taken from the correct locations.

1.1.8 A site-specific risk assessment is undertaken to document the risks posed by storing liquids on site e.g. MEG, diesel, mains siphon water, etc.

1.1.9 The condensate emanating from the operation of condensing boilers is treated to ensure it does not adversely impact on, the surrounding environment. This may include on site neutralisation and regular maintenance. The treatment process is recorded and maintained to ensure that it remains fit for purpose. If a consent is in place and pH limits are determined, these limits should not be exceeded. Discharge consents may be required in some circumstances, see Section 2 below and the Gov.UK website for more information https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits or contact the Environment team.

Note: environmental risks must be identified and mitigated as far as reasonably practicable. Where necessary, suitable controls/protection should be applied at the design stage of any project.

2. DISCHARGE CONSENT REQUIREMENTS

A flow chart is available in Appendix C, which sets out the following requirements in diagrammatic form.

2.1 Discharge consent requirements - all planned waste water discharges from fixed or temporary sites to Controlled Waters must be consented by the relevant Enforcing Agency where required. All planned discharges from fixed or temporary sites to Sewers must be consented by the relevant Sewerage Undertaker where required.

The **Construction Manager** is responsible for ensuring:

2.1.1 Consulting with Enforcing Agencies and Sewerage Undertakers to determine whether a discharge consent is required. No additional consent is required where a discharge consent has already been issued, in England under The Environmental Permitting (England & Wales) Regulations 2016 or The Water Industries Act 1991 or in Scotland under the Water Environment (Controlled Activities) Regulations 2011 or The Sewage (Scotland) Act 1968.

2.1.2 In England, where condensing boilers discharge to a limestone soakaway (then to ground), a discharge consent is not generally required but we are responsible in ensuring no pollution is caused. Neutralisation of the discharge before release to the soakaway is also recommended. If you an unsure if your site requires a discharge consent the site Construction Manager should contact the Environment Agency for advice.

In Scotland, where condensing boilers discharge from site, a CAR Licence application must be submitted by the Construction Manager. SEPA will then review the application and decide if an authorisation can be granted or if a registration is required. More information can be found on the SEPA website https://www.sepa.org.uk/regulations/authorisations-and-permits/application-forms/#Water or by contacting the Environment Team.

The **Head of Network Management** is responsible for the following:

2.1.3 Maintaining up to date records of discharge consents and complying with their requirements including regular monitoring as required by the consent.

2.1.4 Ensuring that sampling is carried out to match the requirements of the consent. This includes measuring the relevant parameters (e.g. methane concentration and pH) against the agreed thresholds and maintaining records of sample results.

2.1.5 Reporting to the appropriate authority any breaches of discharge consent conditions and also reporting to the SEARS team.

The **Site Nominated Manager** is responsible for the following:

2.1.6 Ensuring that gasholder discharges, condensing boiler sites, wash down bays and vehicle washes hold the appropriate discharge consents. Some temporary works may also require discharge consents id discharging to or working in or near water. For reference – see the government website https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits or for Scotland specific pollution Prevention Guidelines (PPG13) see the SEPA website http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/ . Guidance can also be found on the Environmental pages for Digital Hub including Waste water and Vehicle Wash Guidance and guidance for working within 10 metres of a watercourse. If working in or near water a site-specific risk assessment must be carried out. This can be found on Digital Hub (See Appendix A.1).

2.1.7 Sampling gasholder, condensing boiler and any other relevant site discharges to ensure that we comply with the requirements of the discharge consents.

2.1.8 Ensuring that our contractors and service providers comply with these requirements.

Note: In certain cases, there may also be a requirement for a discharge consent when we undertake de-watering activities.

3. CONSTRUCTION SITE LICENCES

This applies in **Scotland**. SEPA Guidance specifies:

The regulations apply to any sites on which a track, road, building, yard, vehicle parking area, pipeline or any other infrastructure is being constructed. Construction includes any land preparation required, demolition work or ground remediation.

The **Construction Manager** is responsible for ensuring:

3.1 Discharges of water run-off from that site to the water environment do not cause pollution.

Water run-off means water from rainfall or meltwater from ice or snow flowing over, or horizontally through, the surface of the ground; and any matter picked up by that water as it does so.

3.2 You do not need to apply to SEPA for authorisation provided that you operate the site in accordance with the general binding rules specified in the Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended (CAR) and the construction site does not:

- exceed 4 hectares in area;
- contain a road or track length in excess of 5km; or
- include any area of more than 1 hectares or any length of more than 500 metres on ground with a slope in excess of 25 degrees.

Details of these rules can also be found in the CAR practical guide.

3.3 If your construction site exceeds any of the above thresholds, you must apply to SEPA for an authorisation to discharge water run-off from the site.

4. NON-CONSENTED WASTE WATER

4.1 **Non-consented waste water** – For sites that require a discharge consent but one has not been granted from the relevant authorising agency then a temporary measure must be undertaken to remove waste from site, by siphon tanker (for example), and treated as liquid waste.

The **Site Nominated Manager** is responsible for ensuring:

4.1.1 Any waste water is stored on site in a suitable container with secondary containment.

4.1.2 The composition of waste water is assessed prior to disposal by a competent person and transported to a licenced/permitted facility. The smell and visual interpretation of waste water is a good indicator to help determine whether the water contains harmful substances, oils or suspended solids. Further sampling and analysis may be required before disposal to understand the contaminants.

4.1.3 The relevant waste documentation e.g. waste carrier's licence and hazardous waste transfer notes must be held. Further guidance is available in SGN/PM/SHE/50 – Management Procedure for Waste.

4.1.4 Waste water that contains suspended solids **only** (e.g. silt) can be discharged through a silt sock or sediment filter to grassy areas with the consent of the landowner. This cannot be discharged directly into a watercourse.

5. DRAINAGE INTEGRITY

5.1 **Drainage integrity** - drainage maintenance, discharge monitoring and any necessary remedial measures must be implemented to ensure discharge consent conditions are met. Monitoring results must be recorded and retained.

The **Site Nominated Manager** is responsible for ensuring:

5.1.1 On fixed sites, manhole covers are identified using red to identify confirmed foul sewerage drains and blue for surface/storm water.

5.1.2 All drains, drainage ditches and interceptors are identified on the site plan and are maintained at suitable frequencies, with maintenance records retained

5.1.3 Spill kits and drain covers are available where there is a risk of a spill or liquids are stored. This includes in vans, on site and when working in/near water.

5.1.4 Prior to any non-routine wastewater discharge, adequate checks are carried out to confirm and the accuracy of drainage plans and integrity of the drainage system. Methods such as dye-tracing or CCTV should be considered for this purpose

6. MONITORING

6.1.1 On sites with a discharge consent or exemption the discharge must be tested in accordance with any consent conditions. If a consent breach occurs sampling should be repeated, and the necessary changes made until the consent limits are met. If sample results are consistently within consent limits, sampling should continue in accordance with consent conditions, or annually (whichever is more frequent).

6.1.2 If planned site modifications are likely to have an impact on the discharge consent parameters, these must be discussed and agreed with the consent grantor in advance of any changes being made. The Waste Water Management Guidance document, held on the environment section of Digital Hub, provides guidance on items to be included in monitoring schedules.

6.1.3 If the method of sampling is not prescribed by the consent conditions then sampling should be performed when water is flowing from the site, at the final point from our site, wherever this is possible. A task card - Sampling of Discharges from Gas Holders and Depot Interceptors, is available in the Waste Water Guidance document. This is held in the environment section of DigitalHub and must be referred to when sampling discharges. Duplicate samples should be taken to allow analyses to be repeated in the event of a query.

6.1.4 Discharge monitoring results are readily available and retained for sites where discharge consents are in place, or there is sufficient risk that it is deemed necessary to implement discharge monitoring. This may include gas holder sites, sites where industrial condensing boilers are installed, sites containing vehicle washes and/or any other site where a discharge consent/permit is in place. Records of monitoring results must be kept for a minimum of 5 years.

6.1.5 Samples are taken annually from holders to test for pH as part of holder maintenance. These samples may not suitable for determining if wastewater discharges are within consent limits. Separate holder discharge samples must be carried out as per the discharge consent guidelines.

6.1.6 During any non-routine wastewater discharge sufficient sampling is taken to ensure it is within the consent conditions

6.1.7 Condensing boiler maintenance records, which may provide pH sampling data, are retained on site or centrally by the Asset records team if appropriate. If pH limits are not being maintained, then the neutralisation equipment will need updating or renewing.

6.1.8 Accurate drainage plans are held and maintained. This may include on shared, neighbouring and wetland drainage systems where necessary.

7. DISCHARGE MONITORING FAILURES

7.1 **Discharge monitoring failures** - if monitoring shows that the discharge consent conditions are being breached the following steps must be undertaken.

The **Site Nominated Manager** is responsible for ensuring:

7.1.1 In the event of a discharge failing on one of its consent conditions, a further sample must be taken and analysed to determine whether the failure was genuine and requires remedial action or due to errors in sampling or analysis.

7.1.2 Any wastewater discharge that falls outside of the consent conditions is reported as soon as practicable to the Head of Network Management.

7.1.3 If monitoring results indicate the consent conditions have been breached the problem must be investigated and rectified. Where a breach has been identified, monitoring frequency must be increased until the problem has been resolved.

The **Head of Network Management (or the Site Nominated Manager** for non-operational sites) is responsible for ensuring:

7.1.4 The competent authority is notified of any verified discharge consent breach

7.1.5 Increased monitoring frequency is considered where abnormal changes in sampling results are observed.

7.1.6 The discharge of wastewater outside the consented limits is only allowed to continue with the agreement of the grantor of the consent and the process is documented

7.1.7 The discharge consent failure is raised as an environmental incident in SEARS.

8. SITE EMERGENCIES

8.1 **Site emergencies** - emergency plans must be in place for the control and discharge of wastewater under emergency conditions.

The **Site Nominated Manager** is responsible for ensuring:

Site emergency plans are in place and address the control and discharge of wastewater in the event of emergency conditions, such as fire, water run-off, major spills, pump–outs or flooding etc. The Waste Water Management Guidance document held on the environment section of Digital Hub provides guidance on controls for discharges from fixed sites in emergencies. Spill kits must be kept on site and their locations recorded on the site drainage plan

9. DISPOSING OF CONTAMINATED WATER

9.1 **Waste water** – If contaminated water, which has been pumped from mains and services (or from other sources), needs to be disposed of, the following will apply.

The site nominated manager/team manager is responsible for:

9.1.1 Analysing the water to determine the type of contamination present and facilitate appropriate disposal.

9.1.2 Contaminated waste water produced from cleaning tools and equipment must be disposed of via an interceptor on site or captured and disposed of as below.

9.1.3 Disposing of the waste water by one of the following methods:

a) Transporting to a depot, using one of our mains water tankers, Alan Taylor units, or suitably bunded tanks and transferring contents to a fit for purpose depot mains water storage tank.

or

b) Using the services of an approved 3rd party emergency services waste contractor to remove from site

or

c) Obtaining an approval from the local water company or sewerage undertaker, in the form of a temporary discharge consent, to dispose of by means of by foul water drains.

Note: If disposed of through an approved contractor pre-disposal testing may be required, and waste documentation will be required (See Section 3.1.3).

10. TRAINING AND COMPETENCE

The **Head of Network Management** or the **Site Nominated Manager** is responsible for ensuring:

10.1 **Training and competence** - all employees and contractors involved with the managing or monitoring of wastewater are competent. Refer to SGN/PM/SHE/63 – Management Procedure for Environmental Training and Competency for further guidance.

APPENDIX A – REFERENCES

This Management Procedure refers to the documents listed below

A.1 Internal Documents

SGN/PM/SHE/50	-	Management procedure for Waste
SGN/PM/SHE/63	-	Management procedure for Environmental Training and Competency
Vehicle Wash Guidance Document -		Digital Hub > Our Company> Environment > Document Library> Environmental Management
Waste Water Management Supporting Guidance Document	-	Digital Hub > Our Company> Environment > Document Library> Environmental Management
Working within 10 metres of water Guidance document	-	Digital Hub > Our Company> Environment > Document Library> Environmental Management
SSRA Working Near Water	-	Digital Hub > Our Company> Environment > Document Library> Risk Assessments

A.2 External documents

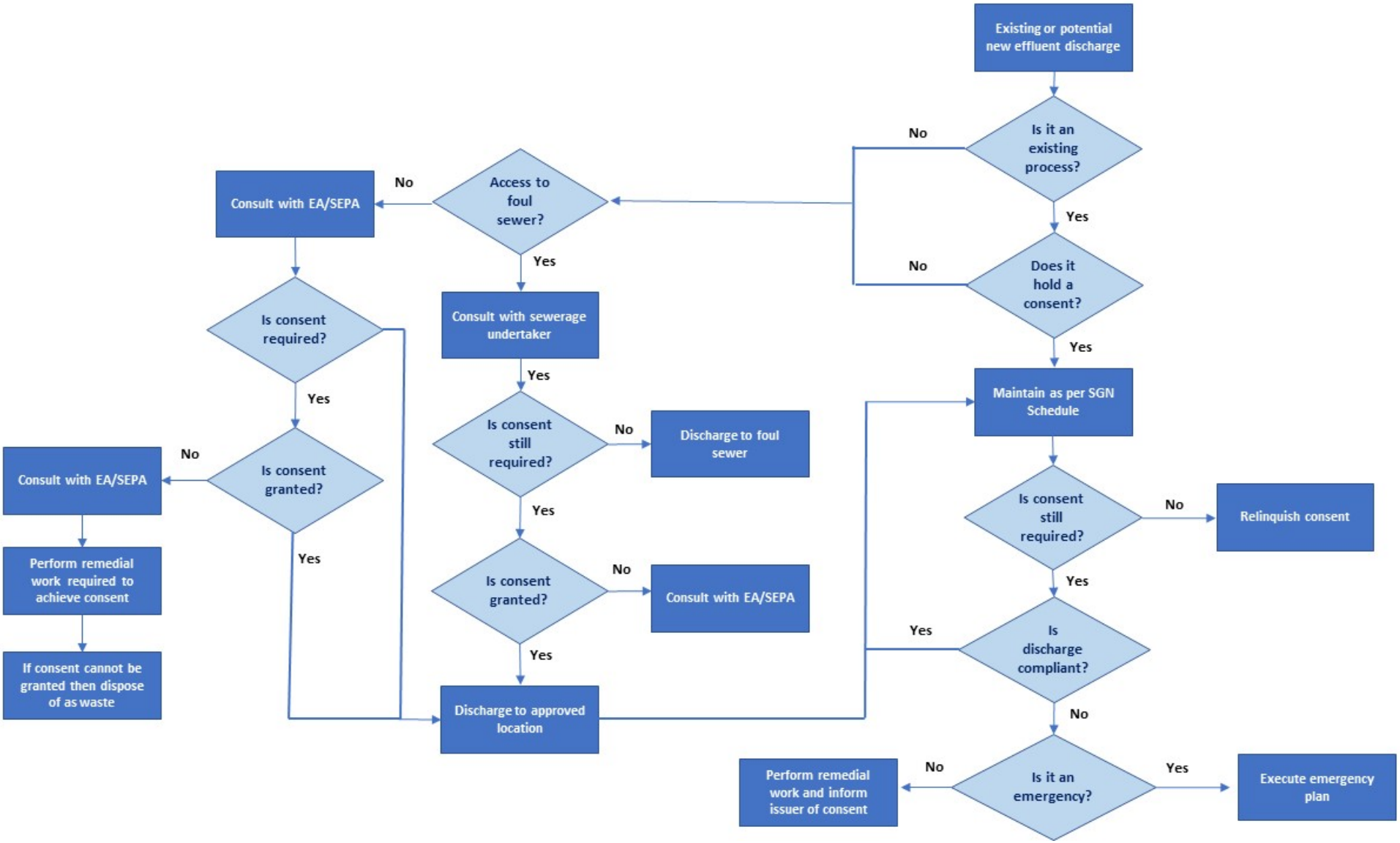
Vehicle washing and cleaning (PPG13)	-	http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/
WAT-RM-05- Trade effluent discharges to surface waters		https://www.sepa.org.uk/media/152701/wat_rm_05.pdf
WAT-RM-06- Trade effluent discharges to ground water		https://www.sepa.org.uk/media/152714/wat_rm_06.pdf
WAT-PS-10-01 Groundwater Assessment Criteria for Pollutant Inputs		https://www.sepa.org.uk/media/152662/wat_ps_10.pdf
SEPA Application Forms		https://www.sepa.org.uk/regulations/authorisations-and-permits/application-forms/#Water
SEPA Construction Licences		https://www.sepa.org.uk/regulations/water/pollution-control/construction-site-licences/
SEPA CAR Practical Guide		https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf

APPENDIX B - DEFINITIONS

The definitions applying to this Management Procedure are given below

Waste water	-	all water other than pure, uncontaminated rainwater
Controlled Waters	-	natural inland fresh waters such as lakes, rivers and streams etc. and any waters that discharge into them, waters within three miles of the coast, waters that are contained within underground strata (groundwater) including soakaways
Sewers	-	pipes that provide for general surface drainage, receive domestic, and trade effluent for processing at sewage disposal works.
Enforcing Agency	-	the Environment Agency in England and Wales, the Scottish Environment Protection Agency (SEPA), in Scotland, NIEA in Northern Ireland.
Sewerage Undertaker	-	an organisation that is licensed to provide an effective and efficient sewerage service, usually the local water supply company
Consenting Body		the Environment Agency, Scottish Environment Protection Agency or the Sewerage Undertaker
P.I.G.	-	Pipeline Inspection Gauge
Discharge consent	-	A permission that allows you to discharge specified substances to a controlled water or a foul sewer.
Consent Conditions	-	Consent conditions may include: limits on composition, temperature, quantity, pH and requirements for sampling, record keeping and notification
PPG13	-	Vehicle washing and cleaning: pollution prevention guidelines from Environment Agency
Non-routine wastewater discharge	-	This would include holder re-commissioning or other holder operations that could give rise to unusually high discharges and situations where it is planned to use the site drainage system for example to dispose of holder tank water prior to demolition or large quantities of mains water from a water ingress incident
Waste Water Management Guidance		Document held on the environment section of SGNnet which provides additional guidance to be read in conjunction with this procedure
GBR		General Binding Rules which form part of the Water Environment (Controlled Activities) (Scotland) Regulations 2011

APPENDIX C- Discharge Consent Flow Chart



APPROVAL

This Management Procedure was approved by Carolina Karlstrom on 23/06/2020 for use by managers, engineers and supervisors throughout Scotia Gas Networks (SGN).

