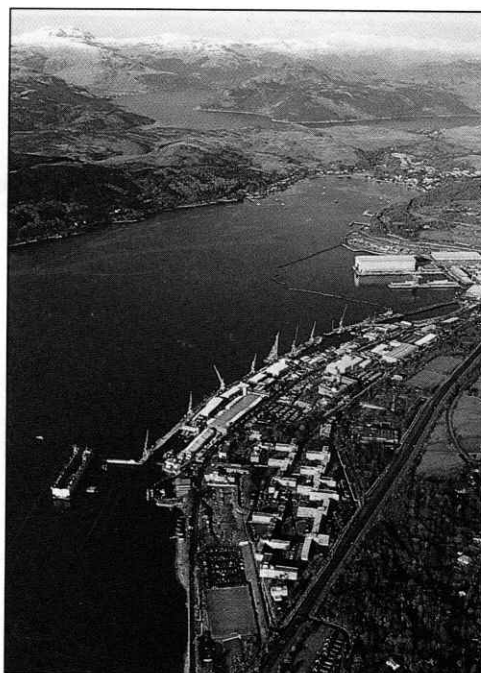


THIS IS A PUBLIC INFORMATION BOOKLET
prepared by
THE NAVAL BASE COMMANDER
CLYDE SUBMARINE BASE
for residents in the
RAHANE, MAMBEG, GARELOCHHEAD, FASLANE
and SHANDON AREAS



WHAT TO DO IN A RADIATION EMERGENCY

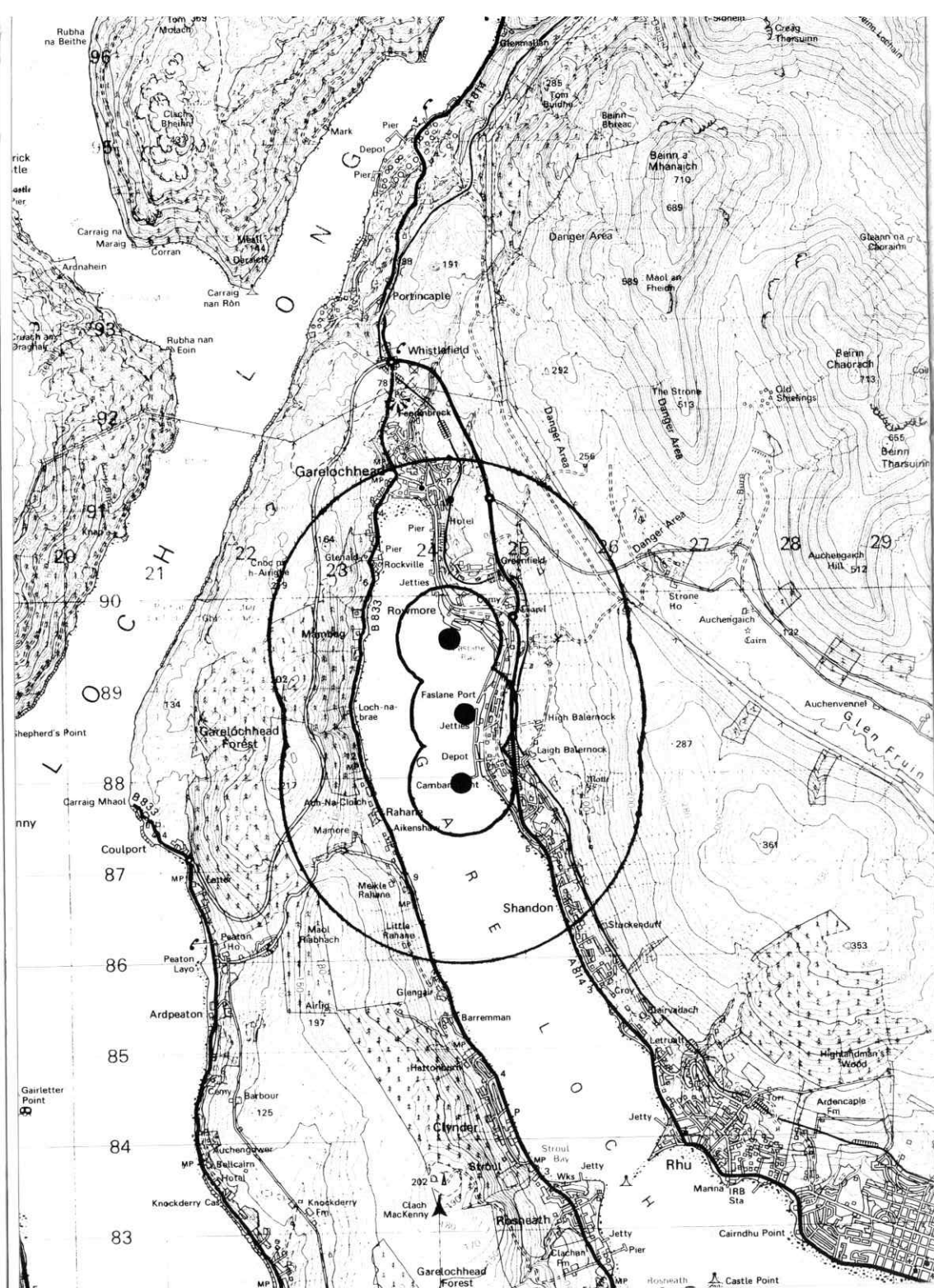
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INTRODUCTION

