

## FINAL VERSION



### PARICLES MEETING

<b>Date</b>	Tuesday 14 <sup>th</sup> February 2006 Hilton Hotel, Edinburgh Airport	
<b>Present</b>	Elizabeth Gray	Scottish Executive
	Anita Popplestone	Scottish Executive
	Ian Hall	Scottish Executive
	Byron Tilly	SEPA
	Paul Dale	SEPA/DPAG
	Ian Hargrave	Highland Council
	Peter Kayes	Highland Council
	Ian Laidlaw	NDA
	Trevor Jones	NDA
	Roy Blackburn	NDA
	Alex Elliott	COMARE
	Bill Fernie	Particles Consultation Steering Group
	Norman Harrison	UKAEA
	Marc Murray	UKAEA
	Alex Rankine	UKAEA
	Joe Toole	UKAEA
	Frank Dennis	UKAEA
	June Love	UKAEA
<b>Apologies</b>	Keith Boddy	DPAG
	Arthur Johnston	Scottish Executive
	Beth Taylor	UKAEA

### MINUTES

#### 1. WELCOME AND INTRODUCTION

Elizabeth Gray opened the meeting by welcoming everyone to the meeting. She stated that Keith Boddy had discussed some issues with her before the meeting and these would be raised at the appropriate time.

#### 2. SUMMARY OF JULY MEETING

Paul Dale suggested some rewording to para 1.2 of the July minutes. He agreed to send his amendment to June Love for amendment.

**Action 1: Paul Dale to reword para 1.2 of July meeting and send to June to finalise minutes. *Action complete.***

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### 3. PROGRESS ON ACTIONS FROM JULY MEETING

All actions from the July meeting have been progressed. Elizabeth Gray asked attendees to raise anything outstanding outside of the meeting.

### 4. UKAEA UPDATE

#### 4.1 On-going Research and Development

Joe Toole reported:

Beach monitoring – 2005 surveys. Storms in January had hindered coverage. Subsequent surveys through the year have allowed UKAEA to catch up and over 300,000 m<sup>3</sup> monthly average area has been covered (albeit that access to Sandside was denied for 3 months of the year). One Dounreay foreshore survey was forsaken to allow Dunnet to be surveyed but two were carried out in December to compensate. Particles at Sandside were detected and retrieved in Feb (3 particles), Mar (1 particle), Sept (1 particle) and November (1 particle). (All were less than 10<sup>5</sup> Bq <sup>137</sup>Cs, ie minor particles.

Dunnet beach coverage totalled 200 hours of surveying. One DFR particle 8.9 kBq <sup>137</sup>Cs and one piece of contaminated plastic (20 kBq <sup>137</sup>Cs) were found. In December surveying continued to complete the gaps in this survey. A copy of the survey results on CD have been sent to SEPA.

Beach monitoring – 2006 surveys: So far there has been no technical or weather difficulty and all programmed surveys have been completed. Last week 2 particles were detected and retrieved from Sandside, both were minor particles. Access for monitoring for particles at Sandside is rescinded from 14<sup>th</sup> February 2006.

At Dunnet approximately a quarter of the 2<sup>nd</sup> voluntary beach survey has been complete. No further progress can be made until agreement has been reached with the landowners. UKAEA believes there are a total of 8 landowners and Scottish Natural Heritage is helping to identify those people – to date 2 landowners have been in dialogue with UKAEA, one further landowner has just come forward. [*Secretary's note: SNH has now come back with a list of other landowners*].

Elizabeth Gray stated that the new (radioactive) contaminated land regulations may help in the short term to gain access to the beach but would not help with remediation.

On the Dounreay foreshore no particles have been detected for almost a year.

In September/October 05 the ROV was calibrated against divers within an selected area with high particle densities. The relative detection efficiency of the ROV was 90-95% compared to divers. Divers detected and retrieved 32 particles ranging from 1 kBq to 14 MBq <sup>137</sup>Cs. A short phase of mapping to try to find the edge of the plume has started however the strategy will be revised to start detection in deeper water to try to identify the edge. In response to a question from Roy Blackburn, Joe Toole confirmed that at present there were no plans to use divers for particle retrievals and is not included in the work plan for the coming year. There were no objections raised on

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this point at the meeting.

Forward programme: The ROV is scheduled to delineate the offshore 'plume' including areas approaching Sandside beach. Work will continue to validate the Wallingford model and BGS (British Geological Survey) research. BGS have identified sediment convergence zones etc but there are a number of these that are not in the scope currently requested by UKAEA.. UKAEA would be discussing this with NDA.

