

NDA WASTE MANAGEMENT ISSUE GROUP (WIG) 24th/25th May 2006 Meeting Report

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1. REVIEW ACTIONS

Actions from last meeting			
What	Who	When by?	Progress (✓ = done, ✗ = not done)
Review the second draft of the Terms of Reference	FW	21-Mar	✓
Record summary of who's been invited to become a member and why they declined	TEC	21-Mar	✓
Make three copies of CoRWM glossary	TEC	21-Mar	✓
Collect sub-group notes to go into work programme	TEC	21-Mar	✓
Insert reference to socio, political and economic aspects into Terms of Reference	FW, JC	21-Mar	✓
Approach Richard Bramhall (LLR Campaign) regarding membership	RM	22-Mar	✓
Circulate draft meeting report to group for comment	TEC	23-Mar	✓
Produce updated work programme to include in draft report to NSG	TEC	28-Mar	✗ TEC to complete for website
Prepare draft report to NSG and circulate to WIG for comment	RH	29-Mar	✓
Produce a flow diagram/matrix based on list of key issues generated in meeting	RM, JF	31-Mar	✓
Send comments on draft NSG report to TEC	All	31-Mar	✓
Type and circulate to WIG desired outcomes metaplan from Meeting 1	TEC	31-Mar	✗ TEC to complete asap
Circulate transcribed photo report to group	TEC	31-Mar	✓
Send 2nd draft report to NSG presenters	TEC	04-Apr	✓

Prepare draft NSG presentation	JF, MB	06-Apr	✓	
Send hardcopy of NDA strategy to all group members	TEC	07-Apr	✓	
Email and chase by phone WIG to request response regarding availability for May 24th / 25th	TEC	07-Apr	✓	
Circulate draft NSG presentation to group for comment	TEC	07-Apr	✓	
Send comments on draft NSG presentation to TEC	All	11-Apr	✓	
Final presentation completed	TEC/NDA	13-Apr	✓	
Produce draft guidelines for presenter (including: key issues flow diagram and what info to give to group in advance of meeting) & circulate to group for comment	TEC	24-Apr	✓	
Send comments on draft presenter guidelines to TEC	All	28-Apr	✓	
Co-ordinate presenters for next WIG meeting	NDA	01-May	✓	
Send final presentation guidelines to presenters (to include flow diagram of issues to be addressed) & to group	TEC	02-May	✓	
Contact Fiona Walthall re CORWM update	TEC	01-Sep	*	TEC to monitor

2. REVIEW REPORTING

- **Report type.** The group decided to continue using photo-reports instead of transcribed-reports.
 - To avoid overloading participant's email, the group decided that the photo report will not be circulated by email and will instead be available through the NDA's website. Hard copies of the photo report will also be distributed on request.
 - The summary report will still be distributed by email and will include a link to the photo report on the website.
- **Clarity.** The group reiterated that ultimate responsibility for the accuracy of the flipchart-record (and therefore the photo-record) rests with participants. However, the group also suggested that the NDA add an advisory note to their website, explaining the cryptic nature of photo reports.

3. REVIEW NSG FEEDBACK

- **WIG Response.** WIG recognise the comments made by NSG, and are mindful they could have communicated the WIG work programme more clearly.
 - Key work topics raised were: the capacity of LLW; accelerated decommissioning and the focus on socio-economic issues.
 - WIG recognise a concern that the flow chart should factor into account both waste arisings and quantities.
- **Consistency.** It was agreed by all present that the planning of future WIG work programmes should take full account of the need for consistent attendance, and the risk of stakeholder fatigue.

4. UPDATES

4.1. Intermediate Level Waste (NDA)

- James McKinney (Nuclear Decommissioning Authority) gave a presentation explaining that overarching ILW criteria come from BPEO and other existing plans associated with safety, environment etc.
 - James continued that the NDA could consider transport issues to be a driver for location selection, while a repository as an end state would be more resource intensive.
 - Differing locations of a potential repository may require different defences with regards to costal erosion. It was also pointed out that the environmental impact on the site and sustainability issues in general need to be taken into account with ILW options criteria.

