KPMG

cutting through complexity

The PBO model at Sellafield: Performance to 31st May 2013

11th September 2013

FINAL REPORT - PROTECT

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United Kingdom

The Board
Nuclear Decommissioning Authority
Herdus House
Westlakes Science & Technology Park
Moor Row
Cumbria, CA24 3HU

11 September 2013

Dear Sirs

Re. NDA9/00355: Sellafield Performance Review (Consultancy Contract under Framework Agreement RM353)

As requested, and in accordance with our contract letter dated 6 March 2013 and our updated scope dated 22 April 2013, we enclose our findings in relation to the performance analysis of the current PBO model at Sellafield. The scope of work is attached as Appendix H to the report. You should note that our findings do not constitute recommendations to you as to whether or not you should proceed with any particular course of action. We draw your attention to the Important notice included on this page which should be read in conjunction with this letter.

The contents of our report have been reviewed in detail by the Nuclear Decommissioning Authority who have confirmed in writing the factual accuracy of this report.

Our report is for the benefit and information of the addresses of the contract letter (the 'addressees') only and should not be copied, referred to or disclosed, in whole or in part, without our prior written consent. The scope of our work for this report included in Appendix H has been agreed by the addressees and to the fullest extent permitted by law, we will not accept responsibility or liability to any other party (including the addressees ' legal and other professional advisers) in respect of our work or the report.

Yours faithfully,

KPMG.

KPMG LLP

Important Notice

Our work commenced on 24 April 2013 and fieldwork has continued to 29 July 2013. We have not undertaken to update our report for events or circumstances arising after that date.

In preparing our Report, our primary source has been Nuclear Decommissioning Authority internal management information and representations made to us by management of Nuclear Decommissioning Authority ("the Client"). We do not accept responsibility for such information which remains the responsibility of management. Details of our principal information sources are set out throughout and we have satisfied ourselves, so far as possible, that the information presented in our report is consistent with other information which was made available to us in the course of our work in accordance with the terms of our contract and scope as agreed with you. We have not, however, sought to establish the reliability of the sources by reference to other evidence.

This engagement is not an assurance engagement conducted in accordance with any generally accepted assurance standards and consequently no assurance opinion is expressed.

We accept no responsibility or liability for the findings or reports of legal and other professional advisers even though we may have referred to their findings and/or reports in our Report.

This Report has not been designed to be of benefit to anyone except the Client. In preparing this Report we have not taken into account the interests, needs or circumstances of anyone apart from the Client, even though we may have been aware that others might read this Report. We have prepared this report for the benefit of the Client alone.

This Report is not suitable to be relied on by any party wishing to acquire rights against KPMG LLP (other than the Client) for any purpose or in any context. Any party other than the Client that obtains access to this Report or a copy (under the Freedom of Information Act 2000, the Freedom of Information (Scotland) Act 2002, through a Beneficiary's Publication Scheme or otherwise) and chooses to rely on this Report (or any part of it) does so at its own risk. To the fullest extent permitted by law, KPMG LLP does not assume any responsibility and will not accept any liability in respect of this Report to any party other than the Client.

Please note that this Report is confidential between the Client and us. It has been released to the Client on the basis that it shall not be copied, referred to or disclosed, in whole or in part, without our prior written consent. Any disclosure of this Report will prejudice substantially this firm's commercial interests. A request for our consent to any such wider disclosure may result in our agreement to these disclosure restrictions being lifted in part. If the Client receive a request for disclosure of the product of our work or this Report under the Freedom of Information Act 2000 or the Freedom of Information (Scotland) Act 2002, having regard to these actionable disclosure restrictions the Client should let us know and should not make a disclosure in response to any such request without first consulting KPMG LLP and taking into account any representations that KPMG LLP might make.

In particular, and without limiting the general statement above, since we have prepared this Report for the benefit of the Client alone, this Report has not been prepared for the benefit of any other Government Department or Non-departmental Public Body nor for any other person or organisation who might have an interest in the matters discussed in this Report, including for example Nuclear Decommissioning Authority employees, the Trade Unions, customers of Nuclear Decommissioning Authority or those who provide goods or services to Nuclear Decommissioning Authority.

Contents (1/2)

Contents (2/2)

Purpose of this document

The intention of this Report is to:

- **Document the facts on SLC performance since the PBO model was launched**
  - Produce a pack of data that gives an overview of performance at Sellafield from contract commencement to 31 May 2013 through the lenses of NDA's current desired outcomes and attributes (see page 9)
  - Provide commentary on the data to give an explanation of the facts, highlighting trends and making observations where appropriate
  - To do so, we have summarised information collected from a number of other internal and external reports and clarified data where necessary. We have also supplemented our understanding through interviews conducted with NDA staff as well as representatives of NMP, SL, the regulatory bodies and trade unions
- **Evaluate the drivers of this performance and identify root causes**
  - Clearly separate SL, NMP (as represented by SL executive secondees and NMP Board) and NDA actions (where possible)
  - Assess NMP's role in leading the SLC and identifying issues and document remedial actions taken and outcomes of those
  - *Note that by its nature the allocation of responsibility between component parts of the PBO model is challenging as it requires disaggregation of parties and accountabilities where clear delineation does not always exist. In particular the actions or inactions of NMP secondees into SL are both the actions of SL (the individuals are officers of SL) and actions of NMP since they are the means by which NMP effects its desired changes. In this context we have sought to provide an independent perspective based on the information available to us.*
- **Consider whether performance has been impacted upon or constrained by the PBO model itself (as distinct from current contractor and contract)**

Glossary

ACEMAN	Initiative implemented: Accident free, Control dose, Event free, Meet commitments, Attend and use training, Nil rework
ACWP	Actual Cost of Work Performed
AMEC	are an NMP Consortium Member
APM	Alternative Pricing Model
AREVA	are an NMP Consortium Member
ASFL	Annual site funding limit
ASW	Agency Supplied Workers
ATLAS	SL reporting system that went live on 25th March 2013, which enables the supply chain to raise condition reports and peer to peer observations
BBNS	Bechtel Babcock Nuclear Services
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
BEPPS	Box Encapsulation Plant Product Store
BIL	Business Intervention Lead
BNFL	British Nuclear Fuel Limited
BNG	British Nuclear Group
BRF	Benefits Realisation Framework
BTF	Box Transfer Facility
CB	Contract Baseline
CCR	Change Control Request
CDM	Construction Design Management
CIEF	Combined Import/ Export Facility
CPI	Cost Performance Index
DACR	Days Away Case Rate
DECC	Department of Energy and Climate Change
DIF	Direct Import Facility
DPS	Doosan Power Systems
EA	Environment Agency
EFQM	European Foundation for Quality Management
EPC	Engineering, Procurement and Construction
EPS	Encapsulated Product Store
Evap D	Evaporator D
FEL Gate 3	Front End Loading – project planning stage
FGMSP	First Generation Magnox Fuel Storage Pond
GDF	Geological Disposal Facility
HAL	Highly Active Liquor
HALES	Highly Active Liquor Evaporation and Storage
HSSE	Health, Safety, Security and Environment

Glossary

ICBM	Initiative Cost Benefit Model
ICP	Integrated Change Programme
IER	Initial Event Report
ILW	Intermediate Level Waste
INES	International Nuclear Event Scale Level 0 – Deviation Level 1 – Anomaly Level 2 – Incident Level 3 – Serious incident Level 4 – Accident with local consequences Level 5 – Accident with wider consequences Level 6 – Serious accident Level 7 – Major accident
ISO	International Organisation for Standardisation
ITSFT	Invitation to Submit Final Tender
IWM	Integrated Work Management
JV	Joint Venture
KPI	Key Performance Indicator
LFE	Learn From Experience
LORI	Laing O'Rourke Infrastructure
LP&S	Legacy Ponds & Silos
LRQA	Lloyd's Register Quality Assurance
LTA	Lost Time Accident
LTP	Lifetime Plan
M&O	Management & Operations
MPS	Minimum Performance Standards
MSSS	Magnox Swarf Storage Silos
MTIP	Magnox Throughput Improvement Plan
NAO	National Audit Office
NDA	Nuclear Decommissioning Authority
NESL	Nuclear Engineering Services Limited
NMP	Nuclear Management Partners – a consortium including Amec, Areva and URS
NSG-32	Health, Safety, Security and Environment requirements
OGC	Office of Government Commerce
OJEU	Official Journal of the European Union
ONR	Office for Nuclear Regulation
(ONR-) CNS	Civil Nuclear Security
PAC	Public Accounts Committee
PAIS	Partner, Assess, Innovate, Sustain
PBA	Parent Body Agreement
PBI	Performance Based Incentive
PBO	Parent Body Organisation

Glossary

PCP	Programme Controls Procedures
PFCS	Pile Fuel Cladding Silo
POCC	Plant Operating Control Centres
PP(11)	Performance Plan
PPRG	Project and Programme Review Group
PSS	Project Summary Sheet
PT&C	Project, Time and Cost International Ltd
QBR	Quarterly Business Review
QMS	Quality Management System
R&D	Research and Development
Reachback	Reach back is a mechanism whereby the PBO 'reaches back' into the parent companies to provide staff and skills to support activity at Sellafield. Please refer to page 147 for further details.
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Includes: Fatalities Major incidents LTA Work related diseases Dangerous occurences
SAV	Separation Area Ventilation
SDP	Silos Direct Encapsulation Plant
SEP	Silo Emptying Plant
SSEP	Sellafield Security Enhancement Programme
ShEx	Shareholder Executive
Six4five	SL initiative to accelerate work and generate efficiencies
SL	Sellafield Limited
SLC	Site License Company
SMF	Silos Maintenance Facility
SNPM	Standard Nuclear Performance Model
SOCR	Support and Overhead Cost Reduction
SPG	Sellafield Priorities Group
SPI	Schedule Performance Indicator
SPP1	FGMSP Buffer Sludge Packaging Plant
T&C	Terms and Conditions
TCV	True Cost Variance
teHM	ton equivalent Heavy Metal
teU	ton equivalent Uranium
tHM	tonnes of Heavy Metal
THORP	Thermal Oxide Reprocessing Plant
TRIR	Total Recordable Incident Rate $\frac{\text{Total number of work-related injuries \& illnesses x 200,000}}{\text{Total man-hour worked}}$
URS	are an NMP Consortium Member
VTIP	Vitrification Throughput Improvement Plan
WANO	World Association of Nuclear Operators

Executive summary

NDA desired outcomes and attributes from the SL delivery model

This document has been structured around NDA's current 12 desired outcomes and attributes. Key findings in each of the areas below have been collated and are presented first in summary form and then in more detail, topic by topic, in the pages that follow

Note that the outcomes and attributes listed below are NDA's latest set of objectives (as agreed at the NDA Board on 5 June 2013). Whilst these have not substantively changed since contract commencement, emphasis has shifted over time. An analysis of this evolution is included in Appendix B

Desired Outcomes from the SL delivery model

1. **Operations and projects** – Deliver improvements in operational performance and sustained progress with decommissioning projects
2. **Physical progress with LP&S** – Demonstrable physical progress on the clean up of the legacy ponds and silos
3. **Safe site stewardship** – SL will maintain safety, security and environmental legal compliance
4. **Efficiency –** Drive efficiency into operations, projects and supporting site services by reducing costs and increasing value.
5. **Sustainable improvements in SL's capability** – Create sustainable improvements in SL 's capability and capacity with particular focus on:
    1. Organisational capability in Engineering, Programme and Project management, Procurement and Contract management
    2. Flexible workforce, motivated by appropriate training and progression opportunities
    3. Innovation and continuous improvement (technological and organisational)

Desired Attributes of the SL delivery model

6 **Leadership and management –** Strong, effective management team capable of creating a longer term vision for SL and realising this through leadership and management of culture change

7 **Governance** – SL and PBO (where applicable) to operate a seamless, timely and unified regime of governance

8 **Alignment** – Clear alignment between the NDA, SL, PBO (where applicable), partner organisations within PBO (where applicable) and supply chain

9 **Simple Interfaces between NDA, SL and PBO (where applicable)** – create simplified efficient interfaces

10 **Incentive mechanism**– A simple and proportionate incentive mechanism that facilitates and rewards capability improvement, operational performance and project delivery

11 **Risk appetite** – Faster reduction of risk enabled by a willingness to take on appropriate levels of near term risk (conventional, nuclear and organisational).

