



The Sizewell C Project

DCO Requirement 6: Emergency Plan

Revision: 2.0

August 2023

101037577
Version VE002

Sizewell C Company Document
NOT PROTECTIVELY MARKED

SIZEWELL C LIMITED

COMPANY DOCUMENT

SIZEWELL C SITE EMERGENCY PLAN

Important If you are responding to an incident
go straight to [page 30 Appendix F](#)

Version	003
Date of Issue	11 August 2023
Document No.	101037577
Status	P1 – For implementation

© 2022 Published in the United Kingdom by Sizewell C Limited, 90 Whitfield Street, London W1T 4EZ. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, without the written permission of the copyright holder Sizewell C Limited application for which should be addressed to the publisher. Such written permission must also be obtained before any part of this publication is stored in a retrieval system of any nature. Requests for copies of this document should be referred to Head of Business Architecture, Sizewell C Limited, 90 Whitfield Street, London W1T 4EZ. The electronic copy is the current issue and printing renders this document uncontrolled.

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	1
1.1	Purpose	2
1.2	Scope	3
1.3	Aim	3
1.4	Objectives	3
1.5	Document Review	4
1.6	References and Definitions	4
2	EMERGENCY RESPONSE OVERVIEW	6
3	EMERGENCY ROLES AND RESPONSIBILITIES	7
3.1	SZC Emergency Coordinator	7
3.2	Incident Controller	7
3.3	Emergency Marshall	8
3.4	Security Roles	9
3.4.1	Site Security Manager	9
3.4.2	Security Services Provider Manager	9
3.4.3	SCR Supervisor	9
3.4.4	Security Team Incident Responders	9
3.4.5	Medical Response Security Officer (MRSO)	9
4	DECLARATION STATES	9
4.1	Incident	11
4.2	Site Emergency	11
4.3	Offsite Nuclear Emergency (OSNE)	11
4.3.1	OSNE Notification	11
4.3.2	Mustering	12
4.3.3	Evacuation	12
4.3.4	Administration of Stable Iodine Tablets	12
5	COMMAND, CONTROL, COMMUNICATION & COORDINATION	13
5.1	Incident Command	13
5.1.1	Actions during 'Stage 1 Acute'	13
5.1.2	Actions during 'Stage 2 recovery'	14
5.2	Incident Control Point (ICP)	14
5.3	Site Security Control Room	14
5.4	Site Incident or Site Lockdown	15
5.5	Site Warnings	15
5.5.1	General site warning	15
5.5.2	Site Lockdown	16
5.5.3	Site Incident or Off-Site Nuclear Emergency	16
5.5.4	Notification	16
5.5.5	Site Evacuation	16
5.6	Emergency Services Rendezvous Points (RVPs)	17
5.7	Communication	17
5.7.1	Radio	17
5.7.2	Telephone	17
5.7.3	METHANE Process	17
5.8	Coordination	18
6	'BLUE LIGHT' EMERGENCY SERVICES SUPPORT	19

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

6.1	Suffolk Constabulary	19
6.2	Suffolk Fire & Rescue Service (SFRS)	19
6.3	East of England Ambulance Service NHS Foundation Trust (EEAST)	19
6.4	Maritime & Coastguard Agency (MCA)	20
7	RECOVERY	20
7.1	Recovery Considerations	20
8	DRILLS & EXERCISES	21
	APPENDIX A EMERGENCY PLANNING DOCUMENT STRUCTURE.....	22
	APPENDIX B TO SZB EMERGENCY RESPONSE, COORDINATION & CONTROL	23
	APPENDIX C SIZEWELL B DETAILED EMERGENCY PROTECTION ZONE (DEPZ).....	24
	APPENDIX C.1 CONSTRUCTION AREAS & EMERGENCY PROTECTION ZONES.....	25
	APPENDIX D ADVANCE WORKS AND URGENT PROTECTIVE ACTIONS AREA	26
	APPENDIX F INCIDENT RESPONSE FLOW CHARTS	28
	APPENDIX G EMERGENCY RENDEZVOUS POINTS	35
	APPENDIX H TEMPORARY ACCOMMODATION UNIT RADIOLOGICAL CONSEQUENCES ESTIMATE.....	37

1 EXECUTIVE SUMMARY

This Sizewell C (SZC) Site Emergency Plan outlines the principles for ensuring that appropriate response arrangements and measures are available for protecting the public, the workforce, environment, and business assets so far as is reasonably practicable and satisfy regulatory requirements during the construction phase of the SZC Project.

It is a fundamental requirement to ensure that arrangements in this Site Emergency Plan are adequate and always available to implement.

This plan supports the high-level commitments set out in the SZC Emergency Preparedness and Response Policy [Doc Ref 01]. It also addresses Requirement 6 of the Development Consent Order (DCO), Project wide: Emergency planning, which stipulates that:

(1) No less than 18 weeks prior to the commencement of the authorised development a construction emergency plan must be submitted to and agreed by Suffolk County Council in its capacity as emergency planning authority following consultation with the Office for Nuclear Regulation and Sizewell Emergency Planning Consultative Committee or Suffolk Resilience Forum as appropriate.

(2) The construction emergency plan must include:
(i) details of the undertaker's construction site emergency arrangement for the SZC construction works; and
(ii) details of the undertaker's arrangements for interfacing with Sizewell B in an emergency.

(3) The construction emergency plan must be implemented as agreed with Suffolk County Council.

The Site Emergency Plan sets out arrangements for land within the SZC Project DCO order limits (see Land Plans¹). Responsibility for arrangements outside the order limits rests with the Suffolk Resilience Forum (a non-statutory body required under the Civil Contingencies Act 2004) which helps to coordinate all multi-agency activity to enable Suffolk county to plan, prepare and respond to major incidents (suffolkprepared.co.uk).

SZC has a separate Traffic Incident Management Plan (TIMP)² which sets out measures for the management of SZC construction traffic during an event or incident occurring on either the heavy goods vehicle (HGV) or park and ride bus routes to the main development site. However, SZC has no statutory authority in the event of a traffic incident on the road network and therefore the aim of the TIMP is to help minimise potential impacts of traffic associated with SZC construction on response times and delivery of emergency services in the event of an incident.

¹ [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-007489-Sizewell%20C%20Project%20-%20Other-%20SZC%20Bk2%202.1\(C\)%20Land%20Plans.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-007489-Sizewell%20C%20Project%20-%20Other-%20SZC%20Bk2%202.1(C)%20Land%20Plans.pdf)

² [EN010012-008254-SZC Co. - Final signed and dated s.106, final s.106 Explanatory Memorandum and final Confirmation and Compliance Document 15.pdf \(planninginspectorate.gov.uk\)](#)

SZC is required to review the Site Emergency Plan on a regular basis with the Office for Nuclear Regulation (ONR) and Environment Agency (EA) to comply with Nuclear Site Licence Condition 11: Emergency Arrangements. Reviews will take place at least quarterly. SZC will also review the Site Emergency Plan with Suffolk County Council and the emergency services, at least six monthly.

Eighteen months before nuclear fuel arrives on site, SZC will begin working formally under the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR), which require SZC to consult with the Suffolk Local Resilience Forum (suffolkprepared.co.uk) under a formal Emergency Planning Consultative Committee which will meet quarterly. The Emergency Preparedness Lead for SZC sits as a representative on the Sizewell B (SZB) Emergency Planning Consultative Committee, which a representative from Sizewell Stakeholder Group also attends.

The Site Emergency Plan will be updated on an ongoing basis as a result of the consultation set out above; no further submissions will be made under Requirement 6. In terms of future changes, Appendix D (showing works locations and protective actions areas); Appendix E (showing site muster locations) and Appendix G (showing emergency rendezvous locations) will update most frequently as work progresses.

1.1 Purpose

This is the principal construction Site Emergency Plan that details response arrangements to a range of incidents and emergencies that may occur during the construction phase. The Site Emergency Plan sets out arrangements for land within the SZC Project DCO order limits only (see Land Plans³).

It is supported by our contractor's emergency arrangements detailed in each contractor's Incident Management Plan. (See **Appendix A**: Emergency planning document structure).

This Site Emergency Plan includes:

- an integrated command, control, and coordination process for all levels of response,
- facilitates an ability for the SZC emergency response organisation to integrate with a contractor's emergency management,
- response structures and any deployable specialist response teams.
- response arrangements for an Off Site Nuclear Emergency at Sizewell B.
- arrangements for interfacing with SZB in an emergency.

The content of this Site Emergency Plan provides a summary of initial actions for responders to deliver depending on the situation in each case. The Site Emergency Plan is assured by the Establish Maintain and Develop Emergency Arrangement's procedure [Doc Ref 02].

³ [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-007489-Sizewell%20C%20Project%20-%20Other-%20SZC%20Bk2%202.1\(C\)%20Land%20Plans.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-007489-Sizewell%20C%20Project%20-%20Other-%20SZC%20Bk2%202.1(C)%20Land%20Plans.pdf)

1.2 Scope

This Site Emergency Plan describes the emergency management and response processes within the DCO order limits and is intended to discharge Requirement 6 of the DCO, Project Wide: Emergency planning.

In practice, this will be an evolving plan and will be submitted for review with the ONR, EA, Suffolk County Council and emergency services as it is updated. This will ensure the local authority and emergency services can plan accordingly to the site risk profile and are aware of our emergency arrangements, in order to inform the Suffolk Resilience Forum.

Individual contracting companies that work on the SZC sites will be required to align their arrangements to this plan, however this document does not detail the emergency and preparedness arrangements of the individual contracting companies.

Specifically, this document is intended to cover the delivery of SZC emergency response capability on site and the processes necessary to activate and manage that response.

The SZC site emergency response capability covers all areas within the main development site boundary fence and associated developments (where applicable). At the discretion of the SZC Emergency Coordinator the response area may be extended to cover other areas close to site e.g. should a UXO be found on the beach.

1.3 Aim

The aim of this Site Emergency Plan is that site emergency management and response is delivered effectively and efficiently for the construction phase of the SZC Project and to minimise harm through prevention and protection mitigations for the:

- public,
- site personnel,
- environment, and
- security of the site(s).

1.4 Objectives

The objectives of the plan are as follows:

- Discharge Requirement 6, Site Wide: Emergency Planning, of the DCO.
- Support an integrated approach to the delivery of emergency management and response at the strategic, tactical, and operational levels of response.
- Support and deliver the activities, and requirements of the SZC Establish Maintain and Develop Emergency Arrangement's Procedure [Doc Ref 02].
- Detail arrangements to respond effectively to incidents and emergencies within the SZC order limits.
- Ensure SZC main development site personnel radiation exposures during a SZB event will be controlled in accordance with relevant regulations.

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

- Consolidate the requirements of the law, statutory and non-statutory guidelines, and examples of ‘good practice’ and learning from experience in respect of emergency management and response.

1.5 Document Review

On a regular basis and, or following an incident, exercise or change in legislation, this SZC Site Emergency Plan is required to be reviewed. This includes:

- Quarterly with the Office of Nuclear Regulation and the Environment Agency.
- Six monthly with Suffolk County Council and Emergency Services.

Any updates to this Site Emergency Plan will be agreed with these stakeholders; no further submissions under Requirement 6 are proposed. This will allow the document to evolve in a timely manner as the project progresses. However, if as a result of the regular reviews, the document becomes substantially different from the version approved, it may become necessary to make a new submission under Requirement 6. The consultees listed in Requirement 6 will need to be re-consulted, and SCC will need to formally approve the amended document.

Eighteen months before nuclear fuel arrives on site, SZC will begin working formally under the REPPiR arrangements (currently REPPiR 19), which require SZC to consult with the Suffolk Local Resilience Forum (suffolkprepared.co.uk). Consultation under REPPiR will take place under a formal Emergency Planning Consultative Committee which will meet quarterly.

