

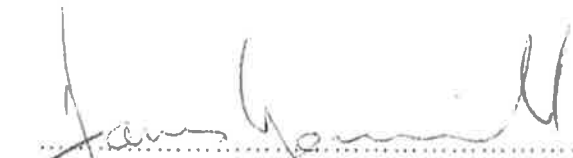
SCOTTISH ENVIRONMENT PROTECTION AGENCY

**APPROVAL OF ARRANGEMENTS FOR THE DISPOSAL OF
RADIOACTIVE WASTE**

APPROVAL NO: RSA/A/1124376
APPROVAL HOLDER: SECRETARY OF STATE FOR DEFENCE
ADDRESS: MINISTRY OF DEFENCE
WHITEHALL
LONDON
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The Scottish Environment Protection Agency hereby approves the arrangements made by the Secretary of State for Defence (the Approval Holder) to dispose of radioactive waste on or from the Approved Premises for the purpose of its undertaking all subject to the Limitations and Conditions contained in the Schedules 1 to 10 and to the Interpretation of Terms all attached to and forming part of this Approval.

Effective date of Approval: 1st December 2016


.....
Authorised to sign on behalf of the
Scottish Environment Protection Agency

Date: 3 / 11 / 16

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INTERPRETATION OF TERMS

(1) In this Approval:

Except where otherwise specified, words and expressions defined in the Radioactive Substances Act 1993 shall have the same meanings when used in this Approval as they have in that Act;

"the Act" means The Radioactive Substances Act 1993 as amended;

"activity", expressed in becquerels, means the number of spontaneous nuclear transformations occurring in a period of one second;

"aqueous waste" means radioactive waste in the form of a continuous aqueous phase together with any entrained solids, gases and non-aqueous liquids;

"Approval" means an Approval issued to the Approval Holder in accordance with the Agreement signed on 21st September 2012 "On Matters Relating to Radioactive Substances" between the Ministry of Defence and SEPA;

"Authorisation" means an Authorisation issued under the Radioactive Substances Act 1993 or the Radioactive Substances Act 1960;

"Authorised Person" means a person who is authorised in writing by SEPA under Section 108 of the Environment Act 1995 to exercise the powers specified in that Section;

"the Approved Premises" are the premises defined in Schedule 1;

"Bq", "kBq", "MBq", "GBq", "TBq" and "PBq" are used as abbreviations meaning becquerel, kilobecquerel, megabecquerel, gigabecquerel, terabecquerel and petabecquerel respectively;

"calendar year" means a period of 12 consecutive months beginning on 1 January;

"environment" means all, or any, of the media of air, water (to include sewers and drains) and land;

"Environmental Operating Rule" means a mandatory restriction on operation, established by the Approval Holder, which is necessary to ensure compliance with this Approval;

"gaseous waste" means radioactive waste in the form of gases and associated mists and particulate matter

"Low Level Waste" or "LLW" means radioactive waste having a radioactive content not exceeding four gigabecquerels per tonne (GBq/te) of alpha or 12 GBq/te of beta/gamma activity;

"maintenance instructions" means instructions, established by the Approval Holder, for carrying out any maintenance that may have an effect on compliance with this Approval;

"maintenance schedule" means a programme, established by the Approval Holder, for maintenance of all systems and equipment that contribute to achieving compliance with this Approval;

"management system" includes organisational structure and procedures established by the Approval Holder;

"month" means calendar month (i.e. 1-31 January, 1-28/29 February, 1-31 March, etc);

"operating instructions" means instructions, established by the Approval Holder, for carrying out any operation that may have an effect on compliance with this Approval;

"Radioactive Waste Adviser" means a person having a current valid certificate recognising the capacity to act as a Radioactive Waste Adviser issued by an Assessing Body approved by SEPA or a Corporate Radioactive Waste Adviser working in accordance with Corporate Arrangements approved by SEPA;

"RRDL" means the holder of the RSA 93 Authorisation authorising the disposal of radioactive waste on or from Rosyth Royal Dockyard Limited having postal address the Rosyth Business Park, Rosyth, Dunfermline, Fife, KY11 2YD

"samples" includes samples that have been prepared or treated to enable measurements of activity to be made;

"Schedule" means a Schedule forming part of this Approval;

"SEPA" means the Scottish Environment Protection Agency;

"the Undertaking" means the undertaking defined in Schedule 1;

"year" means any period of 12 consecutive months;

(2)(a) In this Approval the Interpretation Act 1978 shall apply as it does to an Act of Parliament and in particular words in the singular include the plural and words in the plural include the singular.

