



Loch Ewe Operational Berth Offsite Plan – Public Version



REPPiR



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SECTION 1 ADMINISTRATION OF THE PLAN

IN THE EVENT OF A NUCLEAR EMERGENCY INITIAL ACTIONS CAN BE FOUND FROM PAGE 47 ONWARDS

1. REVIEW / AMENDMENT RECORD

The plan must be regularly reviewed to ensure the emergency arrangements remain relevant and appropriate and meet each agency's requirements in order that the aims of the plan are achieved.

Review Date	Comments	Next review
January 2005		December 2005
1 March 2012		March 2013
September 2015		January 2018
March 2018		
July 2018	V5.3	January 2021
August 2018	V5.4	January 2021
November 2020	REPPiR 2019	May 2021
July 2021	V6.1	December 2021
November 2023	V7.0	November 2026

1.2 DISTRIBUTION LIST

An electronic version of this plan is issued to the list below. It is the responsibility of individual agencies to manage the distribution within their own organisations and to keep a record of the document holders for updates and redistribution.

Agency
Operator, Regulator & Local Authority
HM Naval Base, Clyde
Office for Nuclear Regulation
Council
Emergency Services
Police Scotland
Scottish Fire and Rescue Service
Scottish Ambulance Service
HM Coastguard
NHS & Health and Social Care Partnership
NHS Highland
Scottish Government (Agencies)
Scottish Government
Animal and Plant Health Agency – APHA
Food Standards Scotland – FSS
Scottish Environment Protection Agency – SEPA
United Kingdom Health Security Agency – Radiation, Chemical and Environmental Hazards Directorate (UKHSA – RCE)
Others
Met Office
Scottish Water

1.3 GLOSSARY OF TERMS

APHA	Animal and Plant Health Agency. Regulator on behalf of Scottish Government for Animal Welfare monitoring.
ACMZ	Automatic Counter Measures Zone
CCA	Civil Contingencies Act 2014
COBR	Cabinet Office Briefing Room. UK Government's dedicated crisis management facilities.
Containment – Primary	The compartment surrounding the Reactor Plant made up of the pressure hull of the submarine and internal bulkheads
Containment – Secondary	The compartment within the submarine hull on either side of the primary containment that can prevent internal leakage from the primary containment to the atmosphere.
Cordons – Inner	Surrounds the immediate scene and provides security within
Cordons – Outer	Seals off an extensive area to which unauthorised persons have no access
DEPZ	Detailed Emergency Planning Zone
DESNZ	Department for Energy Security and Net Zero
DSTL	The Defence Science and Technology Laboratory
Emergency Exposure	The exposure of an employee engaged in an activity of or associated with the response to a radiation emergency or a potential radiation emergency in order to bring help to endangered persons, prevent exposure of a large number of persons.
Emergency Reference Levels (ERLs)	A range of intervention levels of averted dose to provide guidance on protective actions following a radiation emergency
Exclusion Zone Reception Centre	Building / area designated for the management and processing of evacuated personnel from the exclusion zone.
FSA	Foods Standards Agency
FSS	Food Standards Scotland.
Gamma Shine	The Gamma Radiation that would emanate directly from a submarine following a reactor accident.
HMCG	His Majesty's Coastguard

GLOSSARY OF TERMS contd.

IJB	Integrated Joint Board
Intervention	An activity that aims to prevent or reduce the radiation exposure
JRLO	Joint Regional Liaison Officer
KHM	Kings Harbour Master
LRP	Local Resilience Partnership
MCA	MOD Co-ordinating Authority
MDP	Ministry of Defence Police
Member of the public	Any person not being: (i) a person for the time being present on premises where a radiation emergency can occur or where a radiation emergency has actually occurred, or (ii) a person engaged in an activity of or associated with the response to a radiation emergency;
NHS	National Health Service
NPW	Nuclear Powered Warship
Off-Site Emergency Plan	An integrated emergency management plan to bring together the emergency arrangements of all of the responding organisations with a role in the response to a radiation emergency.
On-Site Emergency Plan	The operators emergency plan for the premises as required under REPPIR 2019 (also known as the Site Specific Operators Emergency Plan or SSOEP)
ONR	Office for Nuclear Regulation.
Off-site Nuclear Emergency - OSNE	A hazardous condition which requires the implementation of urgent protective actions.
Outline Planning Zone	Set area beyond the detailed emergency planning zone
Stable iodine tablets (SITS)	Tablets containing stable iodine, which would minimise the uptake of radioactive iodine into the thyroid gland.
Radiation Emergency	A non-routine situation or event arising from work with ionising radiation that necessitates prompt action to mitigate the serious consequences
Reactor Safety Alert - RSA	An abnormal event which poses a potential threat to, or causes serious concern for reactor plant safety

Representative Accidents	Bounding cases that assessments show require detailed planning
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REPIR	The Radiation (Emergency Preparedness and Public Information) Regulations 2019
RPID	Rural Payments and Inspections Division – Scottish Government
SAGE	Scientific Advisory Group for Emergencies.
SAS	Scottish Ambulance Service
SCC / SCG	Strategic Co-ordination Centre / Strategic Co-ordination Group
SEPA	Scottish Environment Protection Agency
SGLO	Scottish Government Liaison Officer - A member of the Scottish Government Liaison Team deployed to the multi-agency co-ordination centre – COSC.
SG-AHWD	Scottish Government - Animal health & Welfare Directorate
SGoRR	Scottish Government Resilience Room – A co-ordination facility of the SG that is activated in cases of national emergency or crisis, or during international events with major implications for Scotland.
STAC	Scientific and Technical Advice Cell – A group of technical experts from those agencies involved in an emergency response that may provide scientific and technical advice to LRP Strategic
UKHSA – RCE	United Kingdom Health Security Agency – Radiation, Chemical and Environmental Hazards Directorate (UKHSA – RCE)

1.4 TERMS OF REFERENCE / AIM OF THE PLAN

This plan has been prepared in consultation with all recipients and reflects the corporate approach to Integrated Emergency Management (IEM).

In the Police Scotland area, the overarching responsibility for ensuring effective management of civil protection measures resides within Highland & Islands Resilience Partnership (H&ILRP), as required by the Civil Contingencies Act (CCA) 2004. The Group membership consists of Category 1 and Category 2 responders, the former pertaining to the emergency services, local authorities, National Health Service (NHS) boards and the Scottish Environment Protection Agency (SEPA). Category 2 responders include utilities, telecommunications and transport organisations and ONR.

In general terms, the H&ILRP aims to ensure effective management of multi-agency preparation and response to emergencies which may have a significant impact within the H&ILRP area. The H&ILRP will achieve this by promoting sound partnership working, developing a united emergency management framework to ensure that all partners are prepared for response to any emergency. It will further endeavour to fulfil its civil contingencies responsibilities by following the concepts of resilience, underpinned by IEM as contained within Preparing Scotland.

Whilst the plan sets out arrangements for dealing with a radiation emergency, and includes the main requirements of responding agencies, it will be necessary for detailed/complementary instructions to be promulgated internally within agencies.

TERMS OF REFERENCE

1. To produce a corporate emergency off-site plan for The Loch Ewe Operational Berth, promoting mutual understanding of roles, identification of responsibilities and co-ordination of response of the Site Operator.
2. To ensure the emergency arrangements remain relevant and appropriate and meet agencies requirements in order to achieve the aim of the plan.
3. To ensure the arrangements meet the requirements of the Radiation (Emergency Preparedness and Public Information) Regulations (REPPPIR) 2019.
4. To implement the measures necessary to protect persons and the environment from the effects of radiation emergencies.
5. To provide for the restoration of the environment after a radiation emergency.
6. To communicate the necessary information to the public and to the emergency services and authorities concerned in the area.

AIM OF THE PLAN

1. Safeguard the public in the event of a radiation emergency at Loch Ewe.
2. Protect property.
3. Safeguard the environment.
4. Allay public fears.
5. Restore normality.
6. Return to existing exposure situation
7. Keeping effective doses below defined reference levels.

1.5 INTRODUCTION

The Royal Navy operates a flotilla of nuclear-powered submarines, which form a vital element of the defence of the UK. The nuclear reactor offers the submarine a level of speed and underwater endurance, which cannot be achieved by any alternative method of propulsion.

Nuclear power is the only mechanism available to allow HM Submarines to carry out elements of the Navy's task in support of the UK's independent nuclear deterrent, anti- submarine warfare and in the protection of maritime routes.

The nuclear safety of naval reactors is given the highest priority and their design, operation and maintenance is authorised by the Secretary of State for Defence through approved naval regulations. A specialist committee, the Defence Nuclear Safety Committee (DNSC), whose membership includes independent nuclear and radiation safety experts from the civil nuclear industry, advises on these matters.

The Radiation (Emergency Preparedness and Public Information) Regulations 2019 - (REPPIR) requires an assessment of the hazards associated with these operations to be undertaken.

The plan describes the extent of potential hazards, what emergency protective actions will be taken to reduce the risk to the public and explains the roles and responsibilities of the responding organisations.

The Highland Council is a member of the Highlands & Islands Local Resilience Partnership which encourages support/co-ordination at a local level, ensuring all relevant agencies have been involved in producing this plan.

Resilience Team

The Highland Council

SECTION 2 – THE PREMISES – HAZARD DETAILS

2.1 SITE DETAILS

Loch Ewe Nuclear Operational Berth

Contacts HM Naval Base Clyde (Faslane)

Tel: 01436 674321

Contact: Duty Naval Base Officer – Base Extension

Loch Ewe Operational Berth

Loch Ewe is a Wester Ross Sea loch opening into The Minch. It plays host to a nuclear **operational berth**, at the oil fuel depot jetty.

No nuclear work routinely takes place on submarines while berthed in Loch Ewe.

2.2 REACTOR ACCIDENTS

In the unlikely event of a nuclear emergency, the main hazard associated with nuclear reactors would come from the release of fission products from the fuel. In order to prevent this, reactor fuel is encased in strong and **very high integrity cladding**. In addition, there are further barriers designed to contain the fission products should an emergency situation develop. In the first instance, should the cladding fail, **the primary circuit**, which is a closed loop, would contain the fission products and prevent further spread.

Beyond the primary circuit, the submarine's **Reactor Compartment (RC)** is designed and constructed to meet the severe rise in pressure that could result from the very unlikely event of a complete failure of the primary circuit. This barrier to the release of fission products is termed the **Primary Containment Boundary**. Pipes, ducts and other penetrations between the primary containment boundary and the remainder of the submarine are designed to be shut off automatically. In the event these boundaries were to allow a proportion of fission products to release slowly through the Primary Containment Boundary, they would still be largely contained within the volume of the submarine.

The submarine pressure hull is designed to withstand both the high pressures experienced at deep diving depth, along with potential for battle shock and is therefore highly engineered and tested to exacting high integrity standards. A reactor comprised within the hull of a nuclear submarine is therefore required to be considerably more assured of withstanding environmental safety challenges than for civil reactor plants. The submarine's pressure hull is referred to as the **Secondary Containment Boundary**.

Detailed assessments of potential emergencies and their associated consequences have been carried out by MOD in accordance with statutory requirements. These assessments presume concurrent failures of all of the safety barriers, preventing core cooling leading to fuel melt and subsequent leakage through all four of the containment barriers previously described. This has led to the identification of range of emergencies which although highly unlikely are termed the **Representative Accidents**. The characteristics of the Representative Accidents are as follows

- A number of cautious assumptions are made about the radioactive material inventory and other characteristics of the reactor
- A leak occurs in the primary cooling circuit of the reactor which cannot be isolated, and which is beyond the capacity of the coolant make up systems
- A series of extremely unlikely engineering and other failures also occur

- The primary coolant leak coupled with the engineering and other failures lead to damage to the fuel within the reactor, resulting in elevated gamma radiation levels around the reactor.
- The fuel damage in turn releases some radioactive material from the reactor. This is largely contained within the submarine, but a small proportion may be released to the environment over the following 1 to 2 days.
- The radioactive material would be carried downwind and would therefore present a hazard in the downwind sector only. This hazard would arise principally via inhalation initially.