This guide has been prepared by the Ministry of Defence, in conjunction with Local Authorities, in the interests of the residents of the Rahane, Mambeg, Garelochhead, Faslane and Shandon neighbourhoods. The Government has recently introduced new regulations to inform members of the public who live in areas near nuclear sites of the existing measures planned to protect their health in the unlikely event of a radiation emergency. These regulations are called the Public Information for Radiation Emergencies Regulations 1992 (PIRER) and in this case the nuclear site near you is the Clyde Submarine Base. These pre-planned measures are very simple but it is recognised that co-operation by members of the public, based on prior understanding, will enhance their effectiveness. It is emphasised that this guide is produced purely in the interests of greater public information and not because of any increased risk from submarine operations.

Nuclear powered submarines of the Royal Navy are designed and operated to stringent standards of safety and have been operated without any form of nuclear accident for over 30 years. Whilst an accident to a submarine nuclear reactor is, by design, an extremely unlikely event, it is nevertheless Ministry of Defence policy that emergency procedures for the protection of the public should be available and exercised regularly. Contingency plans for a submarine reactor accident were established when the nuclear submarine programme began.

The contingency plan for your area, the Clyde Public Safety Scheme (CLYDEPUBSAFE), provides full details of the measures required to protect you in the extremely unlikely event of a reactor accident occurring. The possibility of an accident requiring people to take protective action beyond the

550 metres "Automatic Countermeasures Zone" from a submarine berth is most unlikely but, in accordance with National Policy, CLYDEPUBSAFE covers this remote possibility. CLYDEPUBSAFE describes a "Pre-planned Countermeasures (ie. health protection measures) Zone" in which 2 km is specified as the extent to which plans for the issue of stable iodine (potassium iodine) tablets should be made and, in light of Regulations, this leaflet is being supplied to members of the public whose residence or normal place of work is within that range of the Base. CLYDEPUBSAFE has been developed over the years in conjunction with your local Civil authorities. It is a public document which may be obtainable via your public library and which is regularly updated via a Local Liaison Committee comprised of representatives from the Civil authorities listed as Annex A.

As few individual members of the public will be familiar with CLYDEPUBSAFE, this leaflet is intended to provide a simple guide on the actions you may be advised to take in the extremely unlikely event of a reactor accident in your vicinity. You may wish to keep this guide for ease of reference. You will also find enclosed leaflets issued by the National Radiological Protection Board which give a general explanation of radiation and its effects and of national nuclear emergency arrangements.

