

PARTICLES RETRIEVAL ADVISORY GROUP (DOUNREAY)

SUMMARY OF DISCUSSION and RECORD OF RECOMMENDATIONS and ACTIONS

5th MEETING OF THE PARTICLES RETRIEVAL ADVISORY GROUP (DOUNREAY) – 14th January 2011

Present:

Prof Alex Elliott (Member & **Acting Chairman**) – **AE**
 Prof Tim Atkinson (Member) - **TA**
 Prof Marian Scott (Member) - **MS**
 Dr Andrew Tyler (Member) - **AT**
 Dr Paul Dale (Technical Secretary) - **PD**

In Attendance:

Mr Michael Calloway (Observer, NDA) - **MC**
 Mr Phil Cartwright (Observer, DSRL) - **PC**
 Mr Jim Gemmill (Observer, SEPA) - **JG**
 Mr Bill Thomson (Observer, DSRL) - **BT**
 Mr Mark Toner (Observer, SEPA) - **MT**

Mrs June Moore (Administration) - **JM**

Apologies:

Ms Joanne Brown (Observer, HPA) - **JB**
 Mr Hugh Fearn (Observer, SEPA) - **HF**
 Mr Stuart Hudson (Observer, SG) - **SH**
 Mr Alastair MacDonald (Observer, DSG) - **AMacD**

Agenda Item	Summary of Discussion	Recommendation	Action	Status	Target Date
1 Acting Chairman's Introduction	<p>The Acting Chairman thanked those present for attending this meeting, arranged at short notice following the postponement of the December meeting due to the adverse weather conditions.</p> <p>AE stated that, as this was the first meeting since Professor Keith Boddy's death, he wished to put on record the Group's appreciation of Keith and the outstanding effort he had put into DPAG/PRAG(D)'s work and to chairing this Group.</p>	<p>The Acting Chairman noted and accepted apologies from the HPA, SG and Hugh Fearn. On behalf of the Members, AE welcomed Michael Calloway, Observer from the NDA. Around the table introductions were made to Mr Calloway.</p>			

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1 Acting Chairman's Introduction <i>(continued)</i>	<p>As a mark of respect for Keith, AE invited the Group to observe a few moments silence.</p> <p>AE confirmed that he had agreed to act as interim Chairperson for the next two meetings. He outlined the four main topics that the Group needed to consider at this meeting:</p> <p>The data received from DSRL on the recovery programme, whether this supports PRAG's 'understanding' and if the model needs to be reviewed;</p> <p>Decide and identify the area for the next recovery programme;</p> <p>Consider the implications of access and monitoring on a continuous basis on Sandside beach;</p> <p>Outline and agree the format and production of the Group's annual report to SEPA and DSRL.</p>				
2 Minutes	<p>AE asked the Group to consider Papers M5/001 and M5/002.</p>				
2.1 Record of Previous Meeting <i>Paper 001</i>	<p>The draft Summary of Discussion and Record of Recommendations and Actions from the meeting held on 23rd June 2010 was considered.</p>	<p>Minute accepted and agreed, as presented.</p>	<p>Minute of the 4th PRAG(D) meeting to be posted on the SEPA website. JM</p>	<p>Open</p>	<p>ASAP</p>

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2.2 Actions Arising	The Tec Sec led the Group through the actions arising or outstanding from the previous four meetings.	Action points were considered and were closed, superseded or carried forward, as discussed and agreed .	Actions still outstanding or deferred from previous meetings to be recorded as an appendix to this record. Tec Sec & JM	Open	For the February meeting
3 Review of Dounreay Monitoring Regarding Contaminated Land Regulations	<p>PD and JG reported on the current status of the review. Information from HPA has been delayed further but is expected within the next 2/3 weeks in the form of a letter to SEPA's CEO.</p> <p>PD also advised the Group that SEPA has prioritised another site and is in the process of establishing a criteria framework, based on legal advice. PD noted that significant management arrangements are already in place at Dounreay, which is acting to reduce the potential risk to the public.</p> <p>During discussion, PC stated that there are a number of issues associated with the old diffuser system still outstanding and consequently, progress on de-commissioning the diffuser is delayed pending further information</p>	It was agreed that JG/PD would discuss the matter out-with this meeting, as a separate issue.	Meeting to be arranged with PC at Dounreay during JG's routine visit, to discuss the outstanding issues. JG/SEPA	Open	ASAP
4 Offshore Retrieval Work	A presentation on the findings of the 2010 offshore retrieval operation was made by DSRL.				