The Representative Accident analysis determines a range of grace periods from just under an hour to several hours from the declaration of an Off-Site Nuclear Emergency to the onset of the radiological hazard.

In accordance with REPIIR, the operator has identified that the consequences of the range of Representative Accidents constitute an appropriate basis for the design of detailed emergency response plans for the protection of both the workforce, and the public who may be affected by a nuclear emergency. Further plans drawn up in this way then provide a suitable basis for dealing with even less likely but potentially more severe consequences, through the concept of outline planning.

Definitions

The only reactor emergency that can result in a hazard to personnel outside the Nuclear-Powered Warship (NPW) is one that leads to a significant release of the fission products normally retained within the reactor fuel.

The general definitions and associated guidance concerning a **Reactor Safety Alert (RSA)** and an **OSNE** are as follows -

Event	Definitions
Reactor Safety Alert (RSA)	An abnormal event which poses a potential threat to, or causes serious concern for, reactor plant safety.
Off-site Nuclear Emergency (OSNE)	A hazardous condition which requires the implementation of urgent protective actions to protect the public.
OSNE Qualifiers	Radiation Hazard Confirmed – an off-site Nuclear Emergency in which a radiation hazard has been detected.
	Release of Radioactive Material Confirmed – an off-site nuclear emergency in which a release of radioactive material to the environment has been detected.

LOCH EWE OPERATIONAL BERTH: REPPIR 2022 SUBMISSION – DECLARATION OF ‘NO CHANGE OF CIRCUMSTANCES’

1. In September 2019 Navy Command Chief Staff Officer (Engineering) Submarines (CSO(E)SM) sent a Consequences Report to Highland Council as required by Regulation 7 of REPPIR 19. Regulation 6 of REPPIR 19 requires the Operator, to review the Hazard Evaluation and Consequence Assessment (HECA) within 3 years of the date of the last submission.
2. The Nuclear Steam Raising Plant (NSRP) HECA is an assessment of the hazards posed to a generic site by the NSRP. The assessment of the hazards to the NSRP posed by the site are assessed within a site-specific Berth Safety Statement (BSS) maintained by nominated site sponsors. The extant BSS continues to demonstrate hazards posed by the site are bounded by the fixed Authorised Sites and in turn the NSRP HECA remains the bounding case and provides the REPPIR Risk Framework for these Operational Berths. The NSRP HECA together with the Berth Safety Statement underpins the details document required by Regulations 4(7) and 7(6) of REPPIR 19.

Generic Site – Nuclear Steam Raising Plant Hazards

3. The hazards to a generic site from an NSRP fault, involving fuel damage and fission product release, for each class of operational submarine was updated in April 2021 when the Naval Reactor Plant Authorisee (NRPA) in the role of the Naval Reactor Plant Approving Authority (NRP AA) approved the NSRP HECA. The NSRP HECA documentation suite has been through NRPA due process including Independent Nuclear Safety Assurance (INSA). The NSRP HECA is on a triennial review cycle with the next review due in Nov 23.

Site Specific Hazards to the Nuclear Steam Raising Plant

4. The Loch Ewe Berth Safety Statement (BSS) identifying and evaluating the hazard to the NSRP from the site, involving the site-specific hazards at these berths, has been reviewed in accordance with Navy Command due process and determined there are no material changes.
5. The operations considered when undertaking this review were:
 - a. Berthing and movements of Nuclear-Powered Warships (NPW).
 - b. Operation of the NSRP including associated systems within the limitations specified in the Berth Safety Statement.
 - c. Surrounding infrastructure, movement of vessels in the vicinity of the berths, aircraft movements, activities undertaken in vicinity of the berths and all other factors presenting potential external hazards as detailed in the BSS.
6. The review of the Site BSS did not identify any factors which materially affect the Consequences Report. The details document required by Regulations 4(7) and 7(6) of REPPIR 19 has been updated.

Summary

7. The generic NSRP HECA has been updated. The Site BSS has been reviewed. The review did not identify any factors which materially affect the Consequences Report. **Therefore, in accordance with Regulation 6(2)b of REPPIR 19 it is formally declared that there has been “No change of circumstances”.**

8. There are no changes to the recommendations in the Consequences Report issued in Sept 19.

2.3 RADIATION AND CONTAMINATION DEFINITIONS

Radiation and Contamination

In order to understand the hazards of a reactor emergency, it is important to appreciate the meaning of and differences between the terms radiation and contamination.

Even in a situation where the fission products remain contained, the penetrating radiation that they give off may still irradiate people in the vicinity. **This is termed a radiation hazard.**

Protection against radiation hazards is afforded by, reducing the time people spend close to the fission products, placing shielding between the individual and the radiation source or increasing the distance between the individual and the source.

If, however, personnel became contaminated with fission products, either on the surface of their body or internally by breathing, eating or drinking, then the subjects carrying the source of radiation around with them would continue to be irradiated until that source was removed. **This is termed a contamination hazard.**

Some protection against such a hazard can be afforded by the use of protective clothing. Skin contamination can normally be removed by simple washing.

The Hazards

Following an OSNE involving the release of fission products outside the primary circuit, there are 2 distinct ways by which people could be irradiated: -

- a) **Gamma radiation** from fission products retained within the submarine containment boundaries would be transmitted in all directions through the vessels hull. Both shielding and distance from the submarine would diminish

the intensity of this pure radiation hazard. However, people within, or in close proximity to the vessel could be exposed to high levels of radiation. This hazard is referred to as **Hull Gamma Shine**.

- b) Less likely is the release of some of the fission products from the NPW to the atmosphere or into the water. The release of fission products, the actual radioactive material, constitutes both a radiation and contamination hazard.

Biological effects of radiation

It is the ionising radiation given off by the fission products that would pose the hazard following any reactor emergency. As the radiation passes through the human body, ionisation events occur which may damage or kill cells. The body is of course being subjected continuously to natural background radiation and has well developed repair processes to deal with radiation damage.

Different human cell types have very different radiation sensitivities, but if the radiation dose is great enough and large numbers of cells are killed; signs and symptoms of acute radiation exposure would appear. These acute radiation effects include skin burns and most severely death, but all have a defined threshold of dose below which the effect will not take place.

At radiation doses below the thresholds, acute effects cannot occur, although cells may have been damaged with the result that exposed individuals have a statistically increased risk of development of cancer in years to come. For radiation protection purposes, the increased risk of these effects is assumed to be directly proportional to the radiation dose, without any threshold.

2.4 PROTECTION OF THE PUBLIC FROM THE HAZARDS OF AN OSNE

Management

If an OSNE were to occur, emergency procedures would be followed by the submarine crew and shore engineering support with the aim of preventing or minimising core damage, maintaining the integrity of containment in order to prevent or minimise any release of fission products. This management strategy would form an important element in the overall protection of the public.

Emergency Protective Actions

In the highly unlikely event of an OSNE, increases in the radiation level above natural background would result and probably continue for a period, which could be shortened if some form of intervention was to take place. For a serious reactor emergency, intervention to reduce doses could be required in the form of emergency protective actions being implemented in the surrounding area. The implementation of widespread protective actions, even in accordance with a pre-planned scheme, is not a risk-free activity. It follows that there must be some criteria on which to base any decision to take such measures following a reactor emergency.

The criteria for the implementation of emergency protective actions following an OSNE are based on the principles that the protective actions should achieve more good than harm, and that introduction and withdrawal of the measures should be aimed to provide optimum protection. It is the risk to the individual, which is considered of greatest importance in determining the need for emergency protective actions. The basic requirements for implementation criteria are as follows: –

- a) Protective actions should be introduced to ensure that no individual suffers acute effects from radiation.
- b) The increase in probability of the individual suffering effects from radiation exposure in the absence of the protective actions, should be balanced against the

detriment from the protective actions itself to determine the optimum protection of the individual.

- c) Within the UK, United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate (UKHSA – RCE) provides guidance on emergency protective actions to protect the public following an OSNE. Basic methods of reducing radiation exposure such as time, distance and shielding are still relevant in the mass protective actions situation, but they are incorporated into three protective actions that are applicable to a population –
- d) **SHELTER** – The public remaining in-doors with doors and windows closed and any ventilation systems shut-off.
- e) **STABLE IODINE ADMINISTRATION** – If tablets containing stable iodine (non-radioactive) are taken prior to, or within a few hours of internal contamination with radioactive iodine, the resultant radiation dose to the thyroid gland would be substantially reduced.
- f) **EVACUATION** – In the context of OSNE contingency planning, the term evacuation refers to the movement of people out of an area as an emergency measure to provide short-term protection for durations of up to a few days. If carried out prior to the existence of any hazard, evacuation would prevent almost all the radiation exposure that would have resulted. The adverse effects and difficulties of population evacuation, however, are significantly greater than shelter.

2.5 OUTLINE PLANNING ZONE

Assessments of the consequences of radiation emergencies demonstrate that emergency protective actions would only be required beyond the DEPZ in the improbable event of a large release of fission products to the atmosphere.

The probability of this event is so low that detailed emergency plans are not proportionate and commensurate to the risk. However, in view of the need for some pre-planning to be carried out in order to achieve effective implementation should the need arise, the Secretary of State has determined the Outline Planning Zone (OPZ) at 5km.

The zone extends to 5km in all directions around the DEPZ but following an emergency it is anticipated that the requirement for protective actions would be confined to the downwind sector only.

The factors which would cause outline planning to be triggered include technical assessments of the emergency situation or monitoring results suggesting urgent protective actions were required to a distance greater than the extend of the detailed emergency planning zone.

Annex 1 Loch Ewe Operational Berth

1. General

The Loch Ewe Operational Berth is located at The Oil and Pipeline Agency, Oil Fuel Depot, Loch Ewe Jetty, Wester Ross.

An OB is a location which is endorsed by Navy Command and the Defence Nuclear Safety Regulator (DNSR) as being suitable for operational visits or stand offs by nuclear powered warships. It is not suitable for the repair of nuclear plant or machinery and such uses would require the prior approval of DNSR.

At OB's, which are used only infrequently, there is no resident monitoring capability but a team of the Nuclear Emergency Monitoring Organisation (NEMO), a Health Physics Advisor and a Technical Adviser will be co-located throughout the period the berth is occupied.

2. Berth Location

Authorised Nuclear Berth	Grid Reference
Oil Fuel Depot, Loch Ewe	NG 872876

3. Vulnerable Groups

The **vulnerable groups** within the DEPZ 1.5km boundary are shown below.

For the purposes of this document '**Other Facilities of Interest**' have also been included. For further information on all of these groups, please see tables below -

Vulnerable Groups	
Site	Action
Isle View Nursing Home	Shelter or move to suitable alternative accommodation – consider circumstances. Consider issuing of SITs
Aultbea Nursery	Relocate to Bualnaluib Primary School. Consider issuing of SITs

Other 'facilities of interest' in the surrounding area of the Operational Berth		
Facility	Distance	Information
Primary School Bualnaluib	2.4km	Primary School - 29 pupils, 2 teachers

NOTE – SIT's have been pre-distributed to address within the DEPZ and surrounding area. Advice to take these will only be on the agreement/advice of the Strategic team within the SCC.

