



HM NUCLEAR INSTALLATIONS INSPECTORATE
SELLAFIELD, CALDER HALL AND WINDSCALE
WEST CUMBRIA SITES STAKEHOLDER GROUP

REPORT FOR DECOMMISSIONING SUB-COMMITTEE MEETING:
18 MAY 2010

FOREWORD

This report is issued as part of the Health and Safety Executive's commitment to make information about inspection and regulatory activities relating to the above sites available to the public. It is for distribution to members of the West Cumbria Sites Stakeholder Group (WCSSG) Decommissioning Sub-Committee and covers activities associated with the regulation of decommissioning safety at Sellafield, Calder Hall and Windscale.

Any other person wishing to inquire about matters covered by this report should contact HSE, Nuclear Safety Directorate Information Centre on 0151 951 4103.

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1. Introduction

1.1 Proposed Changes to HSE's Nuclear Directorate

As part of the restructuring of the HSE's Nuclear Directorate of which NII is a part, to establish it as a Nuclear Statutory Corporation (NSC), a Legislative Reform Order (LRO) needs to be laid before Parliament. The aim was to lay the LRO in early 2010, with the new body to be established in April 2011.

Unfortunately, owing to the general election, Ministers decided not to lay the LRO now. Recently, the LRO was published on the Department of Energy and Climate Change website, and a revised timetable for the introduction of the new body is being developed. A consultation undertaken by the Department for Work and Pensions and the Department of Energy and Climate Change in Summer 2009 showed broad support from a wide range of organisations.

As part of the transition to a Nuclear Statutory Corporation, an Openness and Transparency Project has been set up. This is to facilitate the ND Management Board's wishes to be more open and transparent about our regulatory decision making process. As part of this, there is a pilot to publish executive summaries to our Project Assessment Reports (PARs) that are produced to support the granting of Licence Instruments. As from April, these will be placed on the ND website. .

This is a summary from the main WCSSG report for the first quarter of this year. The main report has more detail.

2. Generic Issues Relevant to Decommissioning

2.1 Lifetime Plan (NDA and SL refer to this as the Life Cycle Baseline now)

We have inspected parts of the Lifetime Plan review process that SL and NDA are applying to define the final contractual basis for measuring progress with decommissioning legacy facilities. Our aims are to confirm the adequacy and integrity of the Lifetime Plan (LTP10) and build confidence that the Plan represents a robust programme of work that SL can deliver.

We are satisfied with the planning process, but both NII and EA are concerned about the deferral dates for some facilities. LTP10 will provide a contract baseline between SL and the NDA, however it will not be a plan we can accept. The Integrated Change Programme (ICP) will therefore be vital in bringing these dates forward.

2.2 Integrated Change Programme (ICP)

We continue to monitor this programme through a monthly ICP Forum. At the February Forum, both NII and EA expressed concern about lack of the visibility of delivery, which did not provide us with the confidence we required. At the Forum in March SL provided a lot of very useful information on the work being undertaken in the high hazard areas, but we need further evidence to give us confidence that the ICP will deliver the accelerated hazard reduction and decommissioning we seek. SL has agreed to provide further evidence at the next Forum.

2.3 LC 35 (Decommissioning) Arrangements

Licence Condition 35 requires a licensee to make and implement adequate arrangements for decommissioning plants and facilities that could affect nuclear safety. It also requires a licensee to produce and implement decommissioning programmes.

In our last report to this Meeting, we explained that we were considering our regulatory position with respect to the Specifications. This led us to review our regulation of important decommissioning projects at Sellafield. An outcome of this was to begin discussions with Sellafield Ltd on making improvements to the arrangements for compliance with LC35 for decommissioning. We considered that SL's current arrangements were no longer suitable for the scale and nature of decommissioning work that now takes place on the site. Sellafield Ltd has made and continues to make significant improvements and changes to the way it manages and carries out decommissioning on the Sellafield site, and there is a need for it to capture these to meet the legal duty to have adequate arrangements for decommissioning under LC 35. It is important in terms of ensuring that consistent standards are applied for nuclear safety and that best practice is identified and promulgated. This work will take several months.