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<p>4 Offshore Retrieval Work (continued)</p> <p>4.1 Report on 2010 Operation + 4.2 Implications</p>	<p>PC tabled a chart for AT's consideration, "2010 Seabed Survey – Cs-137 Limit of Detection", which he agreed to distribute electronically to the Group. <i>Tabled Paper PRAG(D)/2011/M5/007</i></p> <p>Consideration and interpretation of the results and data was undertaken by the Group.</p> <p>The Acting Chair deferred consideration of TA's comments on the implications of the results until after lunch. <i>(Late Paper PRAG(D)/2011/M5/006 – distributed electronically referred.)</i></p>	<p>There was broad and wide-ranging discussion over the data itself and the potential implications, which will be noted and incorporated by the Members into the PRAG second annual report.</p> <p>Further specific diagrams and maps were requested:</p> <p>Establish depth for the re-covered area, previously surveyed;</p> <p>Diagrams indicating the depth of 2010 recovery;</p> <p>Graphs with contours removed, on chart divided into blocks of 20^m squares;</p>	<p>It was agreed that:</p> <p>M Scott will produce a statistical analysis of the 2010 particle finds within the plume to determine if there was any trend in the distribution of the particles with increasing distance from the old diffuser. MS</p> <p>P Cartwright was actioned with providing the data electronically to MS as soon as possible. DSRL</p> <p>Additional information to be provided, as requested. DSRL</p> <p>DSRL to provide additional graphs, modified to remove contours, as discussed and agreed. DSRL</p>	<p>Open</p> <p>Open</p> <p>Open</p> <p>Open</p>	<p>ASAP</p> <p>ASAP</p> <p>ASAP</p> <p>ASAP</p>

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<p>4.3 Future Work Programme</p>	<p>DSRL sought views and recommendations from the Members on the direction of the retrieval work programme for 2011. PC said he was seeking a fairly well defined intended area of work for the next season, albeit if subject to budget fluctuations.</p> <p>The results of the 2010 work were discussed at length and compared to the results from earlier retrieval work, together with the predictions from DPAG's previous reports. DSRL intimated that a total area of 20 hectares could be surveyed, although this might be reduced to as little as 10 hectares.</p> <p>Reasons for areas selected include:</p> <ul style="list-style-type: none"> • Collection of significant particles (reduction of hazard) • Determination of survey efficiency • Delineation of the 'plume' • Check of the sentry box 	<p>Following extensive discussion and consideration, it was agreed that the Group would recommend two specific areas of operation for the 2011 programme. These were identified as:</p> <p>i) An area up to the North-east, as close as it is possible to get to the FEPA boundary. 2 Hectares to be monitored once and then the data reviewed;</p> <p>ii) The remaining 18 hectares to include a re-survey of the area of a 30^m overlap at the top North-east corner and continue along a straight line along the shore to the North-east, as far as the equipment can go, for a maximum of 14 hectares, with the provision that the remainder of at least 4 hectares is a re-coverage within those 14 hectares.</p> <p>The group noted that it was known that particles are located outside the FEPA zone to the North-east; this area would be reconsidered for survey dependent upon the results from 2011.</p>			

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<p>6 Surveys Update – Beaches</p> <p>6.1 Sandside Beach</p>	<p>The Acting Chairman accepted this item for consideration out of agenda sequence and DSRL presented a full (Power-Point) report of the onshore monitoring surveys carried out during 2010.</p> <p>BT presented information regarding monitoring on Sandside Beach during May, then from August to December. (He advised that monitoring during December was difficult due to lying snow.)</p> <p>DSRL provided the Group with an update of the current situation and process to establish an agreement to permit continuous monitoring of Sandside Beach.</p>	<p>It was suggested that at least another full year of continuous survey data could enable PRAG to review the importance of continuing with the current programme of monitoring.</p> <p>The Group noted and welcomed the progress in securing agreement to allow continuous access and monitoring of Sandside Beach. The Group again emphasized the value and importance of an extended continuous period of surveying to establish a good data set.</p>			
<p>6.2 Dounreay Foreshore</p> <p>6.3 Dunnet Beach</p> <p>6.4 Others</p>	<p>The monitoring results for other beaches were discussed and PC asked Members to consider their recommendations for future monitoring requirements, including the completion criteria and potential for a reduction in the number of surveys, the frequency and coverage.</p> <p>The Acting Chair thanked BT for his presentation.</p>	<p>It was noted that this Group is engaged as an advisory body and its recommendations need to be made in conjunction with the requirements of other bodies. It was agreed that although PRAG may form a view, this decision is ultimately the responsibility of the Regulator(s).</p>			