1.6 References and Definitions

Ref	Title	Location	Document No.
1	Emergency Preparedness and Response Policy	EDRMS	100942431
2	Establish Maintain and Develop Emergency Preparedness Procedure	EDRMS	SZC-HSE-PRO-037
3	Emergency Preparedness and Response Standard	EDRMS	100953960
4	Construction Emergency Preparedness & Response Contractor Baseline	EDRMS	CBL100100913
5	Sizewell C Site Emergency Arrangements – Mustering	EDRMS	100819351
6	Contractor Incident Management Plan Guidance and Template	EDRMS	101020419
7	Construction Phase Plan	EDRMS	CBL100100693
8	Sizewell C Fire Plan	EDRMS	CBL100100817
9	SZC Emergency Exercise Programme	EDRMS	101057059
10	SZC Construction Site Security Plan	EDRMS	100944107

Term / Abbreviation	Definition
EBS	Emergency Broadcast System
EDRMS	Electronic Document and Records Management System
EPR	Emergency Preparedness & Response
ESLO	Emergency Services Liaison Officer

Term / Abbreviation	Definition
FAP	Fire Assembly Point
HECA	Hazard Evaluation & Consequence Assessment
IC	Incident Controller
IMP	Incident Management Plan
JESIP	Joint Emergency Services Interoperability Principles
MRSO	Medical Response Security Officer
NNB	Nuclear New Build
RVP	Rendezvous Point
SCR	Security Control Room
SQEP	Suitably Qualified and Experienced Person
SME	Subject Matter Expert
SZB	Sizewell B Power Station
SZC	Sizewell C
TMIC	Trauma Medical Immediate Care

Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

2 EMERGENCY RESPONSE OVERVIEW

The SZC Emergency Response framework is a flexible and resilient structure to support response to a variety of incidents and emergencies should they occur anywhere within the SZC sites (where applicable). The following diagram sets out how the command and control of an incident would operate.

Construction Site Emergency Response, Coordination & Control Plan Schematic

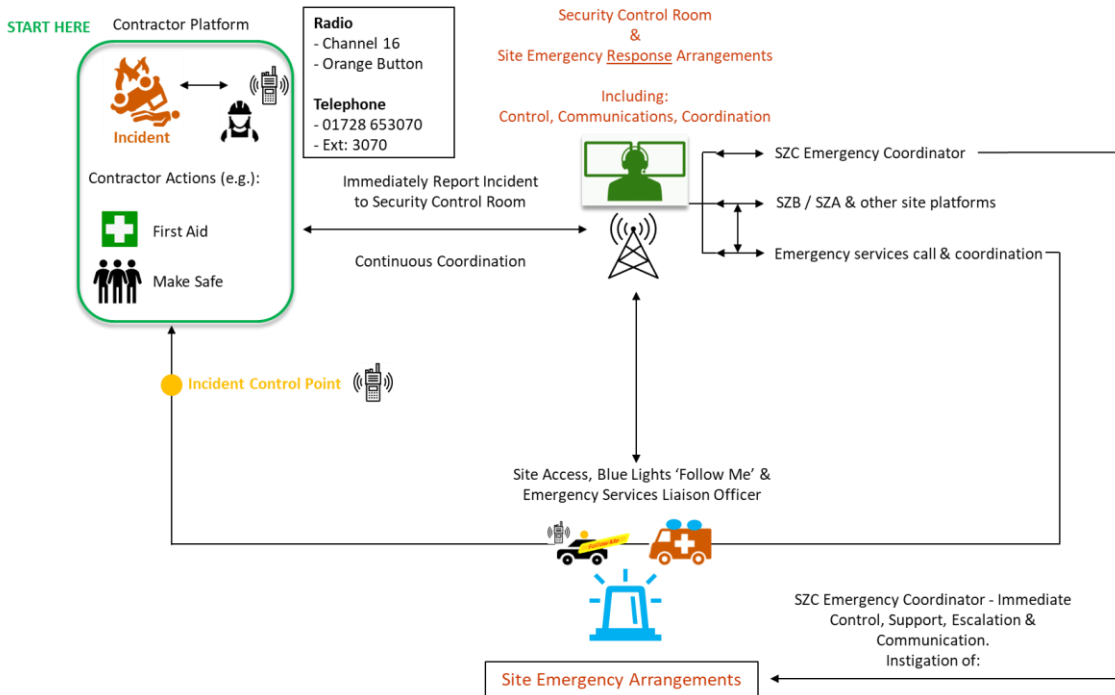


Figure 1. Site Emergency Response Coordination & Control

3 EMERGENCY ROLES AND RESPONSIBILITIES

3.1 SZC Emergency Coordinator

Leads the emergency response and required tactical intervention to an incident. Has knowledge, experience, and an ability to coordinate specific resources required for response.

Key Responsibilities

- Lead and coordinate the overall SZC emergency response.
- Support the Sizewell B response to a declared incident, Site Emergency, an Off-Site Nuclear Emergency, or those Sizewell B events having a SZC site wide impact.
- Provides SME advice to the incident controller in respect of construction related incidents.
- Undertakes a risk assessed approach to any tactical option available to respond to a construction site incident and provides advice to the Incident Controller and Sizewell B Emergency Controller in respect of the most appropriate response to be implemented.
- Tasks the SZC construction contractors to achieve response objectives.
- Achieves, maintains, and communicates situational awareness impacting construction during incident response.
- Assesses, communicates and, if agreed, arranges for the implementation of the preferred and selected tactical option(s) for incident resolution.
- Manages and co-ordinates any required construction assets and equipment to control an incident.
- From a construction perspective, considers the impact of any emergency as it may affect the project programme and integrated work schedule.

3.2 Incident Controller

Each contractor will nominate an Incident Controller (IC) who will for their work area:

- establish initial command and control of response operations delivered at the scene,
- facilitate any specialist emergency response personnel/teams and assets,
- maintain an overview of health, safety, and welfare of workforce within the area.

On receiving the initial information relating to an incident or emergency the IC will:

1. Immediately inform the Security Control Room (SCR) to confirm or activate support.
2. Give initial known information, location and if the event warrants, the declaration of an 'Incident'. See Section 4, 'Declaration States'.
3. Retain overall control of the work area focussing on the safety of the workforce and will oversee the management of the area.

4. Ensure communication with the contractor's own Incident Management Team, (if formed).
5. If appropriate undertake a SME role to give advice on the area and risks associated with it, provide resource or equipment support to emergency responders.
6. If appropriate delegate responsibilities to help coordinate response to either the Contractor Duty Manager or next senior colleague at the area of works.

Key responsibilities

- Act as, or delegate Emergency Marshal by ensuring personnel follow the correct procedures in the event of fire, muster and security incidents (see section 3.4).
- Establishing effective communications to and from the SCR.
- Declaration of an incident (if required).
- Determining safe access and egress routes for incoming emergency responders.
- As far as is possible to do so, ensure that any source of danger or potential danger is removed or neutralised.
- Undertaking Dynamic Risk Assessment processes as required.
- Providing initial situational awareness from the scene to the SCR and emergency services using 'METHANE' (see section 5.7 'communication').
- Directing the deployment of any contractor specialist rescue team and/or assets.
- Deployment of any First Aid personnel
- Ensuring the identification and initial treatment of any casualties.
- Managing workforce within the affected area, (moving from a place of danger/potential danger to a place of less danger).
- Preserving the scene, as far as is practicable, for the purposes of post incident investigation procedures, this includes recovering, recording, and retaining all physical evidence, including documentation and the identification of potential witnesses.

3.3 Emergency Marshal

Site works contractors will nominate suitable candidates to maintain the role of Emergency Marshal. These volunteers will be trained in the actions to take and procedures to adopt in the event fire, muster, and security incidents.

These could be the Incident Controllers already identified by contractors as part of their emergency arrangements.

Contractors must ensure that enough of their personnel are designated and trained as Emergency Marshals. The numbers of deployable Emergency Marshals must be sufficient to meet the potential demand of a muster during full occupancy of a muster station.

The number and deployment of trained Emergency Marshals will be kept under continuous review by both the SZC Emergency Preparedness Team and contractors, to ensure appropriate allocation and resilience in the role.

3.4 Security Roles

3.4.1 Site Security Manager

Ensure the security function can adequately support the SZC Emergency Plan.

3.4.2 Security Services Provider Manager

Ensure the SCR and Incident Responders are adequately trained and competent to respond to and coordinate response to site incidents. Follow Post Instructions.

3.4.3 SCR Supervisor

Ensure effective response to all incident activation communications. Coordinate initial response. Inform and escalate incident information to Site Management Team. Follow Post Instructions.

3.4.4 Security Team Incident Responders

As directed by the SCR, respond to incidents across the site and follow Post Instructions. If an incident has been declared the SCR will notify all site Emergency Responders.

The SCR will also nominate a Security Team Incident Responder to become the Emergency Services Liaison Officer (ESLO).

3.4.5 Medical Response Security Officer (MRSO)

Ensure a 24/7 response is available in both the TCA and MCA to provide medical emergency management and treatment until the arrival of the emergency services.

These arrangements are to support Contractor First Aid requirements and are not a substitute.

4 DECLARATION STATES

To achieve and implement the correct site emergency response position, it is necessary to define 'Declaration States' which will trigger a pre-determined response and will facilitate the correct management response to an incident or emergency. The defined 'Declaration States' need not be followed chronologically as in a rapid onset event; it may be necessary to implement a full response as quickly and as expediently as possible. The table below shows the different declarations available to mobilise the correct level of response depending on the size, scale, and nature of the incident. It should be noted that an event can de-escalate as well as escalate within this prioritised order.

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

Table. 1 Declaration states

Declaration States	Condition	Examples (Not a definitive list)	Authority to Declare	Response
Work Area Incident	<p>Early stages of an event where there is a <i>potential</i> for escalation.</p> <p>Isolated event, effects of which are limited to a specific area or building.</p> <p>Incident Management Plan activated.</p> <p>Contractor and/or SZC response assets deployed.</p>	<p>Medical incident</p> <p>Security incident</p> <p>Environmental spill from Plant equipment</p> <p>Safety incident</p> <p>Severe weather warning</p> <p>Loss of services to welfare buildings,</p> <p>Protest not directly affecting operations.</p> <p>Fire in Welfare building</p> <p>Construction incident</p>	<p>Incident Controller</p> <p>-or-</p> <p>SZC Emergency Coordinator</p>	<p>An incident or event that requires an element of command and control to manage but does not require activation of the SZC Emergency Organisation.</p> <p>Report all incidents to the Security Control Room.</p> <p>This enables warm up of some elements of the Emergency Organisation in preparation for escalation.</p> <p>Can be managed remotely by the Incident Controller who should be provided with regular situational awareness updates.</p> <p>Usually limited to an operational response managed by the IC but the response may include a requirement for a tactical management overlay.</p> <p>The tactical overlay can be achieved by way of a 'watching brief' to support operational response.</p> <p>Provides the platform for escalation to the next level of response, 'Site Emergency', (see below) or de-escalation to site 'Business as Usual' conditions.</p>
Site Emergency	<p>An event or events, the effects of which are wider than the immediate, impacted area with the potential to affect all site personnel and site wide operations.</p> <p>Requires a coordinated site response.</p>	<p>A large incident affecting several areas (e.g., wide scale flooding).</p> <p>Two or more unconnected and concurrent incidents.</p> <p>Site Security Breach</p> <p>SZB site emergency e.g., fire, chemical release.</p>	<p>SZC Emergency Coordinator</p>	<p>An incident that has site wide implications requiring operational and tactical management to resolve and mitigate the impacts and consequences of the emergency.</p> <p>Recovery of the site (post emergency), will be a significant aspect of emergency management.</p>
Off-Site Nuclear Emergency	<p>Notification of Off-Site Nuclear Emergency from SZB</p>	<p>Declaration of Off-Site Nuclear Emergency from SZB</p>	<p>SZB Emergency Controller</p>	<p>Immediate Site Internal Muster, Precautionary measures and actions to take. Controlled evacuation of site personnel</p>

4.1 Incident

An Incident is confined in terms of a site geographical location, (e.g., affecting one area/building only), with no, or very limited, implications for the rest of site and no disruption to normal operations beyond that platform, area, or building.