12 **Stakeholder confidence –** Ensure the confidence of Regulators, Unions, Central Gvt., Local Gvt, Local Site Stakeholders

Sources: (1) NDA June Board Papers

Summary of key performance metrics

- Across the Sellafield site, SL is behind schedule compared to change controlled PP11 targets, having completed 94% and 90% of budgeted **work scheduled** in 2011/12 and 2012/13 respectively
  - In financial terms, in 2012/13 this equates to £180 million of activity
  - When disaggregated solely to consider performance on major projects in 2012/13 SPI drops to 84%, indicating that major projects are the area of greatest challenge
- SL has overspent in comparison with PP11, exceeding budgeted **costs** for work performed by 1% and 7% in 2011/12 and 2012/13 respectively
  - This equates to an overspend of £111 million in 2012/13. This is less than the under-spend resulting from schedule performance, and therefore did not result in SL exceeding its annual site funding limit
  - Again, when disaggregated solely for performance on major projects, the data shows worse performance, with an overspend of 10% in 2012/13 compared to PP11
- **Operational outputs** have been generally below targets. Although in 2011/12 Magnox and Thorp plants showed their best performance in seven years, 2012/13 saw a significant year on year decrease in throughput across all three outputs with none meeting PP11 targets
- Of the 69 **operating plan targets** set for 2012/13, 77% were achieved on time, 6% were achieved behind schedule and 17% were not achieved
- **Minimum performance standards** have largely been achieved as at the 31st May 2013, although two targets are at risk for the full 5-year term
- Of the **bid commitments** selected for analysis, representing 28 out of 154, 30% were deemed to have been fully achieved and 4% partially achieved. 22% were considered to have not been achieved, leaving 44% that were unable to be clearly concluded on given the evidence available. It is recognised that none were formally contractualised

Summary of findings by desired outcome/attribute (1/4)

#	Outcome/ Attribute	Does performance to date indicate outcome/attribute has been achieved?	To what component of the model can this be attributed?
1	**Operations and projects**	■ Over the 5-year contract term the Sellafield plan has undergone significant revision (LTP07, CB10, PP11), and whilst annual operating targets are agreed each year, long-term outcomes as developed in the plan are not contractualised ■ Minimum performance standards have largely been achieved as at 31st May 2013, although a couple of targets are at risk for the full 5-year term ■ In aggregate, general project performance has not met PP11 targets. At an individual project level there have been some successes as well as some significant failures to deliver ■ Similarly, key annual operational throughputs have not met PP11 targets. Whilst in 2011/12 the reprocessing plants did show their best performance for seven years, this has not been sustained into 2012/13	■ General activity has continued to be driven on-site by **SL,** supported by the SL Executive secondees ■ As a result of the evolution in objectives over time and the gaps and ambiguities within the original **contract,** NDA desired objectives and actual outcomes have become increasingly misaligned
2	**Physical progress with LP&S**	■ Progress on major projects within LP&S is behind schedule and has exceeded PP11 cost estimates	■ It appears this is principally attributable to **SL**, often as a result of poor project management (cost estimation, monitoring, reporting etc.) ■ s.43 ■ Decommissioning of LP&S is a long term activity, which does not align with the underlying **PBO model** requirement for short to medium length contractual terms

Summary of findings by desired outcome/attribute (2/4)

#	Outcome/ Attribute	Does performance to date indicate outcome/attribute has been achieved?	To what component of the model can this be attributed?
3	**Safe site stewardship**	■ Health and safety performance metrics have generally improved since the commencement of the PBO model, with security enhancements also becoming a key focus at the request of the regulators	■ This appears to be largely attributable to **SL** under the leadership of executive secondees and supported by **NMP** process initiatives such as ACEMAN, SNPM (Standard Nuclear Performance Model) and MoveSmart. However, all parties are recognised to have a common interest in this area
4	**Efficiency**	■ To date, SL has achieved the MPS for efficiency and whilst final year forecast is currently under target, the year end position has yet to be finalised	■ The achievement of savings is attributable to **SL**, under **NMP** direction, whilst the driver for this appears to have been the incentivisation structures embedded in the **contract** ■ However, whilst savings have been made, overall schedule progress has not met PP11 targets, which over time risks costing more than the efficiency savings generated
5	**Sustainable improvements in SL's capability**	■ SL's capability appears to have shown some improvement over the contract term. However, there remain continued deficiencies in project management, supply chain management and resource allocation	■ Whilst ICP initiatives have been developed by **SL executive secondees** and reachback utilised, and whilst capability development is a necessarily long-term goal, limited change has been delivered over the first term ■ s.43

Summary of findings by desired outcome/attribute (3/4)

#	Outcome/ Attribute	Does performance to date indicate outcome/attribute has been achieved?	To what component of the model can this be attributed?
6	**Leadership and management**	■ As at 31st May 2013, SL does not appear to have benefited from injection of strong leadership through PBO constructs, with high turnover of SL executive secondees and a predominantly reactive response to issues	■ In general, this is attributable to the approach of the existing contractor (**NMP**) and although it is recognised SL Executive secondees have been significantly involved, there was no clear evidence of leadership translating to improved performance ■ However, some of the tasks required of the SL leadership may be more challenging in a private sector context s.43
7	**Governance**	■ The current governance regime between SL and NMP does not appear to be effective or unified. In particular, reporting mechanisms do not appear to lead to timely escalation of issues, with instances where NMP and SL Executive secondees appear not to be well informed	■ This is attributable to **NMP**'s 'hands off' approach, which seeks to exercise governance through the SL Executive secondees rather than proactive parent intervention ■ The recent establishment of the Performance Appraisal Group (in Q4 2012/13) reporting directly to the NMP Board suggests that this approach is beginning to change
8	**Alignment**	■ Performance to date indicates that parties in the PBO model are not aligned in their objectives, with fractures evident in many relationships due to complexity, competing priorities and contractual tensions	■ This is partly as a result of the current **contract**, but in the context of Sellafield may also be perceived as challenge in the overall **PBO model** as it is difficult to write a clearly defined contract around which to establish an incentive structure

Summary of findings by desired outcome/attribute (4/4)

#	Outcome/ Attribute	Does performance to date indicate outcome/attribute has been achieved?	To what component of the model can this be attributed?
9	**Simple interfaces between NDA, SL and PBO**	■ Existing arrangements do not deliver a simple interface between NDA, SL and NMP. There are numerous reporting levels, meetings and documents. In aggregate, this appears to serve to cloud rather than illuminate issues	■ The contractual boundary between NDA and SL/NMP and the separation of NMP from SL – features which are inherent in the **PBO model** – necessitate some of this complexity ■ There has been a loss of trust between the parties due to performance concerns and this appears to have exacerbated the problem
10	**Incentive mechanism**	■ Current fee mechanisms incentivise in year activity in preference to the longer term actions required to deliver capability improvement and project progress	■ Whilst a feature of the current **contract** and **NMP**'s interpretation of it, this may also be attributable to the **PBO model** as private sector companies are likely to require in year (or in planning horizon) reward
11	**Risk appetite**	■ Appetite to absorb greater risk by NMP/SL, and the wider market during the original contract competition, has been very limited under the current model due to the nature and complexity of the site	■ The current contract was not established with a view to the **PBO** taking risk. This was largely a consequence of the scope not being well enough defined to enable a contract model that transferred risk at an acceptable cost to both parties. There is therefore limited incentive for **NMP** to absorb greater risk
12	**Stakeholder confidence**	■ Stakeholders recognise that some progress has been made but are dissatisfied at the level of constructive leadership and commitment to the performance plan	■ **SL** Executive secondees are credited for delivering operational improvement, although the overall leadership of **NMP** is challenged

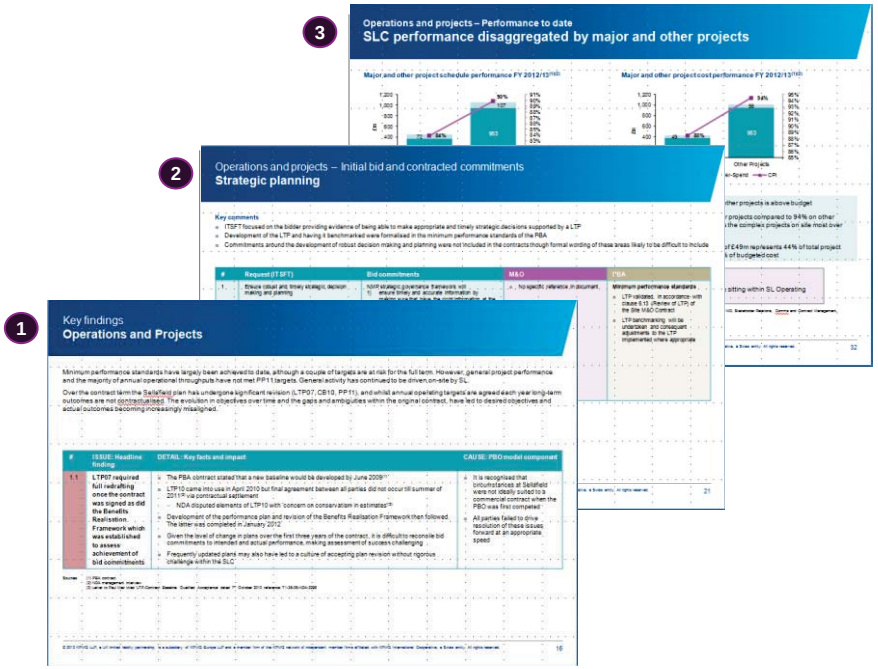
How to use this document

How to use this document
Overview

The document is structured around each of NDA's desired outcomes and attributes (see page 4 for details). Accordingly, relevant supporting quantitative and qualitative evidence has been included in the section to which it best aligns

- This document has been designed primarily as a reference document. It therefore includes a significant amount of detailed information and data. To identify key areas of interest, use should be made of the summary of findings tables on pages 5-8 and the key findings pages at the start of each section
- In addition, the following structure has been applied to all sections to aid comparability:

How to use the following slides:

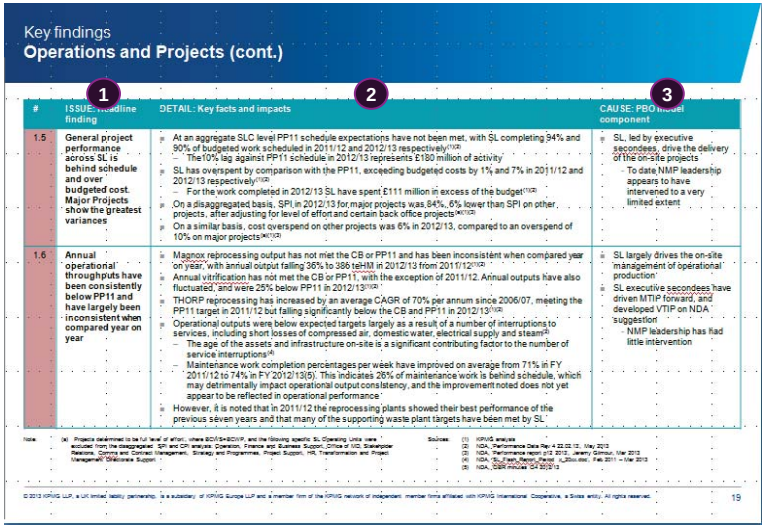


1. **Key findings**
   - Headline comments on key facts relating to each outcome/attribute, plus an assessment of the elements of the PBO model to which this is attributable
2. **Bid and contractual commitments:**
   - Traces the information that bidders were required to provide as part of the bid process through to what was formalised in the M&O and PBA contracts
3. **Performance to date:**
   - Describes quantitative and qualitative data points
   - Includes assessment of the minimum performance standard appropriate for that outcome, if applicable
   - Includes assessment of selected bid commitments that were not specifically contractualised

Key findings

Based on the evidence reviewed, supplemented with information obtained from the interviews undertaken, a number of key findings have been identified for each outcome/attribute

How to use the following slides:



Key findings
Operations and Projects (cont.)