It was noted that the ROV was designed to map particles only but did not have the capability to retrieve.

Alex Elliott asked for confirmation that positive and negative model validation was still in the scope. Paul Dale stated that it would be disappointing if the ROV scope was truncated. Elizabeth Gray pointed out the importance to keep everyone updated if there was potential to add or remove any scope.

It was agreed that there were two primary areas – the delineation of the plume and the positive/negative mapping of the model. It was confirmed that the action plan, as agreed with SEPA, was still being followed. Alex Elliott stated that the timing of the validation of the Wallingford model was crucial. Joe Toole stated that Fathoms would be ready to mobilise by May/June and that the order of surveys were to a degree flexible. Elizabeth Gray thought there might be a timing issue but this would be discussed later in the meeting.

Research: A number of particle research projects were coming to an end. A total of 12 reports are almost complete and require review before final documents are ready. These documents would be reviewed by UKAEA over the next 5/6 weeks.

Particle Densities: UKAEA Action Plan on particles states that 30 particles will be measured for mass and density by end Sept 2005. The adopted technique did not prove suitable for irregular shapes and a new technique based on reproduction of particles using CAD package was trialed in December and is beginning to provide results. Four results have been completed and an action was taken by UKAEA to provide 10 results before DPAG met in March.

**Action 2: Joe Toole/Paul Dale/Alex Elliott to discuss density issues outside the meeting.**

**Action 3: UKAEA to provide data on the density of ten particles before the next DPAG meeting in March 2006.**

### 4.2 BPEO process

Frank Dennis reported. In December 2005 UKAEA had launched the first stage of a full consultation on the BPEO study for the long term management of particles. This stage was largely an 'information' stage whereby tiered information was made available to ensure anyone who wished could get involved at the level of detail that was appropriate to the individual. Information exhibitions were held and over 4 days in Thurso and Wick (219 people visited). Fifteen outreach meetings were held with

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various groups/organisations and a total of 89 individuals were involved. A newsletter containing a questionnaire was distributed to over 1000 stakeholders inviting response which was also available through the website. One hundred and twenty-three responses were received. It was unfortunate the SEPA/HPA report had not been available but did not directly affect this stage. These events were to encourage people to respond with their views especially to ensure that UKAEA had covered all possible options and the right set of criteria was being used. Respondee also got the chance to give their views for what they would like to expect in the future.

The next steps would be to form a steering group to work out the methodology of assessment, the combination of options and assessment of short-list of options.

Paul Dale stated that SEPA welcomed early engagement but they did have specific concerns generally on the technical information contained within the documents. These concerns had resulted in SEPA formally responding to the consultation. SEPA considered that a number of the statements were dated and did not reflect the true situation. Frank Dennis responded by describing the tiered approach to information, a four page newsletter had been written, along with a slightly more indepth document which described in more detail the options and criteria. The technical resume was written for a more scientific interested audience. It was pointed out in terms of terminology words like risk and hazard in scientific terms have a quiet different meaning to that of everyday use. UKAEA acknowledged that it would have been useful to share the document with those who could help, as this document will evolve over time, as new information comes to light distribution of updates will be circulated to ensure everyone is content with the information.

**Action 4: UKAEA will set up a distribution list to ensure documents, such as technical resume, will be sent to those at this meeting to ensure everyone is kept informed to arrive at a positive outcome.**

It was emphasised however that discussions on risks etc at this stage of the engagement had not been on the agenda, it was purely for information cascade and to bring positive feedback forward to allow the consultation to take shape for later in the year. When it gets right down to it the man on the street wants to be able to trust the advice being given – they just want to know whether it is safe or otherwise.

### 5. SEPA UPDATE

Paul Dale reported. SEPA continues to monitor UKAEA's progress with the particles on a holistic basis. SEPA has again requested information on UKAEA's attempts to monitor Sandside beach near the mean low water mark. UKAEA are currently preparing a response. Paul Dale stressed the importance of the regulator being informed if there was any divergence from the survey methodology agreed with SEPA.

On Dunnet beach he confirmed that the data set had been received from UKAEA and SEPA will consider now whether the required coverage had been completed.

SEPA's research is largely complete apart from a final module drawing together the hazard assessment and probability of encountering a particle. Review of the document has now taken place and HPA are considering these SEPA's comments.