An Incident can be declared by a trained Incident Controller on receipt of information which they decide requires an incident to be declared.

In many instances an effective response to an incident will be delivered at operational level by the Incident Controller with no requirement for escalation.

4.2 Site Emergency

A Site Emergency is an event or series of events, the effects of which are wider than the immediate impacted area with the potential to affect all site personnel and site wide operations.

4.3 Offsite Nuclear Emergency (OSNE)

Nuclear licensed sites are designed, built, and operated so that the chance of an emergency and any release is very low.

In the unlikely event of a radiation release the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPIR) aim to establish a framework for the protection of members of the public and workers protected under Licence Condition 11 from and in the event of radiation emergencies that originate from premises.

To ensure there is adequate protection against emergencies, legislation requires the establishment of a planning zone where the local authority must make an adequate off-site emergency plan. The local authority must determine the Detailed Emergency Planning Zone (DEPZ) based on the operator's assessment of the events that could occur.

For Sizewell B, Suffolk local authority has determined a DEPZ extending to ~ 4km from the site this includes Urgent Protective Actions Area which extends to ~ 1.35 kms in all directions from the centre of Sizewell B station which includes the SZC Main Construction Area and Associated Development sites (see Appendix D). The SZC Emergency Coordinator is responsible for implementing protective actions to be undertaken to safeguard the SZC construction workforce when advised by the Police or Sizewell B Emergency Controller.

These offsite arrangements are however flexible and the distance for implementation of protective actions can be extended, if necessary, within the default REPPIR19 Outline Planning Zone of 30km radius and may affect contractors' workforce when off the site.

Prior information will be provided in accordance with REPPIR Regulation 21. Staff will be briefed during the site induction; leaflets will be made available in site offices and welfare facilities.

4.3.1 OSNE Notification

On receiving notification of the declaration of an OSNE by Sizewell B the SCR will ensure:

1. The site wide alarm has been initiated.
2. A 'site-wide' radio message has been transmitted.

3. Muster response has been activated.

4.3.2 Mustering

All SZC site personnel will be instructed and guided by the safest and most expedient route to the nearest internal muster station to their work location or the location at which they are when an OSNE is notified. Appendix E provides a list and map of all internal muster stations across the SZC site.

Sheltering indoors in a solidly built structure, shutting doors and windows, and shutting off sources of ventilation is a simple and effective measure for reducing exposure to direct and inhaled radioactive material. Appendix H gives conservative radiological consequences estimate that supports the internal mustering arrangements on the SZC site.

All personnel will be assembled and mustered, being the responsibility of Sizewell C Limited.

Senior persons present will take responsibility for the muster and will delegate untrained personnel to help facilitate the muster in an efficient manner. A specific task briefing will be provided by a senior manager to untrained personnel either volunteering or delegated to assist in mustering processes.

Personnel and visitors will be required to register their name and employer, at an appropriate registration point.

The requirements of the SZC Emergency Preparedness & Response Muster Plan will be followed. (Doc Ref 5)

4.3.3 Evacuation

Evacuating the SZC workforce from an affected area will reduce the risk of prolonged exposures to radioactivity in a plume (where applicable), and, in later stages, to radioactivity deposited from the plume. However, this action carries with it some risk if undertaken without proper coordination.

The Strategic Coordination Group will ensure that the evacuation activity is co-ordinated as part of the wider emergency response arrangements. Responsibility for the evacuation of construction staff and visitors to the site rests with SZC. .

Important, SZC site evacuation in the event of an OSNE will only be instructed and approved by the Strategic Coordination Group, as considerations for personnel safety must be made and external stakeholders managed.

Following advice from the Strategic Coordination Group, the SZC Emergency Coordinator will take the responsibility and implement appropriate countermeasures which could include evacuating personnel from the site.

4.3.4 Administration of Stable Iodine Tablets

If advised by the SZB Emergency Controller⁴, the SZC Emergency Coordinator will ensure all site personnel and visitors are provided with 2x65mg stable iodine tablets and water. A

⁴ **Predetermined Protective Action Advice** - an agreement has been established with the Director of Public Health for Suffolk authorising the SZB Emergency Controller to advise the public when appropriate to take stable iodine tablets. The EDF Company Medical Officer has issued authorisation for the Emergency Controller to direct persons on the site to take stable iodine tablets when appropriate.

leaflet and notices explaining the benefits of taking the tablets will be provided. The fact that a person has, or has not, taken the tablets will be recorded.

Stable iodine reduces the uptake of radioactive iodine in the thyroid and reduces the risk of thyroid cancer. It is most effective when taken slightly before or immediately after exposure to radioactive iodine likely to be released from an operating reactor accident. Stable iodine is pre-issued to SZC workers at muster points. This protective action will normally be combined with sheltering and/or evacuation.

Stable iodine will be provided for all personnel within the 1.35km urgent protective measures Area (see Appendix D). There is no requirement outside this area to take stable iodine tablets unless advised to do so by the Strategic Coordination Group (advised by the Scientific and Technical Advice Cell).

5 COMMAND, CONTROL, COMMUNICATION & COORDINATION

Appendix F is a series of incident response flow charts that shows the process of reporting incidents and what actions to take during specific events.

5.1 Incident Command

Operational command is the management and delivery of response at the scene of the incident or emergency, initially delivered by an Incident Controller, (IC), located at an Incident Control Point (ICP).

Depending on the nature and duration of an event the emergency organisation may evolve in stages.

5.1.1 Actions during 'Stage 1 Acute'

The SZC Emergency Coordinator will assume command and will establish an emergency organisation and is responsible for:

- Determining the condition of the event, declaring a Site Incident, or reacting to an Off-Site Nuclear Emergency and carrying out the relevant notification as required by the Plan.
- Ensuring the immediate safety of personnel on site or public near the site.
- Making the site working areas safe
- Security of the site.
- Providing advice or reassurance messages to SZB and the Police to ensure the protection and safety of the public.
- Requesting assistance from the Emergency Services, as necessary.
- Deploying the site emergency personnel as appropriate.
- Assessing the course of the accident and reviewing its status.
- Keeping personnel on the site informed of the situation.

- Formulate an appropriate response to the event and bringing the situation under control.
- Liaising with the senior emergency services officers regarding any response activities on site.
- Liaison with SZB Emergency Controller regarding any implications for its personnel.

5.1.2 Actions during ‘Stage 2 recovery’

The SZC Emergency Coordinator or escalated to a nominated manager will assume command and will:

- Establish safe conditions for the event
- Develop stand down criteria
- Consider responder’s de-brief
- Close out logs and records
- Establish a recovery plan.
- Transfer control to business management
- Return Emergency facilities and equipment to a state of readiness
- Declare stand down

5.2 Incident Control Point (ICP)

An Incident Control Point, (ICP), will be established by an Incident Controller, at the early stages of emergency response. The ICP will be the location from which operational emergency response will be directed and delivered.

Although these guidelines are not intended to be prescriptive, the ICP will be normally established close enough to the scene of the incident to afford visual contact by the Incident Controller but in a safe location from which the Incident Controller can communicate and coordinate the emergency response.

The ICP will also be in proximity to a designated Rendezvous Point (RVP) for the incident, to which the responding emergency services and other required support will deploy.

5.3 Site Security Control Room

The Site Security Control Room, (SCR), is the first site command and control node to receive information in respect an emergency or incident by site radio channel or the site radio ‘orange button’ facility.

On receipt of notification the SCR, if time permits, will be responsible for consulting with the SZC Emergency Coordinator. In most circumstances, the SZC Emergency Coordinator will manage a response to a construction incident and/or incident affecting site operational activities.

Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

5.4 Site Incident or Site Lockdown

A declaration or initiation of the emergency response framework will be made as early as possible when it is suspected that normal control or management of the site cannot be maintained, or site lockdown is required. The SZC Emergency Coordinator may decide that it is safest to lockdown the site to ensure the safety of all personnel and maximise the security and safe operations.

A site incident could be an accident such as a fire, chemical incident, or severe weather. It may involve the wider site becoming hazardous. A SZC Site Incident will only be declared by the SZC Emergency Coordinator.

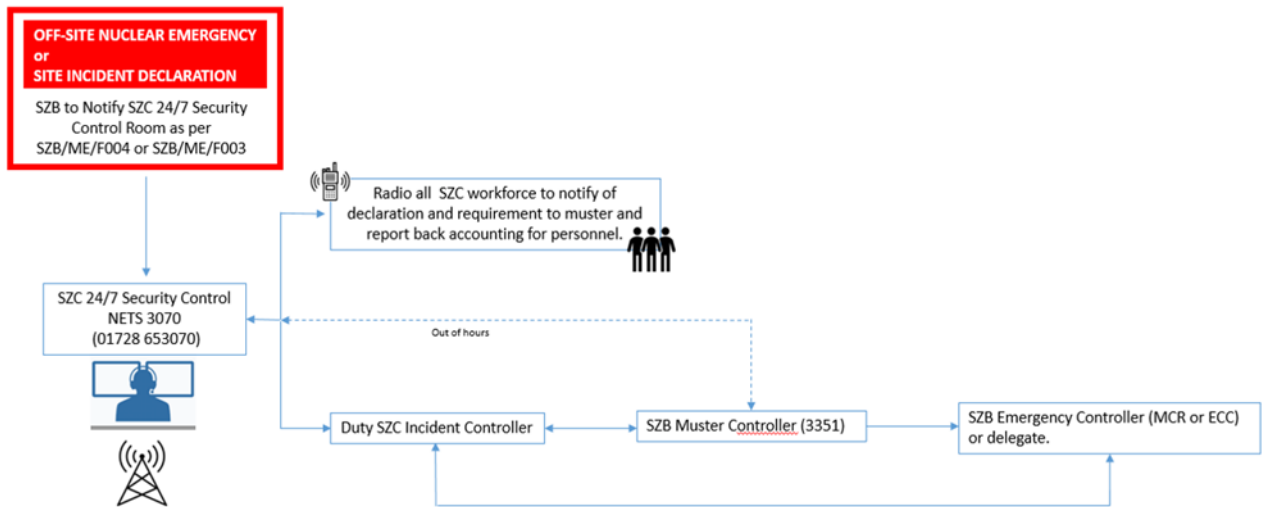


Figure 2 Sizewell B Emergency communications to Sizewell C

A SZB site incident or site lockdown declaration made by the SZB Emergency Controller may need to be replicated by SZC Emergency Coordinator to the SZC site.

Any change of state will be notified to all persons and organisations already notified.

5.5 Site Warnings

All site warnings will be given on the authorisation of the SZC Emergency Coordinator by SCR radio announcement in the form of:

5.5.1 General site warning

An event or other significant occurrence requiring the activation of the emergency response and accounting for all site personnel either:

1. **Site Internal Muster Alarm**
- or
2. **Site External Muster Alarm**

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

Muster alarms will take the form of air horn calls & SCR radio announcements to personnel to the external muster point, then a senior person directs personnel to the internal muster point.

5.5.2 Site Lockdown

A general site warning of an event requiring “lockdown” and all site personnel to rapidly secure themselves. In a lockdown situation, measures will need to be quickly implemented to stop people and vehicles entering, leaving, or moving about site.

