

Minutes of Meeting

Client	UKAEA	Client Reference	3000033273
Our Reference	14731	Issued By	Daren Luscombe
Issue Number	Final	Issue Date	8 February 2008
Meeting Date	17 January 2008	Location	Dounreay.com, Thurso
Present at Meeting (Distribution Copies)	Steering Group: Bill Fernie Prof. Iain Baikie Ian Clark Rick Nickerson	Highland Council (Chair) KP Technologies UKAEA Trades Unions KIMO ¹ UK	
	Consultant Team: Daren Luscombe	Entec UK Ltd	
	Observers: Paul Dale Phil Cartwright Martin Howse June Love	Scottish Environment Protection Agency (SEPA) UKAEA UKAEA UKAEA	
Apologies for Absence (Distribution Copies)	John Thurso Dr Joseph Toole	MP for Caithness, Sutherland and Easter Ross UKAEA	
Additional Distribution (Distribution Copies)	UKAEA website		
Project Name	Particles BPEO Consultation		
Subject	EXTERNAL CONSULTATION STEERING GROUP MEETING		

Actions

1. INTRODUCTIONS, APOLOGIES AND AGENDA

Apologies were received from John Thurso and Dr Joseph Toole.

RN noted that he was attending in the capacity of a consultant for KIMO UK and not as a Shetland Councillor.

Daren Luscombe noted that the Chair would not be available to attend the first part of the meeting and asked if anyone from the Steering Group would like to chair the meeting. The Steering Group decided that Daren Luscombe should chair the meeting

¹ Kommunenes Internasjonale Miljøorganisasjon

until the Chair arrived.

The agenda was accepted.

2. MINUTES OF THE LAST MEETING

The minutes of the last meeting were discussed. The following issues were raised:

- **Particle dissolution:** IB asked what would happen if particles dissolve in the body. PD confirmed that the dose received from dissolution would be greater than that received through skin contact. PC noted that 151 particles were tested and that in terms of higher activity particles no significant dissolution was observed. Three of the lower activity particles did show some enhanced dissolution. The information had been provided to the Dounreay Particles Advisory Group (DPAG) and as a result did not change health risk assumptions.
- **Foreshore rock structure:** RN asked whether there were now results from investigations of the rock structure of the Dounreay foreshore. PC noted that two geology professors had visited Dounreay with a view to investigating the foreshore rock. They examined the rock strata and concluded that there are areas where materials could dissolve under acid conditions, including the cementitious grout used to stop water flow through rock fissures between the seabed and the Old Diffuser Chamber during its construction. The rock strata around the risers would be subjected to the effects of dissolution as some of the rocks and jointing material are quite high in carbonates. In terms of overall structure it is believed there is some interlinking of the risers within the rock mass above the diffuser system. The work carried out by divers had provided DPAG with information on high radiation areas on the seabed and a further investigation will be carried out. DPAG will review the geology of the rock structure in their next report (DPAG Fourth Report). This work would be important in terms of moving forward with the remediation of the diffuser system. In terms of the particles BPEO, although not part of the original scope it is now believed the diffuser remediation is an intrinsic part of the particles project.
- **Dissolving from effluent:** IB asked if there could be some dissolving of materials by the effluent. PC noted that there will have been some dissolution but it was believed that the structural integrity of the rock above the diffuser chamber was good. It may be that there are particles held in the fissures in the rock mass and it would be important to make sure that this is carefully considered during any work associated with the diffuser.
- **Sources of radiation:** IB asked if it were possible that particles were not the only cause of the radiation. PC responded that it may be due to absorption of radionuclides within the rock structure above the diffuser chamber. Dealing with the legacy of the old diffuser would be important step in the particles

clean-up process.

- **End state:** IB noted that the end state needed to be defined. He had been an observer at the Scoring Panel where options had been considered with a defined duration of 100 years. The BPEO document needs to note the timescales on which assumptions were made and how these had changed in the development of the BPEO options following the Scoring Panel. This was agreed.
- **Timescale of options:** IB asked whether the proposed three year of offshore clean-up had been consulted on. PC noted that it was outlined in the draft BPEO which had been distributed for final comment at the final stage of consultation. IB noted that the foreword by the ECSG should note this.
- **Page six correction:** PD noted that in the sixth bullet point on page six, the sentence ‘PD replied that the effect *was* negligible’ should read ‘PD replied that the effect *would probably be* negligible.’