SGN documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the SHE & Engineering Document Library available on DigitalHub.

Compliance with this safety and engineering document does not confer immunity from prosecution for breach of statutory or other legal obligations.

BRIEF HISTORY

First published as T/PM/SHE/52	Sept 2004	EPSG/T03/799
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KEY CHANGES

Section	Amendments
Various sections	Minor amendments added to reflect updates on relevant guidance documents. Some sections rearranged to improve structure and ownership.
1.1.2	Additional requirement for potential site investigation works such as trial pits before discharge consents are made.
2.13	New links added including reference to Working near Water Risk Assessment.
2.16	Changes to the permitting requirements for condensing boiler sites in Scotland which is also mentioned in more detail in other sections of the procedure.
2.17	Sampling must measure against any requirements of the discharge consent
3	Section 3 added on SEPA Construction Site Licences (valid in Scotland)
4.13	Relevant waste documents include waste carriers' licence and hazardous waste transfer note (HWTN)
4.15	Requirement for use of silt sock or sediment filter for discharging uncontaminated silty water to ground. This cannot be discharged directly into a watercourse.

6.1.1	If a consent breach occurs sampling should be repeated, and the necessary changes made until the consent limits are met
6.1.7	If pH limits are not being maintained, then the neutralisation equipment may need updating or renewing.
Appendix C	Flow chart updated

DISCLAIMER

This safety and engineering document is provided for use by SGN and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

End note

Comments

Comments and queries regarding the technical content of this safety and engineering document should be directed to The SHE and Engineering Registrar at:

engineering.registrar@sgn.co.uk

Buying documents

Contractors and other users external to SGN should direct their requests for further copies of SGN safety and engineering documents to the department or group responsible for the initial issue of their contract documentation.

Appendix 5 – Management Procedure for Warehouse & Stores

SGN/PM/SHE/23

Safety Management Framework

Management Procedure for Warehouse and Stores

JANUARY 2020

Management Procedure for Warehouse and Stores

SGN/PM/SHE/23

Document Owner: Tamsin Morgan

Issue Date: 29 January 2020

Context

Who is this Management Procedure for?

This management procedure applies to all personnel working in and from SGN depot and department warehouses and store compounds, Network/Transmission Stores, and those at SGN mobile/temporary work sites – particularly those who may deliver, store, handle or transport materials.

What does this Management Procedure do?

This management procedure describes the tasks to be carried out and responsibilities for the managing and operating the above facilities.

Scope

This procedure applies to:

- All SGN depot and department warehouses and store compounds, Network/Transmission Stores, and those at SGN mobile/temporary work sites.
- Personnel working in and from them – particularly those who may deliver, store, handle or transport materials.
- Handling activities which involve manual handling operations (i.e. transporting or supporting a load by hand or by bodily force - including lifting, putting down, pushing, pulling, carrying or moving) and mechanical handling devices, for example fork lift and pallet trucks.
- Transport activities including the use of a wide range of vehicles used for the movement of goods and materials into, out of and around the warehouse and stores.

The stores may be manned or unmanned but must be permanent or fixed in place for the duration of its use.

This procedure does not apply to:

- SGN Logistical Centres at Thatcham and Eurocentral
- Workshop areas in Plant and Maintenance locations
- Storage, transportation and handling of hazardous materials as this is covered in SGN/PM/SHE/10 Control of Substances procedure which should be referred to in conjunction with complying with this procedure

Why do we need this Management procedure?

This procedure ensures we comply with all applicable legislation – as listed in Appendix A - in SGN depots, department warehouses, stores compounds, Network/Transmission Stores, and SGN mobile/temporary work sites. It ensures personnel working in and from them, are aware of and comply with the processes, protocols and methods SGN has adopted in order to minimise risks and to safeguard personal safety.

CONTENTS

1. OBJECTIVE

This Management Procedure describes the tasks to be carried out and responsibilities for implementation and its purpose is to:

1.1 Set out the requirements for storage, handling and transportation of materials in the confines of a warehouse or store compound, to minimise the risks to the environment, employees and other persons who may be affected by SGN activities.

1.2 Describe the methods to be used in SGN warehouses and store compounds to ensure compliance to all applicable legislation including the Health and Safety at Work Act 1974, Workplace (Health, Safety and Welfare) Regulations 1992, Health and Safety at Work (Northern Ireland) Order 1978, Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993, Management of Health and Safety at Work Regulations 1999, Management of Health and Safety at Work Regulations (Northern Ireland) 2000, Construction Design and Management (CDM) Regulations 2015 (for mobile/temporary work sites), and all other applicable Acts, regulations, standards and Codes of Practice affecting our operations.

1.3 Provide guidance to SGN employees on safe working practices and efficient management of warehouses and store compounds.

1.4 Ensure management provide the necessary information, instruction and training to ensure the competence of all employees and to familiarise them with the procedures applicable to their area of work.

2. REFERENCES

This Management Procedure makes references to the documents listed in Appendix A. Unless otherwise specified, the latest edition of the documents applies, including all amendments.

3. LEGAL REQUIREMENTS

Employers are responsible for the health, safety and welfare of their employees and any contractors or self-employed people conducting work for them. These responsibilities cannot be transferred to any other person, including those employees who work alone.

Employees have responsibilities to take reasonable care of themselves and other people affected by their work activities and to co-operate with their employers in meeting their legal obligations.

SGN, so far as is reasonably practicable, will ensure the risks to personal safety for all employees is managed in compliance with legislation and our employee duty of care. Processes, protocols and methods have been established to risk assess and control hazards associated with personal safety.

4. RESPONSIBILITIES

4.1 General/Depot Managers are responsible for:

a) the warehouse, store compound, and satellite locations under their depot's control;

b) ensuring that the Site/Nominated Manager is adequately trained to perform fire prevention and protection duties.

4.2 The SHE Directorate is responsible for:

a) providing advice on safe storage, transport and handling of materials;

b) providing advice regarding the provision of information to employees;

c) ensuring that statutory and procedural training requirements are incorporated into the Technical Training Directory;

d) ensuring audits on compliance with regulations and internal requirements are carried out.

4.3 The SGN Property Team is responsible for either:

a) organising statutory requirements at SGN occupied sites (full scope of services), or;

b) supporting Local Management and/or Site Nominated Managers in organising statutory requirements at SGN occupied sites (agreed scope of service)

4.4 Site/Nominated Managers are responsible for ensuring:

a) systems are in place for implementing this procedure and that all work activities for which they are responsible have suitable and sufficient Risk Assessments in place;

b) hazardous material surveys and assessments are carried out, and inventories are maintained;

c) safe storage, transport and handling of materials is implemented;

d) control measures are identified and implemented;

e) appropriate spill prevention and response equipment is supplied;

f) information, instruction and training is provided;

g) documents and records are maintained;

h) injuries/incidents/near-misses are identified, managed, reported and investigated.

4.5 Resource/Stores Managers are responsible for ensuring:

a) they sign the relevant risk assessments to verify that the operation is permissible and authorised to proceed, and the contents of the risk assessments are briefed to relevant staff, and records of such briefings are kept;

b) all inspections identified by the risk assessment are recorded and kept until the next inspection;

c) all the actions identified in the COSHH assessments are implemented;

d) all work equipment is suitable for the conditions under which it will be used;

e) any work equipment that requires an inspection is not used, hired or sold, unless it is accompanied by physical evidence that the relevant inspection has been carried out;

f) a maintenance programme is established for all work equipment where failure or deterioration could lead to health and safety risks;

g) all inspections and repairs are carried out by a competent person;

h) all statutory documentation is properly maintained;

i) transportation systems are managed for warehouse/store activities;

j) a safe system of work exists for loading, unloading and departure of vehicles from loading bays;

k) site fire prevention and protection arrangements are established and complied with, and that employees receive information on the relevant fire precautions and procedures as per SGN/PM/SHE/16 Management Procedure for Fire Prevention and Protection;

l) fire precautions at depots and temporary storage sites are suitable and sufficient.

4.6 Employees and contractors are responsible for:

a) making full and proper use of control measures, including storage, labelling, spill prevention procedures and PPE, which are required to comply with legal and other requirements.

4.7 Occupational Health Service Providers are responsible for:

a) providing health surveillance to HGV/Fork Lift Truck drivers.

5. PROCEDURE

5.1 This procedure provides a general overview of the requirements for operating in a warehouse and stores environment. Please also refer to the procedures referenced in this procedure and Appendix C.1 Satellite Stores Risk Assessment for further detailed requirements which should be adhered to.

5.2 The Construction Design and Management (CDM) Regulations 2015 should be followed as applicable for mobile/temporary work sites.

5.3 HSE guidance document HSG 76 Warehousing and Storage - a guide to health and safety and Storage Equipment Manufacturers Association (SEMA) Code of Practice have been used as reference points in writing this procedure.

6. SECURITY AND ACCESS

6.1 Adequate security measures must be in place to ensure the safety of personnel, products, tools, machinery and vehicles, and for the prevention of entry by unauthorised personnel.

6.2 Traffic routes used by vehicles should not pass close to any edge, or to anything that is likely to collapse (such as storage racking), unless the edge is fenced or adequately protected.

6.3 The need for vehicles to reverse should be minimised e.g. use one-way systems or designated reversing areas. If the need to reverse is unavoidable, suitable control measures must be implemented such as warning signals or the use of a Banksman.

6.4 Pedestrian access must be controlled and there must be a designated area for deliveries and collections which is clearly marked and sign posted.

6.5 Instructions and site rules must be provided via an on-site induction for visitors including drivers.

7. WELFARE

7.1 Health and safety signage must be clearly displayed.

7.2 The following must be provided as required for each site:

a) Water which is clearly marked as drinking water

b) Heating

c) Lighting

d) Ventilation

e) Rest area

7.3 Refer to SGN/PM/SHE/12 Management Procedure for Workplace, Health, Safety and Welfare.

8. PERSONAL SAFETY AND LONE WORKING

SGN/PM/SHE/22 Management Procedure for Personal Safety describes how the company complies with the Health and Safety at Work Act 1974, The Management of Health and Safety at Work Regulations 1999, Health and Safety at Work (Northern Ireland) Order 1978 and Management of Health and Safety at Work Regulations (Northern Ireland) 2000.

Where lone working is required, the procedures described in SGN/PM/SHE/22, the SGN Safety Handbook and Lone Working Hazard Sheet must be followed. For more information refer to the HSE document INDG73, Working Alone Guidance..

9. PERSONAL PROTECTIVE EQUIPMENT (PPE)

9.1 SGN/PM/SHE/11 Management Procedure for Personal Protective Equipment (PPE) and Workwear describes how the company complies with The Personal Protective Equipment Regulations 2002 and the Personal Protective Equipment at Work Regulations 1992 (as amended).

9.2 Employees who are at risk must be informed and briefed on any hazardous substances they may come into contact within their workplace.

10. HOUSEKEEPING

10.1 General

A high standard of housekeeping, cleanliness and tidiness must be maintained to prevent:

a) Accidents

b) Contamination

c) Damage to products, machinery and equipment

d) Pollution

10.2 Gas Cylinders

a) Gas cylinders must be stored in a dry, secure area on a flat surface in the open air. If this is not reasonably practicable, it may be stored in an adequately ventilated building or part of a building specifically reserved for this purpose. The Emergency Plan should display their location.

b) Compressed gas cylinders must be securely restrained to ensure they cannot fall from a vertical storage position.

c) Wherever possible empty and full cylinders should be stored separately. Empty cylinders should be clearly identified. Gas cylinders should not be stored for excessive periods of time. A record of the ‘use by’ date must be maintained.

d) Stocks of gas cylinders should be rotated using the ‘first in’ is ‘first used’ method.

e) A double check must be made to ensure the gas being used is the correct one for the intended use.

11. HAZARD IDENTIFICATION AND ASSESSMENT OF RISKS

SGN/PM/SHE/01 Management Procedure for Risk Assessment describes how the company complies with the Health and Safety at Work Act 1974, Workplace (Health, Safety and Welfare) Regulations 1992, Health and Safety at Work (Northern Ireland) Order 1978, Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993, Management of Health and Safety at Work Regulations 1999, and Management of Health and Safety at Work Regulations (Northern Ireland) 2000.

12. CONSULTATION AND PARTICIPATION OF WORKERS

Employees should be involved in developing control measures to ensure they are suitable for the way they conduct their work and should be encouraged to suggest improvements and to report anything they consider might be wrong.

13. CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

SGN/PM/SHE/10 Management Procedure for Control of Substances describes how the company complies with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 as amended in 2004, Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003, the Dangerous Substances and Explosive Atmospheres Regulations 2002 and other associated regulations.

14. EMERGENCY PREPAREDNESS AND RESPONSE

SGN/PM/SHE/16 Management Procedure for Fire Safety describes how the company complies with The Regulatory Reform (Fire Safety) Order 2005, Part 3 of the Fire (Scotland) Act 2005 as amended, Fire Safety (Scotland) Regulations 2006 and Part 3 of The Fire and Rescue Services (Northern Ireland) Order 2006 and The Fire Safety Regulations (Northern Ireland) 2010.

15. SPILL PREVENTION AND RESPONSE

15.1 The need for a spill prevention and response plan must be assessed at each location and implemented with necessary equipment provided, for example:

a) Absorbents

b) Drain covers

c) Booms

d) Spill kits

e) Interceptors

15.2 The assessment should consider the location of possible contaminants in relation to drains, watercourse, and site boundaries - refer to SGN/PM/SHE/10 Control of Substances and SGN/PM/SHE/52 Management of Waste Water procedures.

15.3 A detailed site drainage plan must be available as part of the plan.

15.4 To prevent spillages equipment and machinery must remain in good repair by ensuring regular inspections and preventive maintenance are conducted.

15.5 Liquid must not be washed away with water.

15.6 Where applicable PPE (e.g. gloves or goggles) must be provided to ensure spillages do not affect the health of the person clearing it up.

15.7 The spill plan must be briefed to all employees on site, together with the correct use of the spill kits provided.

15.8 The spill plan should be tested periodically and reviewed to ensure its continued effectiveness.

15.9 All spill prevention equipment must be inspected and maintained to ensure it is free from defects and is functional.

16. ACCIDENTS, INCIDENTS AND EMERGENCIES

SGN/PM/INV/1 Management Procedure for Incident Reporting and Investigation describes how the company complies with the Health and Safety at Work Act 1974, Health and Safety at Work (Northern Ireland) Order 1978 and other Regulations, the Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations 2013, the Gas Safety (Management) Regulations 1996 and the Control of Major Accident Hazards Regulations 1999

17. COMPETENCE AND AWARENESS

17.1 SGN must ensure that person(s) conducting work under its control are competent, based on appropriate education, training or experience.

17.2 Where possible documented information as evidence of competence should be maintained

17.3 If an employee does not possess a required competency for a task, they should not be authorised to conduct it until the competency has been achieved unless they are supervised by a competent person.

