

5th Meeting of the West Cumbria Sites Stakeholder Group – Calder Hall Sub-Committee

Agenda Item 6 – Calder Hall Site Report/Forward Look

Phil Campbell, Site Manager, Calder Hall

Plant Status:

At the last meeting on 15th August, we reported that the decision had been taken to suspend de-fuelling and decommissioning at Calder Hall. At the time, this was 'hot off the press' and I can now update you to the current position.

De-fuelling:

In respect of de-fuelling, there currently is a high level of fuel stocks in the reprocessing plant fuel pond as a result of problems encountered with the Magnox reprocessing process. This has led to a review of the overall programme for the de-fuelling of all Magnox reactors. Although, the revised programme has not been finalised yet, it is clear that the priority for de-fuelling the Calder reactors is relatively low and that there will be a significant delay. We are currently assuming a re-start date of 2012.

In the interim period, the reactors will be maintained as passive fuel stores. The reactors are very safe locations for the fuel to be kept and the existing safety case already assumes that there will be fuel in the reactors until 2016.

Our key challenge over the interim period is to safely manage the reactors as fuel stores and ensure that we are ready to de-fuel when the time comes. Equipment for example will deteriorate if not kept in optimum conditions and may deteriorate quicker if left out of use. Arrangements to 'cocoon' important equipment are being put in place along with periodic operation and maintenance to ensure continued plant availability, and it may now be decided to replace some of the older equipment before de-fuelling begins. It has been agreed to keep one reactor in a higher state of readiness to accommodate any further change in de-fuel programme.

It is also important that we maintain the core knowledge and skills to enable the restart of de-fuelling. Clearly it is not appropriate to seek to maintain teams in place waiting to de-fuel but we can ensure that knowledge is retained within the management structure and we can undertake periodic refresher training of key personnel including involvement in Chapelcross de-fuelling operations which will now take place in advance of Calder Hall.

We clearly retain an ongoing obligation to ensure the safety of the buildings by routine inspection and maintenance through to the end of de-fuelling. This will require additional work to repair and/or remove equipment as appropriate.

Decommissioning:

In respect of decommissioning, much of the current work on the Calder Hall site is of a lower priority than other safety and environmental detriment reduction projects required on the Sellafield site. Within the funding prioritisation applied, it is not proposed to deliver these projects at Calder Hall within the next 3 year period. An exception to this is asbestos removal project which is considered to be of high safety priority and will continue to completion in 2010. Work will also be required for safety reasons to remove redundant steel work from the heat exchangers which is showing significant corrosion.

The decision to suspend decommissioning will be kept under review with the customer, NDA, and the regulators on a building by building on the basis of safety and funding constraints.

Organisational Structure:

With the delay in both de-fuelling and decommissioning programmes, the prevailing organisational structure at Calder Hall was not considered to be appropriate to manage the reduced portfolio over the interim period. A revised organisational design has therefore been proposed and justified within a formal management of change assessment, including consideration by both the Sellafield Nuclear Safety Committee and the Calder (Reactor) Nuclear Safety Committee and onward submission to NII. The main focus has been the retention of appropriate knowledge, experience and resource levels to provide stewardship of the reactors, to manage some ongoing decommissioning works and to subsequently commission the fuel routes and manage future de-fuelling activities. The selected organisation design involves integration within the Magnox Operations Operating Unit within Sellafield Ltd based on their existing skills and experience in handling Magnox fuel.

The revised structure is due to be implemented from the end of March, but is currently awaiting a 'letter of no objection' from NII before final implementation can begin.

The workload and revised organisational structure has a reduced manpower requirement. Of the 170 personnel previously employed directly at Calder, about half are being retained within Magnox Operations to either partly or wholly support ongoing work at Calder Hall. The remaining personnel, (i.e. about 80 people), are being redeployed to other work within Sellafield Ltd. Actual roles have now been found for virtually all of these people.

Site Status:

As previously reported, NDA have decided that Calder Hall will no longer be considered as a separate site and will be fully integrated in with Sellafield Ltd. This will be fully completed as from April with the Sellafield Lifetime Plan 2008 including Calder Hall, (as part of Magnox Operations).

Safety Report:

Conventional:

On the negative side, our de-lagging contractor had four injuries recordable under 'OSHA' on the Calder site within around a 2 month period between July and October 2007, two were restricted workday cases and 2 involved lost time. They were:

- Operator slipped on heat exchanger stairs & fell onto the platform, suffering a twisted knee, sprained ankle and cuts to the knee.
- Operator hit head on a pipe bracket resulting in a cut to the head.
- Operator inadvertently put his foot down a 4 inch gap between the working platform and the plant being delagged, injuring his knee. (lost time accident).
- Operator dismantling scaffolding suffered an injured arm when a fitting he was removing released more quickly than expected, jolting his arm. (lost time accident).