In the map of the Faslane area contained in this publication it can be seen from the 550 metre range marker that very little of the area known as "Automatic Countermeasures Zone" lies beyond the perimeter fences of Faslane. The two kilometre range marker designates the area referred to above.

Many members of the public will have anxieties about nuclear reactors, perhaps through fear of the unknown.

A few words of explanation may therefore be helpful. Firstly, these propulsion plants are designed to be exceptionally safe and large numbers of responsible and thoroughly trained personnel not only safeguard them continuously but also actually live with them in their submarines. The reactor does no more than act as a source of heat to raise steam to drive conventional steam turbines. Under no circumstances could a nuclear submarine accident generate an atomic bomb type explosion.

In the unlikely event of an accident involving a nuclear submarine reactor, people at very close range could be affected by gamma rays (which are similar to x-rays), but this would have little effect beyond 550 metres from the hull. All radioactive material should, by design, be contained within the submarine hull. If circumstances did arise resulting in the escape of some of this material, which is mainly in the form of dust-like particles, it would only affect areas close to the submarine and in the downwind direction. In this case, the hazard to health would be from contamination by the radioactive particles. It is emphasised that there would be no immediate threat to life. Even if this extremely unlikely event were to occur, the risk to members of the public would be so low that pre-planned measures for public protection would only be justified if specific levels of radiation or radioactive contamination had been detected by specialist monitoring teams.

Specialist Naval monitoring teams, based at Rhu, are not only on constant standby in the Gareloch area to monitor for any abnormal radiation or radioactive contamination in the event of an accident but they also regularly monitor the local countryside to record the **normal** levels of natural radiation as a basis for identifying abnormal levels.

Residents who live close to the Base may have heard the nuclear accident alarm sirens which are regularly tested. In the event of a submarine accident occurring, these alarms would sound and automatic emergency procedures would commence immediately. The principal immediate action within the Submarine Base would be for all personnel to shelter indoors. The Naval Base Commander would also initiate immediate action to alert the local Civil authorities, in particular the Police, to the situation. Thereafter, the Naval Base Commander would act as adviser to the Civil authorities in matters of public safety. Although Naval and Civil authorities would be working together, public safety measures remain a Civil authority responsibility. If a hazard to the public is identified, the police in conjunction with Local Authorities, and other Civil agencies will, if necessary, set in motion the simple protective measures described overleaf. These may include shelter or evacuation, food and drink restrictions or distribution of Stable Iodine tablets.

WHAT YOU MAY BE ADVISED TO DO

If you are advised by the police of a nuclear emergency, you should remain calm and follow this advice promptly but without rushing:

1. SHELTER

- (a) The best thing to do is to go indoors and stay there. Do not go outside where there may be an airborne radiation hazard.
- (b) Close all doors and windows to minimise the risk of any possible contamination entering the building.
- (c) Switch off fans, close ventilators, and damp down or extinguish open fires to prevent any possible contamination being drawn into the house.
- (d) Keep domestic pets indoors (to prevent them from bringing possible contamination into the house).
- (e) Do not attempt to collect children from school. Their teachers and the police will ensure that they are looked after.

2. PLEASE DO NOT USE THE TELEPHONE

(Unless you need urgent help)

- (a) In any emergency situation the telephone system becomes overloaded.
- (b) If you must make a call, please be brief.

3. LISTEN TO YOUR LOCAL RADIO OR TELEVISION

If a genuine emergency has occurred, information and advice will be broadcast on your local radio and TV by official announcement. If possible, you should tune your radio to Radio Clyde (102.5 MHz FM or 1152 KHz AM), Radio Scotland (810 KHz AM) or your television to STV or BBC Scotland.

4. DO NOT LEAVE THE AREA

You will be much safer indoors. Please do not be tempted to evacuate the area unless told to do so by the police, in which case you should follow the advice given in paragraph 7 below. If you try to leave earlier you may block the roads for emergency services.