17.4 All new employees must receive an induction including health and safety awareness. The following training should be provided as applicable:

a) Storeman Competency Assessment Scheme (CAS)

b) Fork Lift Truck/Mechanical Handling Equipment Operator

c) Banksman

d) Racking Inspections

e) Control of Substances Hazardous to Health

f) Use of equipment

g) A Display Screen Equipment (DSE) assessment should be conducted to comply with the Health and Safety (Display Screen Equipment) Regulations 1992.

The above list is not exhaustive and other training should be provided as required.

17.5 All drivers must be licensed and competent to operate vehicles and plant they operate or have the potential to operate as per the Drivers Handbook.

18. MANUAL HANDLING

SGN/PM/SHE/15 Management Procedure for Manual Handling describes how the company complies with the Health and Safety at Work Act 1974, Health and Safety at Work (Northern Ireland) Order 1978 and the Manual Handling Operations Regulations 1992.

19. STORAGE

19.1 Stock should be rotated on a 'first in' is 'first out' method.

19.2 Pallets and stillages must be fit for purpose i.e. suitable for the load and the racking system and free from defects.

19.3 Pallets should be inspected prior to use and damaged pallets removed from site.

19.4 Expendable pallets i.e. pallets designed for one delivery only, must be clearly marked to this effect and must not be re-used.

19.5 Stacking of palletised loads of cartons and packs which are capable of being crushed should be avoided as the strength and stability of the load cannot be maintained.

19.6 Loads which are capable of being stacked directly on top of each other must be positioned on a firm level base, i.e. all materials must be stored/stacked safely and be regularly inspected for stability.

19.7 All hazardous and combustible materials must be segregated.

20. MOVING LOADS WITH A PALLET TRUCK

20.1 The operator must conduct a visual check of the pallet truck's condition prior to use and any damage or defects identified must be reported immediately to the Depot Manager and it must not be used until it has been repaired or replaced with an alternative.

20.2 The operator should manoeuvre the pallet truck up to the load to be moved and line up the lifting arm of the pallet truck with the load. The load must be checked for security before the lift is completed and the operator should then pull/push the load on the pallet truck to the designated area and manoeuvre the load into the correct position before lowering the pallet truck arm. The operator should return the pallet truck to its holding area when the work is completed.

21. MOVING LOADS WITH A FORK LIFT TRUCK

21.1 For lift truck operation inside the stores/warehouse

a) The operator must carry out and record a pre-use check each day prior to the first use of the fork lift truck.

b) A segregation barrier system must be installed inside the warehouse to separate pedestrians from vehicles and machinery (e.g. fork lift truck).

c) The entrance to the warehouse must be free from visual obstructions including the plastic screening. A suitable barrier or guardrail must be installed to separate the route for pedestrians where the fork lift truck passes through the doorway to the warehouse.

d) A banksman must be used when entering and exiting the warehouse and must remain clear of the fork lift truck and its load.

e) The banksman must be under the direction of the fork lift truck driver.

f) Prior to load movement the banksman must retreat to a safe distance where they can be seen by the fork lift truck driver.

g) Overhead lighting, and electrical equipment must be positioned at a height above the reach of the fork lift truck or a height limiting device must be fitted.

h) All racking and shelving should be installed in line with the Storage Equipment Manufacturers Association (SEMA) Code of Practice.

i) The racking must be protected with a fixed barrier. Anti-collapse mesh must be installed to the back of single runs next to pedestrian walkways.

21.2 Fork lift truck operation outside the stores/warehouse

a) The operator must carry out and record a pre-use check each day prior to the first use of the fork lift truck.

b) The warehouse and loading area/car park lighting must be suitable and maintained. Car parking bays and pedestrian walkways must be clearly marked/defined.

c) The fork lift truck must be operated with a beacon and reversing siren (lights to be used as appropriate). The operator must wear a seat belt.

d) Weather conditions must be considered and appropriate actions taken to prevent incident i.e. ice, high winds etc. as per the Safe Persons handbook - Adverse Weather conditions.

e) A banksman must be used when working outside the warehouse and must remain clear of the fork lift truck and its load.

f) The banksman must be under the direction of the fork lift truck driver.

g) Prior to load movement the banksman must retreat to a safe distance where they can be seen by the fork lift truck driver.

22. LOADING AND UNLOADING GOODS

22.1 A designated area for loading and unloading should be clearly marked and racking must be installed as per the manufacturer's instructions.

22.2 The Safe Working Load (SWL) must be displayed on each beam/shelf and the load limit must not be exceeded.

22.3 Edges of working platforms from which people can fall more than 2 metres must be securely guarded.

22.4 Stacking of palletised loads of cartons and packs which are capable of being crushed should be avoided as the strength and stability of the load cannot be maintained.

22.5 Loads which are capable of being stacked directly on top of each other must be positioned on a firm level base i.e. all materials must be stored/stacked safely and be regularly inspected for stability.

22.6 Stores operatives must not work at height without specific training.

22.7 The person responsible for the loading or unloading of any goods must carry out an assessment to ensure the designated area is suitable for the purpose. The assessment must consider:

a) Access for the vehicle to the loading/unloading point

b) Positioning the vehicle on a satisfactory level hard standing adequate to support the wheels

c) Any specific requirements for tipper vehicles

d) Access to the vehicle for people, goods and mechanical handling aids for loading/unloading

22.8 The person responsible for the loading/unloading of goods must assess the activity to identify the hazards involved, as per SGN/PM/SHE/01 Management Procedure for Risk Assessment. If the risk is assessed as significant, the person responsible must document a safe system of work and/or method statement and provide it to the personnel involved.

22.9 The safe system of work and /or method statement must include:

a) Manoeuvring vehicles to and from loading and unloading points

b) Precautions necessary to ensure the vehicle, container or trailer remains stable and does not move whilst being loaded/offloaded

c) Opening of containers and closed vehicles such as those with curtained sides in a controlled manner recognising hazards such as unsecured heavy objects and strong winds.

d) Ensuring the vehicle is inspected prior to loading to ensure it is sufficiently clean and dry and free from faults which may damage the goods.

e) Ensuring appropriate handling methods are used.

f) Ensuring the quantity of material or number of packages does not exceed the design specification of the vehicle.

22.10 The person responsible for loading and unloading must ensure the correct documentation is checked prior to loading or unloading and that the driver is in possession of the relevant hazard information.

22.11 Mechanical Handling

a) Safe working loads must be adhered too.

b) Loads must be properly secured so that they are safe for loading, unloading and transportation.

c) Before ropes, tarpaulins or the curtains of curtain-sider lorries are removed the vehicle and load should be checked to ensure the removal of any of these security devices will not allow materials or goods to fall. The opposite curtain should be retained in position while loading/unloading vehicles from one side using fork lift trucks.

23. STACKING OF EQUIPMENT AND CONSUMABLES

23.1 Ancillaries and other items arriving at the racking storage area must be placed onto their designated racking area, by hand or by a fork lift truck depending on weight, size and shape.

23.2 Where access equipment is used, mobile steps etc. the user must visually inspect for any damage to rungs, stiles and wheels prior to use. Any damage or defects identified must be reported immediately to the Depot Manager - access and lifting equipment must not be used until it has been repaired or replaced. Three points of contact must be maintained when using access equipment.

23.3 The operator should align the forks of the fork lift truck with the load to be moved/lifted, and then slowly manoeuvre the forks under the load which should be checked for security and stability prior to lifting. The load should then be lifted and the forks tilted back sufficiently to secure the load. The Item can then be delivered into the racking and lowered into position.

23.4 Care must be taken to ensure the racking is not hit or damaged. When reversing, if the view is restricted, the operator must ask for assistance. On completion, the fork lift operator should park the fork lift back into its allocated holding area.

WARNING: The operator must never travel any distance with a raised load/mast as this will affect stability of the fork lift and may result in it tipping over.

24. MAINTENANCE OF WORK EQUIPMENT

24.1 SGN Equipment

a) SGN/PM/SHE/13 Management Procedure for Work Equipment describes how the company complies with the Provision and Use of Work Equipment Regulations (PUWER) 1998 and Provision and Use of Work Equipment Regulations (Northern Ireland) 1999.

b) A maintenance programme must be implemented to ensure all equipment is in good working order and repair. All systems and equipment must be maintained in efficient working order and where a maintenance log is required it should be kept up to date.

c) Inspections must be carried out for damage to pallets, stillage cages, stacks, fork lift trucks and electrical equipment (e.g. battery chargers).

d) Guards or other safety devices should not be removed or inactivated.

e) SGN/PM/SHE/14 Management Procedure for Lifting Equipment describes how the company complies with the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 and Lifting Operations and Lifting Equipment Regulations (Northern Ireland) 1999; all lifting operations involving lifting equipment must be properly planned by a competent person, appropriately supervised and carried out in a safe manner.

f) All equipment used for lifting must be fit for purpose, appropriate for the task, suitably marked and, in many cases, subject to statutory periodic thorough examination. Records must be kept of all thorough examinations and any defects found must be reported to both the person responsible for the equipment and the relevant enforcing authority.

24.2 Contractors Equipment

Contractors equipment used on an SGN site must comply with the Provision and Use of Work Equipment Regulations (PUWER) 1998 and where applicable the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 regulations and be safe to use.

24.3 Workplace and racking inspections

a) Workplace inspections including racking inspections should be conducted by the Resource/Stores Manager on a weekly basis.

b) Racking inspections should be conducted annually by a competent person.

25. STORAGE, PROTECTION AND WASTE DISPOSAL

25.1 Waste receptacles should be covered where possible and emptied as often as practicably possible.

25.2 Acid and caustic solutions must be stored in a bund positioned away from storm water sewers, grids, channels and watercourses.

25.3 All SGN vehicles carrying waste should have a copy of SGN's Waste Carriers Registration from the Environment Agency. All hazardous substances must be collected and disposed of by a licensed waste carrier. Where third parties carry waste on SGN's behalf, SGN should retain a copy of their Waste Carriers Registration on file and ensure it is valid by checking on the Environment Agency web site.

26. EXPOSURE MONITORING AND MEASUREMENT

26.1 Noise

SGN/PM/SHE/05 Management Procedure for Control of Noise at Work and the Protection of Hearing describes how the company complies with the Control of Noise at Work regulations 2006 and Control of Noise at Work Regulations (Northern Ireland) 2006.

Where applicable noise measurement must be conducted on machinery, equipment and tools and records held.

26.2 Health Surveillance

SGN fork lift truck and LGV drivers must participate in medical surveillance programmes to verify their fitness to drive.

Appendix A - REFERENCES

This Management Procedure makes reference to the documents listed below

A.1 Internal Documents

SGN/PM/INV/1	Management Procedure for Incident Reporting and Investigation
SGN/PM/SHE/01	Management Procedure for Risk Assessment
SGN/PM/SHE/05	Management Procedure for Control of Noise at Work and the Protection of Hearing
SGN/PM/SHE/10	Management Procedure for Control of Substances
SGN/PM/SHE/11	Management Procedure for Personal Protective Equipment (PPE) and Workwear
SGN/PM/SHE/12	Management Procedure for Workplace, Health, Safety and Welfare
SGN/PM/SHE/13	Management Procedure for Work Equipment
SGN/PM/SHE/14	Management Procedure for Lifting Equipment
SGN/PM/SHE/15	Management Procedure for Manual Handling
SGN/PM/SHE/16	Management Procedure for Fire Prevention and Protection
SGN/PM/SHE/22	Management Procedure for Personal Safety
SGN/PM/SHE/52	Management Procedure for Waste Water

Drivers Handbook

Safe Persons Handbook

A.2 External Documents

Control of Noise at Work regulations 2006

Control of Noise at Work Regulations (Northern Ireland) 2006

Control of Substances Hazardous to Health Regulations 2002 as amended in 2004

Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003

Construction Design and Management (CDM) Regulations 2015

Dangerous Substances and Explosive Atmospheres Regulations 2002

Health and Safety at Work Act 1974

Health and Safety at Work (Northern Ireland) Order 1978

Health and Safety (Display Screen Equipment) Regulations 1992

Lifting Operations and Lifting Equipment Regulations 1998

Lifting Operations and Lifting Equipment Regulations (Northern Ireland) 1999

Management of Health and Safety at Work Regulations 1999

Management of Health and Safety at Work Regulations (Northern Ireland) 2000

Manual Handling Operations Regulations 1992

Personal Protective Equipment at Work Regulations 1992 (as amended)

The Personal Protective Equipment Regulations 2002

Provision and Use of Work Equipment Regulations 1998

Provision and Use of Work Equipment Regulations (Northern Ireland) 1999

Regulatory Reform (Fire Safety) Order 2005

Part 3 of the Fire (Scotland) Act 2005, supported by the Fire Safety (Scotland) Regulations 2006

Part 3 of The Fire and Rescue Services (Northern Ireland) Order 2006 and The Fire Safety Regulations (Northern Ireland) 2010

Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations 2013

Workplace (Health, Safety and Welfare) Regulations 1992

Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993

Control of Major Accident Hazards Regulations 1999

HSG 76 Warehousing and Storage Guide

Storage Equipment Manufacturers Association (SEMA) Code of Practice

APPENDIX B - DEFINITIONS

The definitions applying to this Management Procedure are given below:

Competence - refers to a person who has demonstrable ability to conduct an assigned task in a safe manner i.e. someone who has appropriate practical and theoretical knowledge and experience of the activity or equipment.

Fork lift truck - refers to:

- Industrial counterbalanced lift trucks
- Industrial reach trucks
- Pedestrian Lift Truck
- Pallet trucks (motorised and manual) including the following:
    - Powered Pallet Truck
    - Manual Pallet Truck
    - Ride-on Pallet Truck
- Narrow aisle trucks including the following:
    - High Level Combi
    - High Level Order Picker
    - Low Level Order Picker

Work equipment - the scope of 'work equipment' is extremely wide. It covers almost any equipment used at work, including lifting equipment such as lift trucks, lorry loaders, hoists, lifting slings etc.

Site/Nominated Manager - The most senior manager allocated responsibility for co-ordinating health, safety and environmental issues an SGN place of work.

Appendix C – **SATELLITE STORES RISK ASSESSMENT**

Contents:

Task/ Activity	Hazard	Control	Risk Rating (H/M/L)	Remaining Risk with controls (H/M/L)
General Housekeeping, maintenance, welfare and administration	Slips, trips and Falls. Falling objects. Contamination of food and personal hygiene. Legal action from HSE.	**Signage:** • Health and safety policy. • H&S Law Poster. • Public liability Insurance. • No smoking signs. • Manual handling poster. • Fire escape signage. • Fork Lift Truck warning signage. • Reverse Parking. • Golden Rules. **Inspection:** Stores operative to complete a daily risk assessment. SGN Logistics manager to record a monthly site inspection in line with the requirements set out in T-PM-SHE-23 Rev 0904 (1) - 1.12 Inspection. Comply with plant and equipment maintenance and service arrangements.		
		Refer to Safe Persons Handbook Slips, trips and falls (p92) and Housekeeping (p61)		

		Restrict warehouse areas to authorised personnel only. Walkways to be marked and kept clear. Suitable SGN supplied uniform, safety footwear, eye protection, hand protection and high visibility long sleeved waistcoat must be worn by stores operatives. A safety helmet must be worn when accessing or raising loads above head height or when identified by the operative's risk assessment. Heating and lighting to be provided, Lighting must not cast any significant shadows in work area. Lighting outside the warehouse must operate on a PIR system to adequately illuminate the loading area and car park. Keep work areas and benches tidy, put tools and materials away when not in use. Route hoses and leads away from walkways. Keep Liquids in suitable containers and bund where required. No hazardous materials or combustibles are permitted other than those detailed in this RA. Prominently display a spill kit. All spill prevention equipment must be inspected monthly and maintained. Clean up spills as quick as possible. Display warning signs (wet floor, trip hazard etc.) where required.		

		First aid kits, eyewash stations and first aid kits to be prominently displayed and briefed to all. Contents to be checked monthly. One first aid trained operative required and named on a first aid station. Suitable WC, hand cleanser and hand washing facilities to be made available. Drinking water and kitchen facilities to be maintained. Place stores into appropriate storage containers as soon as practical following delivery to keep the warehouse floor/desk spaces free from trip hazards. The SGN logistics manager must ensure that stores operatives receive Information, Instruction and Training on: • Fire precautions. • Evacuation procedures. • Security arrangements. • Manual handling. • First Aid. • Lifting equipment A maintenance program must be implemented to ensure that equipment is in good working order and repair. The maintenance program must cover equipment where a fault would cause failure to comply with regulations to include: • Lifting equipment (Fork Lift trucks and accessories). • Lighting equipment.		