There was no further comment on the minutes.

Review of actions from previous meeting:

Action	Who	Status
1. Include option descriptions, comparisons and end states in the preliminary BPEO report	MH	Complete
2. RN and DL to discuss comments on the Entec report and DL to consider comments and re-issue report		Complete
3. BPEO to be redrafted by the end of September 2007	MH	Complete
4. Chapters 6, 7 and 8 of the BPEO to be rewritten taking into account comments from the ECSG	MH	Complete
5. Draft foreword to be written and sent to JL	IB	Complete
6. Comments on the draft foreword collated and fed back to IB and the ECSG	JL	Complete
7. Pre-notify ECSG of when it can expect the draft BPEO summary (newsletter) and timescale for comments (prior to consultation)	JL	Complete
8. Draft BPEO summary (newsletter) to be forward to the ECSG for comment	JL	Complete

3. SUMMARY OF THE CONSULTATION JOURNEY

DL summarised the stages of the consultation:

Stage 0: Beginning in 2003, the process identified the particles issues and set up a team of people, independent of UKAEA, known as the External Consultation

Steering Group (ECSG) to oversee the transparency of the consultation process.

Stage 1: In January 2006 an initial stakeholder consultation was carried out to:

- evaluate attitudes regarding particles issue
- evaluate the effect on behaviour of particles
- establish aspirations for a management strategy
- review the completeness of the list of potential options and evaluation criteria

Stage 2: In June 2006 a Scoring Panel was established and in July 2006 met to agree the methodology and to carry out an assessment of the options. In November 2006 the ECSG reviewed the process to date and reviewed proposals for the 2007 stakeholder consultation. In November 2006 DPAG's Third Report was published providing independent information on the particles issue.

Stage 3: In January 2007 exhibitions and workshops were held to discuss the relative importance of the evaluation criteria. Feedback was assessed and recommendations by Entec were submitted. UKAEA provided a response and a preliminary BPEO was drafted.

Stage 4: The preliminary BPEO was published to provide the opportunity for stakeholders to comment. Entec analysed responses and recommendations were submitted. UKAEA responded to the recommendations and developed the BPEO further.

RN noted the importance of the early stages of the work to make sure the consultation process was right.

4. STAGE FOUR CONSULTATION OUTCOMES

DL summarised the outcomes of the consultation on the draft preliminary BPEO and the resulting recommendations. It was noted that the document would be revised to include two late submissions (one of which was posted early but did not reach UKAEA until after the Christmas break).

It was noted that response levels had declined compared to previous stages. Thirty-two responses had been received. IB commented that the project team should not be disappointed with the level of response. RN noted that when stakeholders were happy with options they often did not respond.

The ECSG raised the following points regarding the report and implications for the BPEO:

- RN noted that there were two sets of recommendations – those made in Stage 3 and report and those in the Stage 4. He requested that both be incorporated into the latest report for completeness.

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- RN queried how the end state and end point would be determined. PC noted that it was his belief that the end point would come from the performance of retrieval offshore. PC added that the end state could only be proposed when there is sufficient information from the retrieval work to enable an actual end state to be proposed. IB asked who would determine the end state. PC noted that it would be important to have an independent review of the information gained during the particle recovery work which would be used by UKAEA to define an achievable end state for agreement with SEPA.
 - IB noted that it was a good thing to think about setting goals. PC agreed and noted that this was what his team was hoping to do for the offshore recovery work. The first year would see the equipment in a specific area and this would help to generate a lot of information. The first goal would be to go into a defined area and recover a large proportion of particles detected.
 - IB suggested that UKAEA should ensure that this valuable information was being published in referenced proceedings. He felt that the entire research and development programme would be valuable reference for others. PC noted that as much information as possible would be disseminated from the work.
 - RN asked how UKAEA would consult on a review of the strategy if it did not go accordingly to plan. PC said that the technical aspects of how the clean-up progressed would have to be reconsidered although he believed that targeted recovery would remain the favoured option. Any change in strategy would be communicated through a variety of media to involve the public. JL noted that the Dounreay Stakeholder Group Environment Sub-Group would be updated regularly and is the preferred route for consulting the public if there is a change to the strategy.
 - IB said he would like to continue to keep an interest in the particles.
 - PD noted that he had some specific comments on the Entec report. DL and PD agreed to discuss the comments following the meeting.