On the positive side, the same contractor had worked the previous 16 months without a single recordable injury. No common adverse theme could be found between these injuries. Together, these injuries have caused Calder to slip from being one of the best sites in injury statistics to one of the worst. This is exacerbated by the relatively low number of employees in total on the Calder site. Despite this, I feel that the safety performance on this contract has been very good, given the amount of 'hands on' work required.

Also on the positive side, there have now been no recordable injuries to directly employed Calder employees for 3½ years.

Nuclear:

There have been no events with a significant impact on nuclear safety. We did however exceed a nuclear operating rule limit. While in practice, this did not represent any erosion of nuclear safety, the fact that we breached the limit has been taken seriously and was reported as an INES Level 1 event.

Environmental:

There have been no significant environmental occurrences.

Sickness Absence:

Sickness absence is routinely monitored and is used as an indicator to monitor the implementation of the revised structure. In practice, the level of sickness absence at Calder is running near the best on Sellafield Site (at an average of 5 days per employee compared to 8 for Sellafield).

A donation of medical books was made to the emergency department of the West Cumberland Hospital in recognition of the 22 personnel from Calder who had not had any sickness absence over a full 5 year period.

Project Implementation Report:

Fuel Route Modifications:

The modified fuel route on Reactor 4 was ready for active commissioning when the decision to suspend de-fuelling was made. It will be maintained in this state until required. Installation work and initial commissioning of the other fuel routes continues and will be completed by October 2008, but full commissioning will be delayed until the fuel routes are required.

Cooling Tower Demolition:

The 4 cooling towers were successfully demolished on Saturday 29th September. Since then, work has been ongoing to demolish the remaining walls, remove the reinforcing rebar for recycling and then crush the concrete which is returned to the tower basins. This work is now complete on 'A' Station towers and will be complete on 'B' Station by the beginning of March.

Work on 'B' Station towers was slightly complicated by the presence of some residual low level contamination within the concrete of the basin walls, which originated from the Sellafield site in the early 1960s. However, a way forward for dealing with this has been agreed with the Environment Agency.

Asbestos Removal:

Asbestos lagging removal work has progressed very well during 2007/8 and is on programme. By the end of this financial year, 10 of the 16 heat exchangers will have been delagged along with the whole of Turbine Hall 'B'. The forward programme is to delag a further 4 heat exchangers in 2008/9 and ½ of Turbine Hall 'A', with the remaining work being completed in 2009/10.

An unannounced inspection was undertaken of the delagging contract by the HSE Asbestos Inspector in January. No significant issues arose.

Sampling and analysis work to characterise the asbestos waste has been completed with the objective of demonstrating that all of the lagging (turbine hall and heat exchangers) can be disposed of as 'free release' from the radioactive perspective, (as special waste from the asbestos perspective). This has been achieved for the turbine halls with the agreement of the Environment Agency, and this lagging waste is now being disposed of to an approved landfill site for asbestos at Distington. We believe that the characterisation results for the heat exchanger lagging demonstrate that this waste can also be disposed of in the same way and discussions are taking place with the Environment Agency to this effect.

Ancillary Buildings:

Following the decision to suspend decommissioning, work on ancillary buildings has been closed down at suitable hold points. The major project to be put on hold is the removal of the heat exchanger vessels, which is now not programmed until de-fuelling is complete. Preparations for deplanting of Turbine Hall 'B' have also been suspended.

Consent to Decommission (under the Environmental Impact Assessment for Decommissioning Regulations):

Environmental Management Plan (EMP):

Issue 3 of the EMP was submitted to NII and placed in the public domain in September 2007 in accordance with requirements of the consent to decommission.

The consent requires the EMP to be reviewed annually or at such intervals agreed with NII. In view of the suspension in decommissioning, discussions are being held with NII to determine if a reduced frequency would be more appropriate.

Changes to the Decommissioning Plan:

The regulations effectively require an assessment to be carried out to determine if any changes to the decommissioning plan might have a significant effect on the environment.

The delay to the decommissioning programme is effectively a change to the programme, but the assessment demonstrated that this delay will not have a significant effect on the environment.

Business Performance:

At Period 10, Calder Hall had an SPI (Schedule Performance Index) of 0.99, meaning we are only slightly behind our planned performance, and a CPI (Cost Performance Index) of 1.08, meaning we are 8% more cost efficient for the work we have completed.

Following the re-prioritisation announcement last year, several formal changes to the plan have been approved by the NDA and implemented to give Calder Hall a revised baseline to monitor and report against. This means looking forward to year end, we are forecasting a year end SPI of 0.99, with 3 small areas of incomplete scope (~ £335K), and a year end CPI of 1.07, meaning we will be 7% more cost efficient for the work we will complete.

Listing of Reactor 1 and Turbine Hall 'A':

NDA have informed us that they have decided not to proceed with the establishment of an on-site 'museum' for either Reactor 1 or Turbine Hall 'A'. However, I am not aware yet of any final decision on the potential listing of these buildings.

Phil Campbell

Site Manager, Calder Hall.