The site warning will take the form of a SCR radio announcement with instructions on what do.

5.5.3 Site Incident or Off-Site Nuclear Emergency

On notification of an Off-Site Nuclear Emergency or Site Incident, SZC Security Control Room should expect to receive the following standard message:

“This is Sizewell bravo power station.

We are informing you of an off-site nuclear emergency/ site incident at (state time) at Sizewell bravo power station.

Wind direction is from Degrees. For your action.”

At this point SZC standard actions should be already underway (having responded to hearing the site warning signal), see figure 2.

Should a Site Incident or Off-Site Nuclear Emergency be declared, the Site Internal Muster Alarm will be followed immediately by an SCR radio announcement containing at least the following to all SZC site personnel:

“Attention all personnel, a Site Incident/Off-Site Nuclear Emergency is now in force”

A change in SZB state from Site Incident to Off-Site Nuclear Emergency will be announced over the radio, preceded by a site alarm. Cancellation will also be announced over the radio.

Standard SZC site personnel response to this alarm will be to internal muster.

The SZB site internal muster alarm is tested on the first Monday of every month. A radio message prefixed with ‘test’ will be communicated to personnel.

5.5.4 Notification

Following the declaration and initiation of the site wide emergency response, the SZC Emergency Coordinator is responsible for informing off-site organisations such as associated development sites. This ensures personnel are made aware of the site emergency and to ensure these personnel do not travel to site.

5.5.5 Site Evacuation

The event of site evacuation, all personnel will muster and follow the instructions given by the SCR or SZC Emergency Coordinator to leave the site. In the event of an OSNE site evacuation must be authorised by the Strategic Coordination Group.

There must be arrangements in place to ensure there is sufficient transport to action evacuation of all personnel within the specified timescale indicated by the Strategic Coordination Group.

5.6 Emergency Services Rendezvous Points (RVPs)

What3words.com is the simplest way to give emergency services our site works location. Street addresses are not accurate enough to specify precise locations, such as building entrances, and do not exist for many rural areas. This makes it hard to find places and prevents people from describing exactly where help is needed in an emergency. The What3Words codes for the SZC Site are found in Appendix G.

The SCR will consult with the emergency services and nominate an Emergency Services Liaison Officer, (ESLO) to meet and brief incoming emergency services at a designated RVP.

Appendix G is a gridded map of the construction site, this shows emergency services meeting points and the closest RVP to the scene of the incident.

5.7 Communication

5.7.1 Radio

Any radio communication between a caller and the Security Control Room (SCR) should be Accurate, Brief, Clear & Disciplined: (ABCD) and follow the M/ETHANE procedure described below. Emergency assistance can be raised immediately by pressing the radios orange button.

5.7.2 Telephone

Mobile phone signal strength and capability differs widely across the SZC site.

Important, in the event of an emergency site personnel should not call 999, they should radio through to the SCR and the SCR calls for emergency service response. See figure 1. Site Emergency Response Coordination & Control.

This is important because the geographical location of the site works and site access for emergency service response is not easily recognised. The SCR will ensure a coordination of emergency response is managed quickly and consistently.

If 999 are called first, the caller will need to inform the SCR immediately.

Useful Contact numbers:

- Security Control Room 01728 653 070.
- Titan Cabin emergency phone 01728 653071

5.7.3 METHANE Process

This is adapted from the UK emergency services and is a way important information can be communicated from the SCR to determine the appropriate response. The M/ETHANE process is described within the table below.

Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

M	Me, who is making the call ⁵
E	Exact location of the incident/emergency
T	Type of incident and the Time it occurred
H	Hazards present at or nearby to the scene
A	Access. Location and identifier of any RVP to which emergency services should deploy
N	Number and severity of any casualties and whether any person is missing (if known)
E	Emergency services (or response teams) present at scene and details of any additional services required

Table. 2 The M/ETHANE process

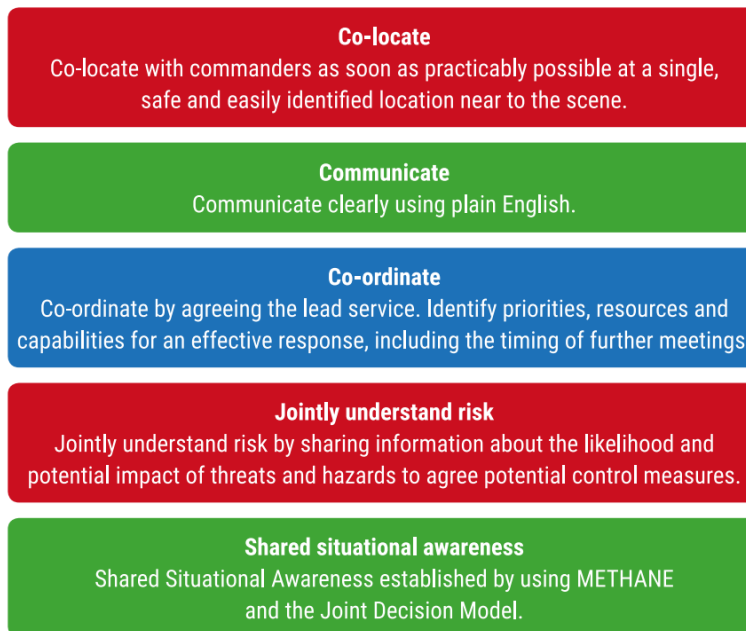
5.8 Coordination

Coordination of response will be managed by the SCR and will ensure that response operations are based on shared situational awareness and a joint understanding of risk. The SZC Emergency Coordinator will escalate the ‘management’ of the incident if required.

It is recommended to use the Joint Emergency Services Interoperability Principles (JESIP) five principles for effective joint working (See figure 3)

This approach will provide a platform for response operations which will be immediately apparent and recognisable to incoming emergency service support (should it be required).

Additional resource may be required to support the operational response including SMEs and specialist roles. This supporting resource should be briefed and coordinated to ensure access to the incident scene is controlled, monitored, and always recorded.



⁵ The M differs from the M in the Emergency Services METHANE which stands for “has a Major Incident been declared”. This is because only they shall declare a major incident.

Figure 3: Principles for Effective Joint Working (JESIP)

6 'BLUE LIGHT' EMERGENCY SERVICES SUPPORT

All blue light emergency service support will be notified to attend site by the SCR. In such circumstances the security provider will nominate an Emergency Services Liaison Officer, (ESLO) to meet and brief incoming emergency services at a designated Rendezvous Point.

Resources and assets will then be conveyed to the scene of any incident to give assistance and support emergency response operations.

On arrival of Blue Lights, the full name and position (rank) of the senior officer present must be logged by the SCR, communicated by ESLO or Incident Controller.

In certain operational circumstances, the 'senior Blue Light' commander may take overall command and control of emergency response.

If they have command and control of the incident scene then they must liaise 'person to person' with the designated SZC Emergency Coordinator (or delegate) before leaving the site and provide an overview of the rationale that led to the decision (to take command and control), the outcome of that action and the reasons for returning control to SZC.

6.1 Suffolk Constabulary

Suffolk Constabulary are represented on the SZC site by a Neighbourhood Policing Team. This team are not ordinarily required or expected to provide specialist emergency response, but the potential for their involvement in a 'rapid onset' response should not be overlooked nor discounted.

The police have the primary responsibility for securing any scene and recovering any evidence and, in the first instance. The Health and Safety Executive will investigate workplace accidents with Police taking evidence for those that involve death or serious injury and will investigate the cause of an incident on behalf of HM Coroner.

6.2 Suffolk Fire & Rescue Service (SFRS)

SFRS have primary responsibility to undertake fire-fighting operations, to locate and rescue persons involved in an incident. SFRS also have capabilities in terms of dealing with structural collapse, chemical incidents, environmental incidents and 'reach-back' to national assets including decontamination and Urban Search & Rescue (land based) operations.

6.3 East of England Ambulance Service NHS Foundation Trust (EEAST)

EEAST is responsible for the treatment and stabilisation of casualties at the scene of any incident and the onward transportation of patients to a suitable care facility. Patient Transport is provided by an EEAST asset or Air Ambulance dependent upon the patient's clinical condition or as decided by the Trust. This may include use of Private Ambulance Service providers or other Blue Light agencies. .

6.4 Maritime & Coastguard Agency (MCA)

The MCA is responsible for the initiation and coordination of response to civil maritime incidents within the UK. This includes the mobilisation, organisation, and tasking of adequate resources to respond to persons either in distress at sea or to persons at risk of injury or death on the cliffs or shoreline of the UK.

MCA will be responsible for coordinating all search and rescue operations at sea, primarily by deploying RNLI assets from either Aldeburgh or Lowestoft Lifeboat Stations. The MCA will also be the deploying and tasking authority for mobilisation of any Search & Rescue Flight.

MCA operations will be notified to SCR if a casualty has been transferred from sea or the shoreline by either MCG (e.g., Auxiliary Coastguard), the RNLI or SAR Flight.

SCR will be notified by Ambulance Control if there is an intention by MCA to use the SAR Flight for casualty evacuation or transfer to hospital. Alternatively, this information may be relayed to SCR from the scene when a EEAST ambulance crew are in attendance and have summoned an air lift casualty evacuation.

Land based MCA personnel, such as Coastguard Auxiliary personnel and assets may also attend site, e.g., to coordinate Search & Rescue operations or pollution control measures.

7 RECOVERY

An early consideration of the response phase is to consider the implications and requirements for site recovery.

Recovery based issues will be difficult to fully determine at the outset of a response, several different variables and 'unknowns' will be evident.

Recovery operations can often be measured in terms of weeks and months rather than days. It is essential that resilience for recovery is factored at the very start of response management processes in respect of staffing, accommodation, and support.

7.1 Recovery Considerations

Support from outside of the SZC site and the wider company infrastructure will be critical during recovery. Key issues to consider are:

- denial of access to site in the short to medium term
- denial of access to site in the longer term
- impact on the Integrated Work Schedule
- Business Continuity Planning / Business Impact Assessment
- utilities supply (diesel fuel, potable water, sanitation, electrical power supply)
- Information Communication Technology
- liaison with contractors and through them, their sub-contractors
- workforce relations and communications plan
- workforce retention

- continuation of essential services and the impact of discontinuance (e.g. de-watering)
- Associated Sites/Developments
- supply chain factors,
- site security & integrity
- decontamination/remediation
- ongoing liaison and the requirements of statutory regulators, (e.g., ONR, EA, HSE).
- liabilities, (insured or otherwise) & 'Force Majeure'
- community/workforce impact
- project impact
- organisational reputation
- corporate communication
- national and international stakeholder management
- press and media strategy.