(b) Any reference to a numbered Condition, Limitation, Schedule, Table, Appendix, Figure or Paragraph is a reference to a numbered Condition, Limitation, Schedule, Table, Appendix, Figure or Paragraph in this Approval.

(c) Except where otherwise specified in this Approval, any reference to an enactment or statutory instrument includes a reference to it as amended (whether before or after the date of this Approval) and to any other enactment, which may, after the date of this Approval, directly or indirectly replace it, with or without amendment.

(3)(a) In determining whether particular means are the "best practicable" for the purposes of this Approval, the Approval Holder shall not be required to incur expenditure whether in money, time or trouble which is, or is likely to be, grossly disproportionate to the benefits to be derived from, or likely to be derived from, or the efficacy of, or likely efficacy of, employing them, the benefits or results produced being, or likely to be, insignificant in relation to the expenditure.

(b) Where reference is made to the use of "best practicable means" in this Approval, the terms "best", "practicable" and "means" have the following meaning:

"Best" – means **the most effective techniques** for achieving a particular objective, having due regard to **technological advances** (state of the art) and changes in scientific knowledge; and **understanding**.

“Practicable” – indicates that the “means” under consideration should only be selected following an optimisation process that includes consideration of the technical viability including comparable processes, facilities or methods of operation which have recently been successfully tried out and takes into account social and economic costs and benefits.

“Means” – includes: technology, disposal options, the design, build, maintenance, operation and decommissioning of facilities, and wider management arrangements.

(c) The social and economic costs and benefits that should be taken into account in the optimisation process used to decide what is practicable includes (where relevant):

- economic costs
- social benefits
- radiological exposures to the public
- occupational radiological exposures
- radiological impact on the environment
- conventional safety
- consistency with the waste hierarchy
- impact of the non-radioactive properties of radioactive waste
- the generation and associated impact of non-radioactive wastes, including climate change emissions
- the proximity principle
- applicable government policy

(4) Where reference is made to radiological effects on the environment in this Approval it includes the effects on any living organism supported by the environment.

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1. LIMITATIONS AND CONDITIONS RELATING TO THE APPROVED PREMISES AND THE UNDERTAKING

1.1 Description of the Undertaking

1.1.1 The Undertaking is the dismantling of submarines.

1.2 The Approved Premises

1.2.1 The Approved Premises are any of the following submarines:

- HMS Swiftsure;
- HMS Churchill;
- HMS Resolution;
- HMS Repulse;
- HMS Renown;
- HMS Revenge;
- HMS Dreadnought

whilst in the area shown delineated in red on the Site Plan forming Appendix 1 of this Approval and at the date of this Approval having postal address the Rosyth Business Park, Rosyth, Dunfermline, Fife, KY11 2YD.

2. GENERAL LIMITATIONS AND CONDITIONS

2.1 Disposal

2.1.1 The Approval Holder shall use the best practicable means to minimise the volume of and the total radioactivity in radioactive waste produced.

2.1.2 The Approval Holder shall maintain in good repair the systems and equipment provided:

2.1.2.1 to meet the requirements of paragraph 2.1.1; and

2.1.2.2 for the disposal of radioactive waste under this Approval.

2.1.3 The Approval Holder shall check, at an appropriate frequency, the effectiveness of systems, equipment and procedures provided:

2.1.3.1 to meet the requirements of paragraph 2.1.1; and

2.1.3.2 for the disposal of radioactive waste under this Approval.

2.2 Management

2.2.1 The Approval Holder shall have a management system and resources which are sufficient to achieve compliance with the limitations and conditions of this Approval and which include, without restricting the generality of the requirement under this paragraph:

2.2.1.1 written arrangements specifying how the Approval Holder will achieve compliance with each limitation and condition of this Approval, to include arrangements for control of the design and operation of systems and equipment provided for such compliance with this Approval, and any modifications made to these systems and equipment;

2.2.1.2 written Environmental Operating Rules and operating instructions;

2.2.1.3 a written maintenance schedule and instructions;

2.2.1.4 written arrangements describing how the Approval Holder optimises their approach to waste management in an integrated way, which includes the **waste streams** and disposals expected from current and future operations;

2.2.1.5 adequate supervision of the disposal of radioactive waste by suitably qualified and experienced persons, whose names shall be clearly displayed within the **Approved Premises**;

2.2.1.6 adequate supervision by suitably qualified and experienced persons of the operation and maintenance of the systems and equipment provided to meet the requirements of paragraph 2.1.1 and for the disposal of radioactive waste;

2.2.1.7 **internal** audit and review of the Approval Holder's management system and its efficacy.

