



**ENVIRONMENT
AGENCY**

RADIOACTIVE SUBSTANCES ACT 1993

**VARIATION NOTICE
AND
INTRODUCTORY NOTE**

**DISPOSAL OF RADIOACTIVE WASTE
FROM NUCLEAR SITE**

BAE SYSTEMS Marine Limited

BARROW SHIPYARDS NUCLEAR SITE

Barrow-in-Furness
Cumbria LA14 1AF

**VARIATION NOTICE NUMBER CC2747
AUTHORISATION NUMBER BU6808/CA9422**

INTRODUCTORY NOTE

IN 1. This Note does not form part of the Variation Notice

IN 2. The following Notice is issued in accordance with section 17(3)(a) of the Radioactive Substances Act 1993 (RSA93). It varies the conditions of an Authorisation issued under the Act for the disposal of radioactive waste.

IN 3. Description of Variation

Provision of a new effluent treatment plant at the Barrow Shipyard has resulted in a change to the location and route by which aqueous effluent is treated and transferred to the disposal point to sewer. The former Nuclear Facilities Barge (NFB) is now out of service and will no longer be used in the handling and treatment of primary coolant from submarines undergoing build and commissioning. In the event that a discharge of radioactive coolant from a submarine is required the effluent is transferred by installed pipeline to a shore-based effluent treatment and handling facility. From here it is transferred to the sewer connection point as previously. The ventilation outlet for entrained gases is also changed from the NFB to the effluent treatment plant.

Additional outlets for gaseous wastes from the ventilation of submarine reactor compartments and the Chemistry Laboratory fume cupboard are also added. These are already established discharge routes but which have not previously been explicitly recognised in the authorisation. The opportunity is also being taken to incorporate additional standard text which is used in the latest template for nuclear site authorisations, relating to transfrontier shipment of radioactive wastes and the non-use of discharge outlets when notified by the Agency.

IN 4. Status Log

Description	Reference Number	Issued	Effective Date	Type of change made or comments
Authorisation	BU6808	24/05/2004	21/06/2004	
Variation	CA9422	15/11/2006	16/11/2006	Minor variation. Disposal of small volume of solid waste from dismantling of an effluent handling facility, by transfer to incinerator at Hythe in Hampshire, before end 2007. Variation also captures 'future-proofing' issues for all waste transfer destinations to cater for any future changes of operator name at the receiving sites.
Variation	CC2747	7/4/2008	14/4/2008	Minor variation. Change to routing of effluent via new shore-based effluent treatment plant. Addition of gaseous waste outlets for a) contingency ventilation of submarine reactor compartments; and b) chemistry laboratory fume cupboard stack. Variation also incorporates additional standard text used in latest template for nuclear site authorisations, relating to transfrontier shipment of radioactive wastes and the non-use of discharge outlets when notified by the Agency.



ENVIRONMENT
AGENCY

RADIOACTIVE SUBSTANCES ACT 1993

VARIATION NOTICE

BAE SYSTEMS Marine Limited

Authorisation Number BU6808/CA9422

Variation Notice Number CC2747

TAKE NOTICE THAT the Environment Agency in exercise of its powers under section 17(2) of the Radioactive Substances Act 1993 ("the Act") hereby varies the Authorisation, number BU6808/CA9422, issued to

BAE SYSTEMS Marine Limited
(company registration no 00229770)

("the Operator")

whose Registered Office is

Warwick House
PO Box 87
Farnborough Aerospace Centre
Farnborough
Hampshire GU14 6YU

which relates to the disposal of radioactive waste on or from the premises occupied by the Operator at

Barrow Shipyards Nuclear Site
Barrow-in-Furness
Cumbria LA14 1AF

as specified in the Schedule to this Notice.

This Notice shall have effect from 14 April 2008.

Signed
Michael Scott

Authorised to sign on behalf of the Environment Agency

Dated the 7th April 2008

Variation Notice: BU6808/CC2747

SCHEDULE

CONDITIONS TO BE AMENDED

A.1 Schedule 2 of authorisation BU6808/CA9422 is amended as follows:

(i) Condition 1 is replaced with the following:

1. The Operator is authorised to dispose only of the radioactive waste types identified in the Table in this Schedule and only by the relevant disposal route(s) specified in the Table.

Table

Radioactive Waste Type	Disposal Route
Gaseous Waste	Discharge to the environment
Aqueous Waste	Discharge to sewer
Solid Waste	Transfer to a person authorised under section 13 of the Act to dispose of waste by incineration at premises at Charleston Road, Hythe, Hampshire SO45 3ZA
	Transfer to the Sellafield Site Operator or the LLWR Site Operator or the Winfrith Site Operator for the purpose of final disposal at the Low Level Waste Repository at Drigg
Radioactive Waste as defined in the Transfrontier Shipment of Radioactive Waste Regulations 1993	Transfer in accordance with the conditions of an authorisation granted under the Transfrontier Shipment of Radioactive Waste Regulations 1993.

A.2 Schedule 3 of authorisation BU6808/CA9422 is amended as follows:

(i) Condition 1 is replaced with the following:

1. The Operator shall:
 - (a) only discharge radioactive gaseous waste to the environment by means of the outlets identified in Table 1 in this Schedule and such other outlets as the Agency may approve in writing;
 - (b) not discharge radioactive gaseous waste through any outlet identified in Table 1 in this Schedule that the Agency has notified in writing is not to be used.

(ii) Table 1 is replaced with the following:

Table 1

Authorised Gaseous Discharge Outlets
Effluent Treatment Plant Disentrainment Column
Chemistry Laboratory Fume Cupboard Stack
Submarine Reactor Compartments

A.3 Schedule 4 of authorisation BU6808/CA9422 is amended as follows:

(i) Condition 1 is replaced with the following:

1. The Operator shall:

- (a) only discharge radioactive aqueous waste to the environment through the systems specified in Table 1 in this Schedule and such other systems as the Agency may approve in writing;
- (b) not discharge radioactive aqueous waste through any system identified in Table 1 in this Schedule that the Agency has notified in writing is not to be used.

(ii) Condition 5 is replaced with:

5. For the purposes of demonstrating compliance with the limitations and conditions of this Authorisation relating to other gamma emitting radionuclides in aqueous waste, the Operator shall:
- (a) take samples of relevant aqueous waste and transfer to a Marinelli beaker for counting by high resolution gamma spectrometry using a high purity germanium semiconductor detector, calibrated against a nationally traceable mixed gamma standard. Gamma emitters will be identified, specific activities quantified and total gamma activity reported by relating to the total volume discharged.

Or use other suitable methods which have been agreed in writing by the Environment Agency.

(iii) Table 1 is replaced with the following:

Table 1

Authorised Aqueous Discharge Systems
Systems provided by the Operator for the transfer of aqueous effluent to the effluent treatment plant and subsequent discharge to sewer, following which treatment takes place at Salthouse Treatment Works.