

## PARTICLES RETRIEVAL ADVISORY GROUP (DOUNREAY)

### SUMMARY OF DISCUSSION and RECORD OF RECOMMENDATIONS and ACTIONS

#### 3<sup>rd</sup> MEETING OF THE PARTICLES RETRIEVAL ADVISORY GROUP (DOUNREAY) – 17<sup>th</sup> February 2010

**Present:**

Prof Keith Boddy (Chair) - **KB**  
 Prof Alex Elliott (Member) - **AE**  
 Prof Marian Scott (Member) - **MS**  
 Dr Andrew Tyler (Member) – **AT**  
 Dr Paul Dale (Technical Secretary) - **Tec Sec**

**In Attendance:**

Ms Joanne Brown (Observer, HPA) - **JB**  
 Mr Phil Cartwright (Observer, DSRL) - **PC**  
 Prof Alex Elliott (Observer, COMARE) - **AE**  
 Mr Hugh Fearn (Observer, SEPA) - **HF**  
 Mr Trevor Jones (Observer, NDA; alternate for Mr Randall Bargelt) - **TJ**  
 Mr Richard Lennon (SEPA) - **RL**  
 Dr Will Munro (Observer, FSA) - **WM**  
 Mr Bill Thomson (Observer, DSRL) - **BillT**  
 Mr Byron Tilly (Observer, SEPA) – **BT**  
 Mrs June Moore (Administration) – **JM**

**Apologies:**

Prof Tim Atkinson (Member) – **TA**  
 Mr Stuart Hudson (Observer, The Scottish Government) - **SH**  
 Mr Alastair MacDonald (Observer, DSG) – **AMacD**

Agenda Item	Summary of Discussion	Recommendation/Agreed	Action	Status	Target Date
<b>1 Chairman's Introduction</b>	<p>Chairman welcomed all present to the 3<sup>rd</sup> PRAG(D) meeting. He noted that apologies had been received from TA, SH and AMacD.</p> <p>KB outlined the priority for the 3<sup>rd</sup> meeting, to comprise a brief update from DSRL, consideration of the future retrieval work programme and, most importantly, to finalise the draft of the Group's Annual Report to SEPA.</p>		Draft Annual Report to be agreed during today's meeting: <b>All</b>	<b>Open</b>	Close of this meeting

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<b>2 Minutes</b> <i>Paper 001</i>	KB asked Members to consider paper M3/001.				
<b>2.1</b> <b>Record of Previous Meeting</b>	The Summary of Discussion and Record of Recommendations and Actions from the meeting held on 18 <sup>th</sup> November was accepted, with minor amendment.		Record of the 2 <sup>nd</sup> meeting of PRAG(D) to be posted on SEPA's website. (JM)	Open	
<b>2.2</b> <b>Actions Arising</b>	The Tec Sec led the Group through the actions arising from the previous two meetings. Action points were considered and were closed, superseded or carried forward, as agreed.		Actions carried forward from previous meetings to be recorded as an appendix to this document (Tec Sec & JM).	Open	
<b>3</b> <b>Offshore Retrieval Work</b>	Chairman invited comments from PC on the updated reports.				
<b>3.1</b> <b>Offshore Work Undertaken 2008</b>  <i>Papers 002 &amp; 003</i>	<p>PC outlined the recent amendments to the report, following discussion at the PRAG(D) November meeting, and gave a brief summary of the conclusions in this version. It was noted that a total of 55 particles were recovered remotely from the main plume surveyed ~ 14,100 m<sup>2</sup>. The Group discussed the content and implications of the report at length. It was noted that the area covered during last year had been chosen to validate the model.</p> <p>PC drew the Group's attention to the amendments in Paper 003 and the maps were considered. Queries were raised and addressed. PC confirmed that the numbers on the documents referred to the depth at which the particles were buried.</p>	<p>It was noted that it had been <b>agreed</b> that future detection and retrieval work would be targeted to a depth and area where it was believed that a higher number of potentially <i>significant</i> particles might be located.</p> <p>It was suggested that further clarification to the legends on the maps would be helpful.</p>	<p><b>DSRL</b> to continue to detect and retrieve as many (high activity) particles as possible.</p> <p>During the next year's work, it is <b>DSRL's</b> intention to go back over some of the area covered in 2008, to establish whether there has been any re-population of particles.</p>	Ongoing	Ongoing