- After some discussion, it was agreed that this group is best used in the context of socio-economic impact, rather than just technical issues.
- **Process comment.** It was pointed out that the group does need to balance the learning value of NDA updates with the need to get through the agenda. There should be greater clarity for future meeting agendas.

5. LESSONS FROM DOUNREAY

- June Love (UKAEA / Dounreay SSG) gave a short presentation about Dounreay's experiences of managing low level waste. The group then discussed the lessons that can be drawn from these experiences.
- **Relevance.** The group noted that Dounreay is an exceptional site and that some of its experiences may not be transferable to other nuclear sites (e.g. Thurso).
- **Regulators.** Dounreay's experiences suggest that it can be difficult to engage regulators in a stakeholder process. Regulators were unwilling to participate in Dounreay's stakeholder panels because it may prejudice their (perceived) ability to make an independent assessment of waste options. One option is for regulators to participate in order to inform rather than to take part in any weighting process.
- **Role of UKAEA.** Dounreay had a relatively low turn-out from the public for their engagement programme on low level waste. The group discussed the possibility that the UKAEA's role in the process (as the major local employer and the sole source of expertise) may have contributed to public disengagement from the process.
- **BPEO.** The Dounreay's LLW BPEO process was considered to be both inclusive and transparent. This is especially significant because it is the BPEO process, rather than findings, that are open to judicial review. It is worth noting that BPEO only aims to inform, and does not make the decision.
- **Timing of engagement.** The group identified two benefits in 'front-loading' engagement (talking to people before the options have been generated); (1) the increased chance of producing informed and cost-effective options and (2) the intrinsic benefit of the engagement process in building trust through transparency and accountability. "Managing Expectations" can appear to be a return to "Decide Announce Defend".
- **Transportation.** There may be a public perception that the transportation of waste is neither harmful to the environment nor of benefit either. This could lead to the presumption; why do it? Planning inspectors will take into account the proximity principle.
- **Information sharing.** It was commented that sharing lessons and experience via a learning network (e.g. Safegrounds) can build capacity for other sites to run their own cost effective stakeholder engagement processes.

6. WASTE MANAGEMENT HIERARCHY

- Andy Baker (Environment Agency) gave a presentation on the waste management hierarchy – which can be applied to nuclear waste issues.

6.1. Comments on using the hierarchy for nuclear wastes

- **Waste hierarchy.** Different opinions were expressed about the role of the waste hierarchy in nuclear waste management.
 - Some participants felt that the waste hierarchy should be directly applied to nuclear waste management issues. They pointed out that the hierarchy is not new, but instead is already used to manage other types of waste (e.g. municipal household waste).

- Other participants raised concerns about the use of the waste hierarchy to direct the management of nuclear waste materials. The safety and viability of recycling, reuse and disposal options was questioned.
- **Best practice.** The Environment Agency's definition of 'good management' was questioned. SD:Spur focuses on the issue of best practice and there are initiatives at Sellafield trying to apply best practice. Both cases can contribute to a more specific benchmark of best practice in low-level waste management.
- **Reuse/recycling.** The group discussed the issue of decontaminating nuclear waste materials prior to reuse/recycling.
 - Problems identified included (1) expense (2) the production of secondary effluents and (3) the fact that processing facilities themselves become liabilities.
 - On the other hand, it was also noted that reuse/recycling can bring (1) socio-economic benefits and (2) can reduce the costs associated with enlarging waste storage facilities.
- **Disposal.** The group debated issues of radiological safety involved in different LLW disposal options, particularly incineration.
 - Participants raised strong concerns about the risk of radiological materials release following incineration. It was noted that any such risk does need to be assessed in the context of low level wastes (as opposed to more radioactive wastes).
 - Subsequent discussions about radiological levels, dosage and background radiation led to a debate about acceptable levels of radionuclides.