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<p>4 Offshore Retrieval Work</p> <p>4.2 Implications</p>	<p>AE invited TA to address his <i>Late Paper PRAG(D)/2011/M5/006 (circulated electronically earlier this week)</i>: TA's comments on the implications.</p> <p>TA led the Group through his comments, primarily concerned with establishing whether the new information invalidated the DPAG contour model.</p> <p>Various methods were suggested and considered to establish ROV efficiency.</p> <p>AE stated that he considered that at least two more campaigns, in 2011 and 2012, will be required for the Group to be able to make an accurate assessment of the implications and any prediction of potential end-dates.</p>	<p>During extensive discussion and consideration of the implications, the Group agreed that the results achieved during last year's retrieval operation were very impressive.</p> <p>It was noted that DSRL were not yet able to confirm whether the same contractor would be used for the next season's operation.</p> <p>The Group recommended that, as an absolute minimum, one further year of retrieval operation would be required to provide the additional data required to determine the ongoing implications and the validation of the detection equipment efficiency.</p>			
<p>4.3 Future Work Programme</p>	<p>The establishment of particle depth and determination of the efficiency of the offshore particle detection and retrieval tool were discussed at length.</p> <p>JG suggested that not all variables are mutually exclusive, recovery does not preclude delineation or establishing efficiency of the system.</p> <p>The possibility of producing a two-year programme* was mooted.</p>	<p>The Group agreed with DSRL's comments on retrieval depth estimation, but requested that this was discussed with the contractor.</p> <p>It was agreed that this* would be considered at the next meeting, in the light of the information which had been requested.</p>			

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5 Preparation of Group's Report to SEPA	The Acting Chairman led the Group through the various elements to be covered in the annual report to SEPA.	<p>It was agreed that the following material would be prepared in draft format for consideration and finalisation at the next meeting:</p> <p>Information regarding the plume;</p> <p>Beach monitoring and proposals for ROV model;</p> <p>New contour maps based on 2010 recoveries;</p> <p>Recovery efficiency of detection equipment;</p> <p>Introduction and conclusions sections.</p>	<p>For February meeting; papers due by week commencing 7th February.</p> <p>MS agreed to prepare draft section.</p> <p>AT agreed to prepare draft section.</p> <p>PC and BT agreed to produce new contour maps.</p> <p>TA agreed to produce a revised version of his paper.</p> <p>AE agreed to produce draft summary text for these sections.</p>	<p>Open</p> <p>Open</p> <p>Open</p> <p>Open</p> <p>Open</p>	<p>If possible during w/c 7 Feb</p> <p>For Feb meeting</p> <p>For Feb meeting</p> <p>For Feb meeting</p> <p>For Feb meeting</p> <p>For Feb meeting</p>
6 Surveys Update - Beaches	This item was covered by DSRL's presentation earlier in the meeting.				
7 Future PRAG Work Programme	The Acting Chairman confirmed that the priority for work to be undertaken by the Group would be focussed on production of the Group's annual report to SEPA and DSRL.	It was agreed that this item was covered by the work identified in item 5 above.	See actions listed in item 5 above.	Open	As 5 above

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<p>8 Future Meetings</p>	<p>AE said that, following the meeting next month to produce the Group's annual report, the next scheduled PRAG meeting should be held at the conclusion of the 2011 offshore work programme, as soon as all the ROV data has been processed and is available to the Members.</p> <p>MC advised the Members that the NDA would be going through the competition programme and it might be of interest to the Group to have a meeting during the Autumn, when an update of the outcome could be provided under AoB.</p> <p>MS and AT raised the matter of beach monitoring information and stated that they had not been receiving information regarding the particles recovered from Sandside Beach.</p> <p>PD suggested that beach monitoring information could be disseminated through the accepted route, via email to PD and JM.</p>	<p>The Acting Chairman proposed that the Group should meet in November 2011, or as soon as DSRL is able to process and provide the data at the conclusion of the 2011 offshore retrieval operation.</p> <p>The Group recommended that they should be kept informed of the results of the Sandside Beach surveys on an ongoing basis.</p>	<p>Provisional date in November to be sought. PD and JM</p> <p>PC agreed that DSRL would send regular reports and information on the Sandside Beach surveys to PD and JM, for distribution to the Members. DSRL</p>	<p>Open</p> <p>Open</p>	<p>By M6</p> <p>Ongoing</p>
<p>9 Acting Chairman's Closing Summary</p>	<p>The Acting Chairman thanked those present for their contributions. On behalf of the Members, he expressed his appreciation of the report and tabled presentation from DSRL.</p>				

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10 Any Other Business	The Technical Secretary stated that, in his opinion, there was a need to acknowledge the significant advancement made by DSRL this year with the offshore detection and retrieval programme. He said that DSRL were to be congratulated on addressing the source and, potentially, addressing an end-point.				

Acronyms

DPAG	Dounreay Particles Advisory Group
DSG	Dounreay Stakeholders Group
DSRL	Dounreay Site Restoration Limited
HPA	Health Protection Agency
NDA	Nuclear Decommissioning Authority
PRAG(D)	Particles Retrieval Advisory Group (Dounreay)
ROV	Remotely Operated Vehicle
SG	(The) Scottish Government
SEPA	Scottish Environment Protection Agency