Another outcome was to no longer use Specifications to regulate decommissioning projects, but to regulate via SL's revised LC 35 arrangements that require identification of Milestones that represent a significant step in improving nuclear safety (use of milestones is normal project management practice). We have worked with SL on the development of these arrangements, and we hope to formally Approve the principles associated with these arrangements in the near future. The principles will include the identification of Key Milestones by SL, and a change process associated with these Milestones. Should a Key Milestone go back, and SL is unable to demonstrate via the change process that all that is reasonably practicable has been done to meet the existing Milestone, then NII may take enforcement action.

3. Nuclear Decommissioning Projects

3.1. Legacy Ponds & Silos (LP&S) Operational Nuclear Safety

We have continued with our programme of planned inspection to gain assurance of Sellafield Ltd's (SL's) compliance with licence conditions and key plant specific improvements. No significant concerns were raised with SL following our inspections. We also continue to monitor SL's response to emerging issues and events. For example, we have had discussions with LP&S senior management regarding lessons learned from the HALES cooling water isolation event .

In September 2009 SL reported minor leakage of pond water from the First Generation Magnox Storage Pond via redundant corroded external pipe work. In February 2010 SL's successfully completed isolation of the pipe work to prevent further leakage. We monitored SL's approach to dealing with this challenge and are satisfied with their response.

3.2 Legacy Silos Projects

We continue to monitor progress made by SL towards retrieval of the inventory from these facilities. A key focus for us has been on ensuring through inspection and assessment that SL has adequate arrangements for its interaction with the NII on the future permissioning of a number of activities. This is because these projects have many steps that under SL's current arrangements require us to grant a Licence Instrument. However, we wish to use permissioning where we consider that it adds value to nuclear safety and not because it is part of a process. We would not have the resource to permission the large number of Licence Instruments expected under SL's current arrangements.

Of note is the active commissioning of the 3rd Extension Liquor Activity Reduction project in the Magnox Swarf Wet Storage Silo (MSWSS). This is an important hazard reduction project and contributes to the work to prepare the plant for retrieval of the radioactive inventory. While we have not identified any safety case issues with the work in MSWSS, inspection issues related to a downstream plant in conjunction with a number of installation and programme issues have caused SL to delay its request for agreement to proceed. We have been monitoring this work closely and we have planned further inspections to monitor progress. When the outstanding inspection and programme issues are resolved, SL should be in a position to deliver the work in a safe manner and seek Agreement to progress this hazard reduction work in the forthcoming months.

Also of note is the active commissioning of a new argon passive off-gas system in the Pile Fuel Clad Storage Silo (PFCS). Our assessment of the safety documentation and monitoring of SL's progress with this work has provided confidence that the work will be delivered safely and on programme to allow issue of the necessary Licence Instrument (LI).

Recently, we have discussed with SL the south and north-side air inlets in MSWSS. The current inlets need to be relocated to facilitate the future installation of retrievals equipment in the plant. SL has confirmed installation is nearly complete on the south side and has recently started work on the north-side air inlets. A recent inspection of this work has raised no regulatory issues. This work demonstrates progress towards preparation for retrievals in this facility.

3.3 Legacy Ponds Projects

We are continuing to monitor SL's progress in meeting the short term milestones, covering the Pile Fuel Storage Pond, put in place in August 2009 and referred to in previous quarterly reports. SL is making satisfactory progress against the milestones but there is a possibility that specific targets for removing redundant skips from the pond and desludging bays 7-8 could be impacted due to the adverse weather conditions in December.

We have held discussions with SL on the Intermediate Level Waste (ILW) Specification, part 325 (b) relating to the First Generation Magnox Fuel Storage Pond, and we have requested that they provide additional information on remediation progress. The Specification requires that at least 90% of the total volume of potentially

mobile ILW accumulated as sludge in the First Generation Magnox Fuel Storage Pond shall be stored in modern stainless steel containment by the 1 August 2010. It is clear that SL will not achieve the Specification requirements by the due date. The additional information will provide an input to our decision making on the regulatory way forward on this issue.

