

West Cumbria Site Stakeholder Group
Minutes of the 25th Meeting of the LLWR Sub-Committee
Wednesday 8th June 2011
Drigg Village Hall 19.00-21.00hrs

Attendees

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| Sue Brown, Chairman | Cumbria County Council |
| Dick Raaz | Low Level Waste Repository Ltd |
| Adrian Dalton | Drigg & Carleton Parish Council |
| Jimmy Naylor | Drigg & Carleton Parish Council |
| Cath Giel | Low Level Waste Repository Ltd |
| Alan Hooper | Imperial College |
| Richard Cummings | Low Level Waste Repository Ltd |
| Nigel Lister | Low Level Waste Repository Ltd |
| Nicholas Blackburn | Office for Nuclear Regulation |
| Laurence Cook | Sellafield Limited |
| David Rossiter | Low Level Waste Repository Ltd |
| Karl Melville | Cumbria County Council |

Apologies

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| Andrew Fairhurst | Environment Agency |
| Elaine Woodburn | Copeland Borough Council |
| Richard Evans | Cumbria County Council |
| Sue Brett | Cumbria County Council |
| Jane Corey | Cumbria County Council |
| Keith Hitchen | Five Rivers |

Observers

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|------------------------------|---------------------------------|
| Howard Rooms | Sellafield Ltd |
| Prof Steve Jones | Independent Peer Review Group |
| George Fleming | Independent Peer Review Group |
| Will Ly | Independent Peer Review Group |
| David Bennett | Independent Peer Review Group |
| Amy Huntington | Low Level Waste Repository Ltd |
| Andy Pratt | Drigg & Carleton Parish Council |
| Unknown Member of the Public | No details forthcoming |

1. Welcome/Introductions/Apologies

The Chairman welcomed everyone to the meeting and thanked them for their attendance.

2. Approval of Minutes from Previous Meeting held on the 9th March 2011

Minutes from the March meeting were approved with no amendments.

Action LLWR/024/01 ongoing

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| LLWR/024/01 | To update the committee on the strategy and break points in the LLWR Planning application | Cumbria County Council Planners |
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At this point the Chairman introduced Karl Melville Cumbria County Council's (CCC) Highway Engineer to the Committee and explained that she had invited Karl to the meeting to address concerns raised by the Parish Council and update the Committee on work undertaken.

Karl Melville explained that CCC had conducted a six monthly safety check and completed some preparatory work in readiness for resurfacing work scheduled for next year - the A595 will be resurfaced from Holmrook to Seascale. On the issue of the suitability of Drigg Road for HGV traffic Karl informed the Committee that he was satisfied with the road for the level of traffic on the road. He said that the road was suitable for the HGV's travelling to the LLWR site but that he was more concerned about the Farm Vehicles (large plant items).

Adrian Dalton remarked that CCC Highways Department had been busy during the past few months and said that the Parish Council appear to be happy. He went on to raise concern about the state of the pavements explaining that there were slabs missing and weeds growing through.

Karl Melville explained that the County roads had incurred £17M worth of damage throughout the winter months and that a budget of £4M had been allocated for the 2011/2012 financial year. He said that on such a limited budget Highways had to priorities and would only address those areas that are deemed dangerous.

3. Facts from the Fukushima Event – Nigel Lister, LLWR

Nigel Lister gave a very detailed overview of the Fukushima Daiichi Nuclear Plant Event which happened on March 11th 2011. The Fukushima plant had 6 boiling Water Reactors (BWR) which were built between 1970-1979. At the time of the event there three were running and three were in outage. The earthquake hit Japan on a magnitude scale of 9.0 over 100 miles offshore, thus making it one of the 10th largest earthquakes in recorded history. Within seconds of the earthquake the nuclear reactors automatically shutdown and emergency cooling systems became operational. The impact from the earthquake caused a Tsunami which arrived 60 minutes later at a height of 14 meters, well beyond what the plant was designed to withstand. The tsunami took out all multiple sets of backup and damaged other structures. The on site power could not be restored leaving the operators working with no power, reactor temperatures increased as the water levels in the reactors decreased. Hydrogen was then produced in the reactors which resulted in large explosions over the next few days, causing breach of containment and contaminated water to sea. The numbers of casualties was instant, 14,000 people dead, 10,000 missing and 300,000 left homeless.