1 2 3

#	ISSUE: Headline finding	DETAIL: Key facts and impacts	CAUSE: PBO model component
1.5	General project performance across SL is behind schedule and over budgeted cost. Major Projects show the greatest variances	At an aggregate SLC level PP11 schedule expectations have not been met, with SL completing 94% and 90% of budgeted work scheduled in 2011/12 and 2012/13 respectively[1][2] – The 10% lag against PP11 schedule in 2012/13 represents £180 million of activity SL has overspent by comparison with the PP11, exceeding budgeted costs by 1% and 7% in 2011/12 and 2012/13 respectively[1][2] – For the work completed in 2012/13 SL have spent £111 million in excess of the budget[1][2] On a disaggregated basis, SPI in 2012/13 for major projects was 84%, 6% lower than SPI on other projects, after adjusting for level of effort and certain back office projects[4][1][2] On a similar basis, cost overspend on other projects was 6% in 2012/13, compared to an overspend of 10% on major projects[4][1][2]	SL, led by executive secondees, drive the delivery of the on-site projects – To date NMP leadership appears to have intervened to a very limited extent
1.6	Annual operational throughputs have been consistently below PP11 and have largely been inconsistent when compared year on year	Magnox reprocessing output has not met the CB or PP11 and has been inconsistent when compared year on year, with annual output falling 36% to 386 teHM in 2012/13 from 2011/12[1][2] Annual vitrification has not met the CB or PP11, with the exception of 2011/12. Annual outputs have also fluctuated, and were 25% below PP11 in 2012/13[1][2] THORP reprocessing has increased by an average CAGR of 70% per annum since 2006/07, meeting the PP11 target in 2011/12 but falling significantly below the CB and PP11 in 2012/13[1][2] Operational outputs were below expected targets largely as a result of a number of interruptions to services, including short losses of compressed air, domestic water, electrical supply and steam[3] – The age of the assets and infrastructure on-site is a significant contributing factor to the number of service interruptions[4] – Maintenance work completion percentages per week have improved on average from 71% in FY 2011/12 to 74% in FY 2012/13(5). This indicates 26% of maintenance work is behind schedule, which may detrimentally impact operational output consistency, and the improvement noted does not yet appear to be reflected in operational performance However, it is noted that in 2011/12 the reprocessing plants showed their best performance of the previous seven years and that many of the supporting waste plant targets have been met by SL	SL largely drives the on-site management of operational production SL executive secondees have driven MTIP forward, and developed VTIP on NDA suggestion – NMP leadership has had little intervention

Note: (a) Projects determined to be full level of effort, where BCWS=BCWP, and the following aspects: SL (Operating Units were excluded from the disaggregated SPI and CPI analysis: Operation, Finance and Business Support, Office of NC, Stakeholder Relations, Comms and Contract Management, Strategy and Programmes, Project Support, HR, Transformation and Project Management, Directorate Support.

Sources: (1) KPMG analysis; (2) NDA, 'Performance Data Rep 4 22.02.13', May 2013; (3) NDA, 'Performance report q12 2012', Jeremy Gilmour, Mar 2013; (4) NDA, 'SL_Flash_Report_Period_1_2(bis).xlsx', Feb 2011 – Mar 2013; (5) NDA, 'Q4 minutes Q4 201213'

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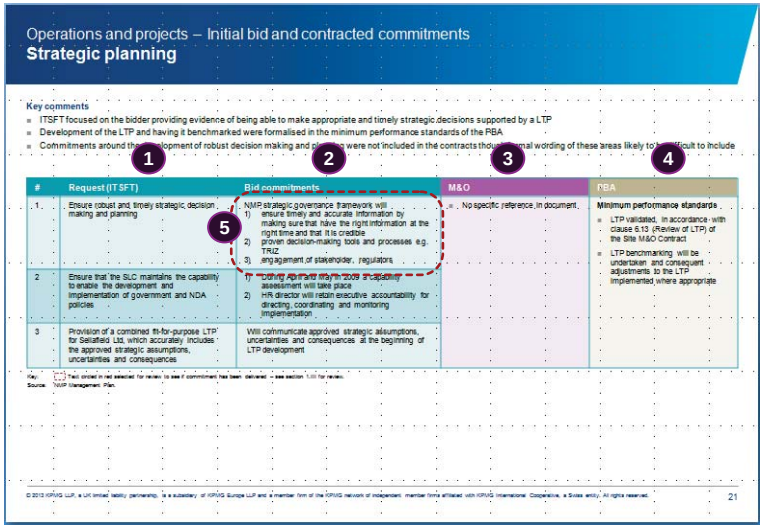
1. A headline statement has been made
2. Key facts and consideration of the impact of these have been included to support headline finding (often sourced from the following Bid and Contractual Commitments and Performance to date sections)
3. An evaluation of which component of the PBO model is responsible for this outcome is included
   - Note that this is necessarily a qualitative assessment and that disaggregating between parties is inherently difficult given structure of the PBO model

Bid and contractual commitments

The bid process required all bidders to present proposals against 29 key areas of interest. The successful NMP bid was then formalised in the M&O and PBA contracts

- Tracing from the initial request for bids through to the formalised contracts enables a review of how commitments changed through the contracting process

How to use the following slides:



1. The ITSFT details 29 key areas that NDA expected each bidder to discuss
2. NMP submitted a bid responding to each of the ITSFT categories including detail of how they would achieve change

   NMP's bid was successful and was formalised in the following two main contracts:
3. M&O is the contract between NDA and Sellafield Limited
4. The Parent Body Agreement is the contract between NDA, Sellafield Limited and NMP containing specific clauses around minimum performance standards
   - Where a minimum performance standard is stated a separate analysis slide is included in the performance to date section to assess how it has been measured and whether it has been achieved
5. 27 commitments, out of the identified total 154 that were made by NMP in the bid but not specifically contractualised, have been analysed for evidence of achievement (see performance to date section)
   - Bid commitments were identified in the management plan submitted by NMP. Judgement was used when reviewing this for key commitments to be followed through

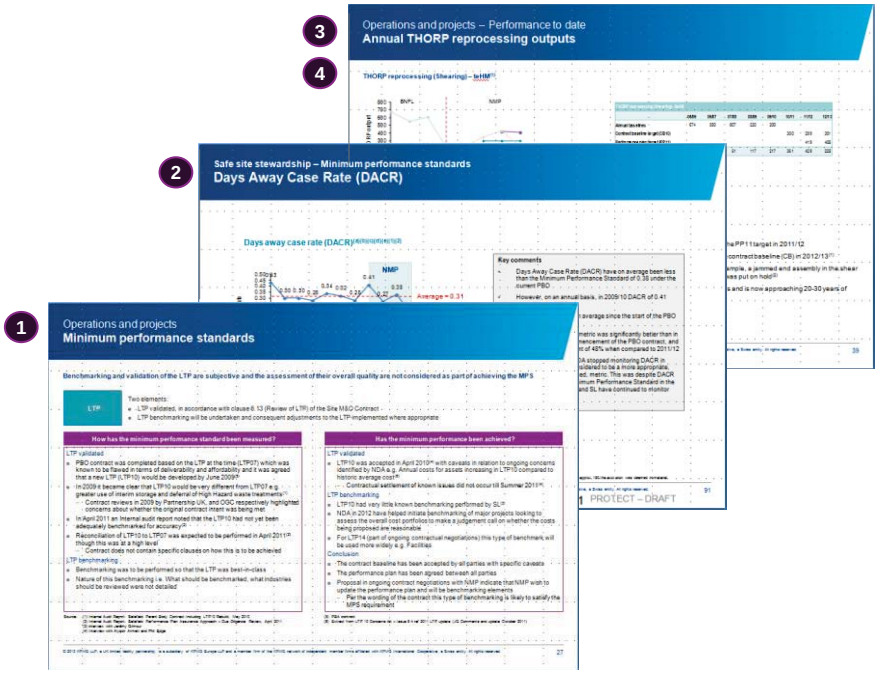
   More detailed information on each source document is included in the appendix

How to use this document
Performance to date

Quantitative data metrics are referenced to the desired outcome section to create an evidence base of historic performance and directional trend

- This is supplemented with qualitative value statements on performance derived from NDA source documentation and interviews

How to use the following slides:

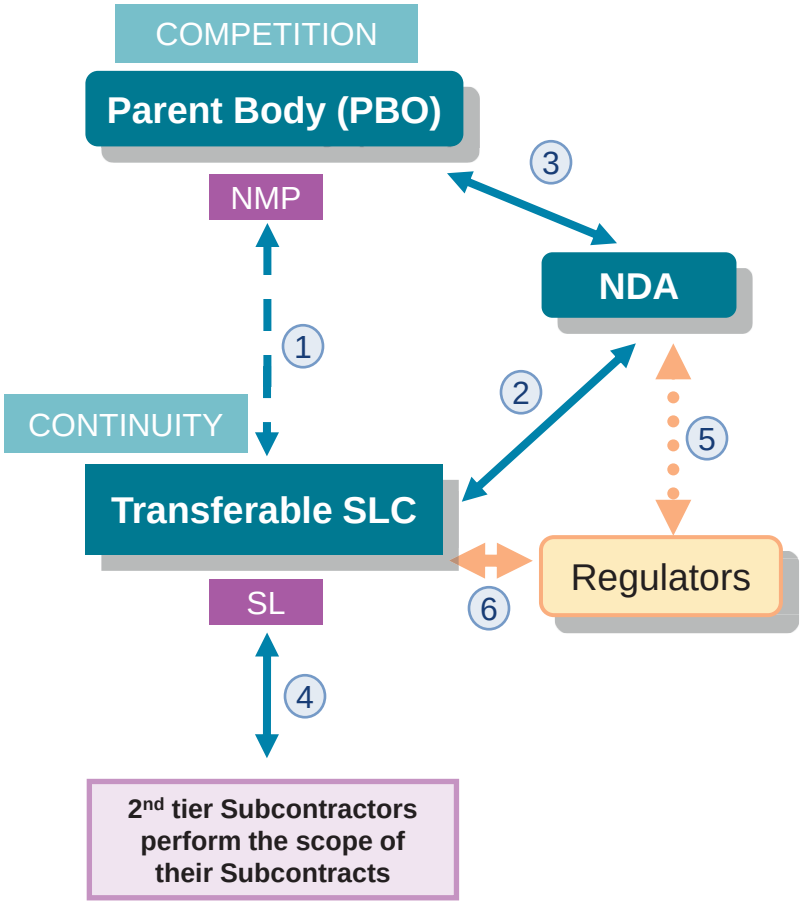


1. Minimum Performance Standards:
   - Commentary included to show how the MPS' have been measured and whether NDA consider them to have been achieved
2. Other bid commitments
   - Commentary included on achievement of selected bid commitments
3. Quantitative data points from SL, e.g.:
   - Operational annual outputs
   - Major project estimated total lifetime costs and in period SPI (standard earned value metrics)
   - Safety metrics, including DACR, INES,RIDDOR, TRIR
   - ICP metrics, including training completed, resourcing allocations etc.
4. Qualitative evidence from source documents:
   - SL Monthly Flash Reports
   - PPRG reviews
   - P12 Major Project Reports
   - Project Summary Sheets (PSS) produced by the SL site facing team for the NAO in May 2012
   - Internal/external reviews
   - QBR meeting minutes
   - Correspondence