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<b>5 Surveys Update – Beaches</b>	The Chairman invited DSRL to provide information on beach monitoring. BillT led the Group through a presentation on DSRL beach surveys.				
<b>5.1 Sandside</b> <i>Paper 007</i>	<p>BillT presented the results of monitoring during November and December 2009 and confirmed that access was withdrawn following the December survey.</p> <p>Arrangements for future monitoring were discussed. PC advised the meeting that information has been passed to the UK Government and he is optimistic that the relevant parties are close to obtaining agreement with the Sandside Estate to permit uninterrupted monitoring. If the terms could be agreed, it would be feasible for a continuous period of monitoring to commence in March or early April which could last until, at least, the end of December.</p>	<p>The Group <b>noted</b> that there was no guarantee of agreement to enable continuous beach monitoring and recognised that the current situation was similar to that reached last July.</p> <p>The Group also <b>noted</b> that it was a matter for the Minister and NDA to agree terms with the Estate's owner(s).</p>			
<b>5.2 Dounreay Foreshore</b> <i>Papers 008 &amp; 009</i>	<p>The survey results were considered and discussed. During the presentation and ensuing discussion, the Group considered paper M3/008; advice to Members of the Public. BillT informed Members that the most recent legal advice to DSRL was that they could not restrict access to the Foreshore.</p> <p>PD asked if, given that the NDA competition for operating the Dounreay site will begin shortly, the tendering process has the potential to affect the contracts for monitoring or recovery work associated with particles. PC stated that the intention is that arrangements are controlled by DSRL, rather than the Site Licensed Company.</p>	During discussion, it was <b>noted</b> that the proposed signage was awaiting SEPA's consideration.	<b>BT</b> agreed to obtain SEPA's view on the proposed signage.	<b>Open</b>	

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<b>5.3 Dunnet</b>	It was noted that the SEPA habits survey of Dunnet Beach had been completed and SEPA was awaiting a report from its contractor.				
<b>5.4 Others</b>	<p>The Group discussed the plan for future monitoring. DSRL advised that once monitoring is resumed it plans to complete the footprint, plus an additional area of the beach. PC stated that during the June survey, 3 particles were found in areas that had just been monitored. He informed the Group that DSRL intends to increase the area of monitoring with an overlap from month to month, so as to provide additional information and add another variable for consideration.</p> <p>It was noted that, following a protracted tendering exercise, DSRL has awarded the contract for the 2010 offshore remediation programme to a different contractor from that previously used. A new system will be used for the retrieval work, with an emphasis on the capability to retrieve a larger number of particles at the time of detection. The new equipment has a much larger tank to accommodate this.</p> <p>The Group was informed of the capabilities of the new detector system, together with details of the contractual technological remit. TJ advised the Group that the NDA had a very difficult decision in awarding a contract using unproven methodology, but the new contractor is undertaking the risk to meet the criteria specified in the contract.</p>	<p>The Chairman <b>noted</b> his concern that, if the system proves to be inadequate for the task, the Group will have a year without a complete set of required data.</p> <p>It was <b>agreed</b> that the change to a new system of detection and retrieval during the 2010 season should be <b>noted</b> in the Annual Report.</p>	<p><b>PD</b> agreed to add an appropriate rider to the Report.</p>	<b>Open</b>	To meet Report deadline

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<b>6</b> <b>Review of Dounreay Monitoring Regarding Contaminated Land Regulations</b>	BT invited HF to address this issue. HF informed the meeting that SEPA is awaiting additional calculations, to be provided by HPA, before it can progress the assessment under RCLR.	PD <b>noted</b> that this has important implications for SEPA regarding the consideration of an end point.			
<b>7</b> <b>Future Work Programme</b>  <i>Paper 010</i>	<p>The preferred area to be covered this year was discussed and considered. The advice of the Group was that the detection and retrieval work needs to be focussed on the areas of highest density of particles.</p> <p>DSRL gave a brief presentation describing the construction of the Diffuser and informed the Group that fresh water appeared to go into the Diffuser and out of the risers into the seabed. PC outlined DSRL's intention to isolate and seal the Diffuser and advised the Group that DSRL provided SEPA with a report on these plans before Christmas 2009. PC said that DSRL wishes to undertake the work to seal the Diffuser as soon as possible.</p>	<p>It was <b>agreed</b> that the target areas should be those identified by DPAG as potentially containing the highest density of particles, to meet the remediation strategy and achieve the maximum reduction in caches of offshore particles.</p> <p>The Chairman <b>noted</b> that, as far as this Group is concerned, if SEPA thinks that it would be useful for the procedure to be considered by PRAG(D), then the Group needs to have this report.</p> <p>It was agreed that this item will be considered at the next PRAG(D) meeting. It was also <b>agreed</b> that, to fully consider the issue in detail, it may be advisable to invite Professor Tony Harris to participate in PRAG(D)'s deliberations on this matter, in view of his previous contributions and knowledge of the Diffuser during his membership of DPAG.</p>	<b>SEPA</b> to consider providing PRAG(D) with a copy of DSRL's report on the proposed method for sealing the Diffuser.	<b>Open</b>	Prior to June meeting