The Secretary of State requested a review of all UK nuclear facilities in light of the Japanese disaster and instructed HM Chief Inspector of Nuclear Installations, Mike Weightman to conduct that review. The interim report is now available to read at – www.hse.gov.uk/nuclear/fukushima/interim-report.

This report recognises significant differences between Japan and the UK, and concludes no reason to curtail operation of any UK nuclear activities, however there has been 26 recommendations placed on Government, the Regulator and Nuclear Site Operators. Nigel explained that from a LLWR perspective, the site is “passively safe” and will respond to the relevant interim review actions and lessons learned relevant to low level waste facilities and around resilience.

More information will be available in September 2011 when the Final Report is scheduled for publication.

This presentation can be viewed at www.wcssg.co.uk

4. General update on LLWR activities – Dick Raaz, LLWR

Dick Raaz apprised the committee on activities at LLWR during the past three months.

He described another busy quarter with the Annual Customer Forum event at Rheged being viewed as a great success with over 300 people from across the UK in attendance.

Dick reminded the Committee that the site was running out of disposal space at contract commencement in 2008 and explained that the measure LLWR were introducing were mitigation measures to preserve a valuable national asset.

He confirmed that the site is managing waste receipts and only placing waste in Vault 8 that absolutely must be disposed. Vault 9 addresses the short term capacity gap but currently has consent for Storage only. He explained that this situation will be addressed following the review of the Environmental Safety Case (ESC) submitted to the Environment Agency on 1/5/11 and the forthcoming Site Optimisation and Closure Works Planning Application which will be submitted towards the end of June 2011. He also confirmed that further updates and modifications to the ESC would occur as it goes through its review process and that this practice was appropriate for this type of project.

He announced that he was confident generation 1 decommissioning could be accommodated at the site.

Dick announced that implementation of the waste hierarchy through metals recycling and incineration routes has seen a reduction of approximately 25% of waste shipments to the site and he reported that March was a watershed for LLWR from a production perspective.

He went on to explain that an Office of Nuclear Regulation (ONR) review of maintenance practices on 26/3/11 had identified deficiencies in maintenance

procedures. This has resulted in an extensive internal review and overhaul of the programme. LLWR have brought in expertise from both Sellafield and the USA and there is a long list of upgrades required the most urgent aspects have already been completed. Comprehensive operational training is ongoing and the safety of personnel and the environment remains at the forefront of our minds.

Jimmy Naylor said he had noticed a reduction in the number of powder wagons entering the site and asked whether this was a trend that was going to continue.

Dick explained that we are not grouting. The powder Jimmy is talking about is the component we use to make a very thin grout that we fill waste containers with. This is not to encapsulate the waste so much as to provide the structural integrity for the containers and the shape of the waste mound so that when they put a cap on it - someday we are going to have a permanent cap on that waste and the shape of the cap is very important – one way to guarantee its shape is the structural soundness beneath it so we grout shipments. The waste shipments are down 25%, but more importantly even the waste that comes in for disposal is not being disposed. We are storing in Vault 9 until the Safety Case completes. A condition of the Vault 9 construction planning permission was that we would not do anything to those containers that would prevent their relocation should the safety case not stand. So you won't see powder for sometime, in the meantime we are trying to figure out how to bring by rail..

Jimmy followed with a supplementary question and asked whether the community would see a huge increase in HGV movements if and when approval for disposal was given.

Dick replied that LLWR would manage the situation whatever the outcome to ensure minimal disruption to village life.