Context

The PBO model

The PBO model



Parent Body
Owner of licensee

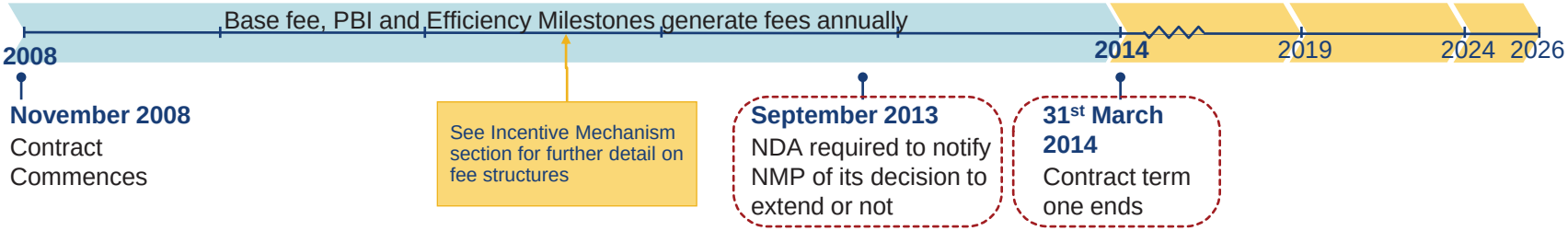
Transferable SLC
Licensee
Primary Contract with NDA

1. **Ownership of SLC shares**
2. **M&O contract**
3. **Parent Body Agreement**
4. **Subcontracts**
5. **Statutory consultation requirement**
6. **Statutory and/or Licence or consent requirements**

- **NDA** owns the site and the infrastructure; it is a UK Government liability and there is no scope for a sale or privatisation
- The **PBO** inserts executive secondees and other reach back staff into the SLC, bringing managerial and technical expertise and a private sector mentality
- The **SLC** is the enduring entity that holds the site license and the delivery contract with NDA, and at the point of re-competition the SLC therefore does not have to be relicensed
- SLC employees are not transferred to the PBO but remain employees of the SLC
- The PBO has temporary ownership of SLC shares, and benefits from fee paid by NDA to the SLC. The shares always return to NDA at the end of the contract period or on earlier termination
- A PBO model is not a requirement of the Energy Act

Current contract structure

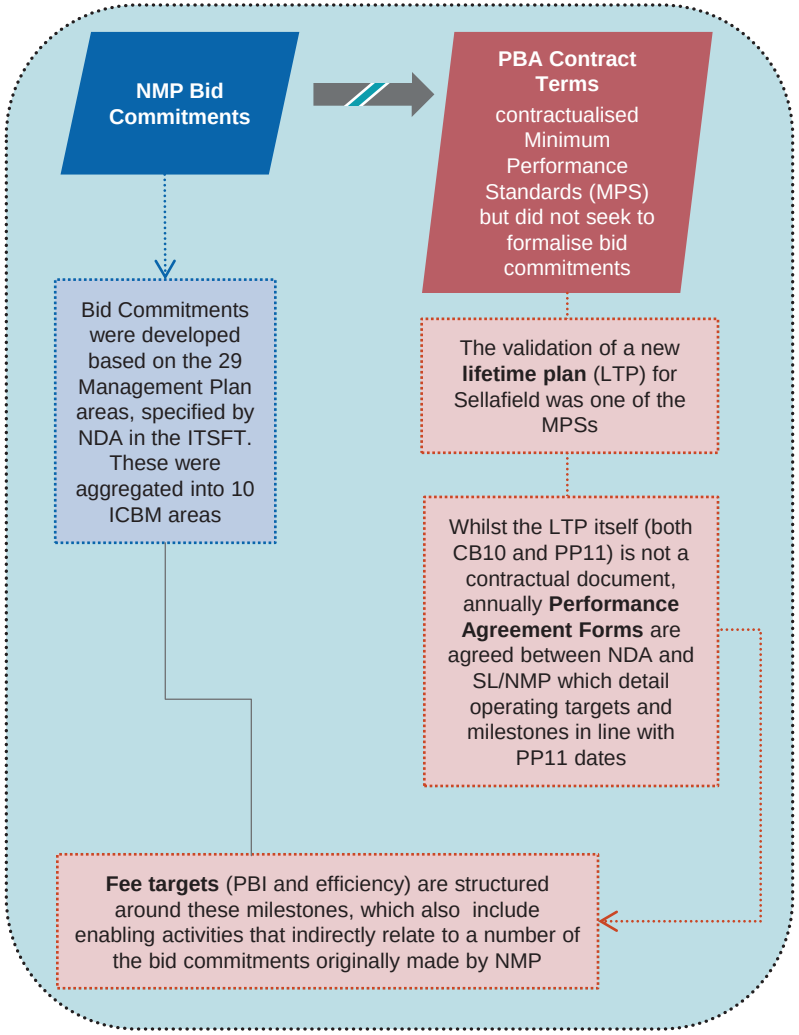
The current contractual arrangements are for a maximum of 17 years with 3 five year terms and a two year term, which can be structured in any order



NDA-NMP/SL contract structure

- As shown on the previous slide, there are two key contractual documents within the PBO model:
  - The **Parent Body Agreement (PBA)** between NMP, SL and NDA
  - The **Management and Operations contract** between SL and NDA
- It is the PBA document that contains specifics on performance standards and requires the LTP to be validated
- However, it is the M&O that contractualises the requirement for SL to deliver the LTP
- See next slide for further detail on contract development

Contract development



Competitive dialogue

- Given the limited confidence in LTP07 (see next slide) and therefore the inability to contract for specific outcomes, in effect the competition process was a 'beauty parade' to identify the bidder most likely to deliver NDA's requirements
- Expectations for the contract were developed through a lengthy competitive dialogue process
- As part of this, a number of bid commitments were developed by bidders around the 29 management plan areas identified by NDA
- By the end of the process, it was understood that NMP's bid commitments represented the strongest alignment of capabilities to NDA's requirements and that shared objectives had been developed
- ***A legitimate expectation had therefore been developed that NMP would seek to deliver its bid commitments***

Contractualisation

- However, as shown in the slides that follow in each section on contractualisation of bid commitments, the level of detail specified within the bid was not followed through into the contractual documentation

Annual Performance Agreement Forms

- Instead of featuring in original contract documentation, elements representative of the bid commitments have been included in annual performance agreement forms (PAFs)
- However, these are generally only on an annual basis and therefore do not cover the longer term nature of some bid commitments

Development of the baseline

The baseline against which SLC performance is measured has been developed through a number of iterations over the last 5 years.

In the following material the performance data provided by SL is calculated by reference to these baselines at the point in time they were considered the most appropriate benchmark

- **LTP07** (2007)
  - This lifetime plan baseline was developed in 2007 by BNG, but was discredited as being unrealistic and never accepted by NDA
  - However, as the best available plan, it was the baseline supplied to bidders for development of the ICBM savings model
- **Annual baseline** (March 2008 – March 2010)
  - As a result of LTP07 being viewed as inaccurate, annual targets were set each year from 2008. Re-baselining in this way, including the creation of the contract baseline and performance plan, was not originally envisaged by the contract
  - LTP08 was not approved or accepted for the period Nov 2008 – March 2009
  - Inherited baseline LTP09 was applied for the period April 2009 – March 2010
- **Contract baseline** (April 2010 – March 2026)
  - The contract baseline (LTP10) was developed by SL under NMP ownership. It was accepted by NDA in Sep/Oct 2010 with caveats in relation to ongoing concerns identified in the May 2010 internal audit report. Contractual settlement of known issues did not occur until Summer 2011
  - The contract baseline is used as the benchmark against which the efficiency fee is calculated, and will be used for the period until March 2014
  - It is viewed as reflecting the likely outturn if BNG had remained in control of Sellafield
- **Performance plan** (April 2011 onwards)
  - The performance plan was accepted as overall fit for purpose by the NDA in June 2011, and has since been the benchmark against which performance is assessed
  - It takes account of initiatives proposed by NMP which are intended to deliver efficiencies and schedule progress

1. Operations and projects

Key findings

Bid and contractual commitments

Performance to date

Key findings (1/4)

Minimum performance standards have largely been achieved as at 31st May 2013, although two targets (DACR and achievement of efficiencies with reference to the benefits realisation framework) are at risk for the full term. However, general project performance and the majority of annual operational throughputs have not met PP11 targets. General activity has continued to be driven on-site by SL, supported by reach back in certain areas

Over the contract term the Sellafield plan has undergone significant revision (LTP07, CB10, PP11), and whilst annual operating targets are agreed each year long-term outcomes are not contractualised. The evolution in objectives over time and the gaps and ambiguities within the original contract, have led to desired objectives and actual outcomes becoming increasingly misaligned

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
1.1	**LTP07 required full redrafting once the contract was signed as did the Benefits Realisation Framework which was established to assess achievement of bid commitments**	■ The PBA contract stated that a new baseline would be developed by June 2009(1) ■ LTP10 came into use in April 2010 but final agreement between all parties did not occur till summer of 2011(2) via contractual settlement – NDA disputed elements of LTP10 raising 'concern on conservatism in estimates'(3) ■ Development of the performance plan and revision of the Benefits Realisation Framework then followed. The latter was completed in January 2012 ■ Given the level of change in plans over the first three years of the contract, it is difficult to reconcile bid commitments to intended and actual performance, making assessment of success challenging ■ Frequently updated plans may also have led to a culture of accepting plan revision without rigorous challenge within the SLC	■ It is recognised that circumstances at Sellafield were not ideally suited to a commercial contract when the PBO was first competed ■ All parties failed to drive resolution of these issues forward at an appropriate speed

Sources: (1) PBA contract
(2) NDA management interview
(3) Letter to s.40 titled 'LTP-Contract Baseline: Qualified Acceptance' dated 7th October 2010 reference T1-35-08-NDA-3298

Key findings (2/4)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
1.2	**LTP11 developed and agreed with all stakeholders**	■ The Performance Plan came into effect from April 2011(4) and was recognised by the OGC Gateway 5 review as being '*to NMP's credit that there is a performance plan for the site that has broad buy-in from all stakeholders*'(3) ■ However, there now appears to be some difference of opinion on the purpose of the plan. NMP view it as a stretch target, whilst NDA and the regulators consider it to be the base expected level of performance. ■ Although originally agreed by all stakeholders the current proposals from NMP seek to revise the Performance Plan, by moving key dates backwards – This attempt to reset the baseline may be a result of: 1) the inherent difficulty of the task because the degree of organisational change required to deliver the plan is harder than was anticipated, 2) a commercial negotiating position, 3) the development of a culture where it is acceptable to revise commitments	■ SL developed the accepted Performance Plan, under the leadership of SL Executive secondees ■ NMP supported its development
1.3	**Terms of contract delivered**	■ The PBA between NMP and NDA contains 25 discrete minimum performance standards(1) covering a wide range of areas: – meeting NDA reporting requirements – specific health and safety metrics e.g. DACR of 0.38 – engagement with all stakeholders – trade union relations ■ The OGC Gateway 5 report stated that the MPS had been achieved in the first 3 years of the contract, reflecting '*that the original intent of the contract had been largely met*'(3) ■ Current year performance is still being measured, although certain criteria are currently below the required thresholds e.g. achieving 80% of total efficiency savings(2)	■ MPS achievement appears to largely have been driven by the actions of SL under SL Executive secondee leadership