6.2. Barriers to implementation

- The group brainstormed possible barriers to the implementation of the waste management hierarchy for nuclear wastes.

Barriers to the implementation of the waste management hierarchy for nuclear wastes	
Anxiety about further discharges	Uncertainty of lifecycle costs
Acceptability of negative side of benefits	Segregation
Lack of clearance criteria in regulatory framework	Worker dose
Sticking	Perception
Stakeholder concern for recycle/reuse of product	Management of costs within an org versus project
Lack of space	Not using existing good examples of employing
Not enough pressure in system ('carrots')	Lack of learning network
Is it that useful to apply waste management	Lack of awareness of assets
Technology associated with clearance	Not realising decommissioning process provides
Reputational risk	The market
Technology associated with clearance	

7. REPOSITORY AT DRIGG

- Rob Scott (British Nuclear Group) gave a presentation on the LLWR at Drigg. The group then discussed issues relating to the handling of low-level waste materials at this site.

7.1. Comments on the LLWR at Drigg

- **Compaction.** The repository has both a volumetric and radiological capacity. Compacting the waste avoided using up the volumetric capacity while leaving radiological capacity to spare.
 - The LLWR at Drigg now uses pre-compaction, a process where drums are compacted before their lids are put on.
 - Pre-compaction produces a very good compaction rate.

- **Post closure safety.** The LLWR at Drigg has been assessed for its long-term safety in the LLWR Lifetime Project. Concerns raised by regulators in this project were discussed by the group;
 - The risks arising, particularly from coastal erosion, are greater than those that are normally acceptable from a new facility. However, it was suggested that this assessment, in the 2002 review, was based on contemporary climate data. More current data suggests a lower risk from coastal erosion than originally projected.
 - The above issue amounts to a high degree of uncertainty regarding the future of the LLWR at Drigg and make the good management of the site even more important.
 - Some participants suggested that a further investigation of the post closure safety case (PCSC) of the LLWR at Drigg, needs to be kept in perspective of the cost-benefit to the tax payer. They noted that the LLWR at Drigg poses little risk relative to other sites.
- **Radiological limits.** Questions were raised as to how much is known about the nature and levels of radiological waste in the LLWR at Drigg.
 - While there is knowledge of the source and location of uranic isotopes there is no precise understanding of their radioactivity. An ongoing BNG characterisation study hopes to remedy this.
 - It is possible that early deposits are connected with radioactivity assessments that were too high. If this is confirmed by the BNG study, then it may be possible to raise the radiological capacity of the LLWR at Drigg. Consideration of this possibility was deemed inappropriate until the research and consequent policy review is completed.

7.2. Role of the waste materials issues group (WIG) regarding the LLWR at Drigg

- The group suggested the following roles for the WIG regarding the LLWR at Drigg;
 - To act as a sounding board for informing strategic decisions.
 - To explore short-term risk issues (e.g. regulatory and physical issues).
 - To receive and comment on progress updates (including safety*).
- * Concerns were raised about the appropriateness of the WIG group acting as a safety watchdog for activities at the LLWR at Drigg. The group clarified that this role should be limited to observing and commenting on the work done by BNG (as detailed in its annual reports).

8. RISK

- Richard Bramhall (Low Level Radiation Campaign) gave a presentation outlining concerns about the way that radiological risks are calculated and presented. Specifically, he questioned the ICRP's radiological limits as being too low. The group discussed the points raised.
- **Actual or perceived risk.** In his presentation, Richard Bramhall highlighted the use of the term 'perceived risk' as opposed to actual risk in the draft waste materials process plan¹. He suggested that this phrasing is indicative of a general attitude that 'risk' refers less to science than to communication. The group made the following responses;
 - It was suggested that the reference to perceived risk be rephrased. However, the group could not agree on a new phrasing.
 - It was also noted that simply rephrasing this statement does not address the underlying concerns raised in Richard Bramhall's presentation.
- **Technical or socio-economic.** It was agreed that an on-going technical discussion of radiological limits is inappropriate for the WIG, which is meant to focus on socio-economic issues. However, it was also noted that some stakeholders' constituencies are extremely concerned about radiological limits, and the WIG group should be able to conduct any discussions on these issues in non-technical language that can be communicated to constituencies.

