

# PARTICLES RETRIEVAL ADVISORY GROUP (Dounreay)

## SUMMARY OF DISCUSSION AND RECORD OF RECOMMENDATIONS AND ACTIONS

### FIRST MEETING OF THE PARTICLES RETRIEVAL ADVISORY GROUP (Dounreay) held on 5<sup>th</sup> May 2009

#### Present:

Prof Keith Boddy (Chair)  
 Prof Tim Atkinson (Member)  
 Prof Marian Scott (Member)  
 Dr Andrew Tyler (Member)  
 Dr Paul Dale (Technical Secretary)

#### In Attendance:

Ms Joanne Brown (Observer, HPA)  
 Mr Phil Cartwright (Observer, DSRL)  
 Prof Alex Elliott (Observer, COMARE)  
 Mr Hugh Fearn (Observer, SEPA)  
 Mr Stuart Hudson (Observer, The Scottish Government)  
 Dr Will Munro (Observer, FSA)  
 Mr Byron Tilly (Observer, SEPA)  
 Mr Bill Thomson (Observer, DSRL)  
 Mrs June Moore (Administration)

| Agenda Item                             | Summary of Discussion  | Recommendation  | Action   | Status | Target Date |
|---|--|---|--|--------|-------------|
| <b>1<br/>Welcome +<br/>Introduction</b> | Name of new group: Particles Retrieval Advisory Group. Awaiting final decision by SEPA.  |   | <b>SEPA</b> to confirm name of new group. Closed during meeting (at item 2).   | Closed |             |
| <b>KB</b>                               | Introductions and roles.   |   | Completed during meeting.  | Closed |             |
| <b>2<br/>General<br/>Introduction</b>   | BT provided background to convening new group.   | BT stated that SEPA was happy for the new group to be called the "Particles Retrieval Advisory Group". Following discussion, it was acknowledged that "Dounreay" should be specified within the descriptive name of the | <b>PRAG(D)</b> to provide at least one report annually of Group's conclusions and recommendations, related primarily to the remediation work that is being undertaken by DSRL. | Open   | Year-end    |
| <b>BT</b>                               | BT advised the Members that the formal line of communication set up for PRAG(D) was that the new Group would report to SEPA through him. Referring to the outline Terms of Reference, he said that the title of the ToR reflects the way |   |  |        |             |

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| <b>2</b><br><b>General Introduction (cont)</b>                            | <p>SEPA views the role of the new Group, by focussing on the programme for retrieval of particles from the marine environment, and any consequences with respect to monitoring of beaches, and also to identify when this work may be regarded as complete. BT emphasised that SEPA is seeking advice from the Members on establishing criteria to determine the end-point of the remediation operation.</p> <p>PC highlighted, from DSRL's point of view, the important role that the Group will occupy in providing some independent advice and assurance to the public. He said that a significant outcome of the BPEO's preferred option for management of the particles issue was the targeted removal of offshore and onshore particles and DSRL views addressing this published requirement as a very important part of the Group's remit.</p> | <p>group in order to identify this group with providing expert advice specifically relating to Dounreay particles, and it was <b>recommended</b> that this could be incorporated by the addition of Dounreay in parenthesis at the end of the group's name, <i>i.e.</i> Particles Retrieval Advisory Group (Dounreay), and PRAG(D). BT agreed that this would be acceptable to SEPA.</p> | <p><b>PRAG(D)</b> to make observations or comments on methods being used to retrieve and recover the offshore particles, and monitoring of beaches, and to advise whether the detection arrangements are suitable.</p> | Open   | Year-end    |
| <b>3</b><br><b>Chair's Introduction</b><br><i>(Draft template tabled)</i> | <p>Method of recording meetings. Draft pro-forma presented which could be used to make a brief record of the meetings of the new group. KB suggested using this format for capturing any actions and recommendations agreed by the Group during its meetings. If it proved unsatisfactory the practice could be reconsidered.</p>   | <p>It was <b>agreed</b> that this method of recording the discussions should be used and <b>recommended</b> that the PRAG(D) agenda and meeting record should be published on the SEPA website</p>   | <p><b>PD/JM</b></p>  | Open   | Ongoing     |

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| <b>3.1 Group's Objectives</b><br><br><i>(Paper 001)</i>     | Outline Terms of Reference considered by the Group. ToR accepted.   |   |  |                                     |                                    |
| <b>3.2 Membership + Observers</b><br><br><i>(Paper 002)</i> | <p>Appointment of Honorary Member of group.</p> <p>Role of Observers; to make observations and participate in the meeting fully but would not be eligible to vote if the Members needed to do so to reach a Group decision.</p> <p>Criteria for inviting other observers into the Group.</p> <p>Representation from relevant groups. e.g. Edinburgh Particles Group, NDA and Sandside Estate could be invited to parts of meetings on request.</p> <p>Announcement of formation of new group.</p> | <p><b>Agreed</b> by Group.</p> <p>This was <b>agreed</b> by all present.</p> <p>It was <b>agreed</b> that it might be possible for interested groups or individuals to attend all or part of the meetings as an audience, with designated time for questions, without full observer status.</p> <p>It was <b>agreed</b> that the Chair of the Environmental sub-Group of the Dounreay Stakeholder Group be invited to nominate a representative to attend the PRAG(D) meetings as an observer.</p> <p>It was <b>agreed</b> that SEPA should communicate the existence of this group to all interested parties, including Stakeholder Group.</p> | <p><b>KB</b> to extend invitation to Dr Campbell Gemmell.</p> <p><b>PC/BT</b></p> <p><b>BT</b></p> | <p>Open</p> <p>Open</p> <p>Open</p> | <p></p> <p>Before next meeting</p> |