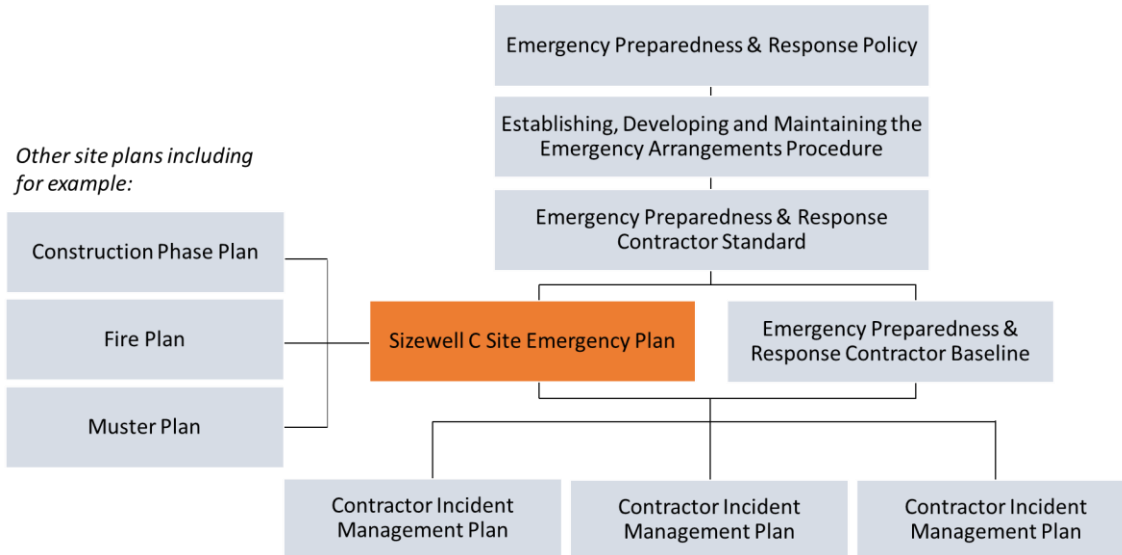
8 DRILLS & EXERCISES

Regular fire and OSNE muster exercises will ensure personnel are familiar with the duties and specific challenges presented in an emergency scenario and will be given guidance. Other emergency and incident exercises of a contractor's preparedness to deal with any anticipated or unforeseen emergency response requirement on site should be proportionate to the risk of the hazards and consequences to be mitigated and agreed with the Emergency Planning Team. Demonstration of arrangements is a key activity supported by the Establish Maintain and Develop Emergency Arrangement's Procedure [Doc Ref 2]

The Construction Emergency Preparedness & Response Contractor Baseline [Doc Ref 4] provides guidance and instructions for SZC Contractors to plan exercises and administer the performance of emergency drills and exercises involving the test of their Incident Management Plan.

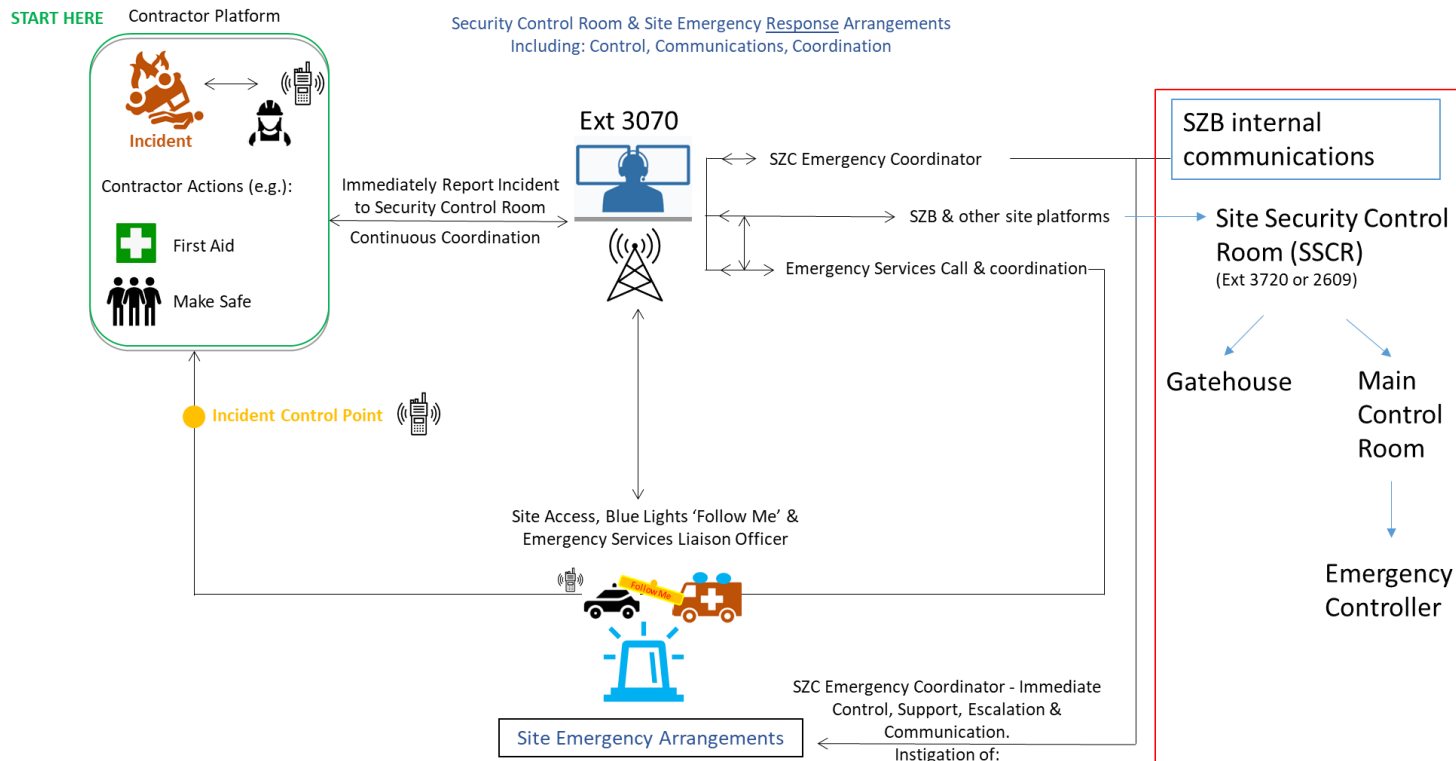
The SZC exercise programme [Doc Ref 9] shows the schedule as planned to minimise any potential adverse impact on the construction schedule or site operations and that time/dates identified for delivery are agreed by stakeholders.

APPENDIX A EMERGENCY PLANNING DOCUMENT STRUCTURE



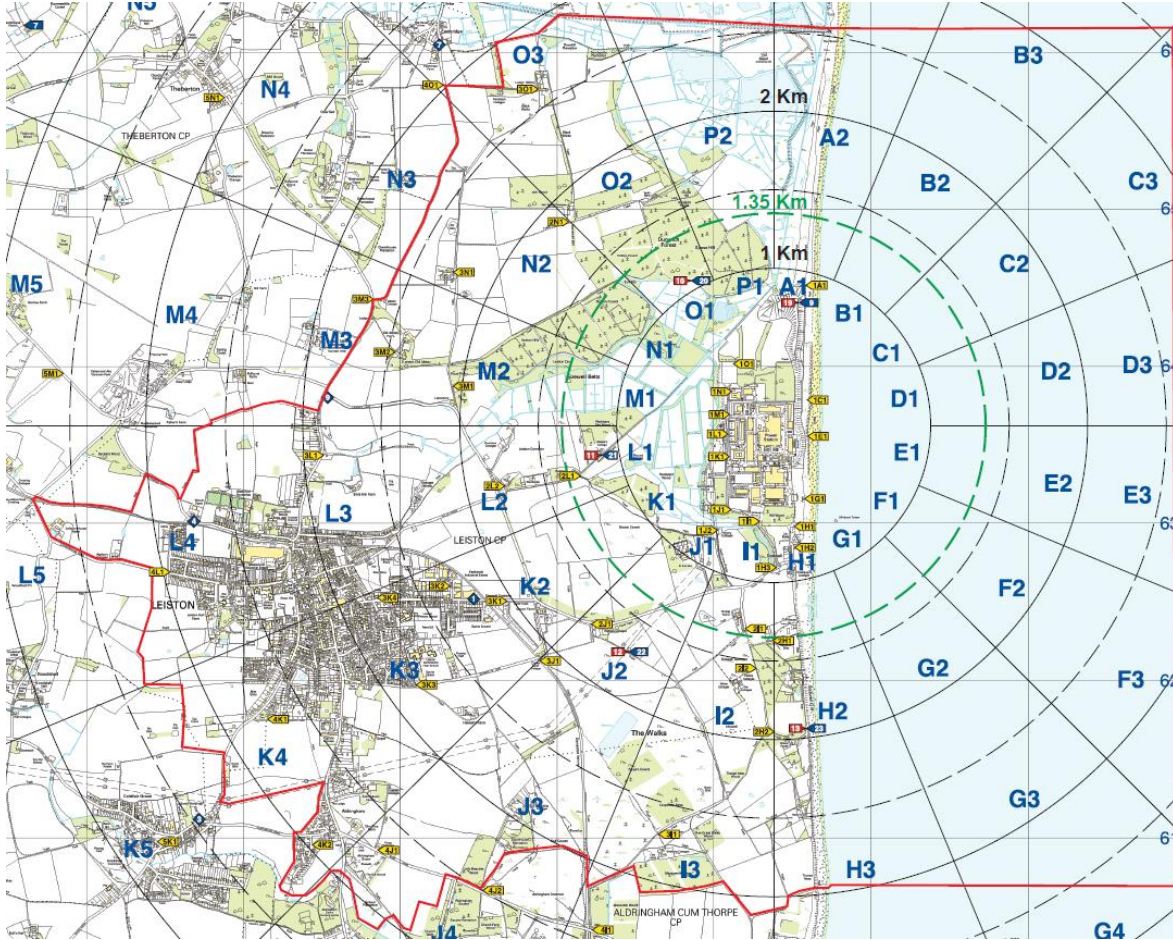
APPENDIX B TO SZB EMERGENCY RESPONSE, COORDINATION & CONTROL

SZC to SZB Emergency Response, Coordination & Control Plan



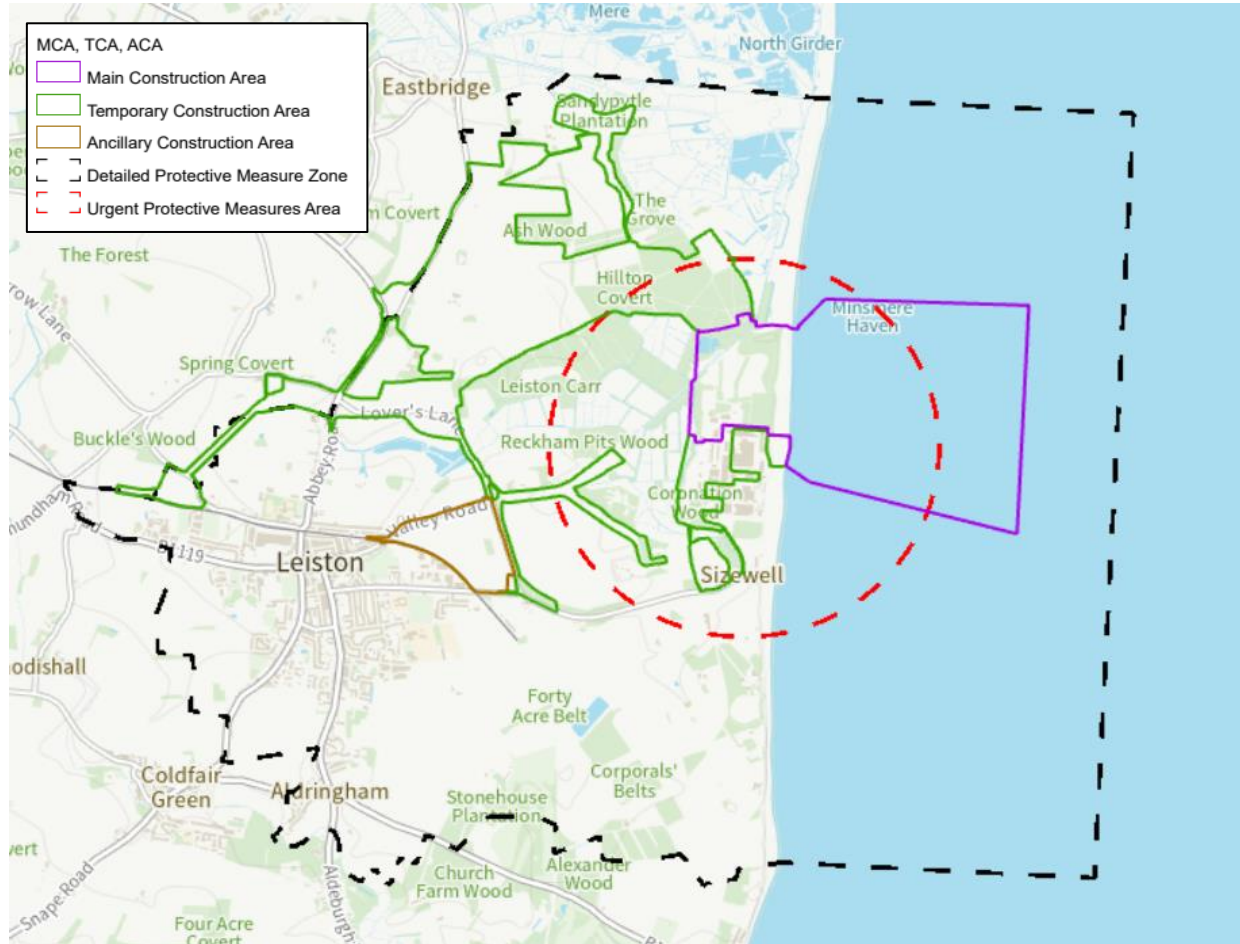
Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