¹ Found on page 6 of the WIG Draft First Progress Report to NSG.

- **Process for dealing with points raised.** The discussion of risk around LLW raised some WIG process issues;
 - It was agreed that the issue of risk is something that needs further consideration. The Environment Council and NDA agreed to think about ways of taking the issue forward, either through the WIG, the NSG or a different forum.
 - Some participants raised concerns that if the WIG discussed all the issues raised by individual stakeholders then it would be impossible to progress with the agreed work programme.

9. REACTOR DECOMMISSIONING

- Adam Meehan (BNG) gave a presentation on the low level wastes from reactor decommissioning (available online at www.nda.gov.uk). The presentation featured an update on national developments in reactor decommissioning. While this update was not featured in the unedited handouts distributed at the meeting, it is included in the on-line version.
- The group discussed the presentation and fed back using post-it notes from each table. All views that achieved consensus from the entire table were marked (without attribution) with: table. Points discussed included:
 - What is fit for purpose? Standard landfill... i.e. Spain?
 - Thoughts on long-distance transport for LLW?
 - Thoughts on fit for purpose solutions (taking into account hazard posed)?
 - Should we send large volumes of low hazard clean-up waste to the LLWR at Drigg?
- Details of group feedback to the above can be sourced from the WIG photo-report (available online at www.nda.gov.uk).

10. LONG-TERM MANAGEMENT

- Joanne Fisher and Phil Davies (NDA) gave presentation (on Powerpoint and DVD) on the NDA's approach to the long-term management of solid low-level waste (available online at www.nda.gov.uk). The group commented on the NDA's DVD presentation;
 - **Style.** Some participants had strong doubts about the quality, appropriateness and relevance of the NDA's DVD presentation.
 - **Content.** The group suggested that the DVD should (1) explain more about the cheaper options for LLW storage outside the UK, (2) clarify the nature of both current and future waste and (3) put more emphasis on the need for a new contractor to build on good community relations.

10.1. Capacity

- **Capacity issues identified by NDA.** There are several different issues that impact on the capacity to store LLW;
 - Packaging waste for transport / storage increases its volume by one-third. However, the NDA do not view this as part of an argument for keeping waste materials on-site in their raw form.
 - The NDA's current approach to tackling the LLWR capacity issue is to try and optimise the use of the existing facility. For example, this includes trying to reduce the proportion of repository space taken up by VLLW.
 - However, the NDA has not ruled out the possibility of identifying and developing another repository like Drigg.
- **Developing new capacity.** The group were asked to consider ways in which capacity could be increased (either in the LLWR at Drigg or at new sites).

- The group suggested that the NDA needs to make a strategic decision regarding the LLWR at Drigg. The CoRWM model for LLW maybe relevant to this decision.
- Dealing with capacity issues will probably require a combination of centralised and local storage solutions. In considering local solutions, a big challenge will be to convince local communities about the benefits of managing waste locally.
- While strategic and technical decisions are being made, it may be worth considering storage rather than disposal

10.2. Managing waste

- **Smarter classification of wastes.** Participants suggested better ways of classifying LLW which may help with waste management;
 - The NDA are challenging the existing practice of simply classifying all demolition materials as LLW or higher. Some materials may not be radioactive and therefore do not need to be treated as such. This could potentially reduce the volume of waste that needs to be stored.
 - Some regulatory authorities also advocate reclassification to avoid large consignments automatically going to the LLWR at Drigg.
- **Increasing volumes.** The group was asked to consider how best to manage increasing volumes of LLW on potentially accelerated timescales. Suggestions included;
 - Pursue engineering solutions such as compaction and a new repository.
 - Better understanding and characterisation of the LLW inventory.
 - Consider both centralised and local storage solutions.
- **Ownership of the problem.** It was noted that there is a need to increase ownership of waste problems amongst those who produce the waste. The producers should be challenged to suggest alternative waste management options.