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Joe Toole mentioned that the beach monitoring tender would have to begin around May and to fully know the specification of the tender they would need to know what the targets were. Paul Dale stated this would not be easy to provide. At this time it was not clear whether any requirement would be specified and if it were whether this would be best placed in the current authorisation or in contaminated land regs. He noted DPAG also had to publish its third report which was likely to contain recommendations on monitoring to protect public health. Elizabeth Gray suggested that consideration be given to extending the existing contract for a year to allow sufficient time to consider this. It was agreed to look at timing of tendering within the overall picture later in the meeting.

**Action 5: Joe Toole to consider whether it would be possible to extend existing contract for a further year and ensure NDA are content.**

*[Secretary's note: Since this meeting the NDA have recommended to UKAEA that they extend the RWE Nukem contract. The reasons being a) SEPA will not be in a position to tell UKAEA what monitoring regime is required until late this year at the earliest, and b) UKAEA is locked in to the machine that RWE NUKEM use until a way forward on particles is decided. NDA don't believe retendering will be technically possible until early 2007.*

Peter Kayes asked if the hazard and risk module would consider risks on the basis of a cache of particles present within Sandside Beach or would the probability of new arrivals be included. Paul Dale replied that it was based on information related to the number of people using the beach and exposure by contact and ingestion. These studies were specific to Sandside using specific information gathered by SEPA. The potential for future arrivals of particles is not factored in to the current assessment. If the source changed dramatically, or if the arrival rate increased it would be possible to adjust the calculations for such events. Paul Dale confirmed that UKAEA would be sent the HPA report prior to publication.

### 6. DPAG UPDATE

Paul Dale reported the progress of development of the 3<sup>rd</sup> report. It is hoped that this will be as definitive a document as possible but it was recognised that it was possible that some uncertainties would remain. However it was believed that the document would be sufficient that a review of the continuing need for DPAG should be considered following the production of this report.

He stressed that, for DPAG to progress on the current timetable, it was vital that information on density was made available and Groundhog was empirically tested. Provided the groundhog was tested in April and this test showed no unexpected results, the third report should be available in June/July with final publication in September. There was also other information which was desirable but not essential.

Alex Elliott confirmed that field trials on Sandside beach had been confirmed for 8, 9 and 10<sup>th</sup> April. These dates had been picked because of the low tide, etc. Agreement from the landowner will be reconfirmed before going on to the beach.

Bryon Tilly added that SEPA were in the process of considering an application from UKAEA for a new authorisation. As part of that process SEPA will have to consider what monitoring is required in the future. SEPA are looking to move to a new multi-media version of the application which places far more emphasis on the site and avoids SEPA being prescriptive.

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There are obviously some issues that still remain under consideration and these would benefit from the advice from DPAG.

Ian Hall stated that Keith Boddy was well aware of the purpose of the 3<sup>rd</sup> report and that a draft structure of the report had been written and that it would consist of statements of what is and is not known. The meat of the report would be in the recommendations. Ian stated he felt quite assured that the chairmanship is driving the production of the report in a direction that should have what all the parties were looking for.

### 7. COMARE UPDATE

Alex Elliott reported. He welcomed progress in the last year. From COMARE's point of view they have been working closely with DPAG to avoid duplication of work.

He emphasised that the Wallingford model validation was an important piece of work but acknowledged intrinsic problems of gathering the data.

He noted that 3-4 years ago it was suggested that particles did not fragment. However, we know recently some of these particles have broken up on recovery. If there are large particles in the plume, it may be a possibility that a particle on Sandside beach might be coming from fragmented particles. If this was the case the consideration of options in the BPEO may be different as the removal of a few large particles could be a feasible option. COMARE feel this is an important issue.

The Groundhog validation is equally important. It is estimated that 8 measurement hours will be required. He undertook to keep Joe Toole informed of the programme.

#### **Action 6: Alex Elliott to inform Joe Toole of the programme for COMARE trials on Sandside beach.**

Peter Kayes asked if COMARE would be taking into account the findings of the CERRIE committee on internal emitters and the probability of new particles arriving on the beaches. Alex Elliott confirmed that these would be considered.

Joe Toole clarified that during the trials if a real particle was detected they would prioritise the retrieval of the particle. Alex Elliott responded that COMARE would wish to see a vehicular scan of the beach prior to emplacement of sources.

COMARE would also like to see, if any change in monitoring system occurred, that the old system was always run in parallel with a new system for a period of time.

He asked SEPA whether any conclusions had been reached on particle MTR 113 which had been soluble. Paul Dale said it was part of the SEPA research and he would share the information with COMARE. Joe Toole asked if the laboratory (SUERC) had ever been audited as a result of this very unusual result. It was stated that this had not been done and that the samples were not thought to be still available.