5. STABLE IODINE

If it is considered that there is any risk of you being affected by radioactive contamination Argyll and Clyde Health Board may advise you to take Stable Iodine (Potassium Iodate) tablets. Stocks of these tablets are held locally and will be issued if required. These tablets have the beneficial effect of helping the body to reject radioactive iodine which would be a constituent of any reactor accident contamination. The tablets are very small and the easiest way to take them is with a drink of some sort. They are unlikely to produce any side effects and will not interfere with any other medications. Detailed instructions, including those for infants, will be given to you on a leaflet accompanying the tablets.

6. FOOD AND DRINK

Food and drink in your house and tap water from public water supplies are most unlikely to be affected. Government agencies will provide advice to users of private water supplies and on consumption of other food-stuffs such as freshly grown vegetables. This advice will be broadcast on your local radio and television. Advice will also be given to farmers, fishermen and other food producers.

WHAT ABOUT EVACUATION ?

7. In the event of an accident, **sheltering indoors**, as described in paragraph 1 above is the correct action to take promptly. **There will be no immediate physical danger.** It is most unlikely that in the event of an accident it will be necessary to evacuate people from their homes and it is emphasised that the dangers arising from panic evacuation are likely to be significantly greater than any possible radiation hazards. However, should evacuation become necessary the police will be responsible for contacting the residents concerned. The Strathclyde Police hold details of residents inside the 'countermeasures zone'. You would be advised to use your own transport wherever possible but transport would be arranged by the police where necessary. You will be advised to take with you warm clothing and an overnight bag with toiletries and personal effects. Household pets may be taken with you although they will come to no harm if left behind. Make your property safe by switching off power supplies, locking doors and windows, etc.
8. The Local Authorities have contingency plans for feeding and accommodating people in areas liable to be affected. Families who may wish to stay with friends or relatives will be encouraged to do so but it is important that contact is made with the reception centre to which you are directed to allow the police to account for you. Special arrangements will be made by the police and Area Health Board for the care of the aged, sick and disabled. Arrangements will also be made to ensure that family members not present at the time of the evacuation eg. children at school, are reunited with their families.

9. RE-ENTRY TO EVACUATED SECTORS

Re-entry to any evacuated sectors during the emergency will normally be restricted by the police to persons having compelling reasons for doing so. Arrangements could be made, for example, for essential feeding of farm livestock.

10. END OF THE EMERGENCY

As the emergency eases, there may well be adjustments to these countermeasures until the point when the emergency is declared to be over. Members of the public will then be advised that special precautions are no longer required.

CLYDE AREA PUBLIC SAFETY SCHEME

COMPOSITION OF LOCAL LIAISON COMMITTEE REPRESENTATIVES

Strathclyde Regional Council	Officials 2 Elected Members 2
Principal Emergency Planning Officer	1
Strathclyde Police	2
Strathclyde Fire Brigade	1
Argyll and Bute District Council	2
Dumbarton District Council	2
Renfrew District Council	1
Inverclyde District Council	1
Cunninghame District Council	1
Kyle and Carrick District Council	1
Greater Glasgow Health Board	1
Argyll and Clyde Health Board	1
Ayrshire and Arran Health Board	1
The Department of Clinical Physics and Bio Engineering	1
The Scottish Office Home and Health Department	1
The Scottish Office Environment Department (HM Industrial Pollution Inspectorate for Scotland)	1
The Scottish Office Agriculture and Fisheries Department	4
The Clyde Port Authority	1
The Clyde River Purification Board	1
Scottish Nuclear Ltd, Hunterston	1
The Scottish Ambulance Service	1
UKAEA (Safety and Reliability Directorate)	1