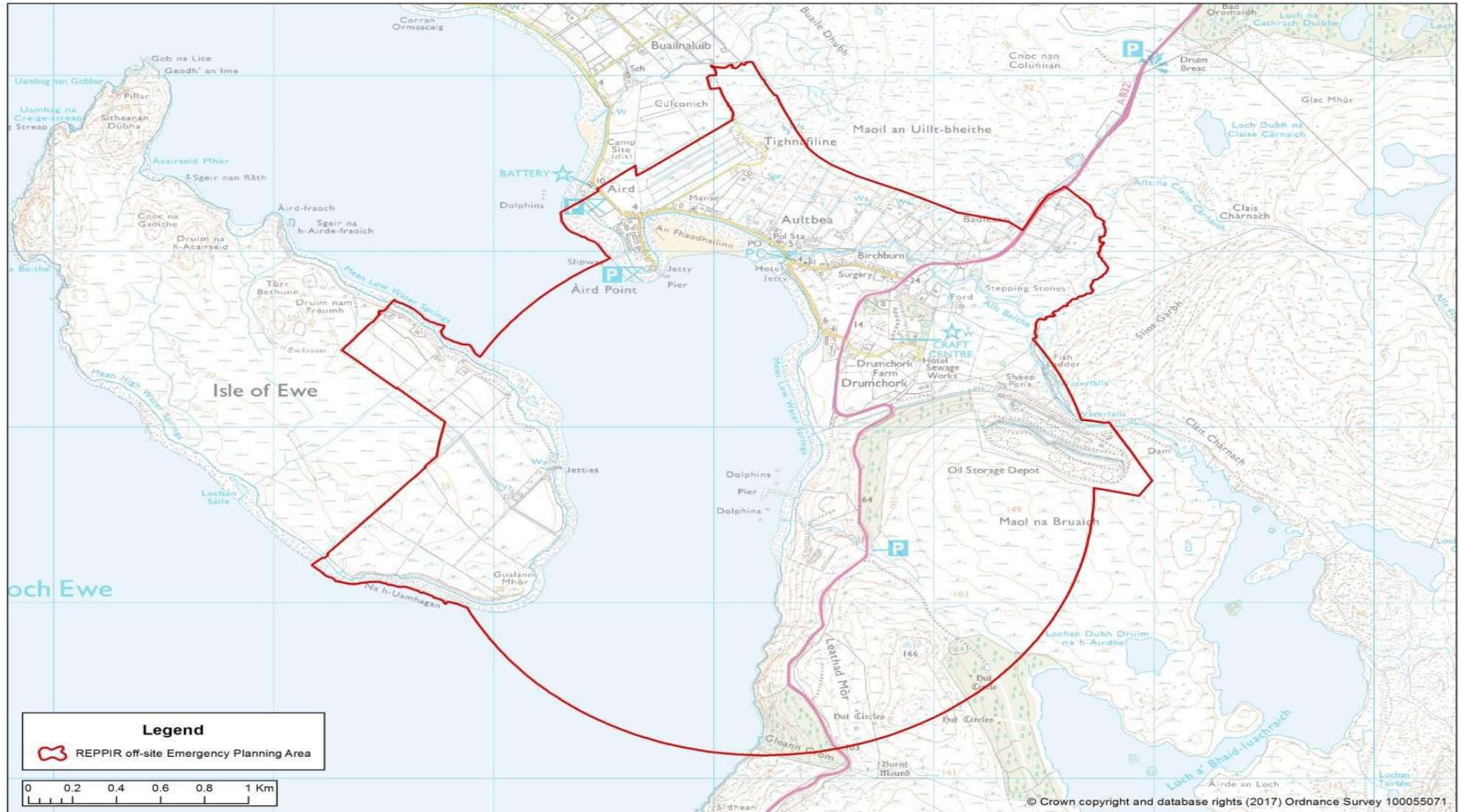
MoD and Highland Council retain copies of the list of addresses within The DEPZ to which SITs have been pre-distributed. A stock of Sits is held by MoD at the Oil Fuel Depot. These can be distributed by naval personnel to addresses within the DEPZ requiring SITs.

5. Centres of Population nearby

Location	Population	Distance from Loch Ewe Jetty Berth (km)
Loch Ewe – Immediate areas adjacent to the berth, area	Nil	With 0.4 km of the OB
Loch Ewe – immediate areas of the berth	370	Within 1.5km of OB
Loch Ewe – total out to 20km	1996	Within all area of the Loch
Aultbea	370	1.5
Mellon Udrigle	45	8.5
Laide	120	5.5
Talladale	5	18
Poolewe	265	7
Gairloch	620	12
Isle of Ewe	7	2
Mellon Charles	80	4.5

Source: NRS Mid 2016 population estimates for settlement.

14. Loch Ewe – Map of the Detailed Emergency Planning Zone (DEPZ)



SECTION 3 – ARRANGEMENTS FOR ASSISTING ON-SITE RESPONSE

3.1 IMMEDIATE ACTIONS – AT THE EMERGENCY SITE

The automatic protective actions zone is a circle of radius 400m from the affected submarine, however, the on-site plans cover the whole of the Oil Fuel Depot site.

The MOD (HM Naval Base Clyde) has produced an “Operators On-Site Emergency Plan” for Loch Ewe. This plan details the actions, roles and responsibilities of all personnel in response to a nuclear emergency and links directly with this Plan. The initial actions include but are not limited to the following:

- Alerting personnel on site
- Alerting external authorities
- Muster stations
- Issue of Stable Iodine Tablets where appropriate
- Dispersal of non-essential personnel from site

3.2 EMERGENCY WORKERS – DETAILED EMERGENCY PLANNING ZONE (DEPZ)

The only persons that may be admitted to the DEPZ, i.e., the prevailing 1.5km downwind sector from the emergency submarine, are designated emergency workers. Which could include

- Ships Company;
- Members of civil emergency authorities, potentially Scottish Fire and Rescue Service, Scottish Ambulance Service and Police Scotland;
- Naval and Civil Radiation Monitoring Teams;
- Essential workers as necessary and authorised.

All emergency workers are to receive a safety briefing by their employers prior to entry to this area, or as soon as possible after the declaration of an emergency if they are required to remain within the site. The briefing will be specific to their task.

Police Scotland will not normally enter the area unless required to assist with implementation of public protective actions, the security and preservation of evidence and the subsequent investigation. This being the case appropriate safety procedures will be followed. The radiological safety requirements for all personnel will be determined and implemented by the relevant officers at the SCC.

The response will depend on the radiation and contamination hazards at the time. In the case of an incident requiring decontamination of injured personnel beyond the capabilities of the Exclusion Zone Reception Centre, the SAS would assume responsibility for the triage and decontamination of those affected. In responding to a radiation emergency, responsibilities can be summarised as follows:

- a. the saving of life and the provision of immediate care to patients at the scene of the emergency and in transit to hospital;
- b. the alerting of hospital services, immediate care GPs, and other relevant NHS agencies;
- c. the evacuation of the injured personnel from the scene in order of medical priority;
- d. arranging and ensuring the most appropriate means of transport for the injured to the receiving hospital;
- e. the supply of patient care equipment to the scene of a major incident; and
- f. to arrange the transportation of appropriate medical staff and their equipment to the scene of a major incident.

SECTION 4 - INITIATION OF THE OFF-SITE RESPONSE

4.1 ACTIVATION OF THE OFF-SITE PLAN

An OSNE will be declared if it is determined that the implementation of off-site protective actions will be beneficial to members of the public. It is the responsibility of the MOD to make this declaration and will be based on the advice provided by the Submarine Commanding Officer and their Subject Matter Experts (SMEs).

In the event of an OSNE being declared the HMNB Clyde Duty Naval Base Officer (DNBO) will initiate the HMNB Clyde Nuclear Emergency Instructions which will activate the site specific operators emergency plan Loch Ewe and the multi-agency Off-site Emergency Plan. On notification by the DNBO, Police Scotland will initiate the cascade alerting system to the relevant authorities and stand up the SCC.

CASCADE CALL OUT LIST

The following agencies will **always** be called out on the declaration of an OSNE -

- Police Scotland
- Scottish Fire and Rescue Service;
- Scottish Ambulance Service;
- The Highland Council;
- NHS Highland
- Scottish Government
- Met Office
- HM Coastguard (HMCG)
- Scottish Water
- Scottish Environment Protection Agency;
- United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate (UKHSA – RCE)
- Food Standards Agency
- Food Standards Scotland
- Office of Nuclear Regulations

Police Scotland Service Overview will initiate the cascade call out for agencies to attend, virtually or physically, the Strategic Co-ordination Centre (SCC). **HM Naval Base, Clyde** will immediately alert and activate all MOD specialist support in direct support of this Off-Site Emergency Plan.

The ongoing management and control of all required protective actions will be co-ordinated by multi-agency groups at Strategic and Tactical levels from the SCC.

The **emergency phase** of the off-site response will be co-ordinated by the Strategic Incident Commander, Police Scotland and during the **recovery phase** will be co-ordinated by the Chief Executive, The Highland Council, or nominated representative.

Planning for the recovery phase is established immediately by the formation of the multi-agency Recovery Working Group, chaired by an appropriate Senior Officer, The Highland Council. For information on the **Handover/Recovery see Section 7.**

The provision of timely/effective health protection advice is the responsibility of a multi- agency group, namely the Scientific and Technical Advice Cell (STAC) and is chaired by an appropriate senior representative from NHS Highland.

4.2 OFF-SITE EMERGENCY CO-ORDINATION CENTRE

The co-ordination of the emergency response is the role of Police Scotland. To achieve this, Police Scotland, will appoint a Strategic Commander to co-ordinate the activities of the Local Resilience Partnership (LRP). A Police Tactical Commander will also be appointed to co-ordinate the tactical elements of the emergency response. For an OSNE the Strategic and Tactical elements of management will be located at the SCC, Inverness.

Agencies which **will or may** be represented at the SCC include: -

- ONR;
- HM Naval Base Clyde - MOD Co-ordinating Authority;
- Ministry of Defence
- Police Scotland;
- Scottish Fire and Rescue Service;
- Scottish Ambulance Service;
- The Highland Council;
- NHS Highland
- Scottish Government
- HM Coastguard;
- Scottish Water;
- Scottish Environment Protection Agency - SEPA;
- United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate(UKHSA – RCE);
- Food Standards Scotland

Once the Strategic Group have assessed the situation the following agencies **may** also attend at the if required -

- Met Office;
- Animal and Plant Health Agency;

4.3 ROLES / MEMBERSHIP OF DECISION MAKING AND ADVISORY GROUPS

The purpose of this section is to clarify the role and composition of the various decision making and advisory groups and their interface during the emergency phase of an incident.

4.3.1 LRP - STRATEGIC

This senior group will only be composed of members whose role it is to make strategic decisions on behalf of their organisation. The group must be small and dynamic, coming together for focused meetings, and armed with sufficient information from their own agency to allow group strategic issues to be discussed and decisions made.

Therefore, the Chair must be proactive in politely asking anyone who shouldn't be there to leave.

LRP STRATEGIC - ROLES OF MEMBERS

Police Strategic Incident Commander (Chief Constable or Duty ACC).

Chairs the LRP Strategic and co-ordinates the emergency response phase, towards the restoration of normality.

Police Tactical Commander ('N' Division Commander or representative)

Informs the LRP Strategic of all issues arising from the LRP Tactical Group requiring strategic direction and implements the decisions of the LRP Strategic.

Police Media and Public Communications Representative

Advises the LRP Strategic on any key issues of public/media concern from all agencies and on the media/information strategy. Also, implements decisions of the LRP Strategic requiring dissemination of information to the public.

Chief Executive, The Highland Council (or nominated representative)

Responsible for overseeing arrangements for Council support to the Emergency Services, and NHS Highland in their lead role for Care for People arrangements.

Scottish Fire & Rescue Service – Strategic Commander (Duty Gold)

SFRS – Strategic Commander (Duty Gold) Advises the LRP on the SFRS capabilities and capacities and the wider UK FRS capabilities. Provides FRS strategic overview to enable suitable strategic decisions to be made.

Director of Public Health - NHS Highland

Co-ordinates and manages the Scientific and Technical Advice Cell (STAC), they advise the LRP Strategic on the effects of the emergency and the appropriate protective actions to be implemented to protect the public.

MOD Co-ordinating Authority (HM Naval Base Clyde)

The MOD Coordinating Authority (MCA) is the appointed Nuclear Suitably Qualified and Experienced Person (NSQEP) Executive Director of the MOD's operational response in the Clyde area. Providing detailed onsite information to the Strategic Coordinating Group (SCG) Commander on arrival and establishes and maintains effective liaison and support throughout.