Sources: (1) PBA contract Schedule 5
(2) NDA management interview with s.40 indicated that whilst the current forecast is that the efficiency MPS may not be achieved until the numbers are finalised no conclusions can be drawn
(3) OGC Gateway 5: Operations review and benefits realisation – 2012
(4) NDA management interview with s.40

Key findings (3/4)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
1.4	**Limited and poorly worded contractual obligations within M&O and PBA – not sufficient to meet all of NDA's intended requirements**	■ The broad wording of certain MPS' enables them to be achieved by NMP without necessarily addressing the underlying reason for which they were set-up ■ Example 1: Foster the capability of the supply chain – The MPS lists four key elements: conducting supply chain seminars, annually publishing a procurement plan, no successful challenge to OJEU, conducting staff satisfaction surveys(1) – All of these explicit requirements have been met. However, the quality of the procurement plan has been assessed as inadequate by both the NDA and a third party s.40) who stated that SL had '*an inconsistent approach to the application and management of its processes*'(3) – NMP have also accepted that this is an area requiring special measures for improvement, thereby implying that the procurement plan was not developed to the required level ■ Example 2: PCP13 reporting standards – The MPS requires that there be no material failure to comply with reporting procedures in line with PCP13. The definition of material failure was not included in the PBA contract(1) – The PCP13 MPS has therefore been achieved in that it has not resulted in material failure. However aspects of SL reporting e.g. Major Projects reporting, is delayed compared to other nuclear sites to give SL extra days to ensure the reporting meets the expected standard(2) ■ The contractual arrangements established in 2008 were not sufficiently specific to drive the outcomes required. For example, there is no reference to a requirement for focus on schedule progress in LP&S or improved operational performance targets in the PBA or M&O contract.	■ NDA desired outcomes are not aligned with the contracted requirements, which lack specificity ■ In particular, the lack of detail on capability improvements or long term outcomes required has resulted in uncertainty on realistic, quantifiable expectations

Sources: (1) PBA contract
(2) NDA management interview with s.40
(3) SL Commercial Capability Review: Report Findings – November 2012

Key findings (4/4)

#	ISSUE: Headline finding	DETAIL: Key facts and impacts	CAUSE: PBO model component
1.5	**General project performance across SL is behind schedule and over budgeted cost. Major Projects show the greatest variances**	■ At an aggregate SLC level PP11 schedule expectations have not been met, with SL completing 94% and 90% of budgeted work scheduled in 2011/12 and 2012/13 respectively(1)(2) – The10% lag against PP11 schedule in 2012/13 represents £180 million of activity ■ SL has overspent by comparison with the PP11, exceeding budgeted costs by 1% and 7% in 2011/12 and 2012/13 respectively(1)(2) – For the work completed in 2012/13 SL have spent £111 million in excess of the budget(1)(2) ■ On a disaggregated basis, SPI in 2012/13 for major projects was 84%, 6% lower than SPI on other projects, after adjusting for level of effort and certain back office projects(a)(1)(3). Please refer to slide 37 for a summary of non-LP&S major projects, and slide 63 for LP&S major projects ■ On a similar basis, cost overspend on other projects was 6% in 2012/13, compared to an overspend of 10% on major projects(a)(1)(3)	■ SL, led by Executive secondees, drive the delivery of the on-site projects – s.43
1.6	**Annual operational throughputs have been consistently below PP11 and whilst in 2011/12 the reprocessing plants showed their best performance for seven years, outputs have been inconsistent when compared year on year**	■ Magnox reprocessing output has not met the CB or PP11 and has been inconsistent when compared year on year, with annual output falling 36% to 386 teHM in 2012/13 from 2011/12(1)(2) ■ Annual vitrification has not met the CB or PP11, with the exception of 2011/12. Annual outputs have also fluctuated, and were 25% below PP11 in 2012/13(1)(2) ■ THORP reprocessing has increased by an average CAGR of 70% per annum since 2006/07, meeting the PP11 target in 2011/12 but falling significantly below the CB and PP11 in 2012/13(1)(2) ■ Operational outputs were below expected targets largely as a result of a number of interruptions to services, including short losses of compressed air, domestic water, electrical supply and steam(2) – The age of the assets and infrastructure on-site is a significant contributing factor to the number of service interruptions(4) – Maintenance work completion percentages per week have improved on average from 71% in FY 2011/12 to 74% in FY 2012/13(5). This indicates 26% of maintenance work is behind schedule, which may detrimentally impact operational output consistency. The improvement noted, including the achievement of PAS55 accreditation, does not yet appear to be reflected in operational performance ■ However, in 2011/12 the reprocessing plants showed their best performance for seven years and many of the supporting waste plant targets were met by SL	■ SL largely drives the on-site management of operational production ■ SL Executive secondees have driven MTIP and TTIP forward, and developed VTIP on NDA suggestion – s.43

Note: (a) Projects determined to be full 'level of effort', where BCWS=BCWP, and the following specific SL Operating Units were excluded from the disaggregated SPI and CPI analysis: Operation, Finance and Business Support, Office of MD, Stakeholder Relations, Comms and Contract Management, Strategy and Programmes, Project Support, HR, Transformation and Project Management Directorate Support

Sources: (1) KPMG analysis
(2) NDA, 'Operational data', s.40 10 Jun 2013
(3) NDA, 'Performance report p12 2013', s.40 , Mar 2013
(4) NDA, 'SL_Flash_Report_Period x_20xx.doc', Feb 2011 – Mar 2013
(5) NDA, 'QBR minutes' Q4 2012/13

Operations and projects

Key findings

Bid and contractual commitments

- Strategic planning
- Expenditure profile management
- Plant operations
- Infrastructure and site support

Performance to date

Operations and projects – Initial bid and contracted commitments
Strategic planning

s.43

Expenditure profile management

s.43

Operations and projects – Initial bid and contracted commitments
Plant operations

s.43

Infrastructure and site support

s.43

Key findings

Bid and contractual commitments

Performance to date

Minimum performance standards

Benchmarking and validation of the LTP are subjective and the assessment of their overall quality is not considered as part of achieving the Minimum Performance Standards (MPS)

LTP MPS

Two elements:

- LTP validated, in accordance with clause 6.13 (Review of LTP) of the Site M&O Contract
- LTP benchmarking will be undertaken and consequent adjustments to the LTP implemented where appropriate

How has the minimum performance standard been measured?

LTP validated

- PBO contract was competed based on the LTP at the time (LTP07) which was known to be flawed in terms of deliverability and affordability and it was agreed that a new LTP (LTP10) would be developed by June 2009(5)
- In 2009 it became clear that LTP10 would be very different from LTP07 e.g. greater use of interim storage and deferral of High Hazard waste treatments(1)
  - Contract reviews in 2009 by s.43 and OGC respectively highlighted concerns about whether the original contract intent was being met
- In April 2011 an internal audit report noted that the LTP10 had not yet been adequately benchmarked for accuracy(2)
- Reconciliation of LTP10 to LTP07 was expected to be performed in April 2011(2) though this was at a high level
  - Contract does not contain specific clauses on how this is to be achieved

LTP benchmarking

- Benchmarking was to be performed so that the LTP was best-in-class
- Nature of this benchmarking i.e. What should be benchmarked, what industries should be reviewed were not detailed

Has the minimum performance been achieved?

LTP validated

- LTP10 was accepted in April 2010(4) with caveats in relation to ongoing concerns identified by NDA e.g. Annual costs for assets increasing in LTP10 compared to historic average cost(6)
  - Contractual settlement of known issues did not occur till Summer 2011(4)

LTP benchmarking

- LTP10 and LTP11 had very little known benchmarking performed by SL(3)
- NDA in 2012 have helped initiate benchmarking of major projects looking to assess the overall cost portfolios to make a judgement call on whether the costs being proposed are reasonable
- For LTP14 (part of ongoing contractual negotiations) this type of benchmark will be used more widely e.g. Facilities

Conclusion

- The contract baseline has been accepted by all parties with specific caveats
- The performance plan has been agreed between all parties
- Proposal in ongoing contract negotiations with NMP indicate that NMP wish to update the performance plan and will be benchmarking elements
  - Per the wording of the contract this type of benchmarking is likely to satisfy the MPS requirement

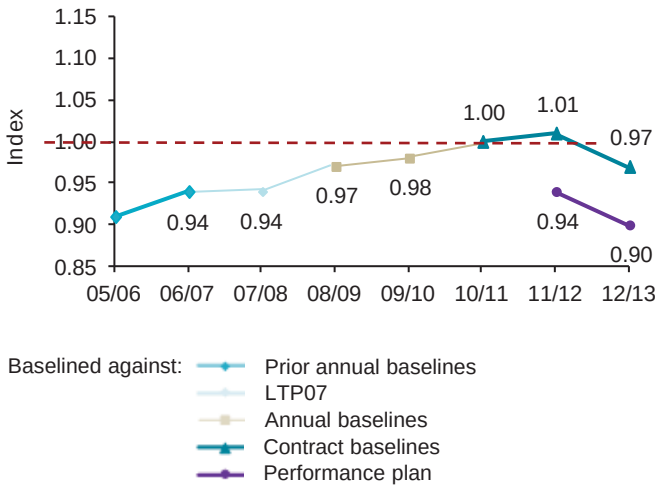
Sources: (1) Internal Audit Report: Sellafield Parent Body Contract Including LTP10 Rebuild, May 2010
(2) Internal Audit Report: Sellafield Performance Plan Assurance Approach – Due Diligence Review, April 2011
(3) interview with s.40
(4) Interview with s.40
(5) PBA contract
(6) Extract from LTP 10 Concerns list – Issue 8 4 ref 2011 LTP update Comments and update October 2011)

Assessment of delivery of a sample of NMP non-contractualised bid commitments

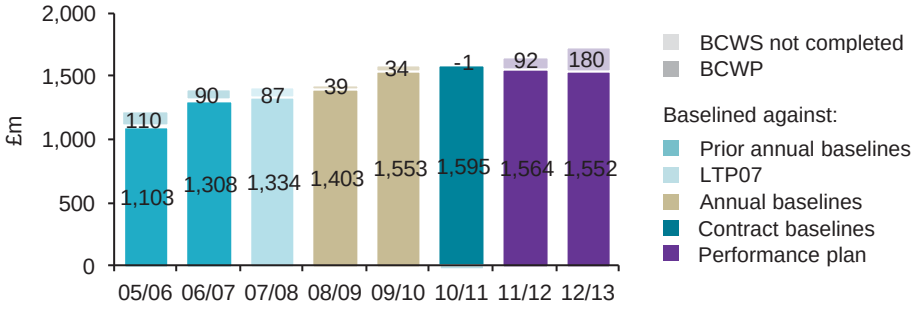
s.43

Overall SLC schedule performance

Schedule Performance Index (SPI)[1]



Budgeted cost of work performed v Budgeted cost of work scheduled[a][b][c][1]



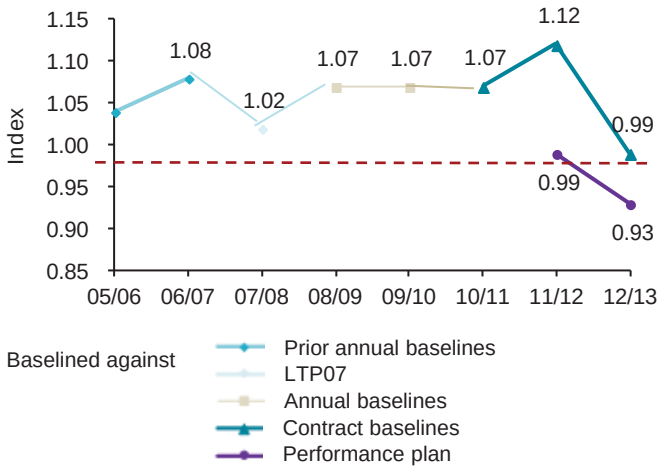
- At an aggregate SLC level PP11 schedule expectations have not been met, with SL completing 94% and 90% of budgeted work scheduled in 2011/12 and 2012/13 respectively[1][2]
  - This is partly the result of under-resourcing within SL and the supply chain, compared to plans based on a fully resourced workforce
- The contract baseline (CB) was also not met in 2012/13, although schedule was on target in 2010/11 and 2011/12
- Although historic schedule performance has been included above, it should be noted that baselines prior to PP11 were deemed unrealistic