APPENDIX C SIZEWELL B DETAILED EMERGENCY PROTECTION ZONE (DEPZ)



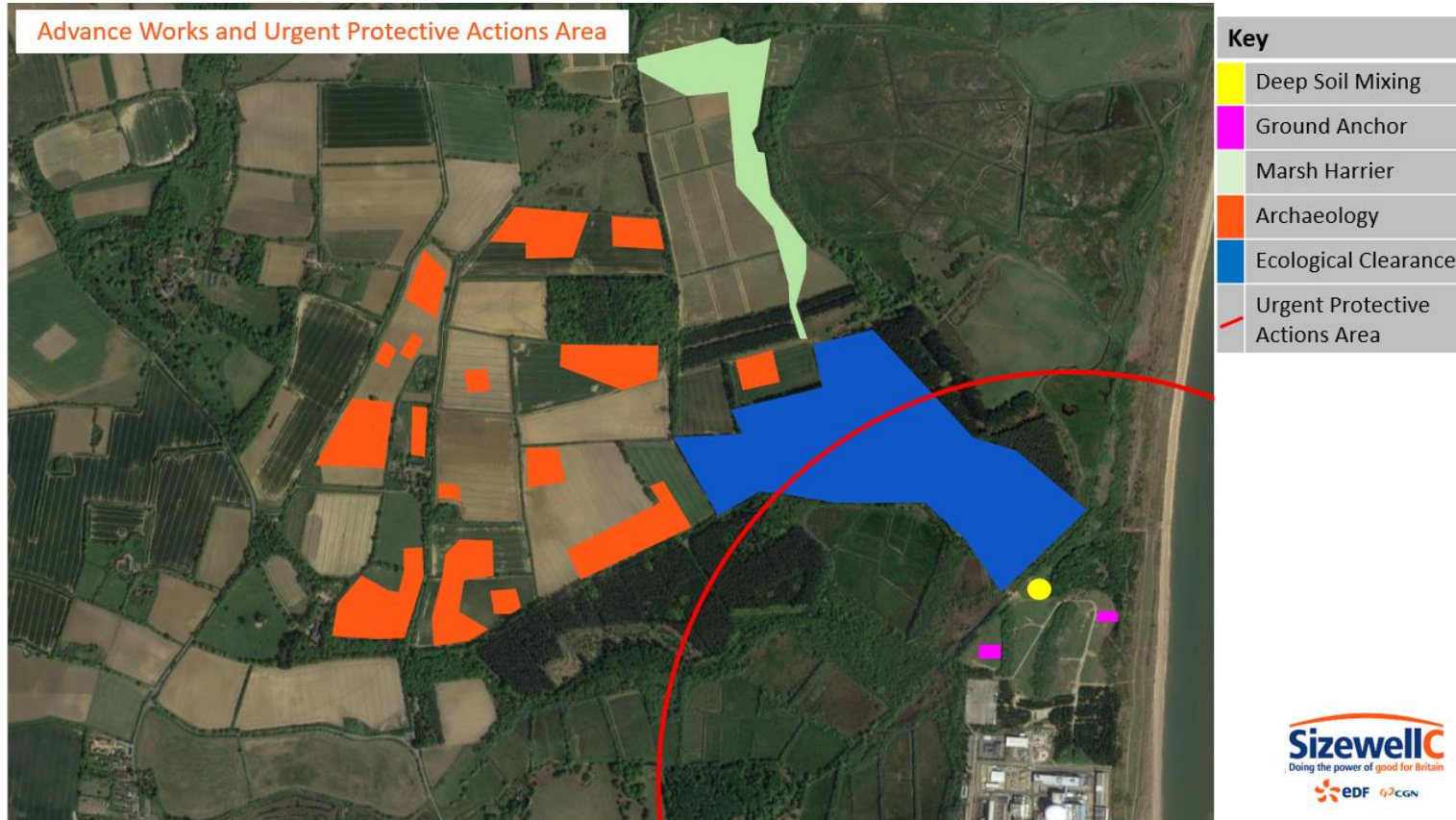
The above map shows the red line of DEPZ and the green dashed line showing the Urgent Protective Measures Area 1.35km radius from Sizewell B.

APPENDIX C.1 CONSTRUCTION AREAS & EMERGENCY PROTECTION ZONES

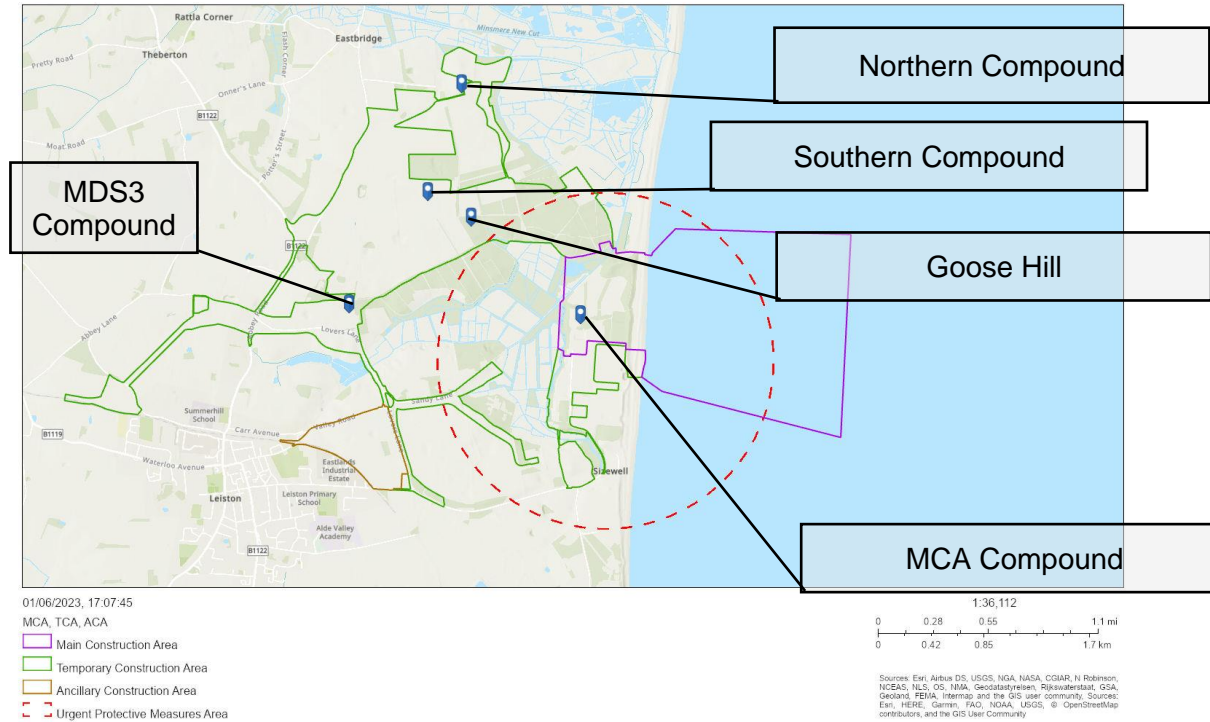


Sizewell C Limited Registered in England and Wales. Registered No. 09284825. Registered office: 90 Whitfield Street, London W1T 4EZ