		• Space heating appliances. • Guarding and trip switches. • Floors. • Powered doors. • Fire detection systems.		
Lone working/ Personal security, and premise security	Inability to respond to an incident / accident. Assault. Unauthorised access leading to loss/theft of assets, plant or equipment Slips, trips and falls. Injuries. Uninsured loss.	No lone working is permitted All visitors are required to sign and must be escorted when within the warehouse External lighting to car park using PIR/Motion sensor PAC access to the office Alarm and panic button Goods vehicles must contact the stores operative ahead of arrival to site to gain instructions for safe loading / offloading. All visitors required to wear hi-visibility long sleeved waistcoat and safety footwear when entering the warehouse. Refer to Safe Person Handbook Security (p91) Refer to Safe Person Handbook Site Emergencies (p91) Be aware of the emergency arrangements for the site such as:		

		• Fire alarms and evacuation. • Location of first aid kit and first aiders. • Location of rescue / resuscitation equipment. • Location of spill kits and drain covers etc. • Complying with any local requirements. • Ensuring all employees on site (and visitors) are informed of the emergency arrangements and fire exits. Accidents/Incidents/Near-misses must be reported and recorded internally and where necessary externally, as stated in T/PM/INV1 Procedure for Incident Reporting and Investigation.		
Forklift (FLT)	Crush or impact Injuries. Untrained persons operation. Impact causing structural damage. Falling materials. Overloading / Overturning. Equipment failure	**FLT General controls:** Refer to Safe Persons Handbook Traffic (depots, operational sites) (p101) and PE pipe delivery, handling and storage Safe Person Task Card. Refer to the Drivers Handbook Only competent persons shall operate the FLT. FLT operators must participate in SGN's medical surveillance program, which verify employees' fitness to drive. A FLT log book should be completed daily. Roll over protection system shall be fitted to the FLT. Perform test lift before continuing with full lift. All loads must be secured and		

		lifted in a controlled manor. The SWL must be visible on the FLT and loads must not to exceed the lifting capability. FLT shall be driven in accordance with local speed restrictions, turning/driving operations conducted at minimum speed. FLT to be inspected under LOLER at periods not exceeding 12 months. Lifting Attachments to be labelled with the safe weight load and test/inspected dates in accordance with LOLER Regulations and must be inspected 6 monthly. **FLT Operation outside the warehouse:** Car parking bays and pedestrian walkways must be clearly marked /defined. The FLT must be operated outside the warehouse with a beacon and reversing siren (lights to be used as appropriate). The operator must wear a seat belt. The warehouse and loading area/car park lighting must be suitable and maintained. Weather conditions must be considered and appropriate actions taken to prevent incident i.e. ice, high winds etc. Refer to Safe Persons handbook -		

		Adverse Weather conditions (pg21). A banksman must be used during FLT operations outside the warehouse. The banksman must remain clear of the FLT and its load. The banksman must be under the direction of the FLT driver. Prior to load movement banksman must retreat to a safe distance where they can be seen by the FLT driver. **FLT Operation inside the warehouse:** A segregation barrier system must be installed to separate pedestrians and other vehicles from the FLT when in use inside the warehouse. The entrance to the warehouse must be free from visual obstructions including the plastic screening. A suitable barrier or guardrail is to be installed to separate the route for pedestrians where the FLT passes through the doorway to the warehouse. Always use a banksman and sound the horn when entering and exiting the warehouse. In areas of the warehouse where the FLT is to be used, the overhead lighting, and electrical equipment must be positioned at a height above the reach of the FLT or a height limiting device shall be fitted. The racking within the warehouse must be protected with a fixed barrier.		

Bottled gases	Impact from the blast of a gas cylinder explosion or rapid release of compressed gas. Impact from parts of gas cylinders or valves that fail, or any flying debris. Contact with the released gas or fluid. Fire resulting from the escape of flammable gas or fluid. Impact from falling cylinders. Manual handling injuries.	Refer to Safe Persons Handbook Bottled gases (p32) Store gas cylinders in a dry, secure area on a flat surface in the open air. If this is not reasonably practicable, store in an adequately ventilated building or part of a building specifically reserved for this purpose and advise the local fire officer of its location. Compressed gas cylinders are to be securely restrained to ensure they cannot fall from a vertical storage position. Wherever possible store empty and full cylinders separately. Make sure that empty cylinders are clearly identified. Gas cylinders should not be stored for excessive periods of time. A record of the 'use by' date is to be maintained. Rotate stocks of gas cylinders to ensure 'first in' is 'first used'. Always double check the gas being used is the correct one for the intended use.		
Use of plant	Injuries to operative or 3rd	Refer to Safe Person Handbook Machinery (P68)		

and machinery	party due to untrained operation. Burns. Contact with moving parts. Crush injuries.	Plant and machinery must only be used by trained operatives. All plant and machinery must have available a copy of the manufactures instructions. Do not remove guards or other safety devices. Maintain annual service records of plant and machinery. All inspections and repairs must be carried out by competent persons. Any work equipment that requires an inspection must not be used or hired unless it is accompanied by physical evidence of inspection/certification. • All lifting equipment, inclusive of machinery and accessories. (e.g. slings, chains, hooks etc.) must be certified, thoroughly examined, inspected and maintained to ensure the integrity of the equipment.		
Loading/ Unloading Racking	Collapse Impact or crushing injury	Refer to Safe Persons Handbook Housekeeping (p61), Slips, trips and falls (p92) Storage should be planned and the layout inspected monthly. Perform visual monthly inspection of racking, check for any signs of damage. Annual racking inspection to be completed by a competent person. A designated area for loading and unloading should be clearly marked. Racking to be installed as per manufacturer's instructions. Loads which are capable of being stacked directly on top of each other must be positioned on a firm level base i.e. all materials must be stored/stacked safely and be regularly inspected for stability. SWL must be displayed on each shelf. Do not exceed the load limit of each bay and beam/shelf as displayed.		

		Stacking of palletised loads of packs which are capable of being crushed should be avoided as the strength and stability of the load cannot be maintained. Stores operatives must not work at height without specific training. Materials to be stores in appropriate containers. Lighter items to be stored at higher levels on racking.		
Step ladders	Fall from height	Refer to the Work at Heights Safe Person Task Card (P303) Step ladders must be inspected prior to use and annually by a competent person. The results must be recorded on a ladder register. They must be clearly labelled after annual inspection indicating to the user that they are within inspection dates. Step ladders must be inspected before use for damage and used for Low risk short duration works not exceeding 30 minutes. Stepladders must be fit for purpose, with good safety characteristics. This means a high degree of stability (e.g. wide base), handrail/guard rail plus a strength and quality that allows the steps to be a stable means of access or a short- term work platform. Workers must be competent in their use (i.e. how to adjust and use them safely) and must not try to attempt a repair on faulty steps or modify them. Stepladders are not designed for side loading (eg. side-on loading – the steps should face the work activity). Excessive body movement, overreaching or stepping down from above onto the top step can overturn them. They can		

		also be knocked over by people or moving equipment. Ensure the leg restraint device can be fully opened and any locking devices are engaged if fitted Follow manufactures instructions. Appropriate height steps shall be provided to access the racking. Ensure the work area can be reached without stretching Secured the step ladder as per the manufactures instructions to prevent slipping.		
Lifting Operations	Impact damage to plant Impact or crushing injury to personnel	Refer to the Lifting Operations Safe Persons Task Card Refer to Site Specific Risk Assessment Quick Reference Guides		
Use of electrical appliances and tools	Electrocution Burns Fire	Refer to Safe Persons Handbook Electricity (p44), Tools and equipment (p100) All electrical appliances and tools must have available a copy of the manufactures instructions. Ensure all electrical items are PAT tested before use and is in date. All battery powered chargers to be PAT tested. Operative to complete visual checks and self-assessment prior to use.		

		Use battery powered tools where possible. Use 110V tools instead of 230V tools where possible. Where 230v is used, RCD's must be fitted and tested		
Manual handling	Strains. Musculoskeletal disorders.	Refer to the Manual Handling Safe Person Task Card Manual handling training to be regularly refreshed. Manual handling must be avoided where practical. Use correct manual handling techniques. Load must be assessed prior to lifting. Where necessary lift heavy items in pairs.		
Environment and Waste transfer	Action from the environment agency Loss of environmental	Godstone stores requires a simple Environmental Risk Assessment to be completed by SGN's Environment Team and reviewed on a two-yearly basis. Environmental Risk Assessment to be held on file. Refer to the Environment Handbook.		

	accreditation	The entrance to both warehouse units should have a retractable plastic shutters to reduce the heat loss from the space heater. Under no circumstance should waste generated from off-site activities be brought back to this depot for disposal without the correct transfer license in place. Clearly label magnums for waste segregation into cardboard, plastic and general waste only. Contact SHE Manager should any other waste streams arise.		
Fire	Death Burn Injury Loss of assets	SGN's Fire risk assessment to be completed by competent person and reviewed, as attached.		
Storage of material		Refer to SP handbook Housekeeping (61), relevant ICE Sheet and refer to the PE Pipe Delivery, Handling and Storage Safe Person Task Card.		
Third party deliveries		Refer to SP handbook Traffic (depots, operational sites) (101) and refer to the PE Pipe Delivery, Handling and Storage Safe Person Task Card.		
Traffic		Refer to SP handbook Traffic (depots, operational sites) (101) Refer to the Drivers Handbook		

APPROVAL

This Management Procedure was approved by Tamsin Morgan on 29/01/2020 for use by managers, engineers and supervisors throughout Scotia Gas Networks (SGN).

SGN documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the SHE & Engineering Document Library available on DigitalHub.

Compliance with this safety and engineering document does not confer immunity from prosecution for breach of statutory or other legal obligations.

BRIEF HISTORY

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KEY CHANGES

Section	Amendments
ALL	Complete review of revision 2, updated and re-issued as SGN/PM/SHE/23

DISCLAIMER

This safety and engineering document is provided for use by SGN and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

END NOTE

Comments

Comments and queries regarding the technical content of this safety and engineering document should be directed to The SHE and Engineering Registrar at:

engineering.registrar@sgn.co.uk

Buying documents

Contractors and other users external to SGN should direct their requests for further copies of SGN safety and engineering documents to the department or group responsible for the initial issue of their contract documentation.

Appendix 6 – Management Procedure for Climate Change

SGN/PM/SHE/51

Safety Management Framework

Management Procedure for Climate Change

JUNE 2020

Management Procedure for Climate Change SGN/PM/SHE/51

Document Owner: Carolina Karlstrom Issue Date: 23/06/2020

Context

Who is this management procedure for?

This management procedure applies to all employees, but particularly for those managers responsible for:

i) Overseeing operations (including abnormal working arrangements such as BCM);

ii) Making investment decisions

iii) Managing and maintaining our assets

iv) Managing our sites, fleet and business travel.

What does this management procedure do?

This management procedure details the actions necessary to address climate change mitigation and climate change adaptation in our organisation, including legislative and regulatory requirements.

Climate change **mitigation** is our actions to reduce greenhouse gas emissions in order to lessen the impact of climate change.

Climate change **adaptation** is our actions to deal with the impacts that we are already experiencing and will continue to experience as a result of changes in the UK's climate.

Scope

This management procedure applies to all our operations and activities, including day to day business and future investments and acquisitions.

Why do we need this management procedure?

We are committed to reducing our environmental impact, including our contribution towards climate change. In order to meet this commitment and our stakeholders' expectations (including customers, Ofgem, regulators, shareholders, employees, etc.) we must mitigate our emissions as far as reasonably practicable. This is in line with our Net Zero by 2045 target. In addition to the environmental benefits of carbon reduction initiatives, there are reputational gains as our environmental performance is submitted to Ofgem and published to our external stakeholders.

Awareness of the impacts of the changing climate is rising with the temperatures and extreme weather events including heat waves, flooding and wildfires, both in the UK and globally, which have characterised the past decade.

Following climate activism and demand for action by our future generations, the UK Government responded by declaring an Environment and Climate Emergency in May 2019. In June 2019 the UK Government became the first major economy in the world to pass laws to end its contribution to global warming by 2050.The target will require the UK to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels. This followed recommendations in a report from the Climate Change Committee (CCC). The Scottish Government followed suit and have set a more challenging target of net zero by 2045.

Despite global efforts in recent years to reduce the amount of carbon released into the Earth's atmosphere, the UK is forecast to experience a period of unavoidable climate change throughout the century as a result of current and historical greenhouse gas emissions. We must ensure that we are able to adapt in the face of a changing UK climate in order to continue to perform our operations and activities with minimal disruption.

We must manage climate change in our business to ensure risks are adequately controlled and opportunities are maximised. This will improve stakeholder confidence by demonstrating our current and future ability to meet our customers' energy needs, perform our statutory duties and improve our environmental performance.

Contents

1. Climate change mitigation

1.1 Target and objectives

1.1.1 The Group Head of SHE must establish targets and objectives to reduce our impact and minimise carbon emissions. Our objectives must be approved by our Board and/or Executive Committee. Each target should be assigned to, and led by, a director or a member of our senior management team.

1.1.2 Our Environment objectives must reflect our most significant environmental aspects (see SGN/PM/SHE/61 – Assessment of Environmental Aspects) and must include targets to reduce carbon emissions resulting from our business activities. The environmental aspects will be reviewed annually with a lead aspects manager.

1.1.3 Current (and historical) progress of targets and objectives should be monitored and communicated throughout our business on a regular basis. . This will entail measurement or calculation of our emissions including natural gas leakage and carbon form our business travel.

1.1.4 Lead senior managers/directors should develop mitigation strategies to ensure targeted performance is met or exceeded. Mitigation actions should be prioritised to focus on those areas where the greatest environmental benefit will be realised and/or where current performance is failing targets.

1.1.5 All employees must comply with our Environmental Management System (EMS) procedures and supporting best practice guidance (as far as is reasonably practicable) to assist in the achievement of our targets and objectives.

1.1.6 Site nominated managers must ensure that activities undertaken within their locations and areas of responsibility are compliant with our EMS procedures and assist in the achievement of our environmental targets and objectives (where applicable). This includes resource and energy consumption at both operational and non-operational permanent and temporary sites (see SGN/PM/SHE/54 – Utilities and Carbon).

1.2 Stakeholder engagement, regulatory and legislative reporting

1.2.1 We must share and report our carbon related performance to comply with regulatory and legislative requirements, and to engage with stakeholders to maximise reputational benefit. Details of our performance may be supplied external stakeholders, including to the following:

a) Ofgem specified carbon reports;

b) The Carbon Reduction Commitment (CRC) energy efficiency scheme;

c) Government bodies e.g. Defra, BEIS;

d) Regulators e.g. the EA, SEPA;

e) Organisations dedicated to recognising environmental best practice.

1.2.2 Managers should share environmental best practice implemented at a local level and with the rest of the business where appropriate.

1.3 Investment decisions

The responsible manager and/or the investment committee must consider the environmental impact of new investments and acquisitions as a fundamental consideration in the procurement process; including assessment of the feasibility of options with the lowest carbon intensity (see SGN/PM/SHE/58 – Environmental Procurement).

1.4 Minimising air emissions

1.4.1 The Head of Network is responsible for ensuring that unplanned leakage from the network is minimised. This will be achieved by utilising data loggers to optimise network pressures, gas conditioning (where appropriate) and programmed replacement of gas distribution network.

1.4.2 Managers responsible for the design, installation, operation, maintenance, replacement and decommissioning of assets including the gas network, all plant & equipment and all heating, air conditioning and refrigerant equipment must ensure that such activities are carried out in a way to improve their environmental performance during their full lifecycle.

Design and installation – where practicable, assets should be designed to maximise energy efficiency, contain non-hazardous components and prevent emissions of gas, odours, particulates, etc. during normal operation. The installation of new assets must be planned to ensure that consumption of energy and raw materials is minimised during construction where possible.

Operation and maintenance – the operation of assets must be managed to minimise carbon emissions, for example by considering the energy use during normal and emergency operating conditions. Maintenance of assets should be planned to reduce their environmental impacts, for example by considering the replacement of components with more efficient technology that will reduce emissions, installing improved controls to reduce the use of energy, implementing additional controls to minimise pollution and nuisance, etc.

Replacement and decommissioning – the replacement and decommissioning of assets must be planned to minimise the environmental impact of these activities, for example by venting gas to atmosphere only when no alternative exists and by implementing suitable waste management controls to maximise opportunities for reusing and recycling materials.

1.4.3 The Fleet manager must ensure that environmental performance criteria is part of any evaluation when considering the procurement of new vehicles (see section 1.3), and that initiatives to reduce the emissions from vehicles and their impact on the environment should be assessed and introduced if deemed appropriate. The Fleet Strategy should review the car choice list at least every 3 years to ensure options reflect the changing landscape with regard to alternative fuel vehicles such as EV's.