- The10% lag against PP11 schedule in 2012/13 represents £180 million of activity and £92 million in 2011/12[1]
- The areas of work which are significantly behind schedule include major projects, specifically SAV, SDP, BTF, Evap D and EPS3
- However, the significant increases in scope scheduled and in general delivered year-on-year should be noted
- Please refer to Section 2 for more detailed information on the physical progress with LP&S

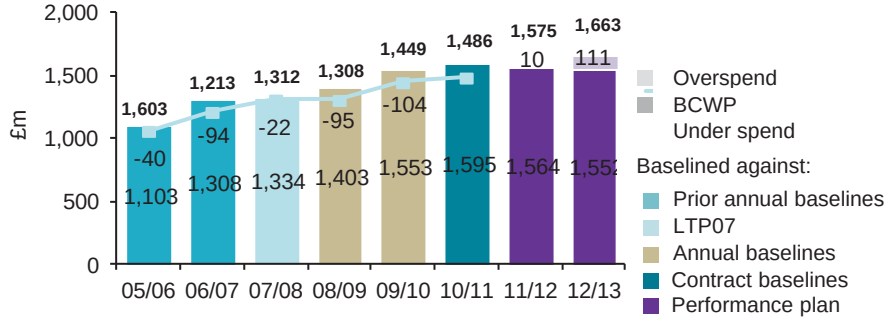
Sources: (1) NDA Performance Management team, 'Sellafieldslcsites_pr2005-2013_costs' via EDS, May 2013
(2) Cross checked with NDA, 'Performance Data Rev 4 22.02.13', May 2013 from s.40 data used in ShEx report on 23rd May)

Overall SLC cost performance

Cost Performance Index (CPI)[1]



Budgeted cost of work performed v Actual cost of work performed[a][b][c][1]



- SL has overspent by comparison with the PP11, exceeding budgeted costs by 1% and 7% in 2011/12 and 2012/13 respectively[1][2]
- In 2012/13 SL CPI was 0.99 when referenced against the contract baseline (CB), 1% worse than SL had forecast BNFL would have performed had they remained incumbent[1]
- Although historic cost performance has been included above, it should be noted that baselines prior to PP11 were deemed unrealistic

- SL have spent £111 million in excess of the PP11 budget for work completed in 2012/13 and £10 million for work completed in 2011/12[1][2]
- Areas of work which are significantly over budget include major projects, specifically SDP, MSSS retrievals, PFCS retrievals, Evap D and SAV
- Please refer to Section 2 for more detailed information on the physical progress with LP&S

Note: (a) Please note that 2010/11 data from EDS does not include an additional £25.2 million BCWS and BCWP, due to this change only being fully agreed post electronic data submission
(b) The electronic data submission only shows £17.4 million BCWP for Capenhurst, rather than £18.4m
(c) The baseline the BCWS is referenced to is the annual baselines for 2008/09 – 2009/10, contract baseline for 2010/11 and performance plan 2011/12 onwards

Sources: (1) NDA Performance Management team, 'Sellafieldslcsites_pr2005-2013_costs' via EDS, May 2013
(2) Cross checked with NDA, 'Performance Data Rev 4 22.02.13', May 2013 from s.40 (data used in ShEx report on 23rd May)

Structure of on-site activities and list of major projects as at FY2012/13

All activities at Sellafield are managed as projects. On-site activities have been categorised into the following areas:

Activities:

Major projects:

- Major projects are classified as those projects >£50m or which have significant strategic importance

Other projects e.g.:

- Magnox reprocessing;
- THORP reprocessing;
- Infrastructure engineering and site maintenance etc.

'Level of effort' or back office function operating units e.g.:

- Finance and Business Support;
- Stakeholder Relations;
- HR etc.

Major projects:

Non-LP&S major projects:

- Evaporator D
- Replacement of highly active storage tanks
- Separation Area Ventilation (SAV)
- Encapsulated Product Store 3 (EPS3)
- *See following slides*

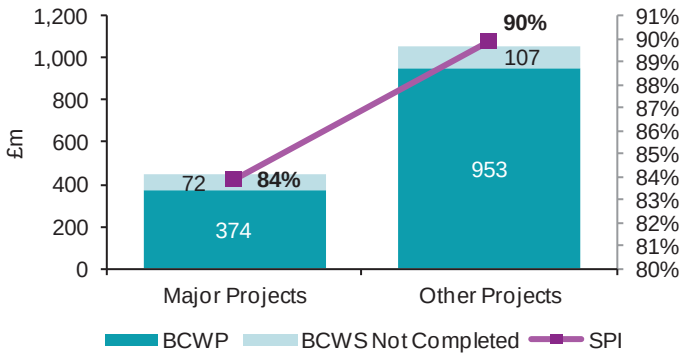
LP&S major projects:

Please refer to section 'Physical progress of LP&S' for further details:

- Silos direct encapsulation plant (SDP)
- Magnox Swarf Storage Silos (MSSS) retrievals
- Box transfer facility
- Silos maintenance facility
- Pile Fuel Cladding Silos (PFCS) retrievals
- BEPPS & CIEF/ DIF
- Buffer Sludge Packaging Plant (SPP1)

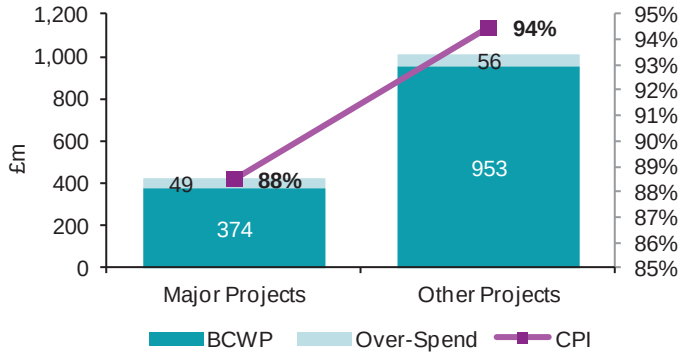
SLC performance disaggregated by major and other projects

Major and other project schedule performance FY 2012/13(1)(2)



- Schedule performance is behind Plan across both major and other projects
- However, SPI of 84% on major projects compared with 90% on other projects shows that it is the significant complex projects on site that are furthest behind planned schedule

Major and other project cost performance FY 2012/13(1)(2)



- Spending on both major and other projects is above budget
- However, CPI of 88% on major projects compared to 94% on other projects demonstrates that it is the complex projects on site most over budget
- Overspend on major projects of £49 million represents 44% of total project overspend but represents 26% of budgeted cost

- In the charts above major projects consist of the 11 NDA allocated 'Major Projects'
- Other projects are those remaining after stripping out projects determined to be full 'level of effort' or those sitting within SL Operating Units considered to be back office functions(a)

Note: (a) Pure 'level of effort' projects were identified as those where BCWS=BCWP. The following specific SL Operating Units were excluded: Operations, Finance and Business Support, Office of MD, Stakeholder Relations, Comms and Contract Management, Strategy and Programmes, Project Support, HR, Transformation and Project Management Directorate Support

Source: (1) KPMG analysis

(2) NDA Performance Management team, Performance Report pd12 2013.xls, May 2013 from s.40

Summary of non-LP&S major projects

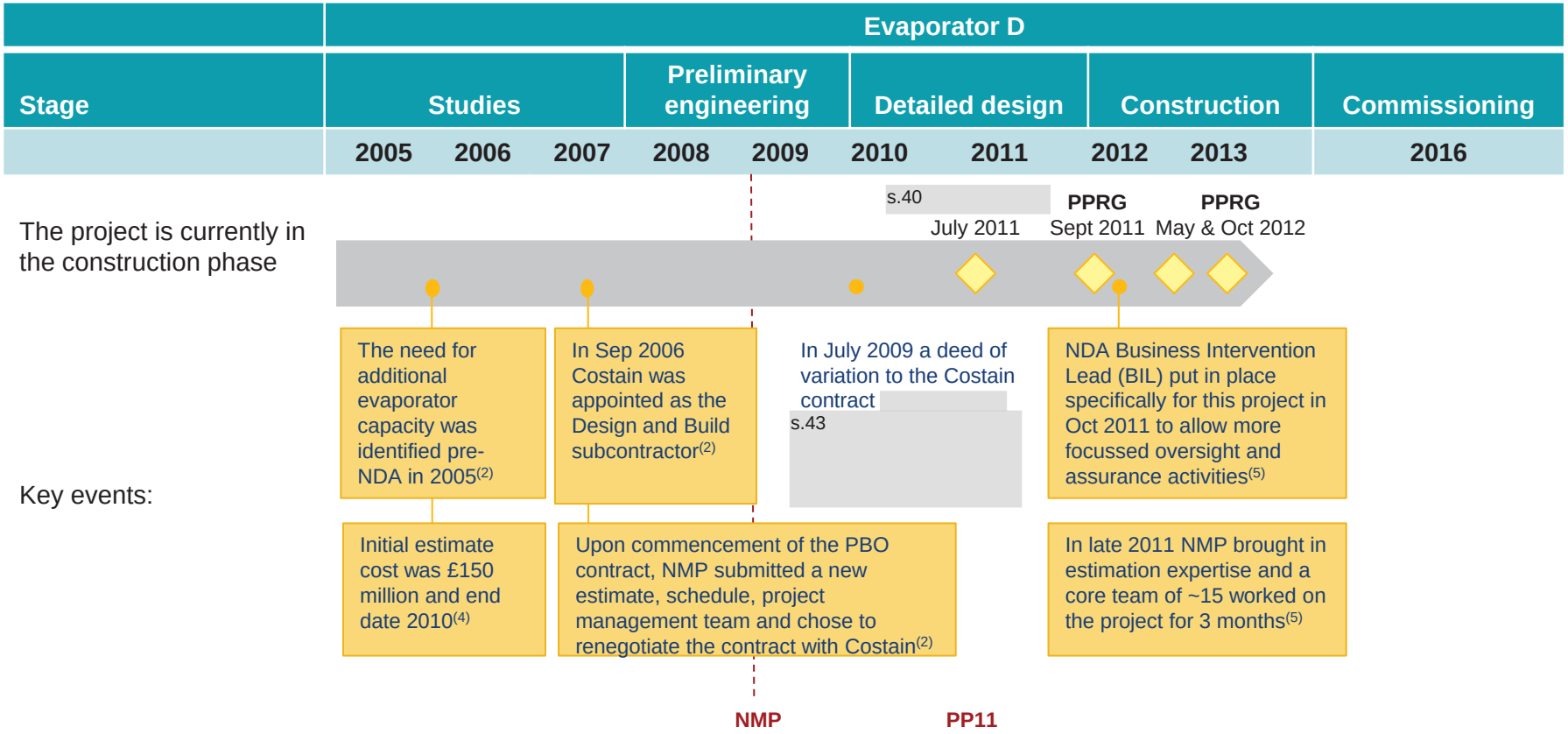
In May 2011, NDA introduced monthly reporting requirements for Major Projects in order to improve the quality of information shared between SL and NDA. Since September 2012, SL reporting has also been updated to reflect the emphasis on programmes, and as such the performance of a number of major projects are now reported within the monthly programme reports