2.2.2 The Approval Holder shall inform **SEPA**, at least 28 days in advance or, where this is not possible, **without delay**, of any change in the management system, or resources which might have, or might reasonably be seen to have, a

significant impact on how compliance with the limitations and conditions of this Approval is achieved.

- 2.2.3 The Approval Holder shall appoint, retain and consult with such suitable Radioactive Waste Advisers as are necessary for the purpose of advising the Approval Holder as to compliance with the relevant limitations and conditions of this Approval; including but not limited to:
 - 2.2.3.1 achieving and maintaining an optimal level of protection of the environment and the population;
 - 2.2.3.2 checking the effectiveness of technical devices for protecting the environment and the population;
 - 2.2.3.3 acceptance into service, from the point of view of surveillance of radiation protection, of equipment and procedures for measuring and assessing, as appropriate, exposure and radioactive contamination of the environment and the population; and
 - 2.2.3.4 regular calibration of measuring instruments and regular checking that they are serviceable and correctly used.
- 2.2.4 The Approval Holder shall appoint each Radioactive Waste Adviser in writing and include in the appointment the scope of advice which the Radioactive Waste Adviser is required to give.

2.3 Sampling, measurements, tests, surveys and calculations

- 2.3.1 The Approval Holder shall take samples or conduct measurements, tests, surveys, analyses and calculations to determine its compliance with the limitations and conditions of this Approval.
- 2.3.2 The Approval Holder shall use the best practicable means when taking samples or conducting measurements, tests, surveys, analyses and calculations to determine its compliance with the limitations and conditions of this Approval unless specific means are specified in this Approval.
- 2.3.3 The Approval Holder may dispatch samples of radioactive waste for testing to RRDL, but only where the quantity dispatched is the minimum practicable quantity that is necessary to carry out the planned tests.
 - 2.3.3.1 **The Approval Holder shall provide and at all times maintain in good repair systems and equipment for carrying out any sampling, monitoring and measurements necessary to determine compliance with the limitations and conditions of this Approval.**
 - 2.3.4 **The Approval Holder shall have and comply with appropriate criteria for the acceptance into service of systems, equipment and procedures for carrying out any sampling, monitoring and measurements necessary to determine compliance with the limitations and conditions of this Approval.**
- 2.3.5 The Approval Holder shall carry out regular calibration, at an appropriate frequency, of **systems and equipment provided for:**
 - 2.3.5.1 **carrying out any sampling, monitoring and measurements necessary to determine compliance with the limitations and conditions of this Approval; and**

- 2.3.5.2 regular checking, at an appropriate frequency that such systems and equipment are serviceable, accurate and effective and correctly used at all times.

2.4 Records

- 2.4.1 The Approval Holder shall make, as soon as is reasonably practicable, and retain true, accurate and legible records sufficient to demonstrate whether the limitations and conditions of this Approval are and have been complied with.
- 2.4.2 If the Approval Holder amends any record made in accordance with this Approval, the Approval Holder shall ensure that the original entry remains clear and legible.
- 2.4.3 The Approval Holder shall at all times keep the records referred to in paragraph 2.4.1 at a location notified to SEPA unless otherwise agreed in writing with SEPA beforehand.
- 2.4.4 The Approval Holder shall retain the records referred to in paragraph 2.4.1 until notified in writing by SEPA that the records no longer need to be retained.

2.5 Provision of information

- 2.5.1 The Approval Holder shall supply on request and without delay, to any Authorised Person, any record made as a requirement of this Approval.
- 2.5.2 The Approval Holder shall supply to SEPA any such information in such format and within such time as specified in Schedule 9 of this Approval and other such information to determine the efficacy of and compliance with this Approval as SEPA may periodically specify in writing.
- 2.5.3 The Approval Holder shall inform SEPA in writing, within 90 days of the effective date of this Approval, of the techniques being employed to determine the activity of radioactive waste disposals and shall inform SEPA in writing in advance of any modifications to those techniques.
- 2.5.4 The Approval Holder shall inform SEPA without delay if the Approval Holder has reason to believe that disposal of radioactive waste is occurring, has occurred or might occur which does not comply with the limitations and conditions of this Approval, and shall report the circumstances in writing to SEPA as soon as practicable thereafter.
- 2.5.5 The Approval Holder shall inform SEPA in writing, within 90 days of the effective date of this Approval, of the organisational structure and resources, together with the whole management system or such parts of the management system as SEPA specifies in writing, provided to achieve compliance with the limitations and conditions of this Approval.

