Post Operational Clean Out

Operations Division

February 2016

A Nuclear Management Partners company operated under contract to the NDA
POCO – Post Operational Clean Out

ONR and NDA requirements are that Sellafield plants are subject to POCO directly after operations cease:
  – Primary aim is to reduce risk and hazard from that plant
  – Also to reduce the forward lifetime cost of that plant

Hence:
• POCO will aim to remove as much of the radioactive inventory as possible from the plant
• POCO will also aim to remove chemical and other potential environmental hazards from the plant
• POCO will aim to leave the plant in a safe, quiescent, and well-understood configuration suitable for eventual decommissioning
• The sequence of "decoupling" site facilities and taking them into POCO needs to be carefully considered
• The intent is also to reduce resource requirements for looking after the plant
Vision for Implementation of POCO

• Our baseline planning for POCO delivery tasks aim to use:
  – the incumbent workforce with their knowledge, experience and skills
  – routine plant reagents
  – the normal established plant processes
  – the normally available waste routes

• POCO planning will aim at a defined facility post-POCO end state. POCO task delivery, carried out using an outage philosophy, aims to achieve this end state

• Even pre-POCO, facilities should look for opportunities to progress housekeeping and co-processing activities so as to reduce inventory, reduce the in-POCO burden, and make best use of existing waste routes and waste route capacity

• Early opportunities should also be taken to gain facility knowledge e.g. in-cell contamination and radiation levels (Facility Characterisation) and should be seen as a necessary ongoing activity
POCO Programme

- Programme Set up 2013 to ensure that successful transitions are consistently achieved
- Aimed to produce overarching Strategy & Tactics
- A number of High Level POCO Strategies developed.
- Facility POCO Preparations and Delivery Tactics
- Links with Decommissioning developed
- Communications plan developed
The POCO Programme Benefits

- Risk and hazard reduction
- Enable redeployment of resource and capability
- Lifecycle cost reduction
- Enhance Sellafield Ltd reputation

A key output of POCO needs to be **Knowledge**

- We need to create records of the plant configuration and status – and how we achieved that status. These records need to enable and support the safe and effective eventual decommissioning and demolition of the plant
POCO Programme
"Enabling people & plants to support new missions beyond scheduled operations"

Standardised Timeline

Transition 1
Ops to POCO

POCO Preparations

Surveillance and Maintenance

Operations & Maintenance

POCO Delivery

Surveillance & Maintenance or Care & Maintenance

Organisation Transition

Co-processing/Housekeeping - Waste Recovery

Housekeeping - Waste Recovery

Facility Characterisation incl Waste Characterisation

Records Management: Configuration Pack - incl End States, Footprints, Waste Status Reports

Safety Case Review

Safety Case Maintenance

Safety Case Transition

Asset Care

Transition 2
POCO to S&M

Transition 3
S&M to Decom

Decommissioning

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Key POCO preparation deliverables

- **Facility Blueprint (non-visual & visual)**
  - The ‘as is state’ for facilities destined for POCO.

- **Programme Blueprint**
  - A model of the future organisation
  - Working practices
  - Information it requires
  - Technology to support future operations

- **Facility End State Operations**
  - These documents define the transition End States for the facility. It also defines the activities to be carried out during POCO preparations and POCO Operations

- **Facility Characterisation Plan**
  - Delivers robust information on the nature and contamination levels of buildings, items and waste to inform on decision about end States, decontamination, waste disposal, dose impacts etc

- **Facility Functional Specification For POCO Operations**
  - Specifies the overall capability that the facility requires to be delivered during POCO Operations as such it is key to managing scope & its governance.
  - Key form of communication for agreement between the Facility & its stakeholders and the optimisation process that reduces operator dose

- **POCO Programme Task List**
  - A resource loaded schedule which provides a prioritised list of the activities required to deliver the Blueprint, i.e. underpin the information held in the End State documents. Used to plan and monitor delivery of these tasks

- **Facility Delivery Schedule**
  - Details ‘How’ the capabilities described in the Functional Specification will be delivered

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Transition Planning

• The move from reprocessing in Magnox and Thorp to POCO is a significant transition facing the Site
• Transition preparations will cover process, organisation, technology and information; with organisation being of the most significant interest to the workforce
• Target organisation models are being developed which will inform the Site Capability Plan
  – It is likely that this will result in a reduced facility workforce
  – Ongoing support will still be required from most existing facilities and capabilities
  – Opportunities will exist around Site across a wide range of skill types
    • POCO in Operations Division
    • Ongoing operations on site
    • Commissioning and operations of new build plants on Site eg BEP, SDP etc
    • High hazard retrievals and broadfront decommissioning
  – Focus on skill matching and training for any skill gaps identified
Stakeholder Engagement

• Early focus on Stakeholder Engagement – right from day 1
• New Stakeholder Management process developed
  – Commended at audit by external organisations
  – Seen as Best Practice by other areas of Sellafield Site
• Delivered in a phased approach
  – Right message to the right Stakeholder and the right time
  – Includes internal and external Stakeholders
• Resulted in
  – Increased awareness and knowledge of POCO across the Site
  – Positive feedback received, publicly endorsed by Union convenors
  – Enhanced reputation of the POCO Programme and it’s team
Conclusions

• The Sellafield POCO Programme has established a common and consistent approach to POCO at Sellafield.
• High level strategies and tactics have been set.
• Co-ordination across the various facilities has started.
• POCO task delivery is owned by the facility workforce.
• Getting POCO right will deliver the benefits