APPENDIX D ADVANCE WORKS AND URGENT PROTECTIVE ACTIONS AREA



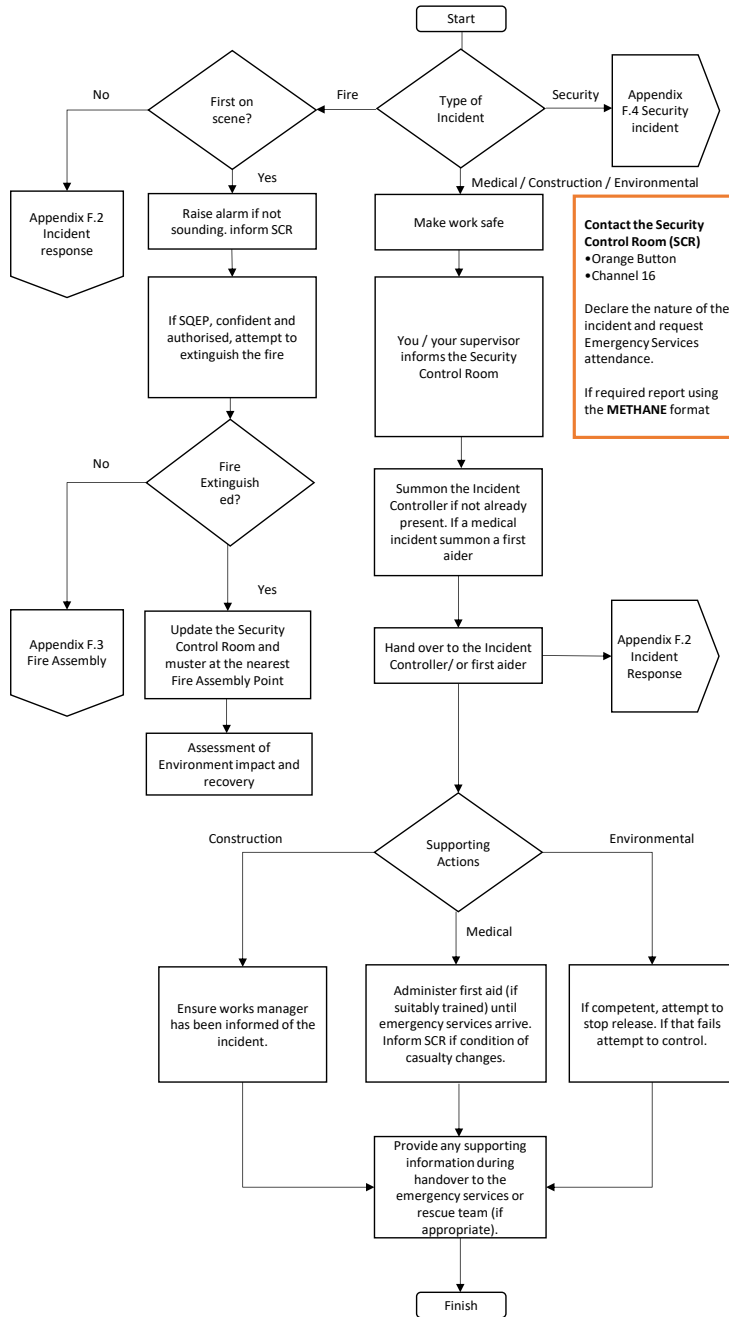
Site Muster Locations



APPENDIX F INCIDENT RESPONSE FLOW CHARTS

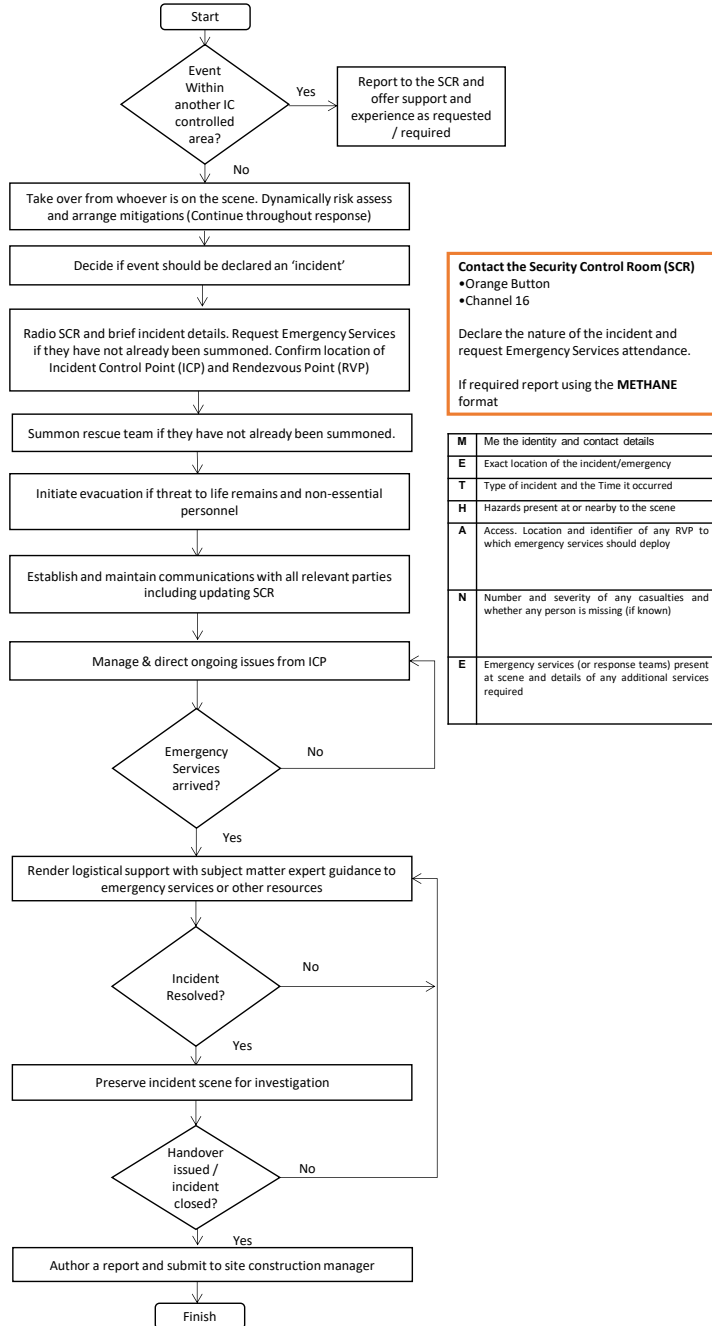
Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

F.1 HOW TO REPORT AN INCIDENT



Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

F.2 INCIDENT RESPONSE (INCIDENT CONTROLLERS)



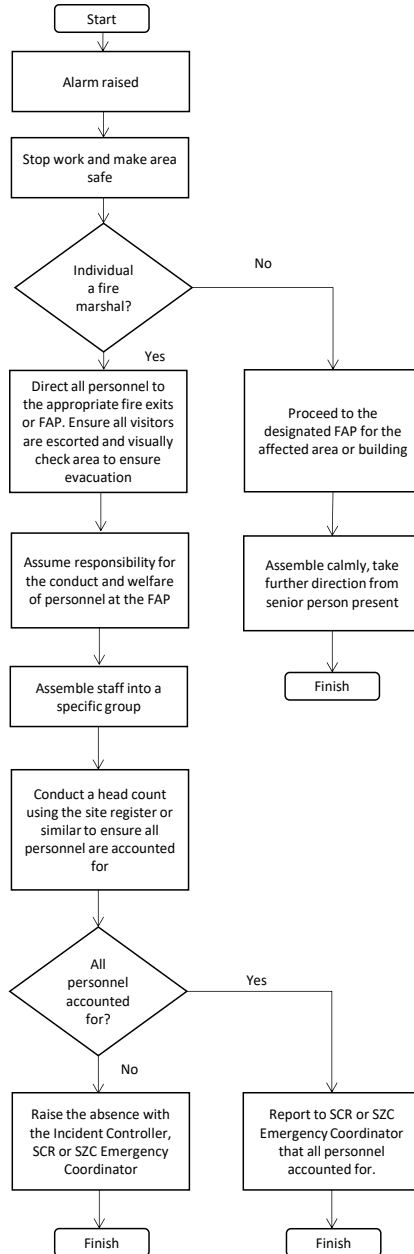
Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

F.3 FIRE ASSEMBLY

Contact the Security Control Room
•Orange Button
•Channel 16

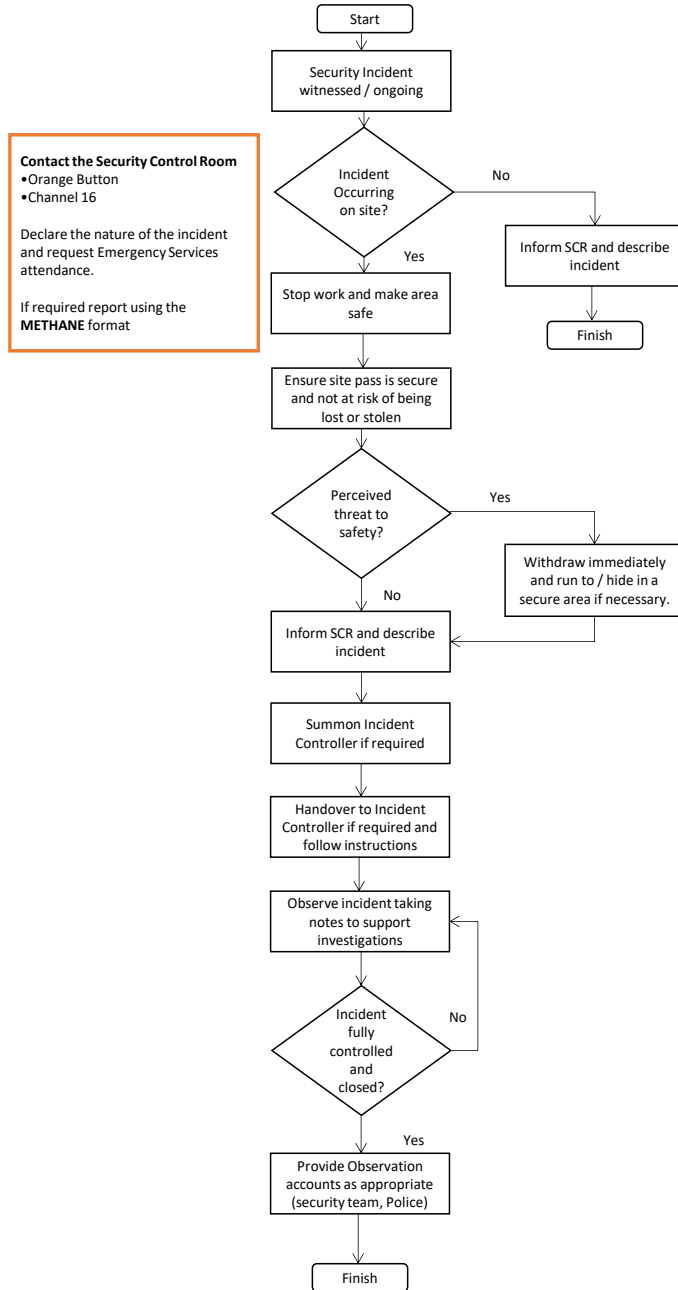
Declare the nature of the incident and request Emergency Services attendance.