5. Exempt Waste Process Improvements – Laurence Cook, Sellafield Ltd

Laurence Cook gave a presentation on improvements Sellafield Ltd were introducing to the Exempt Waste Process. Exempt waste falls into the category of Substances of Low Activity (SoLA), this material is exempt from specific regulatory control (max 0.4Bq/g total) so it can be exposed to conventional landfill.

In April 2010 four waste bags with activity levels greater than exemption limits were dispatched to WRG landfill site at Lillyhall. All exempt waste consignments were stopped and the bags were recovered within days. The Department for Transport issued an Improvement Notice on Sellafield Ltd (SL) which has now been closed out. SL are currently implementing all the recommendations before operations re-start. The monitoring and exemption process has undergone a complete review not just by fixing the fault that resulted in the error but the process in its entirety. There is now only one route where material can leave SL instead of the original three, this introduces more robust controls and a stronger set of arrangements to ensure no errors occur. Exempt waste avoids use of volume at LLWR (25 ISO containers per year from bagged waste) this also saves tax payers money. An estimated 15% of waste from controlled areas could be classified as exempt, but behaviour and culture needs to change.

This presentation can be viewed at www.wcssg.co.uk

Member of the public asked whether his understanding that there is no low level waste going to landfill at the moment at Lillyhall was correct?

Laurence replied, no there is no LLW or VLLW, there is no exempt bagged waste going to Lillyhall site either. Just to be clear there are some other streams of material that are going to Lillyhall from Sellafield that is not the exempt bagged waste.

Member of the public then asked, what is the material that is still going?

Laurence replied, it is clean material from Sellafield site that's been through different processes, different assessments and different characterisations processes. It is not material in any of the activity ranges, it is not VLLW it is not LLW it is certainly in the clean or exempt range.

Sue Brown asked, how did you discover that the wrong waste had been sent?

Laurence gave a comprehensive explanation on how a SL operator had spotted a technical failure whilst testing the monitoring device with a bag that should have failed but didn't. They had found a problem with monitors which allowed material greater than exempt to leave undetected (even though it went through 2 monitoring stages) and 2 different sample monitors. They both failed to detect the activity.

Member of the public enquired whether Sellafield were using any incinerator facilities in the UK?

Laurence replied that SL are using the LLWR Framework contract for this service. Dick Raaz added that LLWR are currently working with two incinerators in the UK and several overseas suppliers. He added that no incineration takes place on the LLWR site and there are no plans to undertake this activity

6. National Inventory Update – Dave Rossiter LLWR

David Rossiter updated the committee with a presentation covering the UK Radioactive Waste Inventory (UKRWI). The Nuclear Decommissioning Authority (NDA) published a report in March 2011 which covers the inventory for the next 100 years, which represents the life of the NDA Decommissioning programme. This report usually gets updated on a 3 yearly cycle. The information is collated from the UK's major radioactive waste producers: e.g. existing stock and forecast arisings. The report is available at www.nda.gov.uk/ukinventory

The total volume of estimated waste arisings is 4.72 million m³, from this total there is 4.43 million m³ of low level waste. These large peaks can be attributed to site clearance at Sellafield.

The breakdown of the LLW volume consists of:

- 50% soil and rubble
- 40% metallic
- 10% other

The breakdown of VLLW is 80% soil and rubble.

Contaminated land is not included in the waste inventory, this represents approximately 13.2 million m³, the current thinking is to dispose in-situ where possible.

LLWR continue to work with waste producers to improve the accuracy of all these estimates.

This presentation can be viewed at www.wcssg.co.uk

Member of the public asked if we are using Studsvik for incineration in the UK and overseas. David replied not exclusively, we have a framework contract with multiple suppliers and various locations.

For clarification we have framework contacts with three suppliers who have facilities in various locations (both in the UK and overseas). This includes the incinerators near Slough and Southampton. Magnox currently have 4 operational incinerators across their 10 sites (Wylfa, Oldbury, Sizewell and Dungeness). EDF also have 4 operational incinerators across their various sites (Hartlepool, Heysham, Sizewell and Dungeness). These incinerators typically process their own site's waste only and therefore are not part of LLWR's framework.