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	<p>The Chairman stated that, for the next meeting, the Group would like the views of the Observers on what their considered end point would be for monitoring Sandside, etc., in order to develop an objective on this issue.</p> <p>It was suggested that PRAG(D) look at the work of the Monitoring Sub-Group summary as a potential supplement to the Annual Report.</p> <p>Prof Boddy said that, regarding the Diffuser, he would take the decision on whether to ask Prof Harris, or perhaps another expert in this field, to join the Group for this item.</p>	The Group <b>agreed</b> that it may be advisable to have additional expertise for its deliberations on this matter.	<p>Observers to provide views on a suggested end point for beach monitoring. (From <b>NDA, SEPA, HPA and FSA.</b>)</p> <p>Tec Sec to consider whether it would be appropriate to add the Monitoring Sub-Group summary as a supplement to the Annual Report</p> <p><b>PRAG(D) Chair</b> to consider inviting Prof Harris (or other suitable expert) to join the June meeting, if it is deemed appropriate to obtain additional expertise to assist the existing membership of the Group during its consideration of this item (only). <b>KB</b></p>	<p><b>Open</b></p> <p><b>Open</b></p> <p><b>Open</b></p>	<p>End of May</p> <p>End of March</p> <p>ASAP – in advance of June mtg.</p>
<b>8 Future Meetings</b>	<p>The Group considered the dates previously proposed for a further two meetings during 2010; <b>23<sup>rd</sup> June</b> and <b>27<sup>th</sup> October</b>.</p> <p>It was suggested that DSRL confirm the launch date for the 2010 work.</p>	<p>It was <b>agreed</b> that the next meeting would be held on the <b>23 June</b>.</p> <p>It was <b>noted</b> that, due to timing issues relating to the availability of offshore recovery data, the Group would look again at the timetable for the October meeting.</p>	<b>JM</b> confirmed that the June meeting will be held at the Carlton Hotel, Edinburgh.	<b>Open</b>	<b>Papers required by 2/6/10</b> Meeting packs to be issued on 9/6/10
<b>9 Chairman's Summary</b>	The Chairman thanked the Members and Observers for their contributions to today's meeting. He said that he was including the Observers in his acknowledgements because they have a				

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	significant role to fulfil within the Group and he considered it important to encourage an exchange of information between the Members and Observers.				
<b>10 AOB</b>	<p>The Chairman invited any other items of relevant business.</p> <p>BT raised a matter regarding the agreed process to be followed in respect of circulation of PRAG(D)'s Annual Report to the Observers.</p> <p>There being no further business, the Chairman thanked those present for their attendance and closed the meeting.</p>	The Group <b>agreed</b> that the Observers should have access to the final Report. The Chairman said that it is SEPA's decision on how far it wishes to disseminate PRAG(D)'s Annual Report. It was <b>agreed</b> that the Report will be published on the SEPA website.	<b>Tec Sec</b> and <b>JM</b> will arrange for publication of PRAG(D)'s Annual Report on the SEPA website on 1 <sup>st</sup> April 2010.	<b>Open</b>	By 1/4/10

#### Acronyms

DSG	Dounreay Stakeholders Group
DSRL	Dounreay Site Restoration Limited
FSA	Food Standards Agency (Scotland)
HPA	Health Protection Agency
NDA	Nuclear Decommissioning Authority
PRAG(D)	Particles Retrieval Advisory Group (Dounreay)
RCLR	Radioactive Contaminated Land Regulations
SG	(The) Scottish Government
SEPA	Scottish Environment Protection Agency