Scottish Government Liaison Officer (SGLO)

Provide advice and support to responder organisations within the off-site centre on devolved matters and liaise with the Scottish Government Resilience Room (SGoRR).

IN ADDITION

The following officials will not sit at the table, but MAY be required to support their Strategic representative:

- Police Staff Officer and/or Police Emergencies Procedure Adviser;
- The Highland Council - Chair of Recovery Working Group;
- The Highland Council - Chief Executive's support officer

Strategic meetings must be timed to support members' attendance at LRP Tactical, STAC and RWG meetings.

Chair of the meeting may invite other agencies to attend the Strategic meeting if Strategic input is required.

In the recovery phase, **after a formal handover to the Chief Executive of the Local Authority**, all the above agencies will still be represented, but in the case of the Police, at a less senior level.

4.3.2. LRP - TACTICAL

The LRP Tactical will be chaired by the Police Tactical Commander and **meet as soon as possible if the Strategic group meeting is delayed for any reason**. Following this meeting the Police Tactical Commander will call meetings of the LRP Tactical as and when necessary to enact strategic decisions and report issues/advice back to Strategic.

The role of the Tactical group is to implement the strategic decisions made by the Strategic group and is the principal forum where all agencies meet to assess information and implement measures. The following are key members of the LRP Tactical. Representatives from other agencies will join if / when appropriate. Specific roles of members are as follows and support activity at an operational level: -

LRP TACTICAL - ROLES OF MEMBERS

Police Tactical Commander

Chairs LRP Tactical and manages all Police actions through the SCC.

Scottish Fire and Rescue Service Senior Officer

Manages all Scottish Fire and Rescue Service actions.

Assistant MOD Co-ordinating Authority – HM Naval Base, Clyde

Provides specialist support to the MOD Co-ordinating Authority on the implementation of emergency protective actions.

Scottish Ambulance Service Senior Officer

Manages all ambulance service activities for implementation of casualty care at the scene of an incident.

The Highland Council Representative (Ward Manager)

Manages all of the local authority activities through the local authority cell.

NHS Highland Representative

Provides the services for implementation of casualty care, public health protective actions, and primary health care.

Scottish Government – Government Liaison Officer

Provides advice and support to responder organisations within the off-site centre on devolved matters, liaising with the Scottish Government Resilience Room – (SGoRR).

Other members

- Representative of the **STAC**;
- Representative of the **Recovery Working Group**;
- Representative of **Food Standards Scotland**.

Chair of the meeting may invite other agencies to attend the Tactical meeting if input required.

LRP Tactical must be timed to support member's attendance at LRP Strategic, STAC and RWG meetings.

4.3.3. SCIENTIFIC AND TECHNICAL ADVICE CELL (STAC)

In the event of a radiation emergency, it is vital that the Police Strategic Commander and the LRP Strategic are given clear authoritative advice on the effects of the emergency on public health and on the appropriate off-site protective actions to be implemented.

The STAC should have a standard core membership to ensure consistency and to support a rapid response. Thereafter the composition of the STAC can be tailored to reflect the nature, scope and scale of the specific incident, as agreed with the LRP Strategic or LRP Tactical Chair.

A meeting of the **STAC core group should be held as quickly as possible** to carry out initial health and environmental risk assessment and to identify the ongoing requirements for specialist advice to the Strategic and/or Tactical co-ordination groups. In some circumstances the initial STAC discussions and advice to the lead responder can be made by telephone. Adequate contact arrangements should therefore be in place.

STAC – ROLES OF MEMBERS

STAC Chair - The STAC should be chaired by a senior representative of NHS Highland, normally the Director of Public Health Medicine or a Consultant in Public Health Medicine. The chair of the STAC may change to another agency as the incident progresses but only when there are no issues in relation to public health to consider.

It is recognised that operation of the STAC is more effective when the Chair is consistent. Changes in the Chair leads to ineffective operation of the STAC.

Deputy Chair - In order that co-ordinated work in the STAC group continues during periods when the Chair is reporting to the main LRP Strategic or to other groups, a member of the STAC should be identified to act as a deputy chair.

Leadership - The STAC chairperson should have the relevant skills/experience to chair complex technical meetings, in order to fulfil the remit of the group in providing

co-ordinated advice. The lead individual should be someone at an appropriate level of seniority within their agency.

Training - Ideally, STAC chairperson(s) should have undergone specific training to familiarise themselves with the requirements of the role.

Core members of the STAC:

- NHS – Director of Public Health/Consultant in Public Health Medicine;
- ONR;
- Local Authority – Environmental Health Manager;
- Police Scotland – as lead responder;
- Scottish Fire & Rescue Service – HAZMAT Officer / Radiation Protection Adviser (RPA);
- UKHSA - RCE – Strategic Advisor;
- Food Standards Scotland (FSS) with the support of Food Standards Agency;
- SEPA Representative.
- Administrative Support

Additional members may include:

- DSTL Health Physicist (covered by NEBUST HPA until arrival of DSTL).
- NHS Radiation Protection Adviser;
- Animal and Plant Health Agency (APHA);
- Scottish Government;
- Scottish Water;
- Met Office.

STAC meetings must be timed to support members' attendance at LRP Strategic, LRP Tactical and RWG meetings.

Public Information from the various agencies represented at the STAC will be provided to the Public Communication Cell by the Chair or via the Strategic Group.

4.3.4. SCIENTIFIC ADVISORY GROUP FOR EMERGENCIES (SAGE)

It is anticipated that the SAGE will be activated in support of COBR for all nuclear emergencies where –

- 1) There has been an off-site release of radiological material,
- 2) An off-site release is considered possible or
- 3) There is an incident that has serious implications for the site itself and those on it.

SAGE will not sit at the SCC. It is anticipated that the STAC Chair would dial into SAGE meetings and vice versa.

During COBR activation, SAGE is responsible for co-ordinating and peer reviewing, as far as possible, scientific and technical advice to inform national-level decision-making. SAGE also supports Ministers in making evidence-based decisions on key national policy questions. During a nuclear scenario, it is anticipated that SAGE will focus on three primary subject areas –

- Peer review of the Scientific and Technical Advice Cell (STAC),
- Horizon scanning (e.g., understanding how the situation may evolve),
- On-site technical diagnosis / prognosis.

Peer review of scientific advice

SAGE provides expert oversight of the scientific advice informing emergency response decision-making through its peer review function. **SAGE will and must have a close, collaborative and supportive working relationship with the STAC, which will advise the SCG at the local strategic level on protective measures.**

In this role, SAGE peer reviews and adds value to local scientific advice (and the information/assessments it is based upon), providing subsequent reassurance to COBR (and STAC itself) that this advice is appropriately shaping decisions. Despite the close working and information sharing between SAGE and STACs, STACs remain accountable to SCGs and does not in any circumstance become a sub-committee of SAGE but remains focused on the advice requirements at the local level.

Horizon scanning function

SAGE's horizon scanning function contributes to government's responsibility to determine the likely development of the emergency, by using joint agency modelling and assessment (JAM) based on available scientific and technical data.

JAM delivery partners provide SAGE with an evolving but consolidated projection of how the event will develop. This allows government to ensure an effective response across a range of credible scenarios by preparing in advance for potential future events.

Site technical diagnosis/prognosis

This function requires SAGE to examine the events occurring at the nuclear site (or, if the event is transportation, the incident site) from a technical perspective, to understand the developing scenario and what is being done to bring the incident under control. Again, this will focus on understanding how events could unfold in the future. This will require close interaction and co-operation with the site operator (or carrier), STAC and nuclear regulator.

Communication between SAGE and STAC is essential to ensure a co-ordinated approach. The chairs of both SAGE and STAC should be in regular contact. The STAC chair will dial into SAGE and vice versa. The chair of SAGE will also dial directly into SGoRR meetings.

4.3.5. RECOVERY CO-ORDINATION GROUP (RCG)

Although the role of the RCG comes into its own when the emergency phase is over, it **is essential that recovery is considered as soon as it is apparent that off-site contamination is likely to occur.** The RCG will therefore establish a core group at the **outset of a radiation emergency.**

The role of the RCG is to characterise the extent and nature of the off-site contamination and identify options and strategies for clean-up of contamination and disposal of wastes, taking into account the principles of justification and optimisation.

It should identify priorities, timescales and costs for the options, propose options for consideration by the LRP Strategic and prepare plans for their implementation through the LRP Tactical. It will advise on/assess recovery monitoring and maintain records of actions.

During the emergency phase the RCG Chair will present advice directly to the LRP Strategic or through the Chief Executive, The Highland Council. The membership of the RCG needs to be flexible to respond to the specific circumstances, but the core membership will be as follows:

RCG - ROLES OF MEMBERS

Recovery Co-ordination Group membership may include all/some of the following. The Chair of the Group will invite members on as appropriate.

The Highland Council – Most appropriate Officer

Chairs the RCG and ensures a deputy is identified.

NHS Highland – Consultant in Public Health Medicine

Provides Health Advice.

NHS Radiation Protection Adviser

Provides specialist advice on health effects

United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate (UKHSA – RCE)

Provision of public protection advice and information.

Scottish Environment Protection Agency

Provides advice on effects on the environment.

Scottish Government

SGLO – provides advice and support to the Recovery Co-ordination Group.

Animal and Plant Health Agency

Provide advice and support activity to minimise the impact of radiation on animal health/welfare and plant health.

Food Standards Scotland

Provides advice on contamination of the food chain.

Scottish Water

Provides advice on the effects on public water and wastewater.

Police Scotland

Provides assistance with maintaining public order

Scottish Fire and Rescue Service

Provides advice on the capabilities that the SFRS could deploy to support the Recovery Phase.

MOD Health Physicist

Provides advice on radiation monitoring results.

MOD

Provision of support to the Recovery Co-ordination Group.

Met Office

Provides data on plume characteristics.

RCG meetings must be timed to support members' input/attendance at LRP Strategic, LRP Tactical or STAC. RCG meetings may be facilitated at the SCC or at another location nearby, or virtually.

4.3.6. PUBLIC COMMUNICATIONS GROUP (PCG)

The overall responsibility for the co-ordination of provision of information to the public and response to the media lies with the police during the emergency phase. The police however must take account of the statutory responsibility placed on the local authority under the REPPiR to provide information on emergency protective actions to the public affected in the event of a radiological accident.

It is vital therefore that there is close liaison between all organisations represented at the SCC on information management. The Media and Public Communications Group has two principal roles. **Firstly**, to implement the information dissemination requirements of the Strategic group, then **secondly**, to collate information and media briefing objectives for all main agencies, into an agreed strategy for the Police Media and Public Communications Manager.

In fulfilling these it must ensure not only that the local press briefings and conferences are coherent but also that information in briefings held by organisations out with the SCC, e.g., Scottish Ministers in Edinburgh and MOD Ministers in Whitehall **does not conflict with information being given at the SCC.**

All Public Communication messages prepared, must without exception be agreed by Strategic Group before releasing, excluding initial information statements as per Section 8.3. These have been pre-agreed and should not be delayed in their release through SG approval.

The membership of the group should encompass main agencies responsible for information to the Public. In particular it is essential that the following attend: -

Police Scotland - Public Communications Manager

Chair.

The Highland Council – Head of Communications and Resilience Manager

Council statutory information objectives (Lead in the recovery stage).

MOD Senior Public Relations Officer

MOD information objectives

Scottish Government Media Representative

Scottish Government objectives and links with Scottish Government Departments/Ministers.

Other agencies may be invited to attend the media cell for specific information.

4.4 SCOTTISH / CENTRAL GOVERNMENT LIAISON

For a radiation emergency at a defence site in Scotland, the MOD is the Lead Government Department, however, the Scottish Government will play a key role in supporting the response at a Scottish civil nuclear site, with off-site consequence management planning, response and recovery devolved to Scottish Government. MOD and Scottish Government will work closely together.

Resilience Co-ordinators from the North of Scotland Regional Resilience Partnership will link in with LRP groups and to provide an additional means of communication with Scottish Government.