1.4.4 Line managers must ensure that drivers of company vehicles are aware of the actions necessary to reduce fuel consumption and emissions from their vehicles. These include purchasing fuel from reputable sources, switching off vehicles when stationary and not in use, servicing vehicles regularly and maintaining correct tyre pressures, driving smoothly to avoid harsh braking and accelerating and sharing vehicles where possible.

2. Climate change adaptation

2.1 Assessment and impacts of climate change

2.1.1 The Group Head SHE should obtain climate data from UK government endorsed organisations where available. These may include:

a) UK Climate Impacts Programme (UKCIP) and the UK Climate Projections (UKCP);

b) EA and SEPA;

c) The MET Office;

d) The Intergovernmental Panel on Climate Change (IPCC); and

e) Other government departments e.g. Defra, BEIS.

Key findings of UKCP18 and IPCC AR5 forecast that throughout the 21st century the UK will experience changes in the climate according to the following trends:

a) Hotter, dryer summers;

b) Warmer, wetter winters;

c) Sea level rise; and

d) Increase frequency of extreme weather events (e.g. storms, heatwaves, etc).

2.1.2 The Heads of Network and Operations must ensure operations and assets for which they are responsible retain a level of inherent resilience to climate-related impacts. Natural hazards may include:

a) Flooding and heavy rain;

b) Snow, ice and prolonged cold weather;

c) Heatwave and drought;

d) Wildfire;

e) Coastal or river erosion; and

f) Storms (including high winds and lightning strikes).

2.1.3 Nominated managers must undertake a documented review of the potential impacts of climate change and vulnerability to natural hazards (see 2.1.2) at relevant locations they are responsible for. Sites and assets at any location should undergo this review under the following circumstances:

a) The site qualifies for a periodic Environmental Risk Assessment (ERA);

b) The loss of distribution assets at the site would lead to a loss of gas supplies for more than 5000 customers; or

c) A review is deemed necessary by the nominated manager for any other reason e.g. due to the susceptibility of some assets to natural hazards.

ERA templates are available on DigitalHub and should be undertaken, where appropriate, for manned and unmanned fixed sites and above-ground operational assets (see SGN/PM/SHE/65 – Management Procedure for Environmental Risk Management).

2.1.4 Where significant climate change risks are identified in accordance with 2.1.3, nominated managers of fixed sites (including depots, offices, operational and decommissioned sites and distribution assets) should implement appropriate adaptation or mitigation measures to prevent major damage or disruption in the event of extreme weather events. The Land and Property teams in SGN should be involved in determining the nature and level of mitigation required.

2.1.5 Responsible managers of temporary sites should give consideration to implementing adaptation measures where deemed necessary and cost-effective to do so.

2.1.6 All managers must report weather/climate related incidents to the SEARS team e.g. major site flooding, lightning strikes, significant damage to assets caused by subsidence or erosion, etc. Details of these incidents should be used to implement adaptation measures where possible to prevent reoccurrences.

2.2 Climate change business risks

2.2.1 Climate change in the UK presents risks to our assets and operations. The risks must be identified, documented and assigned to the relevant risk owners within our organisation.

2.2.2 All risk owners must consider the impact of climate change when determining the significance of the risks they manage. Consideration must be given to the potential for increasing likelihood and severity of climate-related impacts over time.

2.2.3 Where risk assessment identifies unacceptably high climate change risks action must be undertaken to reduce significance to an acceptable level by implementing adaptation or mitigation measures.

2.2.4 Periodic re-assessment of the risks posed by climate change in the UK must be undertaken across our entire business (see section 3.1.3).

2.3 Climate change opportunities

2.3.1 Opportunities to realise benefits resulting from changes in the UK's climate should be periodically assessed. Opportunities might include options to reduce our environmental impact, increase our revenue, diversify our operations and the use of our assets and operate our business in a more sustainable manner. All managers should ensure new ideas and opportunities arising from climate change are submitted to the Innovation and New Technology Manager.

2.4 Abnormal working arrangements

2.4.1 All BCM lead managers must give consideration to the likelihood of climate-related impacts disrupting our operations and activities. BCM plans must take account of possible abnormal working arrangements generated by extreme weather, and the potential for this to affect large geographical areas for prolonged periods.

2.5 Interdependencies

2.5.1 There are a number of key services and supplies provided to our organisation by external agencies that have a critical impact upon our operations. Regardless of the level of climate change resilience inherent in our own organisation, these 'interdependencies' have the potential to drastically impact upon our operations.

All managers should ensure that, as far as is reasonably practicable, the impact of climate change on these interdependent relationships with our key suppliers is minimised. This may include examination of suppliers' emergency response procedures, BCM plans and climate change adaptation actions.

2.6 Investment decisions

2.6.1 The relevant responsible manager and/or the investment committee must consider the potential impacts of climate change associated with all investment decisions (including new acquisitions and replacement or upgrading of existing assets) as a fundamental consideration of the design, procurement and approval process.

The likelihood and severity of climate change related impacts must be considered for the entire life expectancy of the asset. Consideration of impacts may include the following when making investment decisions:

a) Flooding likelihood/susceptibility;

b) The effects of temperature extremes e.g. prolonged heatwave, drought, cold;

c) The likelihood of erosion or damage e.g. in coastal areas, river crossings, etc.

The likelihood and severity of climate change impacts may alter throughout the life expectancy of the asset. Adaptation measures to mitigate the impacts of climate change must be considered and implemented where deemed necessary.

The type and degree of adaptation measures incorporated into the design of new or upgraded assets must be based upon the most suitable climate data available at the time.

3. Assessment of future climate change

3.1 Reviewing climate change management

3.1.1 Understanding of climate change science is an ever evolving process that will continue to develop over the coming decades. The Group Head of SHE must ensure we have regard for the latest developments in this field and implement policies and procedures which reflect the prevalent views held by the scientific community, the UK government, our regulators and other key stakeholders.

3.1.2 The Group Head of SHE must undertake a review every 3 years of our environmental targets and objectives to ensure they continue to adequately reflect our significant environmental aspects. New or revised target and objectives must be established following this review if they are deemed no longer fit for purpose.

3.1.3 The Group Head of SHE must ensure that reassessment of climate change projections, the likely impacts and risks, and the subsequent adaptation actions is undertaken periodically to coincide with one or more of the following:

a) a statutory or regulatory update;

b) a significant release of new information/data e.g. climate projections, flood map updates, etc.;

c) a major climate-related incident from which learning can be derived.

3.1.4 Climate change risks must be monitored and reviewed by the relevant risk owners in accordance with our existing business risk process.

3.1.5 The Group Head of SHE should engage in ongoing communication at industry-level with GDNOs, other members of the energy sector and any other external organisations as necessary, to share learning and best practice. This information should be considered when undertaking reviews of climate change mitigation and adaption management.

3.1.6 The Group Head of SHE will introduce Climate Change education into SGN such that everybody will have access to information, presentations and resources to up-skill and improve their awareness and knowledge of Climate Change.

APPENDIX A– REFERENCES

This Management Procedure makes reference to the documents listed below

A.1 Internal Documents

SMF	-	SGN Safety Management Framework
SGN/MS/2	-	Environment Standard
SGN/PM/SHE/54	-	Utilities and Carbon
SGN/PM/SHE/58	-	Environmental Procurement
SGN/PM/SHE/61	-	Assessment of Environmental Aspects

A.1 External Documents

UKCP18	-	UK Climate Projections 2018
IPCC AR5	-	Fifth Assessment report from the IPCC 2014

APPENDIX B - DEFINITIONS

The definitions applying to this Management Procedure are given below

BCM	-	Business Continuity Management
CRC	-	Carbon Reduction Commitment
EA	-	Environment Agency
EMS	-	Environmental Management System
ERA	-	Environmental Risk Assessment
GDNOs	-	Gas Distribution Network Operators
OFGEM	-	Office of Gas and Electricity Markets
SEPA	-	Scottish Environmental Protection Agency

APPENDIX C– Quick reference responsibility table

The table below provides a quick reference for identifying key responsibilities in the management of climate change. The sections identified should not be read in isolation without referring to the other sections of this management procedure.

Job title	**Section reference**
Senior Manager / Company Director	1.1.1, 1.1.4, 1.3.1, 2.6.
Group Head of SHE	1.1.1, 1.1.3, 2.1.1, 3.1.1, 3.1.2, 3.1.3, 3.1.5.
Head of Network / Head of Asset Management	1.4.1, 2.1.2, 2.1.3, 2.1.4, 2.6.
Site Nominated / Responsible Manager	1.1.6, 1.2.1, 1.3.1, 1.4.2, 2.1.2, 2.1.3, 2.1.4, 2.4, 2.6.
Business Risk Owners	2.2, 3.1.4.
Fleet Manager	1.4.3
All Managers	1.1.4, 1.2.2, 2.1.5, 2.1.6, 2.3.1, 2.5.2.
All Employees	1.1.5.

APPROVAL

This Management Procedure was approved by Carolina Karlstrom on 23/06/2020 for use by managers, engineers and supervisors in both geographical regions of SGN.

SGN documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the SHE & Engineering Document Library available on DigitalHub.

Compliance with this safety and engineering document does not confer immunity from prosecution for breach of statutory or other legal obligations.

VERSION HISTORY

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KEY CHANGES

Section	Amendments
Entire document	Minor changes to references and title for responsible managers. Addition of section on Net Zero by 2045 and climate emergency.

DISCLAIMER

This safety and engineering document is provided for use by SGN and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

END NOTE

Comments

Comments and queries regarding the technical content of this safety and engineering document should be directed to The SHE and Engineering Registrar at:

engineering.registrar@sgn.co.uk

Buying documents

Contractors and other users external to SGN should direct their requests for further copies of SGN safety and engineering documents to the department or group responsible for the initial issue of their contract documentation.

Appendix 7 – Management Procedure for Reporting & Investigation

SGN/PM/INV/1

Safety Management Framework

Management Procedure for Reporting and Investigation

February 2024

Management Procedure for Reporting and Investigation

SGN/PM/INV/1

Document Owner: Tamsin Kinnaird

Issue Date: 28/02/2024

Context

Who is this Management Procedure for?

All managers involved in our processes for reporting and investigating occupational and process safety incidents and injuries.

What does this Management Procedure do?

This procedure prescribes the requirements and processes for reporting injuries and incidents that occur out of, or in connection with work.

Scope

This procedure must be followed when reporting an injury or incident that occurs out of, or in connection with work. This procedure includes incidents relating to safety, health, environment, engineering or security, and includes contractors working on behalf of SGN.

Why do we need this Management Procedure?

This procedure ensures that SGN complies with all of its legal reporting and investigation requirements in accordance with the Health and Safety at Work etc Act 1974 and other Regulations [the Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations 2013, the Gas Safety (Management) Regulations 1996 and Control of Major Accident Hazards regulations 1999], and the equivalent Northern Ireland publications. Additionally, SGN has a legal duty to record accidents and incidents under the Social Security Administration Act 1992 (SGN has a reporting application, Velocity, that acts as the Accident book).

CONTENTS

1. OBJECTIVE

1.1 This procedure prescribes the requirements and processes for reporting injuries and incidents that occur out of, or in connection with work, including incidents relating to safety, health, environment, engineering or security.

2. REPORTING

2.1 Employee responsibilities

Everyone has a personal responsibility to notify the organisation when injuries and incidents occur or weaknesses in risk controls are identified, by informing their line manager.

Employees can directly report hazards or near misses by recording these in the H&S Electronic system, currently Velocity.

2.2 Management responsibilities

Managers **must** report any injuries and incident that occurs out of, or in connection with work, they will do this by recording them in the H&S Electronic system, currently Velocity, within an hour.

The Electronic system contains 'incident categories' and 'sub categories' to assist with reporting.

Line management must ensure their operatives/employees have access to the H&S Electronic system for directly reporting hazard and near miss events.

Managers can contact the H&S support team on 0845 076 0214 or contact their local H&S Manager for any advice.

2.3 Reporting process: When reporting an incident, the information required in the first report must be provided, including:

- Description of the injury/incident, a brief factual description of what happened (do not speculate or make assumptions). For security related incidents, this should include any items stolen (with an estimate of the cost), crime reference numbers and police details; and details of actions already taken to safeguard individuals and the public.

  Note: Managers are required to make an initial judgement of whether the injury is likely to result in lost/restricted time to allow escalation process to take place.
- Operational Depot/Business Department/Directorate;
- Location and Date of the incident;
- The name of the operative or member of public involved;
- Employee status: SGN direct labour or contact labour (contractor company name);
- The relevant SGN Line Manager/First Report Manager responsible for follow up investigation.

2.4 Media involvement: Incidents that have the potential for media involvement must be notified to Corporate Communications. Contact numbers can be found on Digihub and the Press office contact number is 0845 070 1811.

2.5 External Enforcement Agency Action: Any contact from an enforcement agency (e.g. HSE, SEPA/EA, LA) must be reported immediately by the Line Manager to a member of the senior health and safety team, including the date and time of contact and contact details for the agency.

Any out of hours contact must be reported immediately to the SGN Standby Senior manager.

Details of the contact must then be recorded on the 'external enforcement agency contact form' found on Digihub and sent to the above persons.

2.6 SGN **working as a contractor** – for any incident that occurs while SGN is engaged as a contractor (e.g. NG Meterwork), the SGN contracts manager must verbally report any incidents to their client, so that incident details can be discussed and any subsequent actions that the client may require agreed. E.g. – joint investigation.

3. REPORTING: INTERNAL ESCALATION

3.1 To ensure timely internal communication of significant incidents, an escalation fast track system has been established.

3.2 The incidents detailed below should be reported **within an hour of the incident**, by the line manager to the following:

The Director of Health and Safety and the relevant department Director.

The relevant Director must contact the Chief Operating Officer (COO). The COO to notify the Chief Executive Officer (CEO)and the SGN Board to ensure they are aware of the following Category 1/major incidents:

- Fatality
- Fire/Explosion or any incident resulting in major damage (>£250k)
- Major/Significant environmental incident
- Major/Significant security related incident
- Failure of supply to 250 or more supply points
- A loss of supply of an industrial or commercial customer on the 'Priority Customer Supply Point list' (available from the Gas Network Control), that would have a high impact on their business

The same process should be followed for the incidents detailed below, however the requirement to notify the Chief Executive Officer and the SGN Board is at the discretion of the relevant Director. The following are the Category 2/serious incidents:

- Injury likely to result in lost time/restricted time
- Serious injury to a member of the public injury
- Serious road traffic collision
- HV (High Voltage) or EHV (Extra High Voltage) cable strike
- Failure to supply >50 and <250 supply points
- Statutory notice – any prosecutions, prohibition, improvement or other statutory notice

Out of working hours the senior manager of standby must be notified, it will be at their discretion whether the incident requires full escalation.

3.3 An 'escalation meeting' to discuss a serious injury or incident will be instigated by an Operational EXEC member or senior Operational manager. This meeting will be attended by the Director of H&S, COO and relevant senior operational managers. This

will take place within 24hours and will if appropriate appoint an investigation lead and/or an investigation team.

4. EXTERNAL REPORTING

4.1 Legislation requires that certain types of incidents are reported to the appropriate enforcing authorities (e.g. the HSE, HSENI, EA, SEPA, DEFRA, LA). The H&S Support team will make all required external notifications. See Appendix C.

4.1.1 Reporting to the HSE under COMAH: refer to SGN-PM-COMAH-6 for more detail.

4.1.2 Reporting for contractors under RIDDOR: the H&S team take responsibility to report some contractor incidents to external agencies but not all. Gas Related incidents (e.g. gas releases, gas supply incidents) are notified by SGN, non-gas related (e.g. injuries and MOPs) must be reported by the contractor to the appropriate external agency.

4.1.3 Independent Gas Transporter (IGT) site: SGN is not responsible for reporting under RIDDOR any incident that has occurred on an Independent Gas Transporter (IGT) site.

The SGN Line Manager must take the following actions when emergency works have been carried out at an IGT site including IGT pipelines:

- Report all “unusual occurrences” to the IGT immediately via the Operations Control Centre (for example, loss of supply, CO and fire and explosions);
- Record information to enable the IGT to recover third party damage costs;
- Hand over relevant information to the IGT when transferring responsibility for works back to the IGT.

5. INVESTIGATION

5.1 An investigation report, carried out by a competent person, must be completed for incidents in accordance with the requirements and timescales. The Reporting application will automatically chase if not completed. Investigations are generally completed by the Team manager or Standby Manager.

- In some cases, if the injury/incident is more serious a lead investigator and/or Investigation team may be required, this requirement will come into play following the ‘escalation meeting’, described in section 3.3. The investigation team will feedback on the investigation to the wider Executive team.

- If an incident is recorded as a ‘high potential’ for serious injury or damage It is categorised as a HIPO and given an Executive lead to investigate. The investigation lead/team will provide feedback to the wider Executive team. .

