Dounreay Site Restoration Ltd

PARTICLES PROGRESS REPORT

March to June 2010

1 BEST PRACTICAL ENVIRONMENTAL OPTION (BPEO)

The BPEO sets out the proposals for beaches and seabed clean-up.

Specifically, the seabed clean-up identifies areas where significant and relevant particles are believed to be located and identifies the areas to be targeted for clean-up by ROV. Following examination of available data by DPAG it has been identified that the area for this work amounts to a total of approximately 60 hectares.

The Particles Retrieval Advisory Group(PRAG) has been set up to provide independent advice and through the inclusion of relevant Agencies to determine completion criteria associated with the off-shore and on-shore particle retrieval work

2 OFFSHORE WORK

2.1 Off-shore particle retrieval

As offshore operations are seasonal (May-September) no further retrieval work has been carried out offshore at Dounreay since the previous retrievals completed on 3rd August 2009.

Following a procurement process DSRL has awarded a contract for the next phase of offshore clean-up work. This off-shore work is currently programmed to commence in early July, following proving trials with the new equipment. The intended seabed coverage in 2010 is at least 12.5 hectares. . All results of the forthcoming work will be reported to the Particles Retrieval Advisory Group (Dounreay) PRAG(D).
Minutes from PRAG(D) meetings can be found at the following link:
http://www.sepa.org.uk/radioactive_substances/decommissioning/dounreay/particles_advisory_group.aspx

3 THE OLD EFFLUENT DISCHARGE SYSTEM

An Environmental Safety Case for the remediation of the Old Liquid Effluent Discharge System (OLED) was provided to SEPA during December 2009.

At this time, June 2010, SEPA have not provided detailed feedback on the proposed approach for remediation of the effluent system.

SEPA have stated no objection if DSRL wish to grout the risers at the seabed at this time.

There is insufficient time remaining this year to carry out this grouting task. The earliest time to carry out the physical work offshore will be approx May 2011.

4 DOUNREAY PARTICLES: PRAG(D)

PRAG(D) has produced its first report for SEPA . This detailed the findings of the group with regard to the works carried out by DSRL over the past year and has provided guidance to DSRL on continued seabed work in the area of the highest activity particles.

5 MONITORING OF BEACHES

The statutory beach monitoring programme continues as per the SEPA Authorisation requirements.

5.1 Dounreay Foreshore

Weekly surveys, alternating between the East and West foreshores continued until the end of April. There is normally a scheduled break in the survey programme for the bird nesting period, May to August. However, as with last year, single monthly surveys have commenced to tie in with the offshore particle retrieval work. Approval for these foreshore surveys has been granted by an ornithological expert. These survey results will help provide indications of how the offshore retrieval work affects particle arrival rates in onshore areas.

During the East foreshore survey on 3rd March, a Significant category particle was detected and recovered. This was the second particle find on the Dounreay Foreshore in 2010, the first being a Minor category particle recovered from the West foreshore on 8th February.

5.2 Sandside Beach

Access permission had been withdrawn from the 31st December 2009. Access permission was reinstated on 17th May 2010 and a survey commenced the following day. Favourable weather and tidal conditions, along with the long daylight hours meant that greater than 250,000m² of surface coverage was achieved. During this survey period(to end May), 5 particles were detected and recovered, two Relevant and three Minor category particles.

5.3 Dunnet beaches

Surveys of the Dunnet beach strandline and the two 'targeted' areas of the beach were completed in March 2010. DSRL are still awaiting the results from the SEPA habit survey, which will be used to inform future monitoring plans.
A survey of Murkle beach was completed in April 2010. No particles were detected. A survey of Peedie beach is scheduled for this summer.

5.4 Other beaches
A survey of Melvich beach was completed in March 2010. No particles were detected

6 KEY DATES

Date	Description
20 June 10	New ROV system built and tested
23 June 10	PRAG(D) meeting
07 July 10	Commence offshore recovery operations

Particles Project Team
Dounreay Site Restoration Ltd (DSRL)
25 May 2010

Dounreay Particles Advisory Group (DPAG) – classification of particles

Significant	Caesium 137 activity greater than 1,000,000 Bq	Likely to cause serious ulceration (visible after 1-2 weeks). This may take several weeks to heal along with the associated risk of infection which might require medical treatment.
Relevant	Caesium 137 activity between 100,000 and 1,000,000 Bq	Would require a minimum of 7 hours stationary contact with the skin to have any discernable effect. Indeed, time periods of 1-2 days would be required for any reddening with small lesion of the skin to be observed. The affected area of skin would be expected to heal completely within 2-4 weeks without further problems. Anyone coming into contact with this type of particle is unlikely to experience any observable effects.
Minor	Caesium 137 activity less than 100,000 Bq	Will not cause discernable health effects.