The LLW Strategic Review (p60-61) contains information on the facilities currently available for incineration in the UK and overseas

This document can be found at :

www.llwrsite.com/llw-strategy/strategic-documentation

Member of the public asked what types of contaminants are in the contaminated land.

Dick Raaz replied it can vary depending on the site of origin but there could be tritium, strontium or caesium.

7. Environmental Safety Case submission– Dr Richard Cummings, LLWR

Richard Cummings gave a detailed overview of the Environmental Safety Case (ESC) submission. A new ESC was required by the Environment Agency (EA) by 1st May 2011. This was completed and delivered on time, this is a vital piece of work for the future of LLWR. The report is available at www.llwrsite.com.

There are three levels in the report,

- Level 1 – 100-150 pages representing the summary report.
- Level 2 – 16 documents representing the evidence and evaluations
- Level 3 – 100 key supporting documents and a 20 page Non-technical Summary.

Key conclusions:

- The report meets the EA's requirements.
- It shows that LLWR is safe to continue disposal of low level waste and that there is no need to remediate the trenches.
- The RECALL exercise obtained information on early disposals, the non-active wastes in early years may have meant that we overestimated trench inventory.
- The ESC coastal erosion studies show that the site will be eroded on a timescale of a few hundred to a few thousand years, the assessment calculations show LLWR will be safe even if erosion occurs- radiological doses and risks meet regulatory guidance levels.
- The new submitted ESC now requires LLWR to manage the repository in accordance with the assumptions and conclusions, this means changes to the Waste Acceptance Criteria (WAC).
- The EA will now review the ESC over the next two to three years.

Adrian Dalton asked whether diverting future VLLW from LLWR will result in concentrated levels of LLW and a breach in radiological limits/capacity.

Richard Cummings replied that it would not and that this was all taken into account in the ESC.

8. Professor Alan Hooper Member of Peer Review Group

Professor Hooper explained that he was one of five members of a peer review group that had been reviewing the findings of the LLWR ESC. The membership of the group comprises:

Mr David Bennett
Mr George Fleming
Professor Steve Jones
Mr Will Ly

Professor Hooper explained that the Terms of Reference for the Peer Review Group (PRG) were established at the outcome to avoid conflict of interest and ensure the independence of the group enabling them to provide constructive advice and support a robust ESC submission. He went on to say that the group were not part of LLWR procedures, nor were they a secondary regulator.

Observations on the process:

- Interactions and dialogue at a very early stage. This enabled the group to provide good quality comments/product.
- Open process with access to specialist contractors.
- If requested, LLWR have provided reports that were not scheduled for review early without complaint.
- When PRG reports have been produced LLWR have addressed each question and commented – this information is available on the web site.

- High level document has been reviewed twice and had 2 rounds of comments and changes.
- All level 2 reports have been reviewed twice.
- Level 3 documents have been reviewed once.
- The final version has yet to be reviewed but a meeting has been held today to discuss how to close out the 2 year Peer Review Process.
- We have provided commentary for all high level and technical documents.

Professor Hooper said “without prejudice to our final report the ESC has dealt comprehensively with EA concerns. It makes a good case for past disposals and future plans with the optimisation work playing a key role”.

Professor Hooper went on to say that some things need improving and the PRG have identified areas where further work might be needed for instance pessimistic calculations and over estimates.

Also:

- improved models
- more realistic and credible data
- Monitoring work relating to contaminants and leachates can be aligned to key aspects that have come out of the safety case

In summing up the review process Professor Hooper said that the ESC provides the clearest view of what has changed since the 2002 submission. He explained that new regulatory guidance applies and that there are a lot of ‘firsts’ in the ESC submission. He commended everyone involved for the conscientious and professional approach adopted to address the issues and said it had been a privilege to be involved.

Member of the public asked if the responses to the PRG were on the web site. Richard Cummings replied that they were not but that he was happy to provide them if the gentleman wished to leave his contact details.

9. Any Other Business

There being no further business the meeting closed at 4.30pm