5.2 The injuries/incidents detailed in section 3.2 initial section that are classed as serious and are likely to result in an investigation lead and team being deployed, this is decided by Director of H&S or the COO. The team will be supported by the H&S Team, Human factors specialists and Legal, if required.

5.3 Include a safety representative in the investigation process. Safety representatives must be involved for all injury investigations and, for all other incidents, this is at the discretion of the Investigating Manager.

5.4 If required Investigation templates are available on Digihub or available from your local H&S manager or the H&S support team.

5.5 Where appropriate, refer to the relevant Human Resources policies, including those relating to drugs and alcohol. An investigation report should include the sequence of events and provide a conclusion that identifies the immediate and root cause of the incident with recommendations to prevent a recurrence. The investigation will require a 5 why approach to be undertaken, to establish the real root causes. An action plan must be discussed and agreed with the appropriate action owner(s) and should include expected timescales for completion. Investigation reports must be clear and factual. A copy of a report may be required to be produced as a result of any Civil or Criminal prosecution or if there is an insurance claim made against the company or an individual involved in the incident.

5.6 HSE guidance document HSG245 'Investigating accidents and incidents', can be used as a supported guide within the investigation process.

Page 21 of HSG245 provides guidance in examining if human failings are identified as a contributory cause. Additionally, Chapter 2 from HSE guidance document HSG48 'Reducing error and influencing behaviour' provides guidance on examining the causes of accidents, and can be used within the investigation process.

5.7 Investigations should use the 5 whys model, detailed in section 6.4, to analysis and identify the underlying and root causes for the adverse event occurring. This with the guidance mentioned above will ensure investigation identify any human or organisations risks.

5.8 GS(M)R investigation reports are managed by the Safety team and must be approved by the nominated SHE manager prior to submission to the HSE within the required timescales. Managers completing GSMR investigations must use the approved template and follow IGEM/GL/8.

5.9 Embedded contractor incidents must be jointly investigated. For non-embedded contractor incidents, the contractor may investigate independently or, at the discretion of the SGN Manager, a joint investigation may be undertaken. For significant incidents SGN may decide to carry out an independent investigation, as instructed by the Director of Health and Safety.

5.10 Some incidents may require an investigation under 'Legal privilege'. The Director of Health and Safety will instruct a legal privileged investigation with the legal deportment.

5.11 Actions detailed within investigation reports should have be agreed between the responsible Investigation manager and the selected action owner(s). The effective completion of actions must be monitored through to completion and tracked using the H&S Electronic system, currently Velocity. or through a governance committee.

6. MONITORING AND REVIEW

6.1 Every injury/incident should be investigated and monitored through to its effective completion.

6.2 Investigation report conclusion should, unless a prior extension has been agreed with the appropriate party e.g. due to complexity or site difficulties, follow the standard timescales displayed below:

Category Level	Verbal Escalation	H&S Electronic System	5 Day Summary Report	Investigation Report	Timescales (days)
Major	✓	1 hr	✓	✓	28
Serious	✓	8 hrs	Optional[2]	✓	15[1] /28[2]
Minor	Optional[3]	24 hrs	×[3]	✓	28

Notes:

1 For RIDDOR notify without delay, and fatal / specified injuries report must be received in 10 days.
2 For GSMR reports unless extension agreed with H&S HSE SPOC Manager.
3 Unless agreed as a HiPo event.

6.3 **Injuries and incidents** learning should provide insight and should be shared through SGN's committee structure, depending on the incident learnings:

- Local Safety Forums discuss their local adverse events and actions.
- SGN SMF sub-committees, the Safety Health and Environment Committee (SHEC), Incident Review Panel (IRP), and Engineering Forum discuss adverse events for insight and improvement actions.
- SGN SMF Engineering and Personal Safety 'ESC' Committees.
- GDN Incident Review Panel discuss gas industry events for insight.

6.4 Employees involved in adverse events should be encouraged to share their personal stories of the event and any potential reflections or changes they will make following the incident. Personal reflections can be shared locally or company-wide through blogs or attendance at a safety committee.

7. COMPETENCY

7.1 Managers must receive basic safety information on identifying and reporting of injuries/incident within the workplace. Lead investigators must have sufficient knowledge, expertise and have received suitable briefing/training for their level of investigation they are undertaking.

7.2 Investigators carrying out major/serious investigation, as per section 6.2, will require as a minimum a years' experience in their management position/operational role and have completed a specific briefing/training to be deemed competent.

7.3 Gas related investigations, those that require RIDDOR or GSMR investigation are usually carried out by the Team manager, but overseen by the senior manager, Regional or Engineering level. All involved require a dedicated briefing on the external reporting requirements. Management involved in the review of these reports require external training on IGEM GL/8.

Appendix A - **REFERENCES**

This Management Procedure makes reference to the documents listed below:

External Documents
The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013

Control of Major Accident Hazards (COMAH) Regulations 1999

Gas Safety (Management) Regulations 1996 [GS(M)R]

Managing for Health and safety (HS(G)65)

Investigating accidents and incidents (HS(G)245)

Reducing error and influencing behaviour (HS(G)48)

Notification, Investigation, and reporting of gas-related incidents IGEM/GL/8
and the equivalent Northern Ireland publications

Appendix B - DEFINITIONS

The definitions applying to this Management Procedure are given below:

HSE	-	Health and Safety Executive
SEPA	-	Scottish Environmental Protection Agency
EA	-	Environmental Agency
LA	-	Local Authority

Appendix C EXTERNAL REPORTING

C.1 Statutory and Regulatory Requirements

C.1.1 This procedure provides guidance on statutory and regulatory notification and reporting to the following organisations:

- the Department for Energy Security & Net Zero **(DESNZ)**
- the Office of Gas and Electricity Markets **(OFGEM)**
- the Health & Safety Executive **(HSE)**, HSE-Northern Ireland **(HSENI)**
- the Environmental Agency **(EA)**, Scottish Environmental Protection Agency **(SEPA)**, or Northern Ireland Environment Agency **(NIEA)**
- Licensed gas suppliers

C.1.2 There may be additional requirements to the above organisations e.g. commercial and local authority reporting requirements, which should be determined as part of work requirements.

Management of Health and Safety at Work Regulations (MHSWR)

C.1.3 The MHSWR and HSE guidance describe that as part of the safety management system, monitoring arrangements should measure the implementation of the health & safety policy and how successful its workplace risk controls are.

C.1.4 Monitoring includes:

- planning and undertaking routine examinations e.g. inspections and audits,
- investigating incidents and accidents to establish root causes,
- reviewing risk assessment controls, as necessary,
- recording and analysing information obtained during monitoring,
- taking action(s) to improve risk controls to reduce a similar adverse event.

Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR)

C.1.5 RIDDOR requires employers and others in control of work premises, as the responsible person (including gas suppliers and the employers of Gas Safe registered gas engineers), self-employed (including self-employed Gas Safe registered gas engineers)

who have a statutory duty to report and keep records of certain serious workplace adverse events:

- work-related accidents which cause death,
- work-related accidents which cause certain serious (reportable) injuries
- diagnosed cases of certain industrial diseases,
- specified dangerous occurrences (near miss) with potential to cause harm.

C.1.6 There are special requirements for gas related incidents:

- flammable gas incidents,
- dangerous gas fittings.

C.1.7 Not all accidents need to be reported, a RIDDOR report is only required when the accident is work related and it results in an injury of a type which is reportable.

C.1.8 For internal reporting purposes our definition of a work-related injury is when anyone (employee, contractor, or sub-contractor) is injured:

- while carrying out a work-related task, or
- in connection with a work activity, or
- when traveling as part of a work activity.

C.1.9 This means for our operational field-based colleagues, work starts when they leave home and ends when they return. For everyone else this does not include travel between their home and their normal place of work, or for all during lunch breaks unless connected with the workplace.

C.1.10 The types of **specified reportable injuries** are as follows:

1. **Death**,
2. **Specified injuries** to workers:
    - a fracture, other than to fingers, thumbs, and toes,
    - amputation of an arm, hand, finger, thumb, leg, foot, or toe,
    - permanent loss of sight or reduction of sight,
    - crush injuries leading to internal organ damage,
    - serious burns (covering more than 10% of the body, or damaging the eyes, respiratory system, or other vital organs,
    - scalping (separation of the skin from the head) which require hospital treatment,
    - unconsciousness caused by head injury or asphyxia,
    - any other injury arising from working in an enclosed space, which leads to hypothermia, heat-induced illness or requires resuscitation or admittance to hospital for more than 24 hours.

C.1.11 **Over-seven-day injuries** to workers (over-three-day injuries in Northern Ireland). Where an employee or self-employed person is away from work or unable to perform their normal work duties as the result of their injury.

This consecutive period does not include the day of the accident but does include weekends and rest days.

C.1.12 **Non-fatal Injuries to non-workers** e.g. Members of Public (MoP). Where the injury is because of the work and the person is taken directly from the scene of the accident to hospital for treatment to that injury.

Examinations and diagnostic tests do not constitute 'treatment' in such circumstances and there is no need to report incidents where people are taken to hospital purely as a precaution when no injury is apparent.

C.1.13 Reportable **occupational diseases**, where it is likely to have been caused or made worse by their work and include:

- carpal tunnel syndrome,
- severe cramp of the hand or forearm,
- occupational dermatitis,
- hand-arm vibration syndrome,
- occupational asthma,
- tendonitis or tenosynovitis of the hand or forearm,
- any occupational cancer,
- any disease attributed to an occupational exposure to a biological agent.

C.1.14 Reportable **dangerous occurrences**, apply to most workplaces and cover 27 categories, which are generally relevant to our work activities:

Part 1 General (incidents occurring at any workplace)

1. **Lifting equipment**, the **collapse**, overturning or failure of load-bearing parts of lifts and lifting equipment.

2. **Pressure system**, the failure of any closed vessel, its protective devices or of any associated pipework (other than a pipeline) forming part of a pressure system as defined by PSSR 2(1), where that failure could cause the death of any person e.g. pipe arrays, storage vessels, air receivers on compressors and bulk storage vessels/cylinders for liquid gases.

3. **Overhead electric lines**, any plant or equipment unintentionally coming into:
   - **contact** with an uninsulated overhead electric line in which the voltage exceeds 200 volts, or
   - close proximity with such an electric line, that it causes an electrical **discharge**.

4. **Electrical incident causing explosion or fire** caused by an electrical short circuit or overload (including those resulting from accidental damage to the electrical plant) which either:
   - results in stoppage of the plant involved for more than 24 hours, or
   - a significant risk of death.

5. **Explosives**, any unintentional fire, explosion, or ignition at a site, (6) misfire, (7) first aid / medical treatment, (8) projection of material beyond the boundary or (9) failure to cause intended collapse.

10. **Biological agent release or escape** which results or could have likely caused severe human infection or illness, defined in COSHH Schedule 3.

11. **Radiation generators and radiography malfunction**, in fixed or mobile industrial radiography. Radiation generator means any electrical equipment omitting ionising radiation and containing components operating at a potential difference of more than 5kV.
12. **Breathing apparatus malfunction** causes a significant risk of personal injury to the user, or during testing immediately prior to use where the malfunction would have caused a significant risk to the health and safety of the user had it occurred during use.
13. **Diving**, the failure, damaging or endangering of life support equipment, (14) associated equipment, (15) trapping or (16) explosion in vicinity of diver, or (17) uncontrolled ascent or decompression.
18. **Collapse of scaffolding**, including tower, trestle, slung or suspended scaffold:

    complete or partial collapse including falling, buckling, or overturning of a substantial part of any scaffold more than 5 meters in height (base to top),

    any supporting part of any slung or suspended scaffold which causes a working platform to fall (whether or not in use), e.g. outriggers, suspension ropes or winches, or

    any part of any scaffold in circumstances such that there would be a significant risk of drowning to a person falling from the scaffold.
19. **Train collisions**, of a train with any other train or vehicle, other than a collision reportable under schedule 2 Part 5 Train Systems.
20. **Wells**, a blow-out, operation of safety system, detection of hydrogen sulphide, well separation not maintained, or mechanical failure of any part of the well whose purpose is to prevent or limit fluid release from the well.
21. **Pipeline or pipeline works**, in relation to:

    any damage to, accidental or uncontrolled release from or inrush of anything into a pipeline,

    failure of any pipeline isolation device, associated equipment or system, or

    failure of equipment involved with pipeline works,

    which could cause personal injury to any person, or results in the pipeline being shut down for more than 24 hours.
22. The **unintentional change** in position of a pipeline, or in the subsoil or seabed in the vicinity, which requires immediate attention to safeguard the pipeline's integrity or safety.

*The following types of pipeline are **not** covered by these requirements:*

RIDDOR Exemption Certificate (PDF)

- *a drain or sewer*
- *any pipe used to provide heating or cooling, or for domestic purposes*
- *a pipe used in the control or monitoring of plant*
- *a pipe used for the conveyance of air, water-vapour or steam*
- *a water pipe, other than when used for the purposes of injecting water into an underwater well or reservoir containing mineral resources*

- *a pipeline contained wholly within the premises of a single undertaking*
- *a pipeline contained wholly within a caravan site*
- *a pipeline contained wholly within land classed as a railway asset*
- *any part of a gas-supply pipeline which is downstream of an emergency control*

The phrase 'accidental or uncontrolled release' is not intended to include minor leaks from pipelines, e.g. small leaks from valve stems, flanges etc. ***However, sudden or uncontrolled escapes requiring immediate attention or action should be reported****.*

Examples of reportable damage with the potential for harm would include such things as gouging, denting, buckling etc caused by external interference requiring immediate action*. Such damage may or may not have resulted in any escape of the pipeline contents. Shutdown following discovery of substantial internal or external corrosion, such that it would not be safe to continue operating the pipeline, should also be reported. External coating damage without damage to the underlying substrate would not be reportable.*

Examples of reportable occurrences would include movement of offshore pipelines following development of critical 'spans' and subsequent instability or displacement due to wave action or boat impact. Occurrences not reportable would include spans detected and rectified as a result of routine inspection activities.

Such occurrences would include landslips, subsidence etc onshore, in the vicinity of pipelines, and similar movement in the seabed.

Part 2 Incidents occurring at any place other than an offshore workplace

23. **Structural collapse**, the unintentional structural collapse or partial collapse of:

    a) any structure involving a fall of more than 5 tonnes of material,

    b) any floor or wall of any place of work,

    arising from or in connection with ongoing construction work including demolition, refurbishment, and maintenance, whether above or below ground.

24. The unintentional collapse or partial collapse of any **falsework**, whether connected with ongoing works or not.

25. **Explosion or fire**, an unintentional explosion or fire in any plant or premises, which results in the stoppage of the plant, or the suspension of normal work in those premises for more than 24 hours.

26. **Release of flammable liquids and gases**, the sudden, unintentional, and uncontrolled release:

    a) Inside a building:

        i. of **100 kilograms** or more of a flammable **liquid**,
        ii. of **10 kilograms** or more of a flammable liquid above its normal boiling point,
        iii. of **10 kilograms** or more of a flammable **gas**, or

    b) In the open air, of **500 kilograms** or more of a flammable liquid or gas.

27. **Hazardous escapes of substances**, the unintentional release or escape of any substance which could cause personal injury to any person other than through the combustion of flammable liquids and gases.

    The substances covered by this definition may be in any form: liquid, solid (e.g. powder), gaseous or vapour and may include, e.g.:

    - substances which may be hazardous to health e.g. asbestos, phosgene, toluene diisocyanate,

- substances which may be either corrosive or potentially hazardous by virtue of their temperature or pressure e.g. nitric acid, molten metal, liquid nitrogen.

C.1.15 Under RIDDOR Schedule 2 Dangerous Occurrences, it has additional parts not included in this procedure: Part 3 Mines, Part 4 Quarry, Part 5 Transport System and Part 6 Offshore Workplaces.

C.1.16 **Flammable Gas Incidents**, when a conveyor of flammable gas through a fixed pipe distribution system, or a filler, importer, or supplier (except by retail) of a refillable container containing LPG, receives notification that someone has died, lost consciousness, or been taken to hospital for treatment to an injury arising in connection with the gas, must report to the HSE without delay.

The following incidents would not be reportable:

- Carbon Monoxide (CO) can be eliminated as the cause.
- Where people have taken themselves to hospital or attended their GP/walk/in centre at a later stage, and a blood test has identified CO in the bloodstream. Evidence of spillage and/or faulty workmanship must be reported as a Dangerous Gas Fitting to the HSE.
- CO poisoning resulting from solid fuel burning appliances.

The responsible manager must ensure an investigation is completed by a competent person and a RIDDOR 11(1) Flammable Gas Incident report is completed with the Operations Control Centre (OCC) and a copy issued to the H&S Team, email health&safety@sgn.co.uk and a copy attached to the SGN H&S Electronic system, for further information see **SGN/PM/EM/71** and **Gas Emergency Task Cards for Managers**.