DRAFT: 22/4/2010



## ACTIONS OUTSTANDING FROM PREVIOUS MEETING(S)

Meeting + Agenda Item	Summary of Discussion	Recommendation	Action	Status	Target Date
<b>M1/5.3 Dunnet</b>	SEPA is planning to carry out a habit survey; future recommendations may depend on the outcome of this habit survey.	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> to action.	<b>Remains open</b>	
<b>M2/6.2 Dounreay Foreshore</b>	The possibility of an additional cache of particles was raised and considered. KB noted the Group's concerns that a substantial number of particles are <i>significant</i> .	It was suggested it could be worthwhile reconsidering DPAG's views about a potential in-shore cache which feed the Dounreay Foreshore particles.	<b>KB</b> to review DPAG work to ascertain whether there is information regarding a second cache.	<b>Remains open</b>	
<b>M2/7.1 Offshore Work Undertaken 2008</b>	Previous calculations and work undertaken by Professor Clayton in DPAG's Second and Third Reports was discussed.		<b>KB</b> agreed to review DPAG's work on half-clearance times to determine if these were consistent with the initial data from the offshore work undertaken in 2008.	<b>Remains open</b>	
<b>M2/7.1 Access to Sandside Beach</b>	SH joined the meeting after lunch and KB invited AE to raise the matter of the SG's position on access negotiations with Sandside.  PC informed the Group that discussions are ongoing between the owners of Sandside Estate and UKAEA Limited, on behalf of the NDA. He said that a move has been made towards putting in place an external panel of	It was noted that this was raised due to its relevance in providing sufficient base-line data for PRAG(D)'s report.			

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	<p>experts to assess the existing and future damage to the Sandside Estate and recommendations are currently being put forward to the Minister.</p> <p>During discussion, SH advised the Group that the SG is proceeding with implementing the RCL regulations and, as far as he was aware, their involvement does not extend beyond that on this issue.</p> <p>AE said he had expected to hear something from the SG on this matter in September. PC advised that UKAEA are awaiting a response from the Minister.</p>	<p>It was <b>agreed</b> that the Group requires information based on data obtained throughout the whole year. KB noted that this Group shares the concerns COMARE has expressed; that it does not have sufficient data to make any robust assessment regarding Sandside.</p>	<p><b>SH</b> agreed to take comments from the meeting and endeavour to clarify the position of the SG regarding access at Sandside.</p>	<p><b>Remains open</b></p>	<p>Next meeting</p>
<p><b>M2/8</b> <b>Preparation of Group's Report to SEPA</b></p>	<p>The question of implications for the retrieval programme and for the potential end point were considered and discussed.</p>		<p>KB asked FSA, HPA and SEPA Observers to give consideration to the end points of monitoring and provide this to the Group. <b>(WM, JB &amp; BT/HF)</b></p>	<p><b>Remains open</b></p>	<p>By June 2010</p>

### SUMMARY OF ACTIONS ARISING FROM MEETING 3

Meeting + Agenda Item	Summary of Discussion	Recommendation	Action	Status	Target Date
<b>M3/2.1 Record of Previous Meeting</b>	Summary of Discussion and Record of Recommendations and Actions from the meeting held on 18 November was accepted, with minor amendment.		Record of the 2 <sup>nd</sup> meeting to be posted on PRAG(D) webpage. <b>(JM)</b>	<i>Open</i>	ASAP
<b>M3/3.3 Implications</b>	<p>PC said that the evidence of high activity particle movement was not conclusive, rather 'suggestive', and this needs further testing in subsequent recovery programmes.</p> <p>Late papers were accepted and tabled as PRAG(D)/2010/M3/011(T) and /012(T).</p>	KB <b>recommended</b> that, at its next meeting, the Group look at the report produced by the Monitoring Sub-Group.	<p><b>DSRL</b> to carry out further work to determine the possibility of higher activity particles migrating toward Sandside.</p> <p>Following consideration of tabled papers 011 and 012, the Monitoring Sub-Group was tasked to provide further assessment of possible consequences of the offshore recovery work on the rate of particle arrival at Dounreay and Sandside beaches. <b>AE, MS &amp; AT</b></p>	<p><i>Open</i></p> <p><i>Open</i></p>	<p></p> <p>June meeting</p>
<b>M3/4 Preparation of Group's Report to SEPA</b>	Finalisation of the Group's Annual Report to SEPA by live-edit.	<p>It was agreed that the Tec Sec would circulate the revised draft version produced during today's meeting, for the Members' further consideration.</p> <p><b>Tec Sec and Members</b></p>	Draft of Annual Report to be agreed during February meeting. <b>(All)</b>	<p><i>Open</i></p> <p><i>Open</i></p>	<p>During today's meeting.</p> <p>Report to be issued to SEPA by end March 2010.</p>

