



DSG(2016)P014

Dounreay Stakeholder Group
Site Restoration Sub Group Update Report
July 2016



Site Inspection Work & RSA Compliance

In April SEPA and DSRL held its Annual Review of Environment, which was attended by SEPA site inspectors from RS and Non-RS areas of regulation along with SEPA's RS Unit Manager. DSRL attendees included the Managing Director, Deputy Managing Director and the majority of the site senior management team. It was felt by all attendees to provide a useful forum for discussion and a commitment was made to ensure these meetings are held regularly.

SEPA undertook compliance inspections related to DSRL's maintenance arrangements and environmental monitoring programme during June. Neither inspection identified any issues of concern or highlighted any areas of non-compliance, although SEPA identified some areas for improvement relating to the environmental monitoring programme arrangements.

Approval was granted for DSRL Corporate Radioactive Waste Advisor arrangements in May following a significant amount of work by both DSRL and SEPA. Anyone who has authorisation under RSA93 to accumulate or dispose of radioactive waste must have an appointed Radioactive Waste Advisor. DSRL chose to adopt Corporate RWA arrangements, under which a group of individuals collectively demonstrate competence in the Radioactive Waste Advisor syllabus for giving advice on a nuclear site. The RWA Approval Board agreed that such an arrangement was appropriate for the Dounreay site.

In May DSRL reported to SEPA a potential discharge of unmonitored krypton-85 (Kr-85) via the authorised DFR discharge point. SEPA's investigation into this incident is ongoing and will be reported further at future DSG meetings.

During the period since the last written report to the DSG SEPA have held a number of discussions with DSRL on areas of site regulation related to limits of detection being applied to ground and surface water samples and attended a workshop to consider decommissioning options related to the old liquid effluent diffuser system.

Other Site Work

The Particles Advisory Group (Dounreay)(PRAGD) 2012 Report was published on 17 March. The report was produced in order to assess the effectiveness of the offshore recovery program undertaken at Dounreay and considers the extent and effectiveness of the program to reduce the numbers of irradiated nuclear fuel fragments which had been historically deposited in the Pentland Firth, offshore from the Dounreay site. Following the success of the program to date, the report concludes that any noticeable change in the rate, or radioactive content of fuel fragments arriving on the nearest public beach (Sandside Bay), will take a number of years to assess. In the interim, the beach continues to be monitored on a monthly basis by DSRL and any particles which are found will be removed.

On 21 and 23 June, SEPA was an observer at workshops on the assessment of the closure options for the Dounreay Liquid Effluent Discharge System (LEDS). The initial workshop considered a long list of potential options. The second workshop developed a set of benchmark options, against which the other options will be compared and the assessment criteria was developed. A follow-up workshop, which will cover the scoring of the various options, is planned for September.

In June, SEPA staff from both the radioactive substances and non-radioactive participated off-site in Exercise Delta 52

Low Level Radioactive Waste Facility

DSRL reported to SEPA in February that a breach of the authorised disposal limit for Europium 152 had occurred for the Demolition Low Level Waste Vault. Once identified the waste was retrieved and returned to the Dounreay nuclear site as per the authorisation requirements. Changes have now been made to the waste consignment process to require that checks are undertaken prior to the movement of waste to ensure vault authorised limits are not challenged. SEPA has recorded this incident as a non-compliance within its Compliance Assessment Scheme.

Site End State

SEPA met with DSRL on 25th May to discuss the site's ongoing restoration work. Issues discussed included:

- The site's Environmental Safety Strategy that was recently submitted to SEPA. SEPA is in the process of making review comments on the most recent iteration of the ESS.
- Updates on the site's ongoing zonal characterisation works
- The site's work to develop environmental reference concentrations for hazardous substances on the site. These are effectively the back ground levels for hazardous substances. DSRL expects to send a copy of their work to SEPA for discussion and comment.
- The development of the site's waste management plan and environmental safety case. DSRL intend to submit an early version of their ESC to SEPA in the near future. This is likely to be a skeleton for comment. DSRL intend to populate their ESC based on feedback from SEPA. The preparation of an ESC is an iterative process.

SEPA attended two Site End State Review workshops on the 14th March and the 15th June. Dounreay have commissioned AMEC to carry out this review which included workshops to assess different options for the management of radioactive waste on and from the Dounreay site.

Non-Nuclear Site Regulation

DSRL reported a breach of the authorised limits for suspended solids from Outfall 3. Further investigation indicated the source to be additional untreated sewage loading from newly constructed facilities. This has now been rectified by the addition of an appropriately designed septic tank and SEPA issued DSRL with a warning letter in relation to this incident.

Planning

Nil to Report

Vulcan

The approval of arrangements for the disposal of radioactive waste from the MOD premises at Vulcan was issued in August 2009. The reactor at Vulcan shutdown in 2015 and work is now focusing on post-operational activity. This will include defueling of the reactor, non-destructive examination of the fuel, clearance of fuel from the site and preparations for future decommissioning.

Consequently SEPA initiated a periodic review of the current approval as to its efficacy and sought information from the MOD on the disposal of waste during the post operational period but before decommissioning of the site takes place. SEPA's standard conditions for the disposal of radioactive waste have been changed and strengthened since the approval was issued for Vulcan in 2009. It is therefore SEPA's intention to vary these improved conditions, where relevant into the Vulcan approval. The Authorised Limits remain unchanged.

A draft variation notice has undergone internal peer review, and statutory consultation on the variation notice commenced on the 29 June.

Decommissioning of the site is expected sometime after 2022 and will require an application to be made for a decommissioning approval.

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