We are continuing to monitor progress on the major construction projects, Sludge Packaging Plant 1 and Local Sludge Treatment Plant. We have not raised any significant regulatory issues relating to these projects over the last quarter. We also issued an LI (766) permitting operation of the local effluent treatment plant for the Pile Fuel Storage Pond.

3.4 Decommissioning Zones 2&3

We are waiting to be told formally of how Sellafield will allocate its funding from the NDA over the next few years. We understand that some decommissioning projects will be either delayed or deferred and have asked for justification where this is the case.

To carry out decommissioning, SL needs an adequate safety case to show that the work will be done safely. SL's arrangements for safety case production are based on operating plant needs and are not always suitable for decommissioning purposes. We have been discussing this issue with SL pointing out some of the difficulties we have had with some decommissioning safety cases. SL now intends to trial some changes to the current safety case process to develop improved arrangements for the production of decommissioning safety cases. A possible outcome is a pragmatic safety case, which addresses the safety and environmental challenges encountered during decommissioning, but enables a decommissioning job to begin without unnecessary delays arising from the safety case process.

We carried out an inspection of the Pile 1 chimney and raised the issue of its physical state due to ageing. The chimney is contaminated from the Windscale fire, and we are satisfied that SL are considering the balance of risk between ageing of the structure and dealing with this contamination. We welcomed SL's recent review that identified the need for some remediation work and the need to accelerate the programme for dismantling.

We have engaged with SL on several decommissioning project proposals that SL is progressing to advise SL of likely regulatory issues.

Finally, we discussed and inspected SL's progress in meeting Specification 324c that required SL to remediate a legacy waste store used for ILW. The Specification has to be met by August 2010. To date, we are satisfied with the progress SL was making and with SL's assurances that the large amount of work remaining was still on target for completion.

3.5 Windscale

As for other areas of Sellafield, we are waiting to be formally told what funding Sellafield Limited will allocate to Windscale over the next few years. We understand

that some projects will be either delayed or deferred and have asked for justification where this is the case.

We have raised further concerns on the implementation of its LC36 (Control of Organisational Change) arrangements particularly in relation to the management of the Management of Change Assessment (MOCA) processes, the management of the Windscale Site Baseline (Resources) documents and the management of resources across the site. Further meetings are envisaged to discuss the Sellafield Ltd Windscale proposals to address the issues raised.

Various discussions and visits were undertaken since the last Meeting to inspect and discuss progress made by SL Windscale on the decommissioning project work across the Windscale Site e.g. Piles 1 & 2, Windscale Advanced Gas Cooled Reactor (WAGR) where SL Windscale completed removal of the reactor vessel, and Redundant Post Irradiation and Examination (PIE) Facility.

3.6 Calder Hall

The heat exchangers at Calder Hall are outside. When the plant operated, it was hot, and water and damp were not a problem. However, since operation ceased, they are degrading due to the weather. Recently, Calder Hall achieved a significant target of completing several years work to remove safely the large amount of asbestos insulation on the heat exchangers. Although not a nuclear hazard, asbestos is a major hazard, and HSE's specialist inspectors had engaged with Calder Hall before and in the course of this project and provided advice. Severe corrosion of the steelwork is now occurring. We have inspected the heat exchangers and discussed the issue with Calder Hall to seek assurance that the reactor pressure circuit remains intact. The corrosion mainly affects the steelwork structures surrounding the heat exchangers. We are satisfied that Calder Hall has developed an adequate programme to address the issue and has now removed safely two top duct structures that were more severely corroded.

3.7 Baseline Surveys.

Our WCSSG report stated NII is very supportive of the recent SL initiative to introduce baseline surveys of the site. These surveys will identify and catalogue leakages of radioactive material outside buildings on the site. Most leakages are likely to be historical, and will already have been recorded and managed. SL is regularly updating NII and EA as the survey work progresses and NII is in correspondence with SL on the need for improvements to LC34 (Leakage and Escape) arrangements.