The group noted that UKAEA had also provided a draft response. This would be reviewed against the final Entec report before publishing.

- 1. Action DL: to provide a revised draft of the Entec report on the October – December 2007 consultation taking account of the above comments and the further consultation responses received.**
- 2. Action JL and MH: to provide a written response to the recommendations made in the final Entec report.**
- 3. Action ECSG: ECSG members to check and comment on the revised Entec report and UKAEA response prior to final issue.**

5. UPDATE ON ISSUES

PC updated the group, noting issues covered by discussion under the previous topics:

- **Beach trials of equipment:** COMARE/DPAG, witnessed by SEPA, had carried out an evaluation of the monitoring equipment used for the monitoring of beaches. The tests showed that the detector system had improved with finds of relevant particles at a depth of 30cm and significant particles down to 40cm as a minimum. At the other end of the scale very small sources were also tested and proved detection near the surface. DPAG will use the results of the trials in their Fourth Report. The processing of data had much improved as had detection of a cobalt-60 source.
- **Remotely operated vehicle:** trials of seabed particle retrieval capability using a remotely operated vehicle took place in December. The trials showed that particles can successfully be retrieved remotely. A second system is planned to be tested in March 2008 which will allow an evaluation of the two systems.
- **Beach monitoring:** at present Sandside beach was not being monitored. Discussions with the landowner are ongoing.
- **Foreshore landscape:** the Dounreay foreshore has been surveyed following the shaft isolation platform construction which has resulted in sand accumulating in a different region of the foreshore. An area to the east, which had been mostly rocky, was now found to accumulate sediment and a particle was detected and recovered at this location. In the last three months two 'significant' particles and one 'relevant' particle were found on the foreshore.
- **DPAG:** information will continue to be provided to DPAG, including sand depth, following surveys of Sandside beach.
- **Reay golf course:** monitoring of Reay golf course has been completed. No particles were found.

6. PRELIMINARY BPEO

The Group was informed that the preliminary BPEO is being developed in response to Entec's recommendations and to address comments made through the consultation. Furthermore, the document will be updated to take account of comments made by the ECSG at this meeting.

RN asked if the recommendations from the previous Entec report (regarding the outcomes of the January – February consultation on criteria weighting and option assessment) had been addressed. MH confirmed that they have been addressed.

JL noted that UKAEA is making independent responses to all consultation

respondees.

It was noted that an independent body should be set up to review the remediation work.

IB asked what the review period would be. PC noted that the review period would be annually following the monitoring season and that this would be done independently of UKAEA.

The group requested that it go through the preliminary BPEO document page by page. This was done – see Appendix 1 for all comments made on the preliminary BPEO.

The Steering Group noted that they were required to provide an update to the foreword to reflect the final stage of the consultation.

IB noted that this had been a fantastic piece of work. He confirmed that the BPEO would be issued to SEPA. SEPA will then consider the BPEO with a number of defined stakeholders. PD commented that SEPA may not consult on the BPEO following submission from UKAEA due to the level of consultation work already carried out. The document would be made public.

- 4. Action JL and BF: to liaise to finalise the ECSG's foreword.**
- 5. Action MH: to address the ECSG's comments on the draft BPEO (see Appendix A).**
- 6. Action ECSG: ECSG members to check and comment on the revised document prior to final issue.**
- 7. Action PC: to consider establishment of an independent body to review implementation of the strategy.**

7. ECSG CONCLUDING REMARKS AND THANKS

DL noted that this was the final meeting of the Steering Group and he thanked everyone at the meeting for their contribution throughout the process.

PC thanked all participants for their contributions to the process and noted that he had thoroughly enjoyed the interaction and that working with the group had been a pleasure. PC thanked MH for the considerable work that he has put in on the project.

DL noted that from a project perspective, UKAEA had been very helpful and that Entec and UKAEA had worked together very effectively as a team. It had been particularly satisfying project to work on with all concerned. DL thanked the ECSG for providing very useful reflection regarding the development and delivery of the consultation process.

RN congratulated BF on his chairmanship, thanked PD for his involvement which he

believed had been invaluable and to the UKAEA project team for being open and transparent with the group.