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| <b>4 Review of Dounreay Monitoring Regarding Radioactive Contaminated Land Regs</b> | BT provided current status and advised that RCLR guidelines were unchanged from those previously outlined to DPAG.   | BT <b>agreed</b> to provide the group with the link to the RCLR guidelines.   | <b>BT</b>   | Open   |                                     |
|   | HF gave update on the monitoring at Dounreay Foreshore in line with the Radioactive Contaminated Land Regulations, and SEPA's forthcoming assessment of Dounreay fragments.  | It was <b>noted</b> that letters are to be issued by BT to local landowners about the assessment.   | <b>BT</b>   | Open   |                                     |
|   | PD confirmed habit survey to be undertaken at Dunnet during the summer. Discussion on implications of the assessment, including consideration of timescale involved.   | KB suggested that separate letter should be sent directly to Mr Minter, to inform him of the existence of the new Group. It was <b>agreed</b> that SEPA should do this. | <b>SEPA</b> | Open   |                                     |
| <b>5 Surveys Update – Beaches</b>   | PC tabled report as Paper PRAG/2009/M1/006.  |   |             |        |                                     |
| <b>5.1 Sandside</b><br><i>(Tabled Paper 006)</i>                                    | Monitoring at Sandside undertaken until 12 <sup>th</sup> October and daily during September last year. Additional coverage undertaken after completing survey of 'normal' area, providing largest footprint ever achieved. Access permission withdrawn on 12 <sup>th</sup> October. Single survey completed in March 2009. No further monitoring. GH Evolution II system providing enhanced performance. | PRAG(D) <b>recommended</b> that monitoring at Sandside be resumed as soon as possible.  | <b>DSRL</b> | Open   | <i>Subject to access permission</i> |

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| <b>5.1<br/>Sandside<br/>(cont)</b>    | Possibility of a repeat survey of the area between the Dounreay Foreshore and Sandside.  | <b>Recommend</b> monitoring between Sandside and Dounreay Foreshore  | <b>DSRL</b> | Open   |             |
| <b>5.2<br/>Dounreay<br/>Foreshore</b> | Monitoring carried out fortnightly until Tern nesting season. Continue monitoring tidal area.  | Previous <b>recommendation</b> by DPAG reinforced: public should be prevented from access to beach. Also <b>agreed</b> that work should be undertaken to replace or repair fencing, to make the Foreshore less accessible to the public. | <b>DSRL</b> | Open   | ASAP        |
|                                       | More particles detected on East Foreshore. East Foreshore now has more sediment and potential for particle accumulation has increased. | The Group <b>recommended</b> that monitoring be continued on the East Foreshore.   | <b>DSRL</b> | Open   | Ongoing     |
| <b>5.3<br/>Dunnet</b>                 | SEPA is planning to carry out a habit survey; future recommendations may depend on the outcome of this habit survey.                   | KB noted that this is what DPAG had <b>recommended</b> ; recommendation remains.   | <b>SEPA</b> | Open   |             |
|                                       |  | PRAG(D) <b>recommended</b> that monitoring of Dunnet beach should be reviewed and undertaken in accordance with the findings of the habit survey.  | <b>DSRL</b> | Open   |             |
| <b>5.4<br/>Others</b>                 | Discussion on the full update of all recent onshore surveys.   | The Group <b>recommended</b> monitoring the area between Dounreay Foreshore and Crosskirk  | <b>DSRL</b> | Open   |             |
|                                       | It might be possible to survey the area between Dounreay and Crosskirk during next two months.   |  |             |        |             |