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### 8. HIGHLAND COUNCIL

Ian Hargrave stated that from a community point of view the questions were relatively simple. “Is it safe to build a sandcastle?” Highland Council is looking towards SEPA/DPAG for some sound information. In this context, Peter Kayes noted that members of the Council’s workforce could be called upon after storms to clear sand from the access road and car park at Sandside Bay and further advice would be helpful.

Bill Fernie questioned the limits of surveying from Strathy to Brims Ness and asked why it stopped there. Obviously people just want to know if it is safe to go on their favourite beach. If there is a question mark then it will be detrimental to tourism.

Elizabeth Gray said that it might be worthwhile inviting a representative from HPA and FSA to this meeting. Whenever the report is out these sort of issues need to be recognised in them. People do need reassurance to help them make up their own minds. It was suggested that UKAEA approach the independent consultation steering group to ask what questions they would like to see answered so that UKAEA can address them. June Love said that the feedback from the exhibitions, feedback questionnaires and outreach meetings have indeed produced some questions that would need to be addressed therefore this would be a good start to source that information. Bill Fernie said that it would be good to make comparisons with other contamination of beaches, eg sewage etc. Elizabeth Gray stressed the importance of everyone working together and sharing all information with each other. Everyone should consider getting involved in the writing up of a question and answer brief with varying levels of detail.

**Action 7: Highland Council should consider the sorts of questions they would like to see answered and feed them to everyone.**

Ian Hall clarified that DPAG was not in existence to provide reassurance. It may be that it comes out in the process but it is not their purpose.

Paul Dale stated that he felt that the extent of the BPEO is geographically truncated and as currently written excluded particles that had left the immediate vicinity around UKAEA Dounreay he looked forward to seeing UKAEA’s response.

### 9. PROGRESS ON ACTIONS AND ESSENTIAL INFORMATION

Elizabeth Gray suggested that all members should review the two documents previously sent and respond with any changes or updates within two weeks.

**Action 8: All members to make comments on the two progress documents to Joe Toole by 28<sup>th</sup> February.**

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### 10. TIMELINE

Elizabeth Gray summarised the issues raised throughout the meeting that were important to timing.

<b>Information</b>	<b>Due by</b>	<b>Comment</b>
COMARE Testing	8, 9, 10 <sup>th</sup> April.	Results of testing about monitoring about 1 month after that. COMARE would come out with statement.
Wallingford model validation	Try to complete by June; start as early as possible (April) weather permitting.	UKAEA to prioritise the model validation over plume delineation. If unusual results, time for DPAG report will slip. If not unusual it will be tight. Important piece of work to allow DPAG/COMARE reports.  From DPAG's point of view it can be accommodated as soon as information is being collected, it is hoped that all information will be available in May/June. Once the information is available it can be slotted in.  NDA agreed that the ROV validation of the model should be prioritised over plume work.
UKAEA Invitation to Tender (Beach programme)	May/June	Does not need OJEU. Explore option to extent current contract.
DPAG Report (final)	Draft June/July	Document will be as definitive as it can be. Decision after that for Scottish Executive to review letter to SEPA re: monitoring for particles.
DPAG Report (published)	September	Published report.
COMARE Meeting	September	COMARE would discuss DPAG report.
Other decisions to be put in place.	October	Scottish Executive can revisit request from SoS to SEPA.
BPEO Consultation		Does not happen until after DPAG/COMARE Reports.

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### 10. NEXT MEETING

The next meeting will be held in October to ensure all actions had been complete to allow the BPEO consultation to commence.

**Chairperson** Elizabeth Gray, Scottish Executive

**Date of issue** 24 February 2006

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### ACTIONS ARISING

**Action (Feb)1: Paul Dale to reword para 1.2 of July meeting and send to June to finalise minutes.**

**Action (Feb)2: Joe Toole/Paul Dale/Alex Elliott to discuss density issues outside the meeting.**

**Action (Feb)3: UKAEA to provide data on the density of ten particles before the next DPAG meeting in March 2006.**

**Action (Feb)4: UKAEA will set up a distribution list to ensure documents, such as technical resume, will be sent to those at this meeting to ensure everyone is kept informed to arrive at a positive outcome.**

**Action(Feb)5: Joe Toole to consider whether it would be possible to extend existing contract for a further year and ensure NDA are content.**

**Action(Feb) 6: Alex Elliott to inform Joe Toole of the programme for COMARE trials on Sandside beach.**

**Action (Feb)7: Highland Council should consider the sorts of questions they would like to see answered and feed them to everyone.**

**Action (Feb)8: All members to make comments on the two progress documents to Joe Toole by 28<sup>th</sup> February.**