

Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

BAE Systems Marine Ltd

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

Variation notice number
EPR/UB3433DW/V002

Permit number
EPR/UB3433DW

Barrow Shipyards Nuclear Site

Permit Number EPR/UB3433DW

Introductory note

This introductory note does not form a part of the notice.

The following notice gives notice of the variation of an environmental permit.

This variation covers changes to the disposals to sewer as a result of using refurbished main coolant pumps (MCPs) in the primary coolant circuit as part of the build programme for the Astute class of submarines from Boat 4 onwards. The refurbished MCPs have undergone extensive cleaning and decontamination and flushing operations off-site to remove as much loose radioactive contamination as possible. Fixed Cobalt 60 and Carbon 14 contamination remains with the MCPs and the aqueous waste resulting from the flushing of the primary coolant circuit during the build programme is slightly radioactive. Carbon 14 limits for discharges to sewer have been increased and limits have been set for Cobalt 60. BAE have also applied for a separate discharge point to sewer within the Devonshire Dock Hall as the radioactive contamination is less than 1 micron and cannot be treated at the existing Waste Treatment Facility which discharges to sewer via release point S1.

The Schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	Date	Response Date
Permit BU6808 Issued	24/05/04	
Variation BU6808/CA9422 Issued	15/11/06	
Variation BU6808/CC2747 Issued	07/04/08	
Variation BU6808/CD9259/V001 Issued	17/09/10	
Variation BU6808/CD9259/V002 Issued	19/07/11	
Revised & consolidated EPR Permit Issued EPR/UB3433DW/V001	06/09/13	
Variation application EPR/UB3433DW/V002	Duly made 10/11/15	
Variation determined EPR/UB3433DW/V002	02/06/16	

End of Introductory note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/UB3433DW

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies the environmental permit issued to

BAE Systems Marine Ltd (“the operator”)

whose registered office is/whose principal office is

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

company registration number 00229770

to carry on radioactive substances activities at

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

to the extent set out in the Schedules.

The notice shall take effect from 02/06/2016

Name	Date
Steve Howard	02/06/16

Authorised on behalf of the Environment Agency

Schedule 1: variations to the permit

The following conditions were varied on the application of the operator

Table S1.3A is amended as follows:

Table S1.3A Pre-operational measures	
Reference	Measure
POM1	Prior to undertaking any discharge to sewer via release point S2 the operator shall ensure that all pipework associated with this discharge route is constructed to appropriate standards and tested/inspected to confirm its integrity. Written confirmation shall be provided of the standards of construction and the testing undertaken. No discharge shall be undertaken until written approval has been received from the Environment Agency

Table S3.2 is amended as follows:

Table S 3.2 Specified disposals to sewer					
Specified radioactive waste type	Disposal outlet reference	Disposal outlet	Radionuclide or group of nuclides	Annual limits	Quarterly Notification level
Aqueous waste	All outlets	As specified below	Tritium	12 GBq	-
			Carbon-14	0.295 GBq	-
			Cobalt-60	0.0134 GBq	-
			¹ Other beta-gamma emitting radionuclides ¹	0.0035 GBq	-
Aqueous waste	S1	System 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 Waste Water Treatment Works	No individual limits specified for these disposal outlets		
Aqueous waste	S2	System provided by Operator for discharge to sewer direct from Devonshire Dock Hall, following which treatment takes place at Salthouse Waste Water Treatment Works	No individual limits specified for these disposal outlets		

¹ as measured using the techniques specified in Schedule 3 Table S3.4

Table S3.4 is amended as follows:

Table S 3.4 Monitoring techniques	
Table and radionuclide	Monitoring technique
Table S3.2- Measurement of 'other beta gamma emitting radionuclides' in aqueous waste.	For the purposes of demonstrating compliance with the limitations and conditions of this Permit relating to "other beta-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 (b) any other suitable counting system, which has been agreed in writing by the Agency* * For the purposes of demonstrating compliance with the conditions of this permit the Agency agrees that sampling, measurement and assessment methods are conducted in accordance with: BAE SYSTEMS Submarines Register of Analytical Techniques and Methods for the Characterisation of Radioactive Materials, NRSD/GR04-018