4.5 RADIATION MONITORING TEAMS

A HM Naval Base Clyde Nuclear Emergency Monitoring Team (NEMT) will carry out immediate pre-determined monitoring strategies using portable radiation monitoring equipment at Loch Ewe external to the site.

The NEMT will be supported by a significant number of additional specialist monitoring teams from the MOD, civil nuclear power authorities, government and scientific departments. These additional specialist monitoring teams will be co-ordinated by UKHSA - RCE.

4.6 MEDICAL RESPONSE

The Scottish Ambulance Service provides the treatment to of casualties in the first instance. Co-ordinating the NHS response lies with NHS Highland who may need to set up the following facilities to deal with the health needs of the affected population:

a) Screening Clinics:

For **occupationally exposed personnel** of the emergency services.

b) Screening Clinics

For **members of the public and service personnel**, within the emergency site, and possibly the DEPZ.

c) Emergency Support Centres:

The provision of medical and psycho-social support personnel at emergency support centres is co-ordinated by the NHS and The Highland Council.

4.7 COMMERCIAL SHIPPING AND PLEASURE CRAFT IN THE AREA

HM Coastguard will be advised of any hazard to shipping from information gathering at the SCC during response. They will be responsible for implementing restrictions which may be necessary.

4.8 RECORDS TO BE KEPT

Comprehensive records are to be kept by **all** agencies involved in a nuclear emergency in order that the necessary information may be available for a subsequent inquiry to the cause and effects. The records are also needed to assist in dealing with any claims which may arise in connection with loss, damage or injury attributable to the emergency. In particular, the following information is required:

- a) Times of reports or orders being given or received;
- b) Times when other authorities are informed of occurrences;
- c) Details of persons exposed to any hazard and doses received, if possible, in addition to their movements within affected areas;
- d) Decisions taken and the information on which these decisions were based;
- e) Weather conditions.

4.9 REGISTRATION OF PERSONS AFFECTED BY A NUCLEAR EMERGENCY

To provide evidence for possible claims for compensation many years after the occurrence of an emergency, members of the general public will be able to register the fact that they were in the affected area at the time of the OSNE. Details will be promulgated by the MOD when appropriate.

4.10 PROCEDURE FOR CLAIMS FOR INJURY, DAMAGE OR LOSS

The general arrangements which apply to the handling of claims and compensation in the event of injury or damage arising from a nuclear emergency are the responsibility of the MOD.

4.11 ARRANGEMENTS FOR OFF-SITE MITIGATION ACTION

The DEPZ is at least 1.5 kilometres from the emergency site. The population in the potentially affected area would be alerted immediately by Police Scotland issuing information statements through all media sources. Subsequent information and advice would also be issued through the media.

If an OSNE occurs and a radiation hazard is detected external to the submarine, it will, in the early stages, be extremely hazardous for personnel to approach close to the submarine.

However, intervention activities may be carried out by MOD personnel to mitigate the consequences of the radiation emergency or to help endangered persons and will be carried out under strict control measures. The progress of the emergency and the consequent size, if any, of the release to the atmosphere will be determined by radiation monitoring in the vicinity of the emergency site.

It may be some hours before radiation monitoring teams can gather sufficient information to make possible a realistic appreciation of the course of an emergency. It is imperative that there is some pre-determined plan to protect those who may be at risk in the period before definitive monitoring information becomes available.

United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate (UKHSA – RCE) is responsible for specifying **Emergency Reference Levels (ERLs)** of averted dose for the initiation of principal protective actions following an accidental release of

radionuclides and also for providing advice on radiological protection to those with responsibility for responding to an emergency. The UKHSA-RCE will also provide advice on long-term measures.

ERLs have been specified for the three emergency protective actions of **Sheltering, the administration of SITs and Evacuation**. They are specified as pairs of numbers and indicate the level of dose averted for which it would be reasonable to introduce the protective actions in different circumstances. For averted doses below the lower Emergency Reference Level, it is unlikely that the protective actions would be warranted. Above the upper level is almost certain that it should be implemented. Protective actions that could be implemented in the extremely early phase (**OSNE**) of an emergency include:

a) SHELTERING

Staying indoors with doors and windows shut. Close any ventilation systems.

b) STABLE IODINE TABLETS

If SITs are taken within a few hours of the inhalation of radioactive iodine, the vast excess of stable iodine will substantially reduce the radiation dose to the thyroid gland. SITs have been pre-distributed to addresses within the DEPZ. Additional SITs will be held by MOD at the Oil Fuel Depot.

c) EVACUATION

Protects predominantly against radiation from fission products deposited on the ground.

UKHSA-RCE considers that emergency protective actions should be carried out promptly. Other protective actions, such as decontamination of buildings, are not so urgent; how quickly they are carried out, if at all, will depend on the exact circumstances of the emergency.

Warning and informing arrangements for the public within the DEPZ are detailed in section 9.

Initial warning and informing statements are in sections 9.5

4.12 RECOMMENDED EMERGENCY REFERENCE LEVELS OF DOSE

The MOD requires that Site Specific Intervention Levels are calculated and used for each relevant site. The Site-Specific Intervention levels, for Scottish MOD Berths, are based on the lower UKHSA-RCE Emergency Reference Level, which are detailed below.

The implementation of emergency protective actions will be in accordance with the arrangements detailed in the following table.

Protective Action	Effective dose or organ dose	Averted dose (mSv) ^a	
		Lower	Upper
Sheltering	Effective	3	30
Evacuation	Effective	30	300
Stable Iodine	Thyroid ^b	30	100
^a In recognition of their higher cancer risk, the doses are those potentially averted in young children			
^b mSv equivalent dose to the thyroid			

Source PHE CRCE 049

4.13 PROTECTION OF THE PUBLIC – DEPZ

This refers to an area extending to at least 1.5km downwind of the emergency site. In the main, the protective actions required here are less immediate than those to be taken within the 400-metre zone.

It is the policy of NHS Highland that SITs are pre-distributed to the public living in the DEPZ. Further instructions from the Director of Public Health Medicine will be promulgated during the course of the emergency. The arrangements to carry this out are in place.

Due to the small population and local geography, the public protection measures will be applied for the entire DEPZ. Anyone living or working within the DEPZ will be advised to take shelter by remaining indoors with doors and windows closed, and shut off ventilation systems, until monitoring results have confirmed the extent of any release of radioactive material. A Public Information leaflet 'What to do in a Radiation Emergency' has been routinely issued to all households in the DEPZ and it details actions the public should take.

4.14 PROTECTION OF RESPONDING AGENCIES

Police Scotland have determined that **no member of staff will receive a dose above 1mSv**. All staff will therefore be subject to specific procedures as required by Strategic, Tactical and Operational orders.

In order to maintain compliance with REPIR Reg 18 Emergency Exposures and Reg 20 Reference Levels dose limits are summarised in this Plan:

Scottish Fire and Rescue Service's limits are determined within UK FRS Generic Risk Assessment 5.5 – Incident involving radiation. Firefighters attending a radiation incident 20 mSv. Emergency exposure up to 100 mSv for the purposes of saving life. Authorised by SFRS Strategic commander, following consultation with the SFRS RPA.

Scottish Ambulance Service,

- Reference level 1 - 1mSv
- Reference level 2 - up to 5mSv / per event
- Reference level 3 - up to 100mSv for an informed volunteer (which SORT staff are considered informed) to aid in an entrapment, or other prolonged intervention.

Protection of staff from responding agencies will be subject to their agencies radiological protection advisor.

4.15 FOOD SAFETY ADVICE

- Radiological Incidents in the UK will be led by the Food Standards Agency (FSA). Where appropriate in Scotland, Food Standards Scotland (FSS) will lead the Scottish Government's response on food/feed safety issues. FSS will attend the relevant Strategic Co-ordination Centre (SCC) in Scotland and link into the Scottish Government Resilience Room (SGoRR). FSA will link into COBR
- FSA will provide radiological modelling and technical advice which considers the long-term effects of ingesting radioactive contamination. FSS will assess the impact on the food/feed chain and provide precautionary advice and any necessary protective measures to businesses and consumers.
- The UK Health Security Agency (UKHSA) will co-ordinate monitoring effort including both sampling and analysis for the assessment of the impact on the human food chain together with other monitoring programmes e.g., for the environment. FSA will co-ordinate the production of radiological food monitoring data/reports and provide to FSS,

SEPA and UKHSA. FSA will provide up to date risk assessment advice to FSS who will work closely with SEPA, UKHSA, Local Authority Environmental Health/Trading Standards teams, Scottish Government (SG) including the SG Legal Department (SGLD), SG Animal Health and Welfare Division (SG-AHWD), SG Rural Payments and Inspections Division (SG- RPID), Marine Scotland and others to ensure that food controls are put in place.

- FSS will liaise with FSA to input into the appropriate monitoring programme for assessment of the impact on human foodstuffs.
- FSS will provide advice on food contamination issues to the Strategic Co-ordinating Group (SCG), Scientific and Technical Advice Cell (STAC) and Recovery Working Group (RWG) within the SCC and responder organisations. FSA will liaise directly with the Scientific Advisory Group for Emergencies (SAGE).
- FSS may advise Scottish Ministers to issue statutory food restriction orders under the Food and Environment Protection Act 1985 (FEPA), to restrict the supply, movement or sale of produce from the affected area. This is to ensure that contaminated food, which may pose a risk to human health, does not enter the food chain. FSS will liaise with SGLD, SG Agriculture Food and Rural Communities (AFRC) Directorate and Local Authorities to develop the FEPA, which once in place, is enforced by Local Authority enforcement officers or Marine Scotland if the affected area is offshore out with the Local Authority's jurisdiction.
- SEPA will provide advice to ensure contaminated foodstuffs are disposed of appropriately in accordance with the best advice available e.g., UK Recovery Handbooks for Radiation Incidents. SEPA is responsible for developing advice for multi-agency responders regarding disposal routes and availability.

Livestock and Animal Health

- In Implementing food safety advice and controls, animal welfare issues must also be considered. For example, it may be possible to shelter animals and switch off ventilation to reduce exposure to contamination, but this may not be suitable for prolonged periods. Therefore, for animal welfare reasons it may be appropriate to allow some exposure to radioactivity even where this means the animals will no longer be suitable for food production. This may be a decision for STAC and the SCG within the SCC in conjunction with FSS, SG-AHWD and the Animal and Plant Health Agency. (APHA).
- SG-AHWD will provide advice and support activity to minimise the impact of the radiological contamination of livestock
- SG-AHWD's policy responsibilities include the health and welfare of livestock, working, companion and zoo animals.
- FSS, following liaison with FSA and SG-AHWD, will consider the need for advisory and statutory controls on livestock movements on the basis of food safety and AHWD will consider the need for similar measures on the basis of welfare. If restrictions are required, FSS will share food risk assessments with SG-AHWD to inform animal welfare decisions.
- SG Agricultural & Rural Directorate (AR Directorate) will co-ordinate communication with farms on the movement of livestock.
- SG-AR Directorate will provide guidance to STAC / farmers on the milking of cattle.
- SG-RPID will be available to offer on the ground local agricultural knowledge to FSS as required.
- Local Authority Environmental Health / Trading Standards enforcement teams will

provide information regarding locations of food businesses and farms in the vicinity, as required.

- APHA will undertake some of the practical work on SG's behalf, such as providing local veterinary advice where appropriate.
- The Strategic team and STAC within the SCC, in conjunction with FSS, SG, Local Authorities and APHA will take decisions on matters such as the need for evacuation of animals, the housing of evacuated animals, particularly companion animals, and movement restrictions.

Milk

- For milk consumption, FSA in liaison with FSS will undertake a risk assessment to decide if restrictions on the supply of milk are required.
- FSS will work with Local Authorities to enforce any restrictions as required and make arrangements for the monitoring and analysis of milk from affected farms.
- SEPA will provide advice to the STAC on the potential disposal of any affected milk. Local responders at STAC may need to agree the options for the disposal of milk and this may need to be escalated to SAGE if disposal cannot be managed locally.
- SG-AR Directorate will provide guidance to STAC / farmers on the milking of cattle.
- SG Rural Payments and Inspections Division maintains record of dairy farms in Scotland.