10.3. Contracts

- **Cheaper solutions.** It was noted that LLW storage may be cheaper in other countries (e.g. Swedish storage costs are £100/m³ compared to £2000/m³ in the UK).
- **Contract details.** The NDA are aiming for a partnership between themselves and the LLWR contractor.
 - For the contract, the NDA will only consider 'substantial' operators with a proven track record.
 - The contract will involve different phases, still to be finalised.
 - The two elements of the contract package are linked and will be awarded to a single company (or a company and its subsidiary).
- **Comments on contract.** Participants were asked to give the NDA some key messages regarding the contract tender for the LLWR at Drigg. Potential issues identified include;
 - Risks related to: (1) tendering on a contract whose scope is not clearly defined; (2) linking elements 1 & 2 of the contract and (3) the possibility of one consortium dominating the contract.
 - Information about the LLWR needs to be clearly communicated to bidders who may not fully understand all the issues.
 - Separate the operational and post closure safety case (PCSC) components of the contract.

11. WAY FORWARD

11.1. Evaluation

- **The method** comprised of indicating each individual's view with a sticky dot across an improvised scale on the following issues:

- Balance between the presentations and group discussions?
- Progress in meeting the group's purpose as defined by the terms of reference?
- Level of comfort?
- **The results** of this evaluation can be viewed via the photo report (available online at www.nda.gov.uk).
- **The evaluation discussion** included the following points:
 - Not enough chance to really challenge NDA.
 - At long last we are talking nuts and bolts.
 - Lack of clarity as to what the process is aiming for.
 - Convinced NDA will take on views, but what sort of feedback will we get back?
 - It's disappointing that so many people are missing.
 - It's generally agreed that the meeting was very productive and true to purpose.

11.2. Future meetings

- **The next meeting** will coincide with a site visit to Sellafied in July.
 - The actual site visit will take place on the 5th July, and could include the Sellafield ILW product store, or possibly an alternative non-licensed site for easier access (e.g Workington).
 - The group will reconvene for a more formal meeting on the 6th July. Main points raised for the agenda were: ILW – first thoughts on criteria; risk process proposal; site end states; and an SD:Spur presentation on the waste criteria.
- **The September meeting** will follow in a more conventional setting in Manchester on 13th and 14th.
 - The group will: agree a progress report to the NSG; review the CoWRM report; screen more on ILW; and provide NDA with feedback on LLW strategy.

11.3. Actions

What	Who	When by	
Update and circulate WIG work programme	TEC	31/05	
Circulate Desired outcomes metaplan from WIG meeting 1	TEC	31/05	
Report to WIG + MIG @ selection of contractor macro economics study	PD	---	done
Circulate SD:SPUR news letter	MB	Mid June	
Capture ILW criteria generated by WIG in NDA's list of suggested criteria	JMcK	05/07	
Contact TEC if you would like a copy of the DVD on the LLWR at Drigg from Rob Scott.	All	ongoing	
Consider how to take forward issues i.e. 'risk' raised by Richard Bramhall	TEC/ NDA	July	
Circulate WIG 3 meeting report and URL for presentations	TEC	31 May	
Circulate link to WIG 3 photo report	TEC	2 June	

What	Who	When by
Contact members who have not yet attended WIG and explain they will forfeit membership if they do not attend next time.	TEC	5 July

