

**Sellafield Ltd Report to the WCSSG Decommissioning Sub Committee**
**Sellafield Ltd Business & Safety Performance Statistics for Year to Date  
(Period 5)**

<b>No of Total Recordable Incidents</b>	<b>21</b> (decrease in the figure at Period 5 2009/10 which was recorded at 26).
<b>No of Days Away Cases</b>	<b>17</b> (increase in the figure at Period 5 2009/10 which was recorded at 9).
<b>No of INES Level Events</b>	<b>0</b> (decrease in the figure at Period 5 2009/10 which was recorded at 4).
<b>CPI</b> Cost Performance Index	<b>1.09</b> This is a positive out turn meaning that each pounds worth of work has been delivered for 91p meaning a cost saving of 9p in every pound spent.
<b>SPI</b> Scheduled Performance Index	<b>0.96</b> This means that 96% of the scheduled work has been delivered so far this year.

**Safety**

Sellafield Ltd has not recorded an International Nuclear and Radiological Event Scale (INES) rated incident since 22nd January 2010. This level of performance has not been achieved since 2004/05.

Sellafield Site is currently at 1.8 million hours without a lost time accident.

Sellafield Ltd is now a full member of the World Association of Nuclear Operators (WANO); a position which provides the opportunity to work with other members of the worldwide nuclear industry to share best practice and continually improve our nuclear safety performance. The company will also have an entitlement to appoint a governor to the WANO Paris Centre governing board to help scope the future direction of the WANO organisation.

There have been a number of recent near miss events reported on the Site involving Work at Height and falling objects. The profile of the events and the response required from the workforce has been raised and actions are underway including 'start of shift' inspections, independent safety walkarounds, targeted awareness campaigns and the promotion of a proactive hazard observation culture.

During the routine waste handling operations associated with potentially exempt wastes a bagged waste item showed elevated radiation levels by probe after it had been cleared as potentially exempt waste by the bag monitor. Waste Facility operations were suspended and all relevant exemption documentation for historical disposals was checked. This identified 4 bags of waste which had been despatched to landfill as exempt waste but with such radioactivity content that they should have been disposed of as low level waste. Radiological and environmental consequences are very low. The local landfill operator and Regulators were notified, and recovery operations undertaken to retrieve the materials. An initial investigation has been completed.

EHS&Q resources have now been successfully projectised into the delivery directorates. This is a major milestone for EHS&Q, involving the movement of approximately 700 EHS&Q staff allowing clear accountability and efficient working arrangements.

## **Spent Fuel Management**

### THORP

Active feed of Light Water Reactor (LWR) fuel from the Chemical Plants began on 7 May and shearing commenced on 8 May. Processing recommenced commensurate with receipt of the new Highly Active Evaporator licence and clearance of a number of outstanding outage issues. Active feed to Chemical Plants continued from 7 May to 16 June, when all available Head End buffer product liquor stock had been processed (103te).

Following a successful campaign change, shear transferred from LWR to Advanced Gas cooled Reactor (AGR) fuel. The new shear campaign commenced on 2 June and ~20te of AGR fuel were sheared before shutdown for the remainder of the period due to Waste Encapsulation Plant (WEP) non-availability. Recommencement of AGR Fuel active feed to Chemical Plants started 29 June and continued throughout the period. This campaign was completed in August.

LWR spent fuel has been stored underwater within Multi Element Bottles (MEB) containers for more than 20 years in some cases, and they are therefore contaminated. After the fuel is removed for reprocessing, the empty MEBs have continued to be stored in the ponds because they cannot be reused. In 2008, the MEB Export Facility (MEBXF) was commissioned to remove Low Level Waste (LLW) MEBs from the ponds to clear space in the pond system for continued AGR fuel storage. Capacity for almost 800 tonnes of fuel has now been created by this programme of exporting MEBs from Thorp Receipt and Storage to an MEB Interim Store (MEBIS). Just over 1,000 empty MEBs remain within the pond system and about half of these are likely to be contaminated to such a level that they would be classified as Intermediate Level Waste (ILW). Dismantling trials have been carried out to find a final disposal route for Light Water MEBs.

Nitrate trials are continuing to help facilitate the long-term storage of oxide fuel in THORP Receipt and Storage. This is in order to provide conditions for longer term storage of AGR fuel which provide better chemical protection for the fuel cladding compared to just demineralised water. THORP Receipt and Storage is currently being re-clad to provide long-term asset care for this important facility. This task is ~80% complete presently.

In the last few weeks Sellafield Ltd has exported a shipment of reprocessed uranium to Russia for processing to allow its manufacture into new fuel. The uranium is owned by a German reprocessing customer and this is the ninth such shipment of material from Thorp. This latest shipment means that over 1000te of uranium has been exported from Thorp since 2001.

### Magnox

The financial year began with the Magnox plants in outage. This work was completed in June and the Magnox reprocessing plants have re-started operations.

## **Mixed Oxide Fuel (MOX) Operations**

The Sellafield MOX Plant had a very successful start to the year with the second batch of 8 fuel assemblies being completed. This represents a considerable achievement for the plant and the workforce.