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| <b>5.4 Others (cont)</b>  | During March 2008 significant river water was discharged onto Melvich beach, resulting in a major sand blockage and preventing monitoring access to beach. Vehicular access was regained in March 2009.  | .   |                    |        |             |
| <b>6 Offshore Retrieval Work</b>                                | General update from PC.  |   |                    |        |             |
| <b>6.1 Offshore Work Undertaken</b><br><i>(Paper 003)</i>       | Summary of the work undertaken and the implications of the number and particle detection capability were considered. The compatibility of the particle measurement technique was discussed.  | Sampling of 10% of population for laboratory analysis is <b>recommended</b> and that a one-year sample dataset be obtained.                                     | <b>DSRL</b>        | Open   |             |
|   | Efficiency of detector system considered. No information on detection limit at depth.  | <b>Recommend</b> Monte Carlo modelling of detector capability.  | <b>DSRL and AT</b> | Open   |             |
|   | Possible limitations of seabed monitoring area, given the duration of the monitoring period and overall time required to retrieve each particle after initial detection (average 15 minutes).  | It was <b>recommended</b> that DSRL should utilise the information gained from monitoring a wider area to assess the performance of the retrieval technique.    | <b>DSRL</b>        | Open   |             |
| <b>6.2 Offshore Work Planned for 2009</b><br><i>(Paper 004)</i> | Contoured pattern of <i>significant</i> particles in the main plume. DSRL intends to target a specific area of 7.5 hectares this year. Suggested route to the plume. Possibly start at South-eastern end (relative to the diffuser) to provide a | Group <b>recommend</b> that monitoring is focused on the area identified as 7.5 hectares commencing in the South East corner and the monitoring track continues | 2500 (25 x 100m)   | Open   |             |

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| 6.2<br>Offshore<br>Work Planned<br>for 2009<br>(cont) | <p>natural progression towards Sandside Bay</p> <p>Sentry Box</p> | <p>until the Northern boundary of the 5 <i>significant</i> particles per hectare contour, as predicted in DPAG's Fourth Report, is reached. If greater or equal to 5 <i>significant</i> particles per hectare continue to be detected beyond this point then monitoring should be extended until, on a reasonable judgment, the number of particles per hectare being recovered drops below 5 <i>significant</i> particles per hectare.</p> <p><b>Noted</b> that the focus of the operation should be to remove as many particles as possible, as quickly as possible.</p> <p>The Group <b>recommends</b> that in the first year, in order to establish a baseline, the Sentry Box area should be monitored at the beginning of the season and again at the end. For subsequent years, it was considered that it might be sufficient to monitor the Sentry Box area once each year, at the end of the recovery season.</p> |        |        |             |

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| <b>7<br/>FEPA Ban</b><br><i>(Paper 005)</i> | WM presented an evaluation of the Dounreay FEPA area in light of recent risk assessments and current remediation activities.   | PRAG(D) <b>noted</b> that FSA had concluded that the current FEPA area should be retained and reviewed once the Dounreay seabed remediation and re-monitoring work is complete.  |   |                                     |  |
| <b>8<br/>Future Meetings</b>                | <p>Items 8 and 10 were interdependent; the meeting dates should be determined by the work programme.</p> <p>Considered the proposed end date for this year's retrieval season, (probably concluding operations by the end of October) and the availability of relevant data thereafter.</p> <p>Discussion regarding preparation required to provide the Group's recommendations to SEPA by the end of the year, as determined in the ToR. BT suggested that, for the first year at least, it might be preferable to complete PRAG(D)'s report to SEPA for end of financial year, instead of end of the calendar year.</p> <p>Request for consideration of the criteria for DSRL to cease the retrieval operation. It was suggested that the Group attribute some time at each future meeting to consider recommendations for identifying level of risk that may be regarded as acceptable for reaching an end-point to the remediation activities.</p> | <p><b>Noted.</b></p> <p>It was <b>agreed</b> that the Group should meet again in November. The date of 18 November was identified as suitable for the Group.</p> <p>Members <b>agreed</b> that PRAG(D) would provide a report to SEPA by the end of March 2010.</p> <p>It was <b>agreed</b> that the Group should include consideration of acceptable level of risk as part of the work for future meetings.</p> | <p><b>PD and JM</b> to arrange next meeting for <b>18 November</b> and confirm venue.</p> <p><b>All Members</b></p> <p><b>Tec Sec</b></p> | <p>Open</p> <p>Open</p> <p>Open</p> | <p>March 2010</p> <p>By next meeting</p> |



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| <b>8<br/>Future Meetings<br/>(cont)</b> | PC requested that PRAG(D) should meet earlier in the year next year, in advance of the beginning of the particle retrieval season                         | The group <b>agreed</b> to meet in February next year. Date of 17 February 2010 was identified as suitable. | <b>PD and JM</b> to arrange next meeting for <b>17 February 2010</b> and confirm venue. | Open   |             |
| <b>9<br/>AoB</b>                        | None presented.   |   |   |        |             |
| <b>10<br/>Chairman's Summary</b>        | See item 8 above re. future work programme.<br><br>KB thanked Members and Observers for attending and for their contributions to PRAG(D)'s first meeting. |   |   |        |             |

|                 |      |   |
|-----------------|------|---|
| <b>Acronyms</b> | DSRL | Dounreay Site Restoration Limited         |
|                 | FSA  | Food Standards Agency (Scotland)          |
|                 | HPA  | Health Protection Agency                  |
|                 | PRAG | Particles Retrieval Advisory Group        |
|                 | RCLR | Radioactive Contaminated Land Regulations |
|                 | ROV  | Remotely Operated Vehicle                 |
|                 | SG   | (The) Scottish Government                 |
|                 | SEPA | Scottish Environment Protection Agency    |
|                 | ToR  | Terms of Reference                        |