C.1.17 **Dangerous Gas Fittings** must be investigated by a Gas Safe Registered engineer who must provide details of any gas appliances or fittings that they consider to be dangerous to the extent that people could die, lose consciousness, or require hospital treatment. This may be due to the design, construction, installation, modification, or servicing and could result in:

- an accidental leakage of gas,
- inadequate combustion of gas, or
- inadequate removal of products of combustion of gas

The responsible manager must ensure a competent Gas Safe engineer completes an investigation and a RIDDOR 11(2) Dangerous Gas Fitting form. The engineer passes the form back to the manager next working day to check and email to health&safety@sgn.co.ukand a copy attached in the SGN H&S Electronic system, as per SGN/EM/71.

C.1.18 **Exemptions**, in general reports are not required for deaths and injuries that result from Road Traffic Collision (RTCs) unless the accident involved:

- the loading or unloading of the vehicle,
- work alongside the road e.g. construction or maintenance work,
- the escape of a substance being conveyed by the vehicle, or

- train.

C.1.19 If there is any doubt about an adverse event's reporting requirements, a member of the Health and Safety department should be contacted to discuss the circumstances and agree the approach.

Pressure Safety Regulations

C.1.20 SGN owns and operates gas pipelines which are described within a Major Accident Hazard Document (MAHD) detailed in SGN/PM/PSR/5 as part of the SMF. Where additional pipelines are commissioned and convey different gases e.g. Hydrogen, the operator must follow their specific MAHD, where different.

C.1.21 When accidents and incidents occur, they must be reported internally and when appropriate, externally to the HSE for RIDDOR / GSMR and for environmental incidents to the EA/SEPA/NIEA for related major accidents:

Pipeline damage

Gas release

Gas Safety (Management) Regulations (GS(M)R)

C.1.22 SGN is a Gas Transporter and under the GS(M)R has a duty to report the following incidents to the HSE immediately and investigate:

- Gas escape at domestic premises resulting in a fire or explosion, downstream of the ECV. Investigate to establish whether the escape occurred from installation pipework or an appliance, **GS(M)R Reg.7(12)**.
- Gas escape upstream of the ECV from SGN network which has, or was likely to have, resulted in fire or explosion, investigate to establish the source of the escape and the reason for it, **GS(M)R Reg.7(13)**.
- Gas escape of Carbon Monoxide (CO) resulting in fatality or injury reported under RIDDOR, the Gas Suppliers have a duty to notify the HSE and investigate such incidents under **GSMR Reg. 7(14), 7(15) and 7(16)**.

C.1.23 For GS(M)R reportable incidents, the HSE / HSENI is required to be notified before any investigation commences. This is to ensure that the evidence is not disturbed in case they decide to undertake their own investigation into the incident.

C.1.24 Where the gas is transported by an Independent Gas Transporter (IGT) network e.g. SGN is providing an emergency response, the IGT should be informed of downstream and upstream events as they have the duty for investigation and reporting responsibilities.

C.1.25 Gas safety incidents have a high public profile, and it is important that they are reported and investigated properly. The requirements of RIDDOR and GSMR aim to ensure that this happens in practice, however they do overlap, and this can cause confusion.

C.1.26 SGN as a gas conveyor must notify specific types of gas release events and support and/or carryout investigations, with an overriding duty to make the situation safe at the scene of a gas incident, see table 1 summary below.

Reportable gas release events	GSMR[1]	RIDDOR	COMAH
Upstream gas release resulting in a fire or explosion	✓	✓	✓
Upstream gas release resulting in a person dying or losing consciousness, or being taken to hospital because of the gas release	✓	✓	✓
Quantity of gas release >500kg in open air	✓	✓	✓
Concentration of gas release >20% LEL in general atmosphere (rather than point reading)	✓	✓	-
Reporting requirements	7(13) Upstream	DO No.26 or 11(1) / 11(2)	
Major release of odorant <500kg / >500kg	As above, if part of network-	DO No. 27 / 26(a)	COMAH 26(1)
Major accident on a COMAH site			
Downstream gas release from ECV resulting in a fire or explosion in domestic premises or fatality or injury.	7(12) Downstream	DO 21a or 11(1) / 11(2)	
Out of specification gas, high / low or odorant.	8(1)	-	
Carbon monoxide poisoning	7(14) / (15)	11(1) or 11(2)	
Dangerous gas fitting	-	11(2)	

Exceptions:
1 If caused by vandalism e.g. bin fire or faulty electric cable, this is not reportable. If gas release is from an IGT network this is not reportable, but the IGT must be informed.

Table 1 IGEM/GL/8 Gas Incident Reporting Summary

Control of Major Accident Hazards (COMAH) Regulations

C.1.27 When a major accident occurs on a COMAH site, the responsible site operator is required to inform the COMAH Competent Authority of the event through the local HSE / EA / SEPA / NIEA Office.

C.1.28 When a major accident occurs on a COMAH site, the responsible site operator is required to inform the COMAH Competent Authority of the event through the local HSE / EA / SEPA / NIEA Office.

C.1.29 A major accident can be defined as:

- results from uncontrolled developments at an establishment to which the regulations apply, and
- leads to serious danger to people or the environment, on or off site, and
- involves one or more dangerous substances as defined in COMAH irrespective of the quantity involved.

C.1.30 For further information please refer to the management procedure for Control of Major Accident Hazard Regulations (COMAH) - Reporting of Major Accidents, **SGN/PM/COMAH/6.**

The Office of Gas and Electricity Markets (OFGEM)

C.1.31 Any incident that involves the loss of supply to over 1,000 customers, or one or more fatality, or serious injury requiring hospitalisation to an employee or member of the public, as a result of failure or suspected failure of the network operator's equipment (up to and including the ECV e.g. upstream of the meter) is reportable.

C.1.32 SGN as the Gas Transporter must contact Ofgem within **12 hours** of the incident occurring.

C.1.33 External reports should be made by either the SGN Regulation team, Network Director, or their designated person. For specific reporting details please refer to:

- Management procedure for network gas supply emergency, **T/PM/E/1**.
- Management procedure for managing gas release emergencies and damage on the above 7Bar Gas Transmission system, **SGN/PM/EM/76**.

Department for Energy Security & Net Zero (DESNZ)

C.1.34 SGN as a Gas Transporter has a duty to provide notifications of incidents within the DESNZ gas incident reporting framework:

any incident which may be covered in **national media**,

supply failure to more than 1,000 consumers.

Shippers

C.1.35 Within the Uniform Network Code (UNC) Transportation Principal Document (TPD) there is a contractual obligation on GTs that are UNC parties to provide notifications of incidents to Shippers. Incidents may include:

- **explosions or fires** due to an escape of gas,
- incidents involving death or major injury due to confirmed or suspected **CO poisoning** from gas,
- incidents resulting from **failure to supply more than 250** consumers at any one time.

C.1.36 These types of notification to Shippers should be made through the SGN Operational Call Centre (OCC), using the National Gas Incident System (NGIS).

Substances

C.1.37 For the conveyance of Natural Gas (NG) methane gases within networks, either in gaseous or liquid forms and its combustion products, these are covered by GS(M)R.

C.1.38 Although legislation does not have similar scopes for gases e.g. GS(M)R for NG, whereas GS(I&U)R cover virtually all fuel gases including hydrogen.

C.1.39 For Liquid Petroleum Gas (LPG) which is not covered by GS(M)R, for most issues the requirements are the same for LPG as for NG and where there is a difference LPG is mentioned specifically.

C.1.40 The conveyance of hydrogen gas in networks is not covered by GS(M)R. Where events occur that meet existing legislative definitions, they should be notified and reported as normal. Otherwise specific requirements must be confirmed as part of the networks 'Case-for-Safety' with the HSE and as part of its project scope.

Environment

C.1.41 The UK's environmental regulators require that pollution incidents and spillages should be reported as soon as possible. This is particularly important where there is damage or danger to the natural environment, to water or land, and where the organisation cannot deal with, or does not know how to deal with a spill.

C.1.42 The **Environmental Damage/Environmental Liability Regulations** make it a statutory duty for business carrying out regulated activities to notify the Regulator when there is either an imminent threat of environmental damage or reasonable grounds to believe there actually is environmental damage. For example, a water pollution incident only qualifies as environmental damage if it brings about a deterioration in the water's status e.g. so that a river would no longer meet the criteria for good ecological quality under the **Water Framework Directive**.

C.1.43 The **Environmental Permitting/Environmental Authorisations Regulations** make it an offence to discharge a pollutant into the environment unless the discharge is authorised by an environmental permit or exemption.

C.1.44 The **Wildlife and Countryside Act** makes it an offence to kill, capture or disturb protected species and damage or destroy protected habitats, without permission.

C.1.45 The Regulators expect such offences to be reported, and companies that report promptly are likely to be dealt with more favourably by the courts.

C.1.46 One of the key purposes of SGN's Environmental Management System is to act as a preventative tool. The concept of nonconformity and corrective/preventative action is detailed in **ISO 14001**. The detailed requirements for notification, reporting, investigation and measuring of environmental performance of all SGN's significant activities is described in, management procedure for environmental reporting, **SGN/PM/SHE/64**.

C.2 External Notifications

C.2.1 For each specific external notification requirement, the below describes who undertakes the notification:

- For **DESNZ** and **OFGEM** notifications are made by SGN Regulation
- For **RIDDOR** events, all injury and gas related notifications are made by the H&S Team, however contractor injuries are reportable directly to the HSE.
- For **GSMR** events, these are reported by the H&S Team.
- For **COMAH** events, these are reported by Network Asset Mgt. Transmission.
- For **PSR** events these are reported by the H&S Team
- For **EA/SEPA/NIEA** these will be reported by the Environment Team

C.2.2 HSE RIDDOR reports of lost time injuries must be made within 15 days of the injury. However, where incapacity does not immediately follow the day of the accident, e.g. the condition does not become apparent until sometime afterwards, the report should be made as soon as the injury or condition has incapacitated the worker for more than the required consecutive period.

C.2.3 For GSMR notifications, they should be made to the Energy Division – Gas and Pipelines (ED3) by the H&S team. Out of hour notifications should be made to the HSE Duty Officer, who should be told that the incident is being notified to the HSE under GSMR by the senior manager on standby and notify the H&S team, next working day. If the Duty Officer cannot be reached, the Duty Press Officer should be notified.

C.2.4 GSMR does not specify time limits for submitting GSMR reports, but the time taken should be reasonable given the nature of the investigation. As a guide investigation

reports, should be submitted within 28 days of the incident with more complex reports requiring specialist input, submitted within three months. These extended timescales must be agreed with the SGN HSE SPOC.

C.2.5 Contact details for GSMR notification and reports:

HSE (working hours)

Foundry House, 3 Millsands, Riverside Exchange, Sheffield, S3 8NH

Telephone: 020 3028 5001

Email: GSMR@hse.gov.uk

Out of hours HSE Duty Officer

Telephone reports only 0151 922 9235

If the duty officer cannot be reached call the Duty Press Officer on 0151 922 1221

HSENI

83 Ladas Drive, Belfast, BT6 9FR,

Email: mail@hseni.gov.uk,

Phone: 0800 0320 121.

Environmental legislation

Call the **EA/SEPA** or **NIEA** incident hotline to report damage or danger to the natural environment and pollution to water or land:

24-hour Agency incident hotline, Telephone: **0800 80 70 60**.

Report waste crime to Crimestoppers online or call Telephone: **0800 555 111**.

Report nuisance issues to the relevant Local Authority.

APPROVAL

This Management Procedure was approved by Tamsin Kinnaird on 28/02/2024 for use by managers, engineers and supervisors throughout Scotia Gas Networks (SGN).

SGN documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the SHE & Engineering Document Library available on DigitalHub.

Compliance with this safety and engineering document does not confer immunity from prosecution for breach of statutory or other legal obligations.

BRIEF HISTORY

First published as Transco Incident Notification & Reporting Procedure	June 1996	Version 3.0
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Incident and Accident reporting and investigation procedures combined and re-issued	June 2000	T/PR/INV/1
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KEY CHANGES

Section	Amendments
All	Non-material changes made. Title amended from Management Procedure for Accident and Incident Reporting. Chief Operating Officer (COO) escalation included. Investigation section updated to reflect current practices and detail how we would stand up investigation teams. Reference to the 5 whys approach for incident investigation. Table included to show how we manage investigations, including timescales. Details of how learning is shared. Current competency requirements included. Appendix C External Reporting added. SGN Natural Gas logo removed.

DISCLAIMER

This safety and engineering document is provided for use by SGN and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

END NOTE

Comments

Comments and queries regarding the technical content of this safety and engineering document should be directed to The SHE and Engineering Registrar at:

engineering.registrar@sgn.co.uk

Buying documents

Contractors and other users external to SGN should direct their requests for further copies of SGN safety and engineering documents to the department or group responsible for the initial issue of their contract documentation.

Appendix 8 – Management Procedure for Cyber Security

SGN/PM/INE/9

Safety Management Framework

Management Procedure for Cyber Security - Operational Technology

MARCH 2024

Management Procedure for Cyber Security - Operational Technology

SGN/PM/INE/9

Document Owner: Jayne Crowley, E&I Engineering Policy Manager

Issue Date: 6th March 2024

Context

Who is this Management Procedure for?

This procedure is specifically aimed at those involved in the design, installation, commissioning, operation, maintenance and decommissioning of SGN's operational technology (OT).

What does this Management procedure do?

The objective of this procedure is to describe how information security risks to SGN's OT and associated infrastructure will be managed.

Scope

This procedure applies to OT owned and operated by SGN within their gas transmission and distribution network. It also applies to SGN-owned control systems and associated equipment which have been installed on third party sites, for example, Biomethane plants.
This procedure also extends to the 3rd party contractors and suppliers who manufacture and service the OT equipment on which uninterrupted gas supply is reliant. It is important that SGN is satisfied that the appropriate levels of cyber hygiene have been adopted by its supply chain and beyond.

Why do we need this Management procedure?

In order to enable SGN as an operator of essential services (OES) to evaluate the risks associated with an OT cyber-attack, and consequently develop mitigation and recovery plans to ensure the safe continuation of supply.

CONTENTS

1. INTRODUCTION

1.1 The Network Information Systems (NIS) Regulations 2018, state that all OES are required to consider how resilient their OT is against cyber threats or attack vectors. This is to ensure that the appropriate countermeasures are in place to prevent and minimise the impact of incidents and that notification processes and recovery plans are implemented.

1.2 This procedure is part of a cyber management framework that must be followed by all stakeholders responsible for the lifecycle of our OT systems to ensure business continuity.

1.3 As an OES, one of the primary risks that SGN faces as a result of a cyber threat is major loss of supply to our networks, and the significant health and safety related consequences that would immediately follow. Therefore, it is essential that we as an organisation are prepared for such an event.

1.4 This procedure applies to all SGN business units, employees, contractors, suppliers and other third parties who install, use, maintain and provide support for the OT on operational gas sites. All responsibilities and accountabilities will be defined and measurable.

1.5 This document also applies to projects where the scope of work includes changes to the existing OT such as renewal, replacement, upgrades, and provision of new connection(s).

1.6 This document must be read in conjunction with other relevant SGN Information Security policies and standards as referenced in Appendix E.

2. OBJECTIVE

2.1 To ensure that SGN is equipped to manage their OT security in accordance with the corporate policies, and to ensure regulatory compliance with the relevant aspects of the NIS Regulations, 2018.

2.2 To ensure SGN can provide a process as to how they require staff, contractors and suppliers to interact with the OT in order to minimise the risk of a Cyber Security incident.

2.3 To ensure that there is a systematic process for the OT stakeholders to follow, such that operation, maintenance and modifications achieve the necessary levels of protection in a repeatable manner.

2.4 Ensure accountability is determined for the various stages of the OT life cycle phases. See Section 6.

3. BACKGROUND

3.1 Network and Information Systems Regulations 2018 (NIS)

In 2016 the European Parliament adopted and implemented the Network Information Systems directive with the caveat that member countries would then develop and impose their own regulations. The aims of the original directive were:

- To improve national and European cyber security capabilities
- Increase cooperation between member states
- Ensure that appropriate and proportionate measures were taken to protect against cyber-attack, and to notify the relevant authorities in the event of any breach

In response the UK enacted the requirements of the directive and issued the Network and Information Systems (NIS) Regulations in April 2018.

As an operator of essential services (OES), SGN must comply with these regulations, as non-compliance could result in significant financial and reputational penalties.

3.1.1 Key NIS Requirements

The main requirements of the regulations are:

1. The OES must put “appropriate and proportionate technical and organisational measures” in place in order to manage the risks associated with a cyber-attack and in doing so “prevent and minimise the impact of incidents”.