Fish/Shellfish

- FSA will carry out a risk assessment to determine if shellfish harvesting restrictions are required. FSS hold details of the various shellfish harvesting sites around Scotland. SEPA and Marine Scotland can provide advice and information on freshwater fisheries, aquaculture, seaweed/algae harvesting etc.
- FSS will liaise with Marine Scotland should sea fish be affected by the nuclear radiological emergency.
- FSS will liaise with Local Authorities, SEPA and Marine Scotland who hold details of approved fishery establishments.

Water The Drinking Water Quality Regulator for Scotland is responsible for ensuring that water supplies are safe to drink, and will work with stakeholders such as Scottish Water, local authorities and health boards to co-ordinate work to preserve safe public and private drinking water supplies and provide consistent advice to consumers in accordance with the UK Recovery Handbook for Radiation Incidents – Drinking Water Supplies.

Scottish Water will issue advice to domestic customers, licence providers and where appropriate direct to business customers, on the public drinking water supply having agreed the key messages to be communicated with the relevant stakeholders including the local authorities and health boards in the areas affected.

Scottish water will, in conjunction with SEPA, HPS, UKHSA-RCE and other key stakeholders undertake a programme of sampling to monitor for impacts on the public water supply.

FSS, following liaison with FSA, will provide advice on bottled water products and use of water in food production.

4.16 PUBLIC WATER SUPPLIES

Though the potential for impacts on the public water supply are likely to be low, where required, to ensure public safety, and provide re-assurance to the public, sampling of the public water supply may be undertaken. This will be co-ordinated by Scottish Water with the support of relevant agencies including SEPA. A team from the Defence Science and Technology

Laboratory (DSTL) will also be available to assist in this task.

4.17 PRIVATE WATER SUPPLIES

In some properties, which are not connected to the public water supply, water is drawn from private wells, natural springs or other ground water and, therefore, there may be a **risk of this water being contaminated**. For this reason, a restriction on the use of water from private water supplies in the area may have to be considered. **The Highland Council Environmental Health** will carry out sampling but the responsibility for **recommending any restrictions** lies with the **Director of Public Health Medicine**.

The DSTL team will analyse and report on samples as to whether private water supplies are safe to drink. When water restrictions are in place, Scottish Water and The Highland Council will jointly review temporary alternative water supplies, these will be provided by Scottish Water. Lifting of restrictions will be after agreement of the Director of Public Health Medicine. Highland Council Environmental Health maintains a list of private water supplies in the council area.

4.18 EVACUATION / RELOCATION

It is unlikely that the immediate evacuation/relocation of members of the civilian population will become necessary. However, should the civil authorities, acting on advice from the multi-agency STAC at the SCC consider it desirable; the police will put evacuation procedures into operation.

It is anticipated that in such extreme circumstances the period of evacuation might be prolonged, therefore, the local authority will make arrangements for **Emergency Support Centres** to be opened. **School children** evacuated during school hours will be cared for by the local authority until released into the care of a parent/guardian.

It may also be necessary in the interests of public safety to **restrict access to contaminated areas**. All necessary actions will be co-ordinated by Police Scotland, MOD and the Local Authority.

It has been recognised that, in the event of a radiation emergency, some members of the public will **self-evacuate** immediately ignoring the official advice to shelter. If possible, those people will be catered for in designated emergency support centres.

There may be a need to evacuate the submarine crew temporarily to an Emergency Support Centre. NHS Highland and the Highland Council will work with the MOD in the identification and opening of a suitable premise.

4.19 FURTHER DOWNWIND PRECAUTIONS

Milk Supplies – see 4.15 above

The Food Standards Agency will carry out risk assessment to define the precise affected area. **Food Standards Scotland** will advise of necessary restrictions after consultation with the Naval Authorities, the representatives of the Scottish Government and the NHS Board.

The Local Authority will be informed of the area affected in order to enable it to give advice on behalf of **Food Standards Scotland** on matters affecting the consumption of foodstuffs produced in the area. The Local Authority is responsible for maintaining an up-to-date list of all dairy farms within 10km of the nuclear submarine berth in the Loch Ewe.

4.20 EXTENDING THE AREA FOR PROTECTIVE ACTIONS

The SCG will continually assess the requirements for all protective actions. This may require

consideration of an extension of the area to ensure maximum protection and reassurance.

4.21 BASIS FOR LIFTING (REMOVING) PROTECTIVE ACTIONS

Protective actions will not be lifted until the SCG, advised by specialist agencies such as UKHSA-RCE, is convinced that the risk to the public is less than if the protective actions were to remain in force.

SECTION 5 - ROLES AND RESPONSIBILITIES OF KEY AGENCIES

Objectives for a combined response with other services

Each responding agency has specific roles and responsibilities. However, they all share the same generic objectives to:

- Protect human life, property and the environment.
- Minimise the harmful effects of the emergency.
- Promote a swift return to a normal life.
- Maintain normal services at an appropriate level.
- Provide mutual support and co-operation between responders.
- Support the local community and its part in recovery.
- Manage an effective and co-ordinated joint response.

Strategic intent – Joint Agency Gold Command

Irrespective of the particular individual responsibilities of organisations and agencies, the strategic priority is to ensure co-ordinated, effective, multi-agency activity to:

- Save, preserve and protect life.
- Inform and advise the public and maintain public confidence.
- Prevent, deter and detect crime.
- Assist an early return to a new normality.

Responsibilities of the other Emergency Services

Procedures and arrangements for the effective co-ordination at the scene of a major incident can be found in the Scottish Government document - Preparing Scotland.

5.1 MINISTRY OF DEFENCE (ROYAL NAVY)

The Commanding Officer of a nuclear vessel is responsible for reactor safety at all times, and in the unlikely event of a reactor emergency he would assume the role of Incident Commander (IC) until the designated Ashore Incident Commander stands up who is supported by the MOD Collocated Team and the Nuclear Emergency Back-up Support Team.

The MOD collocated team supports the IC onsite and consists of specialists including Health Physicists, a Royal Navy Fleet Technical Adviser, a Nuclear Emergency Monitoring Team and MOD Police, more info on which can be found in the MOD Operators On-Site Emergency Plan.

The role of the MOD collocated team is to carry out the Operators On-Site Emergency Plan for the berth and to support and advise all civilian authorities at the site and to ensure reports are forwarded to the Strategic Co-ordinating Centre and Tactical Centre, Inverness, HMNB Clyde and the MOD Defence Nuclear Emergency Organisation Headquarters (HQ DNEO). The team will be supplemented by Ships Company who will provide support to the EZRC and also administration support to the collocated team.

The MOD co-located staff will work jointly with, and provide specialist support to, Local Authority and Emergency Services in the local area, Tactical Control and at the Strategic Control Centre (SCC).

A Nuclear Emergency Monitoring Organisation is maintained within the Ministry of Defence (Royal Navy). Part of this Organisation is the Nuclear Emergency Monitoring Team (North) - NEMT(N) - which consists of Monitoring Units from within the HM Naval Base, Clyde.

The NEMT (N) will deploy a monitoring team and equipment as part of the collocated team to cover the duration of a NPW visit to the OPA jetty. This team will provide a 24-hour Emergency Monitoring Unit, which is able to determine the extent and hazard arising from an abnormal release of radioactivity, which may occur in the event of a nuclear reactor incident.

Should a nuclear reactor emergency occur at a berth where no full-scale Naval Command exists, it is MOD policy that a Senior Naval Officer accompanied by **specialist** staff should proceed to the designated Strategic Coordination Centre as quickly as possible to become the MOD Co-ordinating Authority (MCA). This Senior Officer and the support team will assist in controlling the emergency situation and advise the Civil Authorities on any radiological hazards affecting the general public. This team is known as the Nuclear Emergency Back-up Support Team (NEBUST). The NEBUST is headed by the MCA and consists of specialists including a Health Physicist, Royal Navy Fleet Technical Adviser and Public Relations Officer, more info on which can be found in the MOD Operators On-Site Emergency Plan.

5.2 POLICE SCOTLAND

Responding to emergencies is a normal feature of the work of the police service. The normal role and responsibilities of the police encompass the protection of life and property. Police Scotland is also responsible in the emergency phase of response to any major incident for the control and co-ordination of the emergency services and other agencies.

In responding to an incident at an Operational Berth, Police Scotland and responding agencies have common response objectives. These are:

- Protect life, property and the environment
- Minimise the harmful effects of the emergency
- Promote a swift return to normal life
- Maintain normal services at an appropriate level
- Provide mutual support and co-operation between responders
- Support the local community to recover and its part in recovery
- Participate in an effective and co-ordinated joint response

Thereafter the police have specific responsibilities which can be summarised as follows:

- Co-ordinate the activities of local responders and others acting in support at the scene of an incident, except when HM Coastguard co-ordinate search and rescue in a maritime incident.
- Treat the affected area as a crime scene, in parallel to the general response, unless it is obvious that the emergency is caused by a natural event.
- Act under the direction of the Procurator Fiscal, where appropriate, facilitate the inquiries carried out by bodies such as the Health and Safety Executive, Rail, Air or Marine Accident Investigation branches of the Department for Transport and the Police Information & Review Commissioner (PIRC).
- Process casualty information, including the identification of deceased and removal of the dead, on behalf of the Procurator Fiscal.

5.3 THE HIGHLAND COUNCIL

In responding to an emergency, the principal aims of The Highland Council are to:

- a. Provide assistance to the full-time emergency services;
- b. Ensure the speedy restoration of any normal services which may have been disrupted or destroyed;
- c. Provide professional and technical advice, personnel, transport, equipment, use of premises and any other material or resources which might be required during an emergency;
- d. Co-ordinate the situation when the full-time emergency services have completed their phase of the emergency response;
- e. Enable the Council to continue to deliver appropriate services during any emergency response;
- f. To comply with the requirements of the Civil Contingencies Act (2004) and its accompanying Regulations.

5.4 SCOTTISH FIRE AND RESCUE SERVICE

Responding to emergencies is a normal feature of the work of the Scottish Fire and Rescue Service. The normal roles and responsibilities of the Scottish Fire and Rescue Service are derived from its long experience in firefighting and rescue operations and encompass the saving of life and the protection of property.

In responding to an incident involving a nuclear-powered submarine berthed at an Operational Berth, the Scottish Fire and Rescue Service's responsibilities may be summarised as follows:

- (a) Liaison with co-located MOD personnel to develop a strategy to prevent the further escalation of the incident by tackling fires, dealing with released chemicals and other hazardous situations;
- (b) The rescue of trapped casualties;
- (c) Liaison with the Medical Incident Officer and other medical services with regard to the provision of assistance at ambulance loading points and the priority evacuation of injured persons;
- (d) Participation in investigations as appropriate and preparing reports and evidence for inquiries;
- (e) Stand-by if necessary, during the non-emergency recovery phase to ensure continued safety at and around the site.

5.5 SCOTTISH AMBULANCE SERVICE

The roles and responsibilities of the Service at a Major Incident do not differ to that of any other incident. They are:

- Save life and provide immediate care for patients at the scene of the incident and in transit to hospital.
- Alert Hospital Services and other relevant NHS agencies.
- Manage clinical decontamination for people affected by hazardous substances prior to their evacuation from the scene.

- Evacuate, where practicable, the injured from the scene in order of medical priority.
- Arrange and ensure the most appropriate transport for the injured to the receiving hospital(s).
- Supply patient care equipment to the scene of a Major Incident.
- Transport essential medical staff and their equipment to the scene.
- Alert the British Red Cross, St Andrew's Ambulance Association, and other approved voluntary organisations, and coordinate their work in support of the Service.
- Provide and maintain communications equipment for key medical staff and voluntary organisations at the scene.
- Restore the Service to normality including the requirement to maintain the continuity of core functions.

