



PARTICLES PROGRESS REPORT

16 May to 18 August 2008

1 BEST PRACTICAL ENVIRONMENTAL OPTION (BPEO) PROCESS

Comments on the BPEO were received from SEPA and the Dounreay Particles Advisory Group (DPAG) on 30th April 2008. These comments were addressed and the revised BPEO has been published and is available on the website.

The BPEO sets out the proposals for seabed clean-up with a targeted area of 60 hectares. Performance will be assessed on the activity detected, rate of coverage and efficiency of particle retrieval. The preparatory work undertaken in 2008 will help determine the targets for 2009/10. The frequency of monitoring on-shore at beaches will be reviewed and discussed with SEPA.

2 OFFSHORE WORK

2.1 Preliminary off-shore retrieval



Wick-based offshore contractor Fathoms Ltd has been contracted to carry out the work to clean-up the seabed using remotely operated equipment following a competitive tendering exercise and offshore trials.

The preparation work has begun and aims to cover around 10 hectares of the seabed this summer (weather permitting). The initial offshore work will assist in validating the equipment and system performance. Coverage will be worked by blocks, activity of particle finds and number of particles, will allow maps, previously produced by DPAG, to be updated. A weekly progress report is being published via the website.

Monitoring of local beaches is continuing during the clean-up and special attention is being paid to any change in the frequency of onshore finds. Disturbance of the seabed means a short-term increase in beach finds close to Dounreay cannot be ruled out.

DSRL has obtained a licence for return of sediment to the seabed. Any particles detected and retrieved while carrying out the work will be returned to the site.

2.2 Investigations at the old diffuser structure

A second attempt at removing the fallen lead plug blocking riser 1 was successful. Entry was made into the diffuser chamber with a gamma spectrometry probe, lights and camera. The chamber, 23m below the seabed and 46m below sea level, has not been seen into for 50 years. Video footage from within the chamber was obtained. SEPA have viewed the footage and the data collected during the survey of the chamber and riser is now being considered. Further work will be undertaken to survey the old effluent pipes to a distance of

approximately 300m beyond the triple point (where the adit, the effluent tunnel and the shaft stub tunnel meet). This information, along with the survey data of the local seabed, iser1 and the Diffuser Chamber will help inform the most appropriate way to remediate the old effluent discharge system.

The final piece of work, survey of the effluent pipeline, will be to confirm whether particles do or do not reside within the discharge pipes. All of the preparatory work is in-place, including the particles team having observed the pipe-crawler (including gamma spectrometer) in action at the contractors engineering site (MSIS) at Invergordon.



Bill Thompson, DSRL inspects pipe-crawler

3 DOUNREAY PARTICLES: EDINBURGH MEETING

The minutes of the meeting held with Scottish Government and other key agencies are now available on the website. The group met again on the 7th August and the minutes will be published when finalised. The next meeting is scheduled for sometime in December – date to be confirmed.

4 MONITORING OF BEACHES



The contract for beach monitoring is due for renewal in 2008 and has been advertised in the Official Journal of the European Union (OJEU). Expressions of interest have been received and an Invitation to Tender has been issued to 3 companies.

4.1 Dounreay Foreshore

Monitoring of the Dounreay foreshore continued with the west foreshore survey completed in May and the east foreshore surveys completed in May, June and July. No particles were detected during

these surveys. Monitoring of the foreshore is restricted during May to August due to the tern nesting season. Enhanced monitoring is planned to re-commence on the week beginning the 18th of August.

4.2 Sandside Beach

Permission by the landowner to access Sandside beach was re-instated on 15th July 2008. The survey was completed before the end of August and four particles were detected and returned to site. All four particles were in the minor category.

4.3 Dunnet beaches

Monitoring of Dunnet beach was completed on 12th June 2008. The area covered by the survey was 1,067,598 m². While a piece of contaminated plastic was discovered, during support to the Highland Council beach clean on 18th March, no particles were detected.

A paper summarising all surveys carried out will be completed by the end of this year. This will consider options for future monitoring activities.

5 KEY DATES

Date	Description
Now	Off-shore clean-up commences, following approval of BPEO
25/26 September	DPAG meeting
24 or 30 Sept 08	COMARE meeting
Nov – tbc	DPAG's fourth report
Early Dec – tbc	Scottish Government meeting
10 Dec 2008	COMARE meeting

Particles Project Team
Dounreay Site Restoration Ltd (DSRL)
18th August 2008

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.