2.6 Improvements

- 2.6.1 The Approval Holder shall carry out the improvements specified in Schedule 10 of this Approval and within such times as specified in Schedule 10.

3. RADIOACTIVE WASTE TYPES AUTHORISED FOR DISPOSAL AND AUTHORISED DISPOSAL ROUTES

3.1 Disposal of radioactive waste

3.1.1 The Approval Holder is approved to dispose only of the radioactive waste arising from the Undertaking at the Approved Premises, only of the types of radioactive waste identified in Table 3.1, and only by the relevant disposal route specified in Table 3.1 and in accordance with any further limitations and conditions contained within Schedules 4 to 10.

Table 3.1

Radioactive Waste Type	Disposal Route
LLW	Transfer to RRDL

4. FURTHER LIMITATIONS AND CONDITIONS RELATING TO DISPOSAL OF RADIOACTIVE GASEOUS WASTE BY DISCHARGE TO THE ENVIRONMENT

This schedule is not used under this Approval.

5. FURTHER LIMITATIONS AND CONDITIONS RELATING TO DISPOSAL OF RADIOACTIVE AQUEOUS WASTE BY DISCHARGE TO THE ENVIRONMENT

This schedule is not used under this Approval.

6. FURTHER LIMITATIONS AND CONDITIONS RELATING TO DISPOSAL OF RADIOACTIVE WASTE BY INCINERATION ON THE APPROVED PREMISES

This schedule is not used under this Approval.

7. FURTHER LIMITATIONS AND CONDITIONS RELATING TO THE DISPOSAL OF LOW LEVEL RADIOACTIVE WASTE BY ITS TRANSFER TO RRDL

7.1 Disposal of Low Level Radioactive Waste to RRDL

7.1.1 The Approval Holder is only approved to dispose of LLW and only to RRDL.

7.2 Disposal by Transfer

7.2.1 Before radioactive waste is disposed of, the Approval Holder shall:

7.2.1.1 determine that the radioactive waste is LLW;

7.2.1.2 provide RRDL with a written description of the volume and form of the LLW;

7.2.1.3 provide RRDL with a written description of the LLW and the name of the submarine from which the radioactive waste was removed;

7.2.1.4 obtain confirmation from RRDL that they agree to accept the LLW.

7.2.2 The Approval Holder shall notify SEPA in writing at least 28 days in advance of the first disposal of LLW to RRDL.

7.3 Radioactive Waste Found Following the Transfer not to be in accordance with the Limitations and Conditions of this Approval

7.3.1 If required by SEPA, the Approval Holder shall ensure that any radioactive waste found following transfer not to be in accordance with the limitations or conditions of this Approval is returned as soon as reasonably practicable to the Approved Premises

7.4 Radioactive Waste which cannot be Disposed of Due to Non-delivery

7.4.1 If any disposal of radioactive waste cannot be completed by reason of non-delivery for any reason, the Approval Holder shall ensure that the radioactive waste is returned to the Approved Premises forthwith.

8. FURTHER CONDITIONS AND LIMITATIONS RELATING TO THE DISPOSAL OF RADIOACTIVE WASTE BY TRANSFER TO A PERSON OUTWITH THE UNITED KINGDOM

This schedule is not used under this Approval.

9. INFORMATION REQUIREMENTS

9.1 Information Requirements

9.1.1 The Approval Holder shall provide the information specified in Table 9.1 by the relevant completion date and, shall notify SEPA, in writing, within 14 days of the completion of each of those specifications.

Table 9.1

Specified information	Completion Date
<p>1. The Approval Holder shall provide SEPA with a monthly report summarising:</p> <p>for the disposal of LLW by transfer during the month:</p> <ul style="list-style-type: none">a. a description of the waste including an estimate of its activity,b. the purpose of the transfer,c. its volume and form, andd. the name of the submarine currently in Dry Dock Number 2.	<p>Not later than 28 days after the end of each month and at the same interval thereafter unless SEPA otherwise specifies in writing.</p>

10. IMPROVEMENT REQUIREMENTS

10.1 Improvement Requirements

10.1.1 The Approval Holder shall complete the specified improvements in Table 10.1 by the relevant completion date and, shall notify SEPA, in writing, within 14 days of the completion of each of those specifications.

Table 10.1

Specified improvements	Completion Date
None specified.	

APPENDIX 1 – SITE PLAN