5.6 MARITIME AND COASTGUARD AGENCY (HM COASTGUARD)

The Maritime and Coastguard Agency is an Executive Agency of the Department of the Environment, Transport and Regions.

The Maritime and Coastguard Agency is responsible for:

- Minimising loss of life amongst seafarers and coastal users.
- Responding to maritime emergencies 24 hours a day.
- Developing, promoting and enforcing high standards of marine safety.

Minimising the risk of pollution of the marine environment from ships and, where pollution occurs, minimising the impact on UK interests.

5.7 NHS Highland

The normal work of the Health Board encompasses primary and acute health care and the protection of public health. Emergency arrangements have been made by the Board to deal with the treatment of large numbers of casualties, public health incidents and the treatment of casualties contaminated with radiation or toxic materials.

In responding to an incident at an Operational Berth, the Health Board responsibilities may be summarised as follows:

- a) The care of casualties and those affected by the incident.
- b) The operation and use of the decontamination facility at Raigmore Hospital, Inverness.
- c) The provision of public health advice via the STAC to those managing the response.
- d) The provision of a Medical Incident Officer and Site Medical Team when required.
- e) The provision of psychological support of victims and those responding to the incident.
- f) The staffing of radiation screening units if established.
- g) The implementation and control of radiation protection procedures for medical staff and casualties.

5.8 THE SCOTTISH ENVIRONMENT PROTECTION AGENCY

- SEPA is the public body responsible for environmental protection in Scotland and has powers to prevent, minimise or reduce pollution of the environment and take action in accordance with environmental legislation.
- As a Category 1 responder in the terms of the Civil Contingencies Act 2004, SEPA will co-operate with other responder organisations in supporting the response to, and recovery from, any incident or emergency.
- SEPA is responsible for the regulation of the Environmental Authorisations (Scotland) Regulations 2018. Under the Regulations SEPA is responsible for the authorisation of radioactive discharges and disposals from the site.
- SEPA will formally investigate an emergency on the site (working jointly with ONR as appropriate).
- SEPA maintains an independent monitoring regime for radioactivity in the environment around the site and following an incident may instigate environmental sampling and monitoring in support of its regulatory function. SEPA will also provide advice on any necessary mitigation and recovery measures.
- SEPA also has a regulatory role on the site in terms of The Waste Management Licensing Regulations 1994 and will provide advice on waste management issues. SEPA will regulate the disposal of any radioactive wastes and other wastes arising as a result of an incident and, if appropriate, will provide advice on the development and delivery of a decontamination strategy.
- SEPA also has regulatory roles on the site in terms of The Water Environment (Controlled Activities) (Scotland) Regulations 2005, The Pollution Prevention and Control (Scotland) Regulations 2000 and associated legislation.
- SEPA maintains and operates the RREMS system in Scotland and will ensure that SEPA's monitoring data is added to the RREMS system.

5.9 SCOTTISH GOVERNMENT

The MOD will act as lead government department on a UK basis; however, the Scottish Government will play a key role in supporting the response at any Scottish nuclear site, with off-site consequence management planning, response and recovery devolved to Scottish Government. Devolved elements will be co-ordinated by SGoRR. The role of SGoRR will vary depending on the nature of the emergency, in broad terms, it will:

- brief Scottish Ministers
- act as the focal point for communication between the Scottish Government and the responder agencies
- co-ordinate and support the activity of SG Directorates
- consider the need for emergency regulations to be requested
- collate and maintain a strategic picture of the emergency response, with a particular focus on consequence management issues

- ensure effective communication between local, Scottish and UK levels, including the co-ordination of reports on the response and recovery effort
- support the response and recovery efforts as appropriate
- ensure effective liaison with UK Government Departments including MoD and COBR.

Both MOD and Scottish Government will work closely together.

Note: In the event of a terrorist attack on a nuclear asset/site, the Home Office will be appointed LGD during the Counter-Terrorism phase

5.10 FOOD STANDARDS SCOTLAND

The Food Standards Agency (FSA) is responsible for food safety in England, Wales and Northern Ireland. Food Standards Scotland (FSS), which was established on 1 April 2015, is responsible for food safety in Scotland. FSS's role is to help protect the public from risks to health in relation to food and feed.

In the event of a radiological emergency in the UK (including those in or affecting Scotland), the food safety incident response will be led by the FSA unless it is mutually agreed that FSS will take over the lead. FSS will provide the on-site response in Scotland and the FSA will provide the appropriate modelling. The FSA and FSS will collaborate closely, maintain compatible incident management plans and ensure effective communication throughout the emergency. In the event of an emergency, FSS will lead the Scottish Government's response on food/feed safety issues, assess the impact of the emergency on the food/feed chain and implement any necessary protective measures.

Specific responsibilities are: -

- To liaise with relevant partners to determine the level of any contamination in the food and feed chain
- To take action to ensure that food contaminated to unacceptable levels does not enter the food and feed chain
- To liaise with relevant partners, as necessary, to implement restriction orders under the Food and Environment Protection Act 1985 to restrict the supply, movement or sale of produce from the affected area.
- To provide support, advice, information and guidance to local authorities, businesses and the public on the implications for food and feed.
- To provide support and advice to the Scottish Government & partners dealing with the emergency.
- To ensure that subsequent recovery arrangements take account of food and food safety issues.

5.11 United Kingdom Health Security Agency – Radiation, Chemical & Environmental Hazards Directorate (UKHSA-RCE)

In the event of a Nuclear emergency, UKHSA-RCE's role and responsibilities are summarised as follows:

- Advise the STAC, RWG, TCG and SCG on radiological protection issues and protective actions to protect the public in both the emergency and recovery phases.
- Assess the radiological impact of the incident to the public.
- Provide support to NHS Highland in activities to monitor members of the public for Radioactive contamination and radiation exposure.

- Support SEPA in its environmental monitoring role.
- Through UKHSA-RCE's Monitoring Co-ordination Team at its Chilton Emergency Operations Centre co-ordinate off-site monitoring beyond the site's responsibilities using monitoring resources that are made available to it by other organisations.
- Provide public information on radiation, its effects and the radiological impact of the incident within the context of this plan and in co-operation with the SCC and MBC and within frameworks set out in Dealing with Disasters Together and the National Nuclear Emergency Planning and Response Guidance.

5.12 OFFICE FOR NUCLEAR REGULATION (ONR)

During an off-site emergency at a nuclear site, ONR will set up the Redgrave Court Incident Suite (RCIS) at the offices in Bootle. The RCIS functions as a centre for the collation of information, the interpretation of that information, and the discussion and determination of ONR's independent advice and regulatory decisions. The RCIS exchanges information and provides advice via its deployed away teams at the Strategic Coordination Centre (SCC) and central/devolved government.

The main duties of the ONR SCC team are to:

- Support and provide relevant advice to organisations involved in the emergency response at the SCC.
- Attend the Strategic Coordination Group (SCG) meetings at the SCC.
- Attend the Scientific and Technical Advice Cell (STAC) at the SCC.
- Maintain and exchange information with ONR's Redgrave Court Incident Suite (RCIS).

The ONR SCC team may comprise the following roles:

- ONR SCC Lead Inspector - Coordinates the activities of the ONR SCC team. Attends and provides relevant advice at the SCG.
- ONR SCC Specialist Inspector - Provides specialist technical support to the ONR SCC team and deputises for the ONR SCC Lead Inspector.
- ONR SCC Radiological Protection Inspector - Attends and provides relevant advice at the STAC.
- ONR SCC Support - Provides administrative support and communication with the RCIS.

5.13 SCOTTISH WATER

In responding to an incident at Loch Ewe, Scottish Water responsibilities may be summarised as follows:

With respect to the public water supply Scottish Water shall:

- Ensure that risks to Scottish Water staff / contractors working on the public water supply are adequately controlled;
- Assess the risk to public health of any of contamination to the public water supply (including raw water sources);
- Any Emergency response monitoring arrangements required will be agreed with the STAC. Any impact on statutory sampling of public and private water supplies will be agreed with the Drinking Water Quality Regulator (DWQR) for Scotland.
- Arrange and co-ordinate the sampling and analysis of public water supplies in conjunction with SEPA and other stakeholders;
- Collate information on the level and nature of any contamination of public water supplies including raw water sources;

- Asses the risk to public health from contaminated water supplies in conjunction with the relevant NHS Board(s) and Health Protection Scotland (HPS) as a result of any contamination;
- Ensure that the DWQR and other relevant stakeholders including the Critical Infrastructure Resilience Unit (CIRU) and Water Industry Division within Scottish Government, are kept informed / consulted as required of any impacts identified and direction or guidance issued by the STAC or DWQR.;
- Take any measures to minimise the risk to public health from contaminated water supplies;
- Provide advice to Customers and Licence providers on public water supplies in accordance with the Public Health Guidance issued;
- In coordination and agreement with SEPA, HPS and other stakeholders take the required measures to minimise risks to the public water infrastructure, staff, contractors, the public and other third parties including the environment of any contamination of the public water supply or infrastructure;
- Where there is a disruption to the public water supply, Scottish Water will, where practicable and with the support of Police Scotland and other relevant stakeholders arrange for the provision of alternative supplies of drinking water to impacted customers;
- In consultation and agreement with SEPA, HPS and other stakeholders take the required measures to decontaminate and recover contaminated public water infrastructure and dispose of contaminated waters;

With respect to the public wastewater (sewerage) system Scottish Water shall:

- Ensure that risks to Scottish Water staff / contractors working on the wastewater system are adequately controlled.
- Assess the risk of contamination to the wastewater system;
- Collate information on the level and nature of any contamination of the wastewater system;
- Assess the risks to staff, contractors, the public and other third parties including the environment of any contamination of the wastewater system;
- Ensure that relevant stakeholders including the Critical Infrastructure Resilience Unit (CIRU) and Water Industry Division within Scottish Government, are kept informed / consulted as required of any impacts identified and direction or guidance issued by the STAC;
- In co-ordination and agreement with SEPA, HPS and other stakeholders take the required measures to minimise risks to the wastewater infrastructure, staff, contractors, the public and other parties including the environment of any contamination of the wastewater system;
- Arrange and co-ordinate sampling and analysis of process, point discharges, sludge and other relevant environmental samples in conjunction with SEPA, HPS and other stakeholders;
- In consultation and agreement with SEPA, HPS and other stakeholders take the required measures to decontaminate and recover contaminated wastewater infrastructure and dispose of contaminated wastewater.

SECTION 6 – TRANSITION TO RECOVERY

6.1 TRANSITION CRITERIA

Prescribing the criteria necessary for initiation of the transition of Strategic Co-ordination to the Local Authority.

Purpose

The response to any nuclear reactor emergency will involve two clear phases of response:

- a) **the emergency phase** during which the actions of the incident responders will be determined by the chain of events and the situations arising from the release of radionuclides, secondary threats (explosion, fire, etc) and the need to protect the

public (shelter, food and water sources). This is led by the Chief Constable for Police Scotland.

- b) **The recovery phase** is the process of “returning to normality” after the emergency incident has ceased. This is led by the Chief Executive of The Highland Council.