IB said it had been a pleasure working with the group. He felt that overtime the meetings had become more relaxed and that UKAEA had become less defensive as the process had developed. He emphasised that he remained of the view that this would be an extremely challenging task and he hoped that there would be a successful outcome. IB commented that he hoped the current particles team would stay on the project.

IC thanked the group for working together so well and noted that the Dounreay workforce could be reassured that due process had been followed. He had found the whole processing fascinating and looked forward to seeing progress in the clean-up work.

BF, in closing the meeting, thanked everyone for their involvement in the process. He hoped that the steering group's input along the way had helped the consultation process throughout the different stages. He said that the whole process had been a big learning curve for him and that he had valued the interaction provided by both steering group and project team. He wished to place on record the group's thanks to John Thurso, MP who had been unable to attend the final meeting and to Fred Barker who had, due to work commitments, had resigned from the group in the earlier stages.

There will be no more meetings of the External Consultation Steering Group.

8. AOB

There was no other business.

APPENDIX ONE

Page

3. Para 5, Scottish Executive should read Scottish Government (*and check rest of document for consistency*).
4. Para 1, replace 'Caithness Councillor' with 'Wick, Highland Councillor'.
5. Para2, blue text needs to be updated to reflect that Stage 4 is complete.
8. 1.2km should read 2km.
11. Section 3.1, insert *body to oversee the* "public consultation on the" *preparation*. Reword paragraph to list disciplines of the steering group.
12. First para, remove brackets for (and to UKAEA)

Section 3.8 title, change 'Scottish Executive' to 'Scottish Government' and check name of SEERAD.
15. Section 5.2.1, para after first bullet. Change to *This was addressed by SEPA* and delete 'NRPB' (now called HPA).
27. Section 5.8.8, as per this section, UKAEA's response to the Oct-Dec 2007 consultation should be included in the appropriate place in the BPEO document.
30. Section 5.9, para 3, the timescales assumed in the Scoring Panel and the change to those timescales used subsequently needs to be integrated clearly (possibly detail in an appendix).

Para 4, insert word 'population' after 'Since the greatest'.

Para 4, last line: delete 'decisive action' and replace with 'removal'.
31. Bullet point starting 'Thus the BPEO recommendation is ...', delete the words 'if required' at the end of the bullet point.

Reword the paragraph following the bullet point to make it more understandable and readable.
32. First para, include note regarding Compton backscattering

Section 6.4, under area surveyed, a better explanation of definition of timescales is required
33. Under section 'Data Review' include 'and other key stakeholders' after the word SEPA. At the end of para delete 'for example, perhaps a subgroup of DPAG.'

Section 6.4.2, second para, last sentence should read '6-monthly until 2026. Again, this may be with input from an independent body'.
35. Section 6.6, this section requires thought and rewording to ensure there is no ambiguity. The end state would not be expressly defined until information is collected during

particle retrieval. The paragraph should be as precise as possible with the current information available. The paragraph should recognise that the end state and end point for the particles work may extend beyond the site end state and end point.

Delete first sentence of section 6.6 and delete words from ‘independent group’ on last line.

- 36 Section 7, sixth para, needs to be clear of timetable for reviewing – reviewing annually. Include the data collected by each off-shore recovery programme and the oversight by independent body.

Seventh para, should read ‘the strategy for the BPEO is to continue the monitoring and recovery process until a satisfactory conclusion is achieved.’

37. Second para, second line, replace ‘washed away with the current’ with ‘transported further’. This para needs to reflect that DPAG did not look at the ecosystem and OSPAR rules need to be taken into account (as per page 45, point 27). The para needs further work including substituting the word ‘hazard’ with ‘realistic risk’.

Section 8.1, first para, first line, should be changed to ‘The Third DPAG Report, **drawing on Health Protection Agency’s advice**, quantified’

The information presented in this section needs to reflect the risk of ingestion together with the existing skin contact risk.

The final sentence under definition for minor particles should be moved up to sit before the definition of significant particles.

Seventh para, replace with ‘*the aim would be to complete the clean-up and re-assurance in such ...*’ and second last line with ‘*in such a way that it **may** not need to be repeated ...*’.

38. References – will need to be updated to add final stage of consultation documentation to reference list.