If required report using the **METHANE** format



Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

F.4 SECURITY INCIDENT

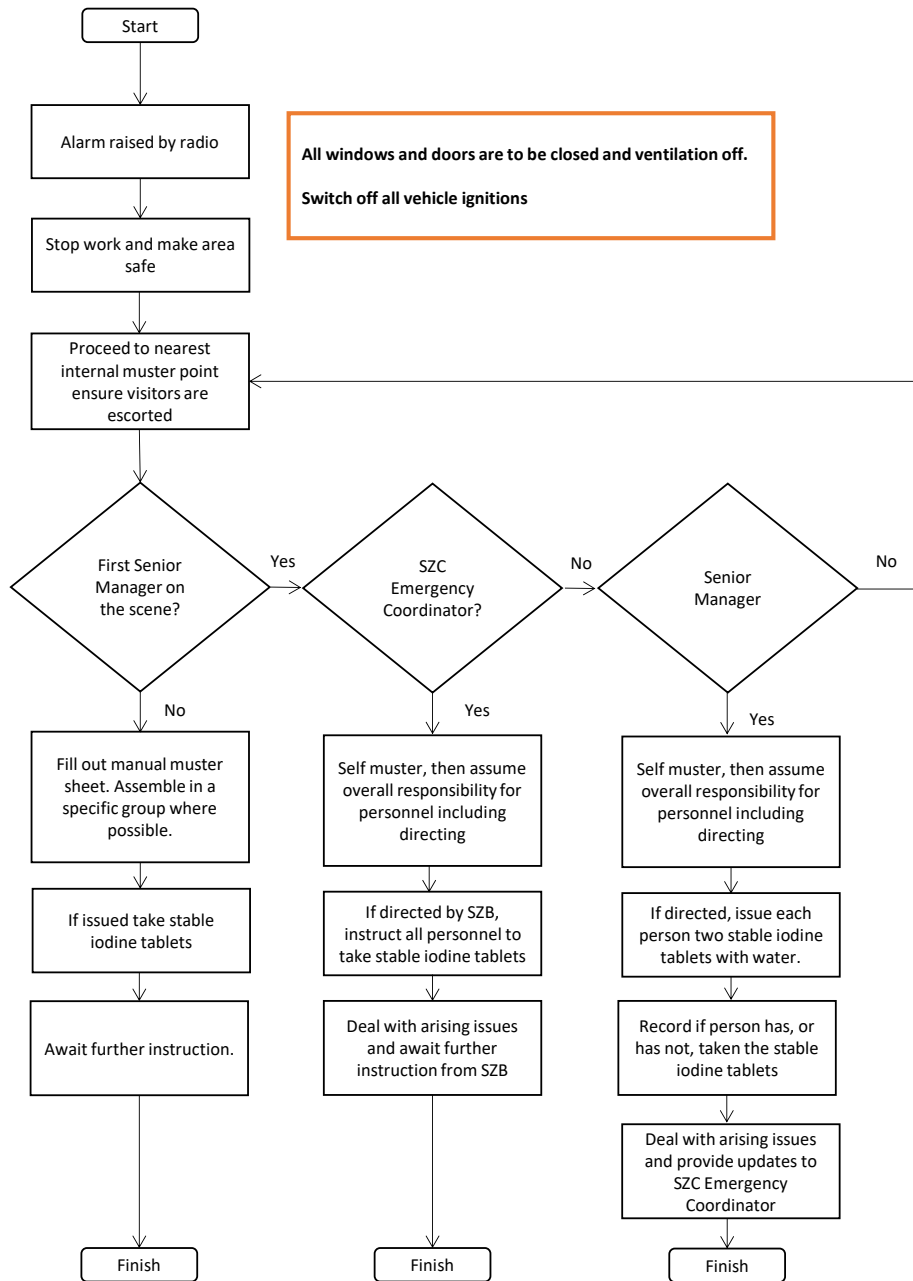


Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

F.5 OFFSITE NUCLEAR EMERGENCY



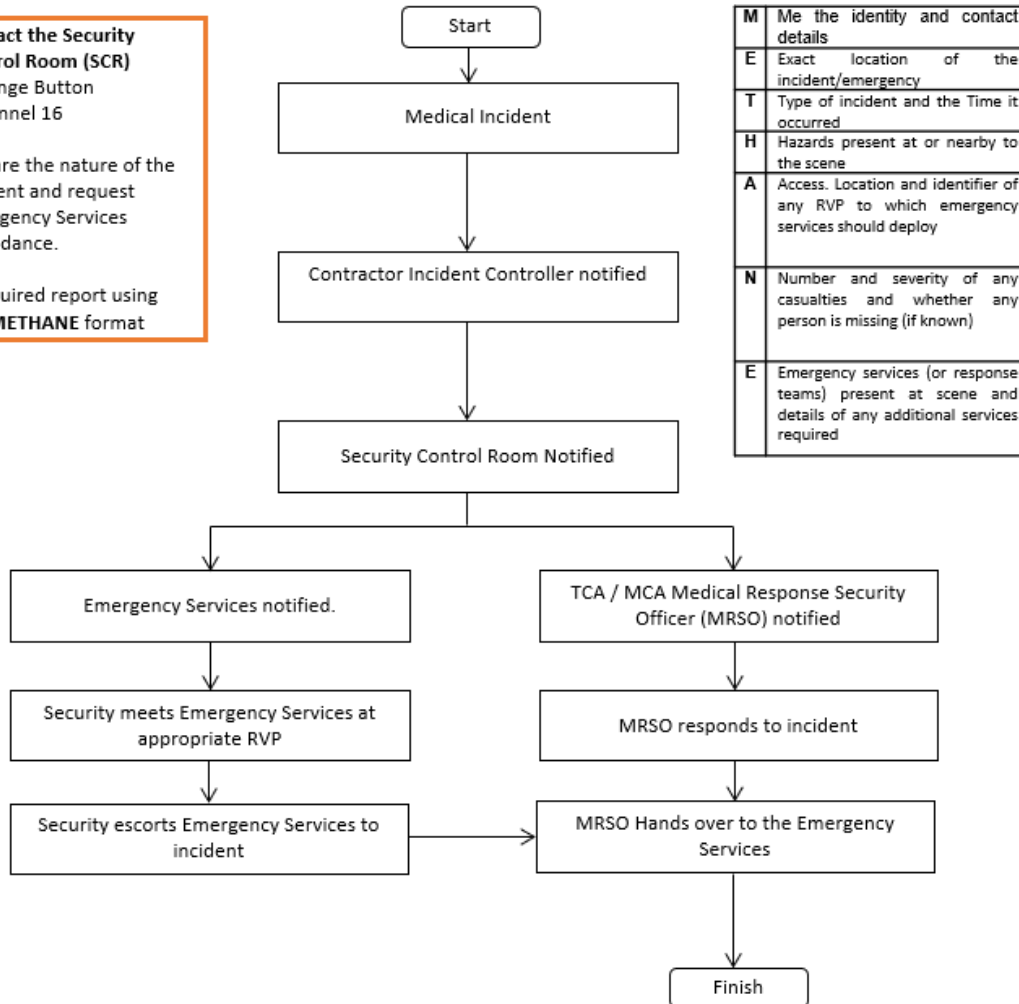
Sizewell C Company Document
SIZEWELL C SITE EMERGENCY PLAN
NOT PROTECTIVELY MARKED

F.6 MEDICAL INCIDENT

Contact the Security Control Room (SCR)
•Orange Button
•Channel 16

Declare the nature of the incident and request Emergency Services attendance.

If required report using the **METHANE** format



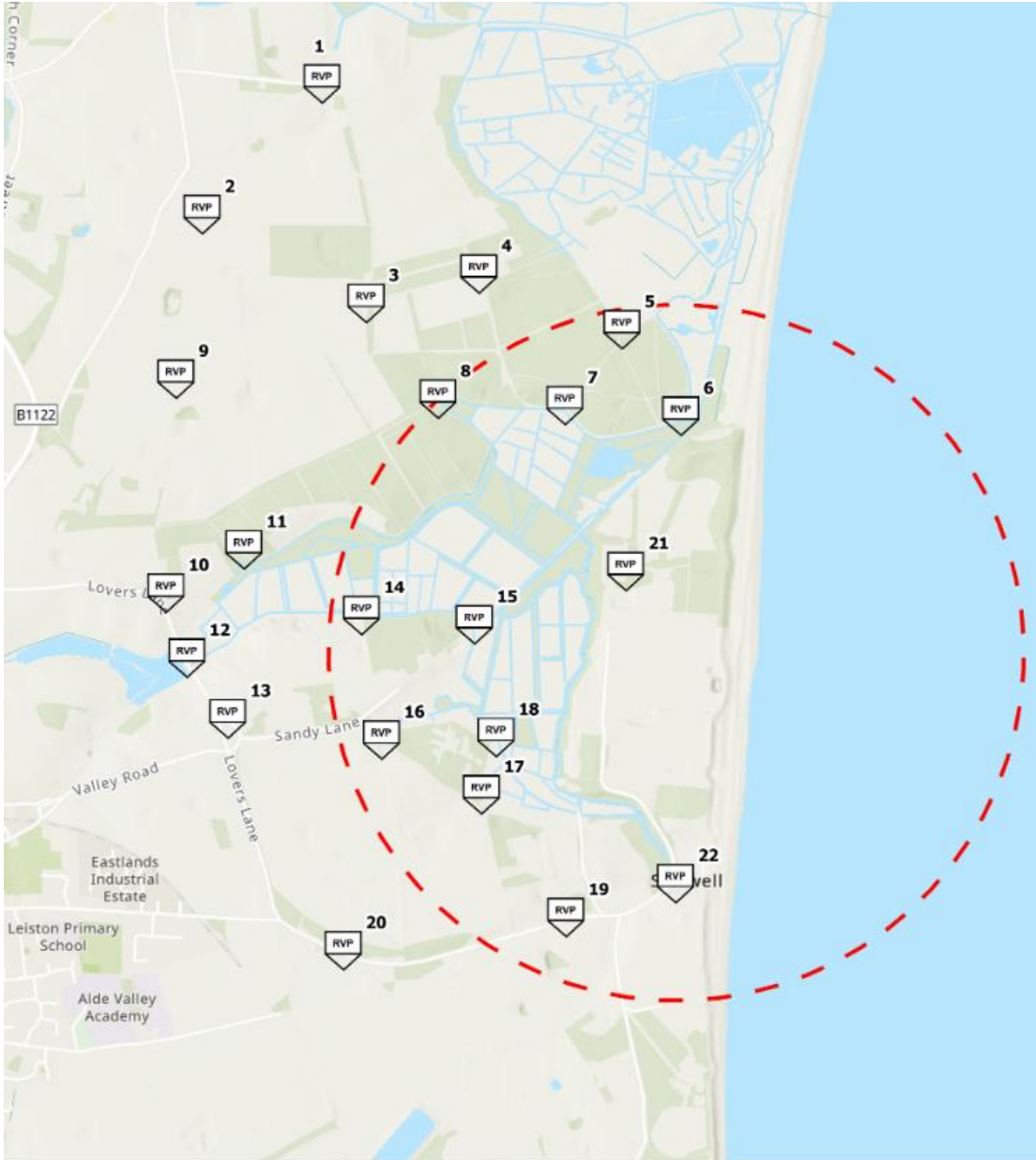
M	Me the identity and contact details
E	Exact location of the incident/emergency
T	Type of incident and the Time it occurred
H	Hazards present at or nearby to the scene
A	Access. Location and identifier of any RVP to which emergency services should deploy
N	Number and severity of any casualties and whether any person is missing (if known)
E	Emergency services (or response teams) present at scene and details of any additional services required

Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

APPENDIX G EMERGENCY RENDEZVOUS POINTS



Sizewell C Company Document

SIZEWELL C SITE EMERGENCY PLAN

NOT PROTECTIVELY MARKED

Emergency Rendezvous Points

ID	Name	What3Words
1	RVP 1	PROCURES.SOLIDS.LOOPS
2	RVP 2	OPTION.BACKYARDS.SLOGANS
3	RVP 3	PREDICT.AQUATICS.SPEAKS
4	RVP 4	CAUSED.EXACTLY.BOTTOM.
5	RVP 5	ALMOST.FLAMINGO.VENTED
6	RVP 6	TONSILS.PROMISING.PELTING
7	RVP 7	TRAP.LAWNS.RACING
8	RVP 8	CUFF.DUPE.ANSWERS
9	RVP 9	EXTENSIVE.PLATES.SKID.
10	RVP 10	AUNTS.SHORTEN.OUTREACH.
11	RVP 11	PINS.LIME.COMPLY
12	RVP 12	OUTLOOKS.STAPLE.JOIN
13	RVP 13	PLODDING.REMIND.PODS
14	RVP 14	THAT.RESPECTED.MAGICALLY
15	RVP 15	ERADICATE.GHOSTS.FUTURE
16	RVP 16	CHOSE.UNCOUTH.BECAME
17	RVP 17	TWICE.BLANKED.CHATTERS
18	RVP 18	HAZEL.EVOKE.PELTING
19	RVP 19	THUDS.STARTED.DECODED
20	RVP 20	COMPOUND.LOOKOUT.TRENDING
21	RVP 21	PROTESTER.QUIT.CAPACITY.
22	RVP 22	FABRICATE.BOUGHT.HURRICANE

Access Points

ID	What3Words	Location Description
A	SOMEBODY.TRUDGES.SAPPING	Public Footpath Access
A	TOOLBAR.KILTS.LANDSCAPE	Public Footpath Access
B	RUNGS.INVESTORS.REFERRAL	Access to beach across Two Bridges Dyke Crossing
C	BOOKINGS.CAPERS.TODDLER	Access to Estate from Fiscal Policy Car Park
D	OVERPAID.REMOTEST.CONDUCTOR	Kenton Hills Northern Track Access - Timber Kissing Gate and Locked Metal Field Gate
E	POETS.FLATS.DRUMBEAT	Access to Leiston Common from Sandy Lane
F	UNEARTHLY.UNITES.DECODED	Access onto Bridleway across Broom Covert
G	THUDS.STARTED.DECODED	Access onto Sandy Lane and onto Bridleway

APPENDIX H TEMPORARY ACCOMMODATION UNIT RADIOLOGICAL CONSEQUENCES ESTIMATE

In summary:

For a design basis accident (as outlined in the SZB REPPIR HECA Report) and under conservative F2 Pasquill Category conditions, the estimated dose to someone ~500 m, on the plume centreline, downwind would be ~400 μ Sv, if sheltered at a Muster Point for 12 hours. This assumes 90% of the radioiodine inhalation dose is averted by KIO₃, that a Temporary Accommodation Unit is similarly “sealed” to a standard dwelling and has half the shielding effectiveness of a standard brick dwelling.

- Effective dose due to iodine = 0.23 mSv
- Effective dose due to inhalation of other isotopes = 0.1 mSv
- Effective dose due to gamma radiation from the passage of the release cloud = 0.06 mSv (assumes 8-hour duration)
- Effective dose due to gamma radiation from ground deposition = 0.15 mSv (in 12 hours, ignoring the effect of decay of short-lived nuclides)

This shows that under a relatively conservative set of assumptions the dose at a muster point would be at least of factor of two less than the REPPIR Reference Value of 1 mSv.