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<b>M3/5.2 Dounreay Foreshore</b>	The Group considered paper M3/008; advice to Members of the Public. BillIT informed Members that the most recent legal advice to DSRL was that they could not restrict access to the Foreshore.	It was <b>noted</b> that the proposed signage was awaiting SEPA's consideration.	<b>BT</b> agreed to obtain SEPA's view on the proposed signage.	<b>Open</b>	
<b>M3/5.4 Other Beaches</b>	The Group was informed of the capabilities of the new detector system, together with details of the contractual technological remit. TJ advised the Group that the NDA had a very difficult decision in awarding a contract using un-proven methodology, but the new contractor is undertaking the risk to meet the criteria specified in the contract.	It was <b>agreed</b> that the change to a new system of detection and retrieval during the 2010 season should be <b>noted</b> in the Annual Report.	<b>PD</b> agreed to add an appropriate rider to the Report.	<b>Open</b>	To meet Report deadline
<b>M3/7 Future Work Programme</b>	<p>PC outlined DSRL's intention to isolate and seal the Diffuser and advised the Group that DSRL provided SEPA with a report on these plans before Christmas 2009. PC said that DSRL wishes to undertake the work to seal the Diffuser as soon as possible.</p> <p>The Chairman stated that, for the next meeting, the Group would like the views of the Observers on what their considered end point would be for monitoring Sandside, etc., in order to develop an objective on this issue.</p> <p>It was suggested that PRAG(D) look at the work of the Monitoring Sub-Group summary as a potential supplement to the Annual Report.</p>	The Chairman <b>noted</b> that, as far as this Group is concerned, if SEPA thinks that it would be useful for the procedure to be considered by PRAG(D), then the Group needs to have this report.	<p><b>SEPA</b> to consider providing PRAG(D) with a copy of DSRL's report on the proposed method for sealing the Diffuser.</p> <p>Observers to provide views on a suggested end point for beach monitoring. (From <b>NDA, SEPA, HPA and FSA.</b>)</p> <p><b>Tec Sec</b> to consider whether it would be appropriate to add the Monitoring Sub-Group summary as a supplement to the Annual Report.</p>	<p><b>Open</b></p> <p><b>Open</b> <b>(linked to action on M2/8)</b></p> <p><b>Open</b></p>	<p>Prior to June meeting</p> <p>End of May</p> <p>End of March</p>

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	Prof Boddy said that, regarding the Diffuser, he would take the decision on whether to ask Prof Harris, or perhaps another expert in this field, to join the Group for this item.	The Group <b>agreed</b> that it may be advisable to have additional expertise for its deliberations on this matter.	<b>PRAG(D) Chair</b> to consider inviting Prof Harris (or other suitable expert) to join the June meeting, if it is deemed appropriate to obtain additional expertise to assist the existing membership of the Group during its consideration of this item (only). <b>KB</b>	<b>Open</b>	ASAP – in advance of June meeting
<b>M3/8 Future Meetings</b>	<p>The Group considered the dates previously proposed for a further two meetings during 2010; <b>23<sup>rd</sup> June</b> and <b>27<sup>th</sup> October</b>.</p> <p>It was suggested that DSRL confirm the launch date for the 2010 work.</p>	<p>It was <b>agreed</b> that the next meeting would be held on the <b>23 June</b>.</p> <p>It was <b>noted</b> that, due to timing issues relating to the availability of offshore recovery data, the Group would look again at the timetable for the October meeting.</p>	Consider suitability of <b>27<sup>th</sup> October</b> as date for Autumn meeting.	<p><b>Open</b></p> <p><b>Open</b></p>	Papers required by 2/3/10 for meeting packs to be issued on 9/6/10
<b>M3/10 AOB</b>	BT raised a matter regarding the agreed process to be followed in respect of circulation of PRAG(D)'s Annual Report.	The Chairman said that it is SEPA's decision on how far it wishes to disseminate PRAG(D)'s Annual Report. It was <b>agreed</b> that the Report will be published on the SEPA website.	<b>Tec Sec</b> and <b>JM</b> will arrange for publication of PRAG(D)'s Annual Report on the SEPA website on 1 <sup>st</sup> April 2010.	<b>Open</b>	By 1/4/10

Draft: 22/4/2010