These are not two distinct phases and the transition will happen gradually during the course of an emergency. The transition to the proactive phase of the response, the Recovery Phase, must itself be planned and prepared for. This work will commence during the emergency phase where the Recovery Working Group will be tasked with the remit of identifying the nature and extent of off-site contamination arising from the emergency as well as strategies and options for the protection of the communities affected by the emergency and the return to “normality”. Please see Figure 1 below:

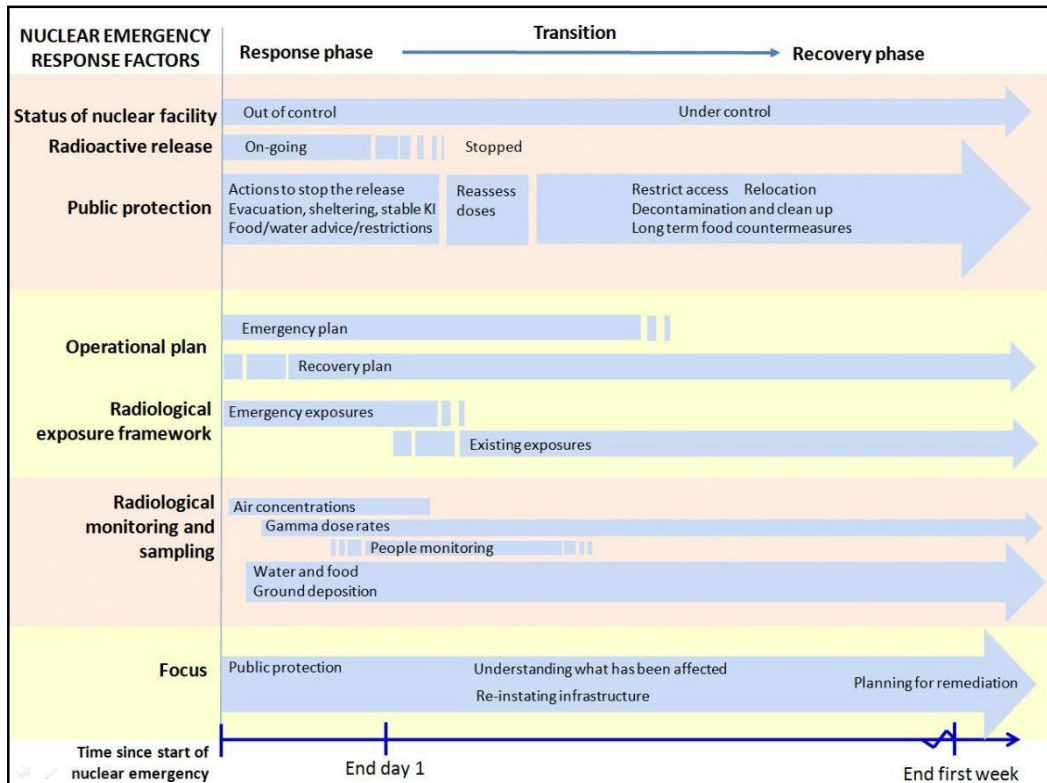


Figure 1

Transition arrangements from ‘Emergency’ to ‘Recovery’

The basis for any decision to handover to the local authority will relate to:

- i. The change in emphasis from reactive (responding) to proactive actions (planning),
- ii. The effectiveness of the off-site coordination,
- iii. The willingness of the Chief Constable to declare that the emergency phase is concluded; and
- iv. The preparedness of the local authority to accept the responsibility.

The following circumstances should prevail before the transition **can be considered appropriate**:

a. The reactor emergency has ceased

The reactor emergency is deemed to have ceased when:

- The reactor is stable;

- Emissions to all phases of the environment have ceased;
- There is no foreseeable risk of a further release of radionuclide material;
- The vessel is secured against movement and is not exposed to external hazards e.g. fire, explosion.

b. No significant issues remain unresolved from the Emergency Phase

No significant issues remain unresolved when:

- The SCC & TCC is firmly established in a pro-active mode, and is no longer having to react to external events;
- The management of outstanding matters is being progressed and managed effectively, the SCC & TCC having the necessary: -
 - i. Resources;
 - ii. Communications and “action logging” systems;
 - iii. Established media co-ordination arrangements.

c. Public safety measures are in place and working effectively

There is restricted public movement.

d. There is consensus support for the handover between the “Principals”

There is consensus support for the handover when: -

- The MOD Co-ordinating Authority and Local Authority Chief Executive support the decision of the Police Incident Commander to handover to the Local Authority;
- The Scottish Government supports the handover.

e. The Council is prepared and ready to accept the handover, and to adopt the role of SCC Co-ordinator

The proposal has been intimated at the preceding meeting of the SCC Strategic.

6.2 The Process

A formal handover will take place from the Police Strategic Incident Commander to the Local Authority Chief Executive. This signifies the formal transfer to the **Recovery phase**. At that time, the Chief Executive of The Highland Council will assume Chair of the LRP Strategic from the Senior Police Officer and will use the Standard meeting agenda (see Appendix 1).

APPENDIX 2 - STANDARD AGENDA - LRP STRATEGIC

STANDARD AGENDA FOR LRP - STRATEGIC ON TRANSFER TO RECOVERY PHASE OF INCIDENT

LRP - STRATEGIC

AGENDA

Time: _____ Date: _____

DRAFT PRESS RELEASES WILL BE DISTRIBUTED TO MEMBERS PRIOR TO MEETING

- | | | |
|----|--|---|
| 1 | Strategic Introduction | Chief Executive |
| 2 | Matters requiring urgent action/decisions | LRP - Strategic Members |
| 3 | Actions from previous meetings | CE Support Officer |
| 4 | Operational updates | LRP - Strategic Members |
| 5 | Review / formulation of: | |
| | • Emergency Response | Chair |
| | • Recovery Strategy | Local Authority (Chair RWG) |
| | • Public Health Advice | NHS Member |
| | • Media Strategy/Public Advice | Communications Manager–Highland Council |
| 6 | Review of consequence management issues | LRP - Strategic Members |
| 7 | Overall strategy (short, medium and long-term) | Chair |
| 8 | Agreed Media communications | All |
| 9 | Summary of actions allocated during meeting | CE Support Officer |
| 10 | Arrangements for next meeting | Chair |

This Standing Agenda is of a similar format to that used in the emergency phase when LRP Strategic is chaired by Strategic Commander – Police Scotland.

SECTION 7 - MEDIA RESPONSE

7.1 GENERAL

It is essential that all agencies develop a frank and open relationship with the media in order to lessen the likelihood of dissemination of inaccurate or misleading information that could lead to unnecessary public alarm. Police Scotland Media / Public Communications are responsible for the co-ordination of information to the media during the emergency phase of the incident, so will therefore be led by the Police Scotland Public Communication Manager. Some key aspects of this responsibility will be transferred to the local authority when the response moves into the recovery phase.

The above will be carried out in accordance with the NoSRRP Public Communications Plan.

7.2 MEDIA BRIEFING CENTRE

All local media activities in the event of a radiological emergency are conducted from the Media Briefing Centre located near to the SCC or virtually. Information supplied to the media is co-ordinated by the Media Cell in the SCC **and issued only after the agreement of the LRP Strategic Group.**

7.3 PRESS STATEMENTS

All initial announcements (made before the establishment of the SCC) should be confined to brief factual details that are aimed at public safety information (**See 9.5 Emergency Broadcast**).

It is important to get this out as soon as possible after the Cascade call out, if necessary, before the SCC is operational. Therefore, the Emergency Broadcast is prepared and agreed in advance and appears in this off-site plan for easy access.

Once the SCC is operational, any press statements should be issued only through the Media Cell to ensure that no conflicting information is being passed to the media.

To ensure co-ordination and continuity of information, the press officers from each agency should co-locate to the Media Cell which will be under the management of the Police Scotland Public Communications Manager.

A copy of the first agreed Press Release is printed in Section 9.5, page 67. This can also be used early on, before Tactical/Strategic groups meet.

7.4 PRESS CONFERENCE

Once the objectives and participants for the Press Conference have been agreed, a separate pre-meeting will be held of the participants in the press conference. This will be chaired by the Police Media and Information Manager and will run through the key points of each participant's statement thus ensuring the objectives are met.

7.5 MEDIA LIAISON OFFICER(S)

Police Media Liaison Officers may be appointed to co-ordinate media access to nominated vantage points near the site or at other locations.

SECTION 8 - WARNING AND INFORMING THE PUBLIC

8.1 WARNING THE PUBLIC

The local authority is responsible for providing, on a three-yearly basis, advice to residents who live within the 1.5km DEPZ on the actions they should take immediately they are made aware of a radiation emergency.

8.2 INFORMING THE PUBLIC

The duty to provide information to the public is that of the local authority under The Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPPIR). This duty can only be carried out with the support and co-operation of all the agencies responding to the emergency.

However, in the emergency phase of the incident, the **co-ordination of information** to the public will fall to Police Scotland Media and Information Services in line with the NoSRRP Public Communication Plan, with support from the Communication Managers from MOD and Local Authority. In the **recovery phase** some key roles in the co-ordination arrangements will be transferred to the local authority.

Information to the public will be disseminated through all the normal media channels, and in addition, **information points** may be established if considered necessary and agreed by the Strategic group. These are where people might visit to ask questions relating to the incident. Questions might relate to:

- a) Up to date information on the emergency situation;
- b) Safety of family and friends;
- c) Safety of food and water supplies;
- d) Compensation claims;
- e) Housing and property enquiries.

The most appropriate location for information points will be established at the time of the incident, but may be in local libraries, council offices or similar premises. The information made available to these information points will be provided by the Public Communications cell and resources to manage this will have to be identified in advance of set-up.

8.3 HELPLINE(S)

If any agency sets up its own telephone help line, they must maintain a close link with the Public Communications Group at the SCC to ensure clarity of information for callers. If a Helpline is to be set-up, this must be agreed by the Strategic group in order to ensure that the best use is made of the resource, for example, that information needs identified through questions asked are raised with the media and public communications cell, also to ensure that information is being disseminated through it.

8.4 WEBSITE INFORMATION

Information will also be made available by way of regular updates on The Highland Council, Police Scotland and MOD Websites.

8.5 EMERGENCY BROADCAST - REACTOR

The following statement should only be released after consultation with the Assistant Chief Constable (Operations) or the Duty Assistant Chief Constable and the Senior Police Press Officer.

POLICE SCOTLAND EMERGENCY BROADCAST

ONSE at Loch Ewe – Prepared Media Statement

Initial Statement 1:

On declaration of ONSE, Police Scotland will release the following statement:

'An incident occurred at (time, day and date) on board the Nuclear Submarine (HMS) which is currently berthed at the Oil Fuel Depot jetty at Loch Ewe. Emergency Services have been alerted and are currently responding. As a precaution we are advising members of the public within 1.5km of the site, including residents in (Aultbea / Mellon Charles as appropriate) to take shelter, the instructions for which are:

- Go indoors and stay there
- Close all doors, windows and ventilators
- Switch off any ventilation or air conditioning systems which draw air from outside the building
- Do not try to collect children from school, the school authorities will look after them
- Food that has been stored inside or is in sealed packaging is safe to consume. Please wait for further advice with regard to food which has been exposed outside. Water from private water supplies should not be consumed until advised otherwise
- People in the Aultbea area who have been issued with Stable Iodine Tablets (SITs) should locate these now but do not take them until further instructions are issued
- Roadblocks are being put in place on the A832 north and south of Aultbea to control access to the immediate area, people leaving the area will not be affected
- A telephone helpline, to provide advice and guidance for members of the public affected by this incident, is being set up by The Highland Council; the number to call will be broadcast as soon as possible.

Keep tuned to one of the following: Radio Scotland (92.4 – 94.7 FM or 810 MW), Radio NAN GalDHEAL (103.5 – 105.00 FM), Two LochsRadio (106 & 106.6 FM); or tune your television to STV or BBC Scotland; check Police Scotland Facebook and Twitter pages. An update will be given when further information becomes available.

Supplementary Statement 2:

Further press statements will be developed as part of the press strategy within the media cell at the SCC. Should the situation worsen, and Radiation Hazard is confirmed the following statement is to be considered for release:

“Further to the media release [insert time], on the advice of the Director of Public Health members of the public within 1.5km of the Oil Fuel Depot jetty at Loch Ewe, who have previously been issued with Stable Iodine Tablets (SITs) should now take them in accordance with the written instructions. Members of the public previously advised to do so should continue to remain indoors.”

Notes for Editors

(name) Police Scotland Media and Public Communications are on route to the Strategic Co-ordination Centre at Inverness where media facilities are being/have been established. Media representatives, who should bear some form of professional/company accreditation, are asked to rendezvous there.

Further information and advice regarding the incident will be given in due course, along with details of the telephone numbers.