2. The OES must notify the designated competent authority of any incident of “significant impact”.

3.2 Designated Competent Authorities

In order to ensure that each sector is applying the principal requirements of the NIS regulations to their management structure, various bodies have been appointed as designated competent authorities to carry out audits and inspections on their cyber security measures. The designated competent authorities will also provide guidance as to how the requirements of the regulations can be satisfied.

The designated competent authorities for the gas industry are:

Activity/Process	England Wales, Scotland	Northern Ireland
Gas Storage and/or processing facilities	Department for Business, Energy & Industrial Strategy (BEIS) (Delegated to HSE)	The Department of Finance
Gas supply & Gas transmission	Department for Business, Energy & Industrial Strategy (BEIS) **And acting jointly with** The Gas and Electricity Markets Authority (delegated to Ofgem)	The Department of Finance

3.3 National Cyber Security Centre (NCSC)

3.3.1 The NCSC have been appointed as the Computer Security Incident Response Team (CSIRT) by the UK government, and as such they hold the following responsibilities:

- Manage national cyber security
- Help national infrastructure organisations deal with cyber security incidents
- Promote cyber security awareness across all industries
- Act as a single point of contact between national computer response teams

3.3.2 The NCSC is also the technical authority for cyber security and therefore responsible for providing guidance and assessment tools to assist both the competent authorities and the OES when investigating and demonstrating compliance with the regulations. A Cyber Assessment Framework (CAF) has been developed which is made up of high-level objectives and associated principles.

This framework has been approved and adopted by the HSE and Ofgem as an appropriate method of ensuring that each OES sector has identified and implemented appropriate measures to protect its systems. As such, SGN will utilise this framework to satisfy the requirements of the NIS regulations.

OBJECTIVES	→	PRINCIPLES
MANAGEMENT OF SECURITY RISK		• GOVERNANCE • RISK MANAGEMENT • ASSET MANAGEMENT • SUPPLY CHAIN
PROTECTION AGAINST CYBER SECURITY INCIDENTS	→	• PROTECTION POLICIES & PROCESSES • IDENTITY & ACCESS CONTROL • DATA SECURITY • SYSTEM SECURITY • RESILIENT NETWORKS & SYSTEMS • STAFF AWARENESS & TRAINING
DETECTING CYBER SECURITY EVENTS	→	• SECURITY MONITORING • PROACTIVE SECURITY EVENT DISCOVERY
MINIMISING THE IMPACT OF CYBER SECURITY INCIDENTS	→	• RESPONSE & RECOVERY PLANNING • LESSONS LEARNED

4. OPERATIONAL TECHNOLOGY SCOPE

4.1 As a minimum, the scope of this procedure will include the following: -

a) PLC, RTU, HMI and other networked equipment on site.

b) Gas control telemetry and SCADA terminals and servers.

c) Associated communications equipment between site and Gas Control.

d) Cloud infrastructure (including communications paths between site and Gas Control) as well as any offsite/Gas Control data storage.

e) Enhanced site security systems within major operational sites and Gas Control, including associated network connections and equipment, e.g. Crime & Fire.

f) Local dataloggers and any associated telemetry and data storage.

g) Support tools and associated operating systems

Figure 1 below gives a high-level overview depicting of the relationship between corporate IT and the operational equipment on site. It also outlines the equipment and functions that come under the NIS regulations.

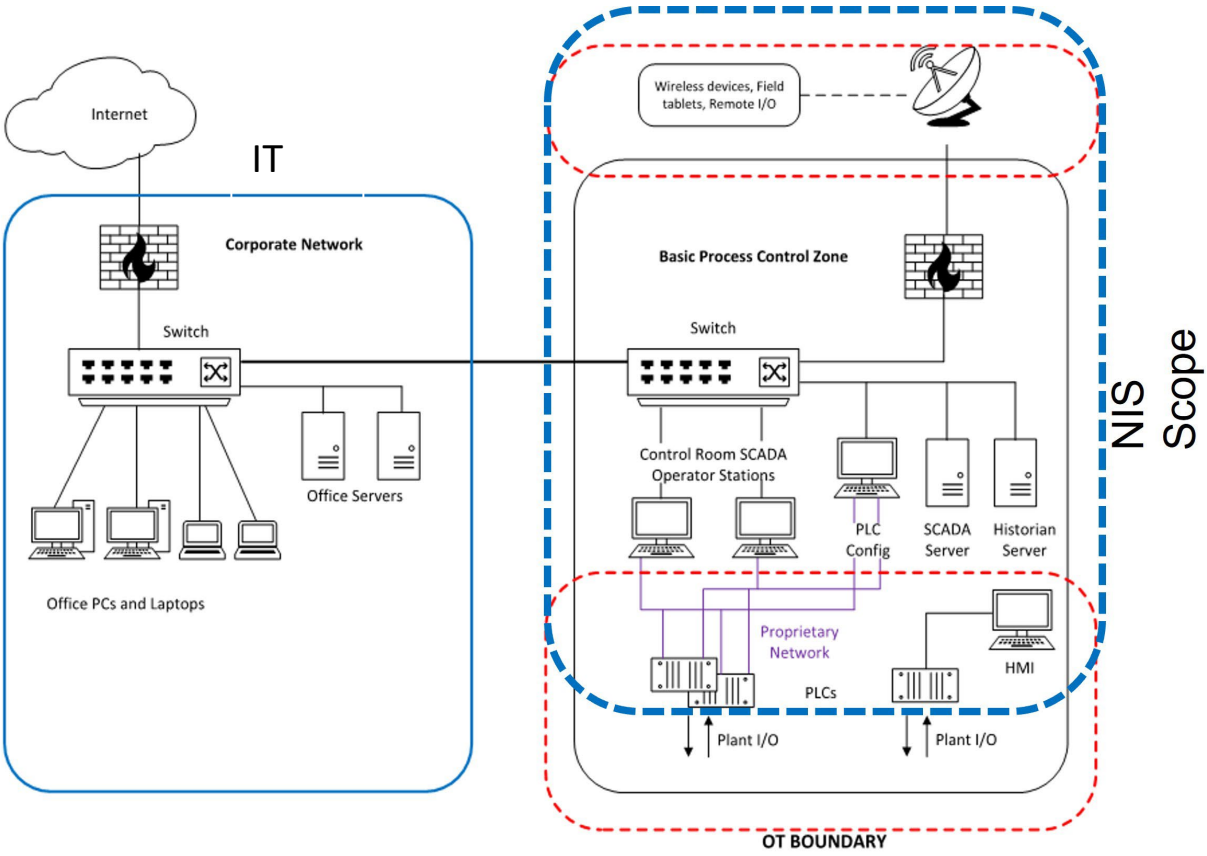

Figure 1: Demarcation between OT, IT and NIS scope

5. ROLES AND RESPONSIBILITIES

This section highlights the individual roles and responsibilities in the specification, design, auditing, operation, maintenance, testing and performance monitoring of OT Cyber Security.

This covers individuals with:

- Mission or business ownership responsibilities.
- OT security oversight Responsibility for conducting security assessments and monitoring OT, (e.g. auditors, and system owners).
- Responsibility for security implementation and operational responsibilities (e.g. security architects, and systems security engineers).
- Responsibility for OT development and acquisition responsibilities (e.g., program managers, procurement officials, component product and system developers, systems integrators, and architects).
- Logistical responsibilities (e.g., program managers, procurement officials, system integrators, and property managers). Competency of individual roles must be assessed in accordance with SGN competency management system SGN/PM/SHE/77.

5.1 Chief Information Security Officer (CISO) is responsible for:

- Overall cyber security risk management and business resilience for both IT and OT within SGN.
- SGN's IT cyber security policies and procedures and collaboration on OT procedures.
- Overall responsibility for the cyber security measures within SGN for both OT and IT to ensure a risk-based approach is implemented across the business and appropriate and proportionate risk mitigations are in place.
- Evaluating culture, processes and technologies from a security governance perspective.
- Reporting on the regulatory compliance against NIS Regulation 2018 to the appropriate government body within the prescribed timescales.
- Developing a remediation plan with actionable and prioritised recommendations.
- Implementing the remediation plan and the organisation cyber security roadmap
- Report the current risks to the board of directors and risk committee.

5.2 The **Head of E&I** is responsible for:

- Maintaining the gas control OT and stand-alone control systems and will act as the E&I duty holder. They will be responsible for ensuring that the equipment and connections to the gas control system are compliant with the requirements of the corporate information security procedures.
- Ensuring the implementation of the risk management process for the OT cyber security deliverables, such as the risk register, asset register and the risk assessments.
- Identifying that a new project/modification falls within the OT cyber security that require the application of SGN/PM/INE/9.
- Appointing an internal independent chairperson, with the appropriate competencies, for the Risk Assessment reviews, meetings or workshops.

- Arranging Risk Assessment reviews in accordance with the OT risk assessment procedure.
- Identifying the individuals within the E&I team and the relevant OT cyber security training they require. They also ensure the delivery of these trainings.
- Ensuring the OT is initially commissioned, and cyber security verification and validation are produced to provide evidence of the effectiveness of the cyber security controls introduced.
- Ensuring penetration test procedures are produced and validated by the site E&I technicians or 3rd party OT contractors, which are aligned to the specific designed and implemented cyber security controls.
- Information is supplied to the site E&I technicians on the relevant maintenance requirements including penetration test frequency.
- Ensuring all OT maintenance procedures are migrated to maintenance scheduling system.
- Managing modifications through the relevant management of change processes including the requirements of Appendix D – OT Equipment Checklist.
- Ensuring technicians or operatives are suitably competent and trained to undertake maintenance or testing of OT cyber security controls and are provided with appropriate documentation. Where specialist contractors are required to support the technicians or operatives, they must be suitably trained to oversee any such activities and be familiar with the site-specific cyber security risks of having a 3rd party carrying out the work.
- Ensuring that a Multi-Factor Authentication (MFA) Password Management Process for OT Sites is implemented. See Appendix A for the MFA decision tree and guidance.

5.3 The **E&I Project Manager** is responsible for:

- Initiating the cyber security lifecycle plan as part of any OT projects
- Ensuring that any new or modifications to SGN's OT, including information security control as part of its design plus the requirements of Appendix D – OT Equipment Checklist and that these measures are delivered in accordance to this management procedure, PS/5 Management of Change Process
- Assuring that the contractors and suppliers provide an appropriate cyber security methodology for a project.
- Ensuring that as part of operational handover, as built design package includes an updated network/communications diagram for the site. This is required to maintain the security zones and conduits registers.
- Updated OT asset register is provided as part of the design and build process.
- Ensuring that the cyber security risk assessment and risk register is handed over for approval to the Duty Holder prior to commissioning.
- Ensuring adherence to the OT Acceptable Use Policy to manage risk from external systems connected to the OT networks as part of the project delivery. This may include but not limited to connection from engineering laptops, configuration devices and USB devices.
- Ensuring that the OT Equipment Checklist has been completed and included as part of the SGN/WI/PS/6 documentation prior to Part C sign off. See Appendix D.

In addition, all those responsible for the scoping, design and installation of new and upgraded OT, must ensure the following: -

1. SGN technicians and contractors must be issued with **authorised USB drives only** for use on SGN's OT and on any third-party equipment which is integrated with SGN OT e.g. boiler packages. Approved USB drives are obtained via an IT Service Request by your line manager.
2. All **USB drives must be virus checked** using the Symantec package on the Panasonic Toughbook immediately before inserting into the OT equipment.
3. 3rd party devices such as laptops must be checked to confirm an **operational firewall and up to date antivirus package is installed and enabled** and ensure wireless networking is **disabled**.
4. SGN's E&I Kiosks or control rooms on operational gas sites must be secured adequately and signage displayed to communicate that **no unauthorised access is permitted.**
5. Ensure all **racks/cabinets/switch enclosures** on operational sites / hilltops etc. are **lockable and there is a dedicated safe place to store keys provided or identified.**
6. **Password protection is critical**.
    a. It is not acceptable to utilise default passwords for HMI's, RTU's etc.
    b. Passwords must be changed and saved in a secure location, as agreed with your E&I Operations, and under no circumstances shared with unauthorised personnel. Please refer to Appendix A – MFA Password Management Process.
    c. Ensure that passwords are refreshed periodically and only shared with those who have been authorised to work on the designated equipment/system.
7. If you are aware of any existing risks which could lead to a cyber security vulnerability, this must be reported to your line manager immediately.

5.4 The **Cyber Security Engineer** nominated by the Head of E&I is responsible for:

- Production of risk analysis which must include the OT Cyber Security risk assessment in accordance to the SGN Cyber Security Risk Assessment procedure.
- Ensuring OT cyber security controls and measures are designed and implemented in accordance with this procedure and the SGN specifications.
- Reviewing the OT cyber security design for SGN approval. Alternatively, the Cyber Security Engineer can nominate a competent Independent Assessor to undertake this task. This is not the PS/5 process.
- Providing guidance and clarity on application of this procedure.
- Production of Terms of Reference (TOR) and the acceptance of the input documentation as per section 6.2 below.
- Preparing and chairing the Risk Assessment workshops
- Liaising with the Project Manager to appoint a representative and competent team for the Risk Assessment workshops
- Accepting the proposed Security Controls and action close out based on the findings of the OT Cyber Security Risk Assessment.
- Approving of the Cyber Security Requirement Specification(s)
- Assessing whether or not a patch application is required. See Appendix B for guidance on the decision making process associated with patching.

5.5 The **Site Manager or E&I Operational Manager** is responsible for:

- Any new builds or modifications have been approved by the appropriate individual(s) within SGN, prior to accepting the asset into operation. This will allow the Site Manager to manage residual risks based on the accepted design.
- Ensuring technicians or operatives are suitably competent and trained to undertake maintenance and testing of OT and are provided with appropriate design documentation and system maintenance manuals.
- Ensuring that technicians or operatives are involved in the development and validation of the of the Penetration Testing Procedures for OT for the site.
- Approving of Penetration Testing Procedures for the OT on the site.
- Ensuring the periodic system testing is scheduled within work order maintenance system
- Providing support during Audits and Assessments
- Reviewing and monitoring the performance of the security controls in accordance with the maintenance and penetration testing procedures.
- Ensuring that copies of software and configuration backup is kept securely.
- Ensuring that all potential or actual threats have been reported through the SEARS team and escalated to IT to investigate
- Ensuring sufficient resourcing to execute site Cyber Security Emergency Response Plans and provide feedback and lessons learnt to the Duty Holder.

5.6 **E&I Site Technician** is responsible for:

- Carrying out the periodical OT cyber security maintenance as prescribed in SGN/WI/INE/9001. This will include all the necessary cyber security control measures, which may include, but are not limited to,
  - backup and restore,
  - anti-virus (AV) signature updates,
  - patching,
  - AV scanning,
  - cyber security event and information logging,
  - account management for joiners, movers, leavers.
- Ensuring that all potential or actual cyber threats are escalated immediately through the correct reporting process, i.e., Line Manager and **Velocity** team must be notified as soon as possible.
- Executing recovery activities for OT following incident.
- Maintaining knowledge of Cyber Security Emergency Response Plans.
- Ensuring the relevant modifications processes are enforced when system modifications are required such as changing components, altering configurations or changing test procedures.
- Ensuring adherence to the OT Acceptable Use Policy to manage risk from external systems connected to the OT networks as part of the project delivery. This may include but not limited to connection from engineering laptops, configuration devices and USB devices.

In addition, all those responsible for the operation and maintenance of SGN's OT must ensure the following: -

1. SGN technicians and contractors must only use authorised USB drives on SGN's OT and on any third-party equipment which is integrated with SGN OT e.g. boiler packages. Approved USB drives are obtained via an IT Service Request by your line manager.
2. All **USB drives must be virus checked** using the Symantec package on the Panasonic Toughbook immediately before inserting into the OT.
3. 3rd party devices such as laptops must be checked to confirm an **operational firewall and up to date antivirus package is installed and enabled** and ensure wireless networking is **disabled**.
4. **No unauthorised access** to SGN's E&I Kiosks or control rooms on operational gas sites.
5. Ensure all **racks/cabinets/switch enclosures** on operational sites / hilltops etc. are **locked at all times** and keys securely held. Report any concerns to your line manager immediately.
6. **Password protection is critical**.
    a. It is not acceptable to utilise default passwords for HMI's, RTU's etc.
    b. Passwords must be changed and saved in a secure location, as agreed with your line manager, and under no circumstances shared with unauthorised personnel. Please refer to Appendix A – MFA Password Management Process.
    c. Ensure that passwords are refreshed periodically and only shared with those who have been authorised to work on the designated equipment/system.
7. If you are aware of any existing risks which could lead to a cyber security vulnerability, this must be reported to your line manager immediately.

5.7 SGN IT Support is responsible for:

- General support for SGN IT network operating systems and other tools provided to run OT applications on the gas network.