Following detailed discussions between Areva and Sellafield Ltd a contract has been placed for new Rod Line.

Sellafield MOX Fuel Plant has now entered a transition stage during which the plant will be further improved and prepared for the manufacture of Boiling Water Reactor pellets.

## **Waste and Effluent Disposition**

### High Level Waste Plants

The levels of highly active liquor are being safely managed well within the Regulatory limits. Currently 28 containers have been filled, which is the equivalent of 338te Uranium being reprocessed, and 55 containers transferred to store.

During period 2 all the vitrified containers to be consigned to The Netherlands from the second Vitrified Residue Return were consigned and received.

### Effluent and Encapsulation Plants

The year commenced with both the Magnox Encapsulation Plant (MEP) and the Waste Encapsulation Plant (WEP) in outage. WEP began operations to support THORP reprocessing in late April and MEP has now recommenced operations to support the Magnox decanning operations re-start.

Teams at the Site Ion Exchange Effluent Plant (SIXEP) recently completed 25 years of successful operations. Design and development work for SIXEP began in the mid-1970s. Construction of the £140 million project began in 1979 and following commissioning it started operating in 1985 and hit the 25 year mark on May 28. SIXEP's operation has been integral in reducing discharges.

Retrievals of Historic Medium Active Floc from the Floc Storage Tanks are currently somewhat behind schedule due to equipment failures and issues with downstream plants. This is forecast to be recovered by October.

### Waste Plants

The Waste Treatment Complex has had an excellent start to the year with 700 compactions of 200l drums having been made.

Following the successful removal of four of the top duct sections from the Calder Hall heat exchangers, the items, each weighing 10 tonnes, have now been processed through the Metals Recycling Facility.

The transfer of all solid waste, including oils, for disposal or treatment off-site has been temporarily suspended.

The suspension will cover all radiological classifications of waste - non-radioactive (clean), exempt, and low level waste streams.

This has been prompted by a small number of events that have already been reported, where waste has been transferred off-site without the appropriate sanction in place. Clearly, we want to make sure that our waste control streams are sufficiently robust, and that our stakeholder and regulator relationships are protected, so we have suspended all off-site transfers until further notice.

We are developing a prioritised programme of work, with the Solid Waste Operating Unit, to reintroduce the transfer of solid waste off-site, with priority given to those areas where interim storage arrangements are impractical.

## **Project Management**

The Sellafield Product Residues Store was handed over from the Project Management Directorate to Operations team on 21 May. The ceremony was attended by representatives from the Site Executive Team, senior members of the NDA, project personnel, regulators and local stakeholders including the MP for Copeland (Jamie Reid). This is the first major project handed over since Nuclear Management Partners came to the site and was handed over ahead of schedule and under budget.

Evaporator D has now worked 1 million man hours without a lost time accident. The project has poured almost 6000m<sup>3</sup> of concrete, fixed 1500t of rebar and fitted 90 wallboxes. Beach work is progressing well with the temporary bridge, cut through the spit, road realignment complete and successful trail of moving the vessel from the bridge to station gate.

## **Strategy and Programmes**

### Lifetime Plan

LTP10 was delivered to the Nuclear Decommissioning Authority (NDA) and Regulators on 24 May. This followed completion of the close out of actions from the Reviews, the final Nuclear Management Partners (NMP) sub-committee assurance, presentation to and endorsement by the NMP and Sellafield Boards, and presentation to and endorsement by the Sellafield Ltd Executive.

### Integrated Change Programme (ICP)

The resource mobility programme continues to facilitate the movement of resources around the business in order to assist the acceleration of hazard and risk reduction.

The main focus of ICP activity during July has been the completion of the suite of Performance Improvement Action Plans (PIAPs) designed to provide more detail on the underpinning plans to implement ICP programmes and deliver targets for efficiency and acceleration. These plans were developed to a first issue stage for all programmes (with the exception of MOX) and copies were made available to NDA and regulators at the end of July.

### Consultation/Voluntary Severance

The statutory 90-day consultation process between Sellafield Ltd and the Trade Union/Staff Side was formally closed on 12 August.

The purpose of the formal process – a legal requirement in an organisation our size – was to make sure that employee representatives were involved in the search for ways to avoid or mitigate job losses.

From the start of the process, Sellafield Ltd hoped to manage any severance on a voluntary basis, and although the final stages of the process are not yet complete, we are confident that we can achieve this aim.

We are currently processing the “expressions of interest” in voluntary severance.

### **Stakeholder Relations**

Chris Huhne, the newly-appointed Secretary of State for Energy and Climate Change, visited Sellafield in May along with Energy Minister Charles Hendry. The visit, which included senior NDA personnel, gave an opportunity to outline work programmes, showcase first hand priority areas such as risk and high hazard reduction in Legacy Ponds and Silos, safe operations and demonstrate progress since NMP’s arrival on site. The visit included an interview with a local media representative during which Mr Huhne recognised the professionalism and expertise of the Sellafield Ltd workforce and acknowledged the site’s importance to the national energy strategy. Feedback on the visit from the Department of Energy and Climate Change (DECC) and the NDA has been very positive.