NAVAL REPRESENTATIVES

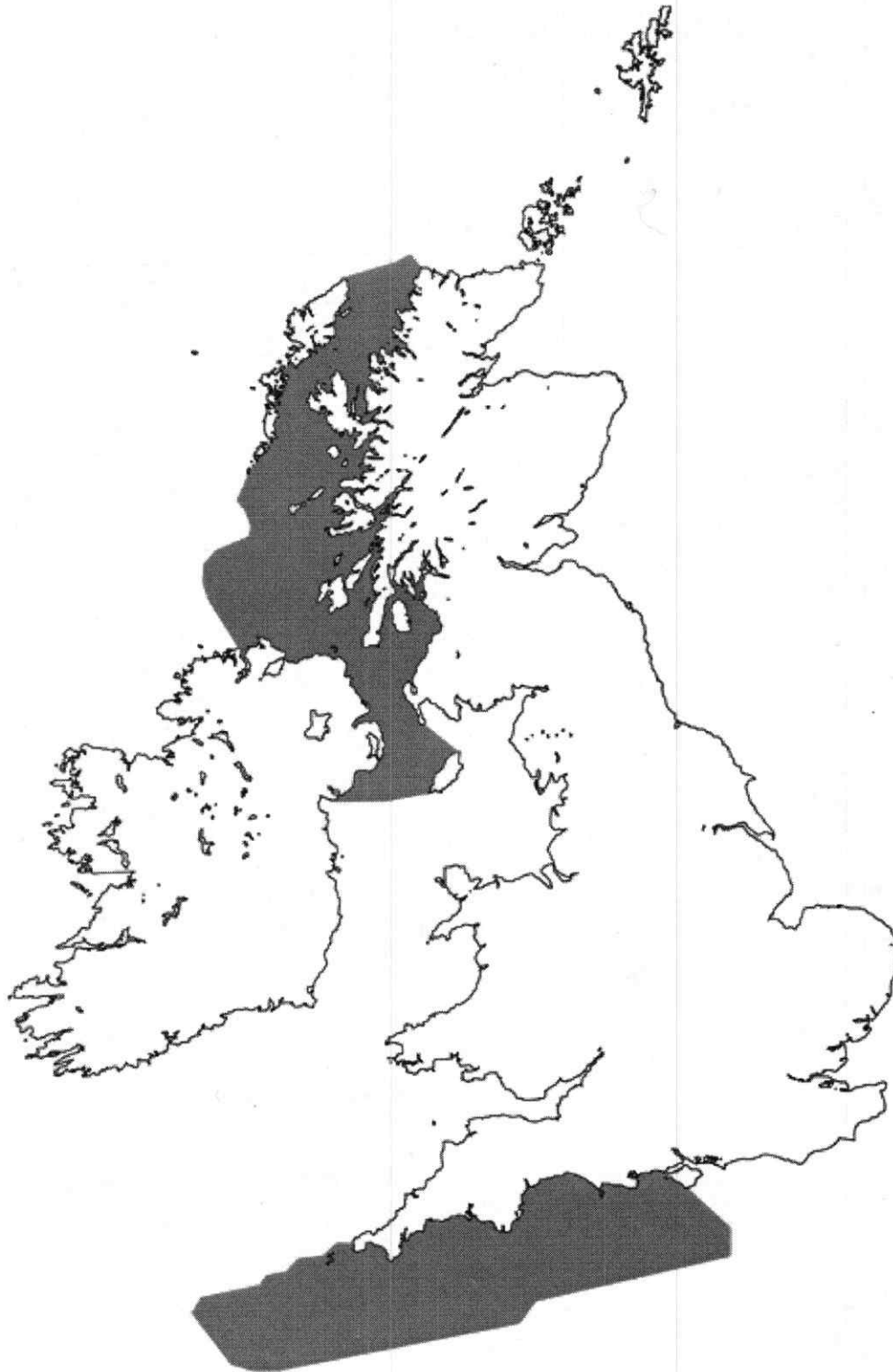
Commodore Clyde (Chairman)
Chief Staff Officer (Nuclear)
Superintendent Royal Naval Armament Depot, Coulport
Chairman Naval Nuclear Technical Safety Panel
Naval Medical Officer of Health for Scotland
Public Relations Officer (Clyde)
Base Environmental Support Officer (Secretary)

NOTE: Additional members will be allowed to attend in exceptional circumstances with the prior consent of the Chairman.

UNCLASSIFIED

ANNEX A

SUBFACTS AREAS MAP



CONTENTS

UNCLASSIFIED

1A - 1(RB)

Extracted from SMP 95 Change 5