12. ATTENDANCE AND APOLOGIES

12.1. Participants attended

Andy Baker	Environment Agency
Richard Bramhall	Low Level Radiation Campaign (LLRC)
Mark Bentley	SD: SPUR Learning Network
Jim Cochrane	Scottish Environment Protection Agency (SEPA)
Phil Davies	Nuclear Decommissioning Authority (NDA)
Joanne Fisher	Nuclear Decommissioning Authority (NDA)
Terry Joslin	Harwell Site Stakeholder Group (SSG)
Peter Kane	General and Municipal Boiler Makers' Union (GMB)
June Love	Dounreay Site Stakeholder Group (Dounreay SSG) (and UKAEA Dounreay Communications)
Alastair MacDonald	Dounreay Site Stakeholder Group (Dounreay SSG)
Adam Meehan	British Nuclear Group (BNG)
James McKinney	Nuclear Decommissioning Authority (NDA)
Richard Mrowicki	Nuclear Decommissioning Authority (NDA)
John Potter	British Nuclear Group (BNG)
John Roberts	University of Sheffield
Rob Scott	British Nuclear Group (BNG)
Louisa Whenday	Dungeness Site Stakeholder Group (Dungeness SSG)
Sandy McWhirter	UK Atomic Energy Authority (UKAEA)
Steve Whittington	Department for Transport (DfT)
Bernard Whittle	Springfields Site Stakeholder Group (Springfields SSG)

12.2. Apologies

Rita Holmes	Hunterstone SSG <i>Briefing to be done by TEC</i>
Elaine Woodburn	West Cumbria SSG <i>Briefing to be done by Richard Mrowicki</i>
John Whitton	Nexia Solutions <i>Briefing to be done by Joanne Fisher</i>
Tony Free	British Energy <i>Briefing to be done by Phil Davies</i>
Peter Clements	Prospect <i>Briefing to be done by Peter Kane</i>
Peter Roche	Greenpeace <i>Briefing to be done by TEC</i>
Richard Flynn	NDA <i>Briefing to be done by Richard Mrowicki</i>
Fred Dawson	Ministry of Defence <i>Briefing to be done by Mark Bentley</i>

Paul Tinnion	GMB <i>Briefing to be done by Peter Kane</i>
Trevor Hawkins	Sizewell SSG <i>Briefing to be done by Terry Joslin</i>
Carni McCarron-Holmes	West Cumbria SSG <i>Briefing to be done by Richard Mrowicki</i>
John Hetherington	NuLeAF <i>No briefing required at present</i>
Michael Ainscough	Springfields SSG <i>Briefing to be done by Bernard Whittle</i>
Doug Graham	UKAEA <i>Briefing to be done by TEC/June Love</i>
Peter Addison	Nuclear Safety Directorate - HSE <i>Briefing to be done by Andy Baker</i>
Ann McCall	Nirex Ltd. <i>Briefing to be done by Andy Baker</i>
Stuart Conney	Food Standards Agency <i>Briefing to be done by TEC</i>
Fiona Walthall	CoRWM <i>Briefing to be done by Phil Davies</i>
Samantha King	Nirex Ltd <i>Briefing to be done by Andy Baker</i>
Lydia Merrill	SERA <i>Briefing to be done by TEC</i>
Sue Brown	West Cumbria Site Stakeholder Group <i>Briefing to be done by TEC</i>
Stuart Hay	Friends of the Earth Scotland (message left at TEC office) <i>Briefing to be done by TEC</i>

12.3. Facilitation team

Rowena Harris	Independent facilitator
Maeve O'Keeffe	The Environment Council
Joe Hulm	The Environment Council
Praveen Wignarajah	The Environment Council

13. GLOSSARY

- BNG : British Nuclear Group
- CoRWM : Committee on Radioactive Waste Management
- HLW : High level waste
- ICRP : International Commission on Radiological Protection
- ILW : Intermediate level waste
- LLW : Low level waste
- NDA : Nuclear Decommissioning Authority
- NIG : National Issue Group
- NSG : National Stakeholder Group
- SSG : Site Stakeholder Group
- TEC : The Environment Council
- THORP : Thermal Oxide Reprocessing Plant
- WIG : Waste Management Issue Group
- WMAC : Waste Monitoring and Compaction