Summary									
#	Project	LTP11 forecast lifetime cost (£m)	May 2013 forecast lifetime cost (£m)	LTP11 estimated end date	May 2013 estimated end date	Cost variance (£m)	% changes in cost estimate	Schedule variance	% changes in schedule estimate
HALS									
1	Evaporator D	398	641	May-14	Feb-16	243	61.1%	+1 year 9months	55.3%
2	HAST replacement	474	37	-	-	437	-92.2%	-	-
FGRP programme									
3	SAV	120	229	Jun-14	Jun-17	109	90.4%	+3 years	92.3%
ILWP									
4	EPS3	103	103	Aug-12	Oct-13	-	0.0%	+1 year 2 months	82.4%
	Total					**789**	**14.8%**	**+6 years**	**76.6%**

Sources:
(1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheets (PSS)', May 2012
(3) NDA, Interview with NDA project owners' Jun 2013
(4) NAO, 'Managing Risk Reduction at Sellafield', 7 Nov 2012
(5) NDA, 'PPRG reviews', 2011 - 2013

Evaporator D background

The objective of Evaporator D is to increase the evaporative capacity to manage highly active liquor stocks through Magnox and Oxide reprocessing, as well as to support decommissioning and post operational clean out

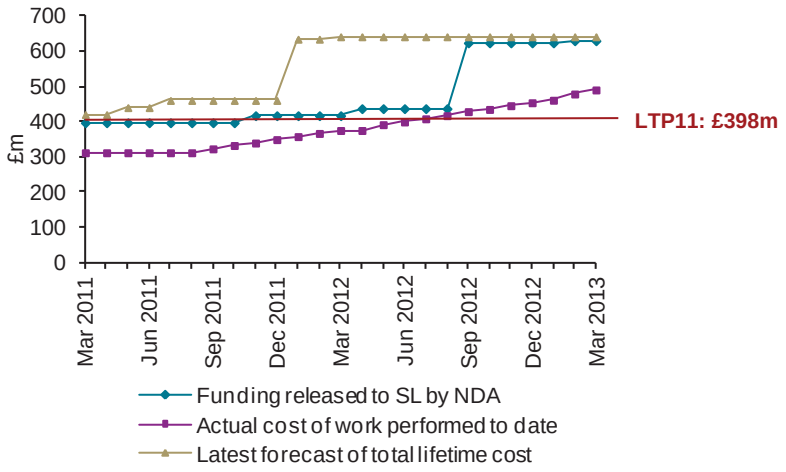


Sources:
(1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) Evap D', May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Rapid Review of Evaporator D', 30 Sept 2011
(5) NDA, 'Interview with s.40 Jun 2013

Evaporator D estimated lifetime costs

	LTP11	May 2013	Variance
Estimated total lifetime cost	£398m	£641m	+£243m

Evaporator D estimated lifetime costs[a][1][2][3][4]



Key comments

- The estimated total lifetime costs as at May 2013 had increased by £243m, from £398 million as per the PP11 to £641m, equivalent to a 61% increase
- This was largely due to serious underestimation of the challenges posed by the project, weak contract management with little or no incentive for tier 2 and 3 subcontractors to control costs, weak design management and attempts to accelerate progress leading to out-of-sequence construction work requiring re-work[5][6]
- It is noted that this is partly as a result of the conditions inherited by NMP when it became PBO (e.g. Quality issues in supply chain and seismic design decisions, which were an issue for NMP to manage[6])
- An independent review of the cost estimate by s.40 in December 2011 stated that benchmarking against other SL process plants indicated the original cost estimate of £398 million should have been achievable[2]
- After NDA identified that the contingency burn-down rate would result in a requirement for further sanction in April 2012, interim funding was released to SL in December 2011 and April 2012 to ensure work did not slow down
- The project was formally re-sanctioned in July 2012 following a second review in May 2012 in which s.40 concluded that there was now a suitable level of confidence that Evap D will outturn near the P50 Rev of estimated cost of £640m[4]

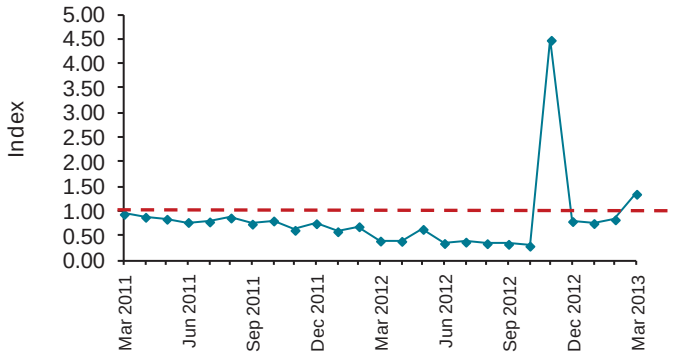
Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table. Funding released to SL by NDA is to ensure that contracts can be let to ensure continued delivery, whilst ensuring contingency draw down is managed effectively.

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) Evap D', May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40', June 2013
(5) NDA, 'Rapid Review of Evaporator D', 30 Sept 2011
(6) NDA, 'Commentary from s.40 9th Jul 2013

Evaporator D schedule

	LTP11	May 2013	Variance
End date	May 2014	Feb 2016	+1 year 9 months

Evaporator D SPI in period[a][1]



Note: (a) The baseline is referenced to is the annual baselines for 2009 – Mar 2010, contract baseline for Mar 2010 – May 2011 and performance plan May 2011 onwards

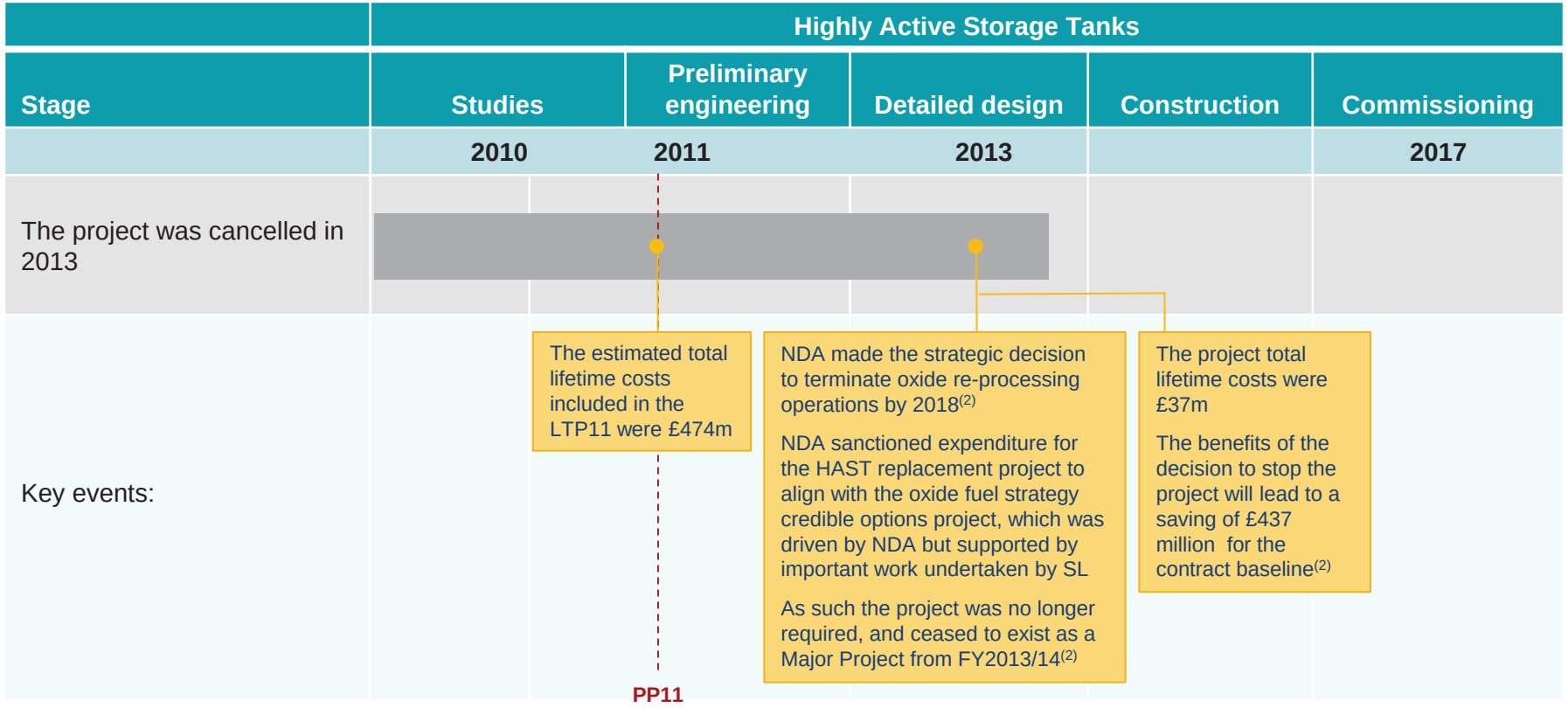
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Rapid Review of Evaporator D', 30 Sept 2011
(3) NDA, 'Interview with s.40 , June 2013

Key comments

- Evaporator D schedule has slipped by 1 year and 9 months in comparison to the PP11
- This is largely the result of out-of-sequence construction causing delays, design constraints restricting productivity on site and the lack of welders and commissioning engineers resource availability[2]
- The PPRG review conducted in Sept 2011 recommended a change in priority from time, to a balance of value for money, operational efficiency and long term reliability, which may have compounded declining schedule performance[2]
- In July 2012 a change control for business case sanction to alter PP11 was approved. However, the change control was submitted to NDA in October 2012 and took three months to be implemented in SL systems, leading to the spike in SPI shown in November 2012 as the plan and actuals were brought into alignment[3]
- This resulted in no meaningful performance monitoring for 3 months as SL were operating against a plan agreed with NDA, but reporting performance against an old baseline
- The improvement in SPI in Mar 2013 was primarily due to module 926 delivery, maintenance trials on the bulge and progress on fabrication[3]

Replacement of highly active storage tanks (HAST) background

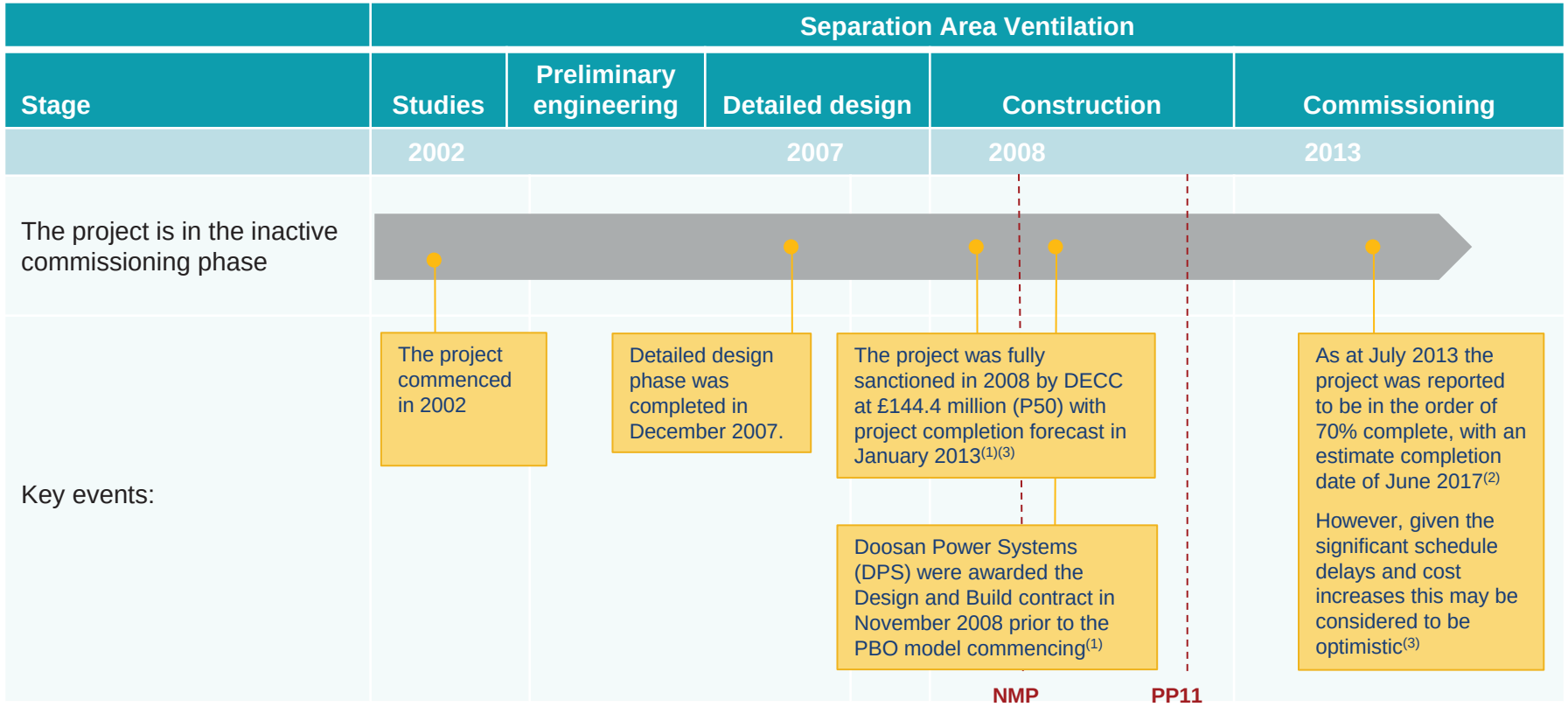
The objective of replacement HAST is to ensure that there is an appropriate storage alternative in place for when the six operational highly active storage tanks, which store highly active rafinate liquors from magnox and oxide fuel reprocessing, begin to fail, which is estimated to be in 2017



Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) Evap D', May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40 , Jul 2013

Separation Area Ventilation (SAV) background

The objective of SAV is to divert aerial effluents currently routed to the Primary Separation Plant stack, which presents a significant site risk due to its low seismic resilience, and to the Pile 1 chimney to a newly constructed discharge facility located outside the Separation area, in order to allow the existing ageing ventilation facilities to be decommissioned and dismantled

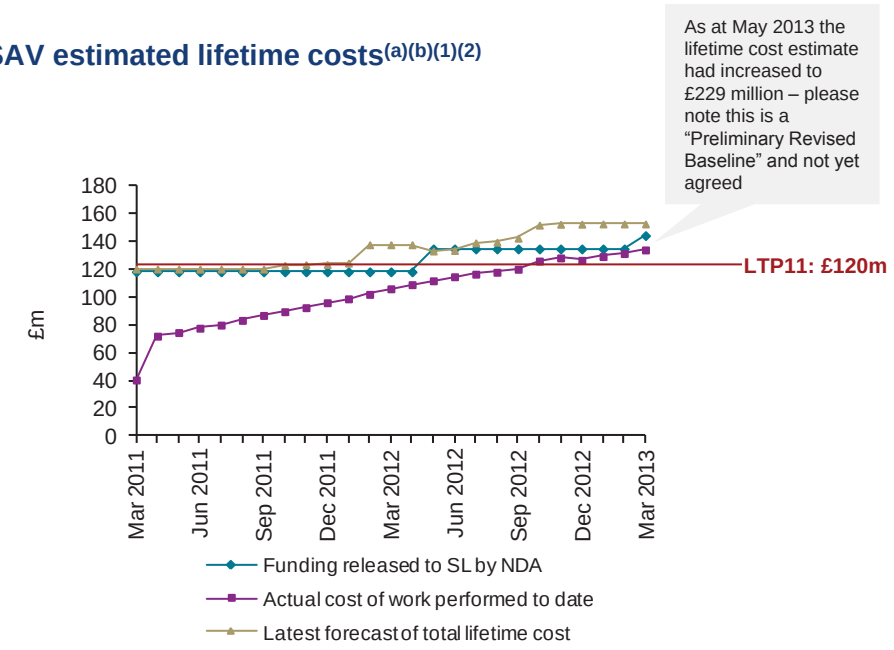


Sources: (1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) SAV', May 2012
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013

Separation Area Ventilation (SAV) estimated total lifetime cost

	LTP11	May 2013	Variance
Estimated total lifetime cost	£120m	£229m	+£109m

SAV estimated lifetime costs[(a)(b)(1)(2)]



Key comments

- The estimated total lifetime cost for Separation Area Ventilation (SAV) is £229 million as at May 2013. This represents a £109 million increase on the PP11 estimate of £120m, equivalent to 90%
- Estimate increases in early 2012 were introduced due to unexpected soft ground conditions adding costs to the civil construction phase of the stack and pipe bridges[(2)]
  - This was the result of inadequate preparatory investigations prior to the NMP contract commencement, driven by a desire to recover the schedule by laying the ground foundations prior to appointment of the Tier 2 contractor[(2)]
- As at June 2013 an interim re-sanction of £26.9 million was requested ahead of the existing sanction expiry in July. Non-critical path activities have been stopped as a result of the impending expiration. The intention is SAV will be fully re-sanctioned in October 2013[(3)]
  - The request will take the cumulative sanction to £171.3 million (P50), however the full re-sanction value is likely to be in the region of £230-240m[(4)]

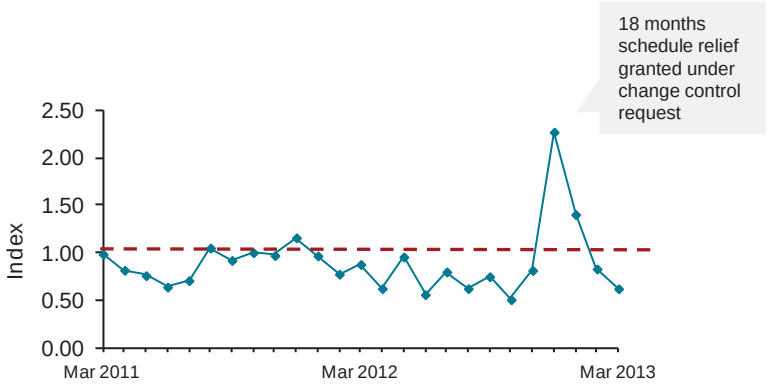
Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
(b) Please note data was only readily accessible until the end of March 2013

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects)' SAV, May 2012
(3) NDA, 'Interview with s.40 Jun 2013
(4) NDA, 'Board of Directors Meeting', 6 June 2013

Separation Area Ventilation (SAV) schedule

	LTP11	May 2013	Variance
End date	Jun 2014	Jun 2017	+3 years

SAV SPI in period[(a)(1)(2)]



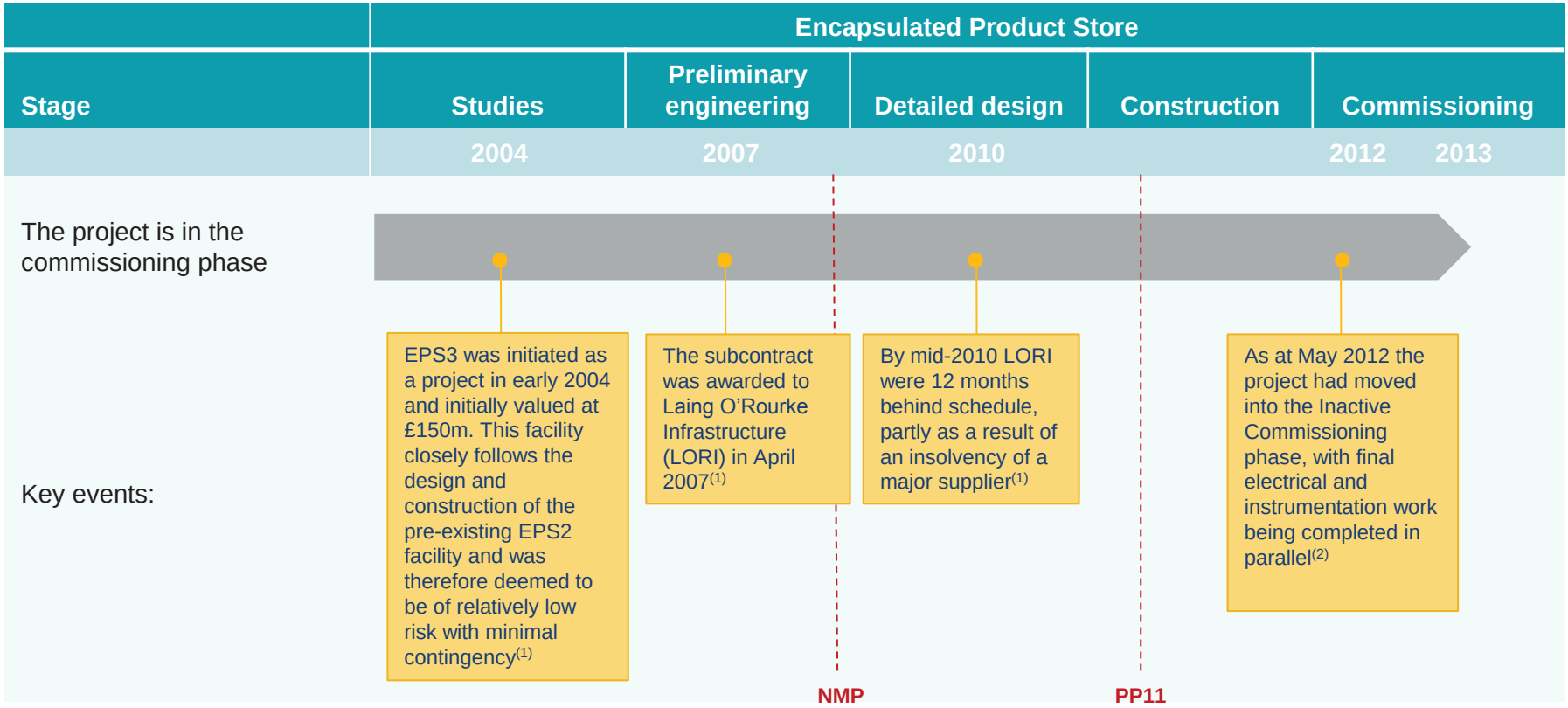
Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'P12 SAV Major Project Report', Mar 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013
(4) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects)' SAV, May 2012
(5) NDA, 'interview with s.40 Jun 2013

Key comments

- As at May 2013 the Separation Area Ventilation (SAV) scheduled end date had slipped by 3 years, the equivalent of 92% compared to the original PP11 end date
- The schedule slippage was largely due to poor project planning and management by SL, compounded by sub-contractor performance issues[(3)]
  - Initial schedule movement was due to adverse ground conditions, which had not been considered during the design phase[(4)]
  - This led to knock on delays across the project, for which SL were granted schedule relief in December 2012[(5)]
  - Despite these delays PBIs were successfully achieved for 2011/12[(2)]
- Recent schedule slippage is in part attributed to delays in receiving underpinned cost estimates and an appropriate schedule to complete from the sub-contractor. This led to a delay in developing the revised sanction Business Case, such that non-critical activities had to be suspended to extend existing sanction provision
- In addition, poor prime contractor performance, high turnover of prime contractor personnel, poor SL supply chain management and the under-estimation of complexity and working restrictions in the Separation Area have compounded schedule delays[(5)]
- SL identified opportunities to improve the schedule through a revised commissioning strategy. However, this is yet to be implemented and requires approval by the regulator[(4)]

Encapsulated Product Store 3 (EPS3) background

Encapsulated Product Store 3 is to build a new store for 27,000 drums of intermediate level waste (ILW) arising primarily from reprocessing operations of Magnox, AGR, THORP and LP&S hazard reduction activities. Without this project the current storage capacity at Sellafield of EPS1 and 2 is expected to be exceeded in mid-2014

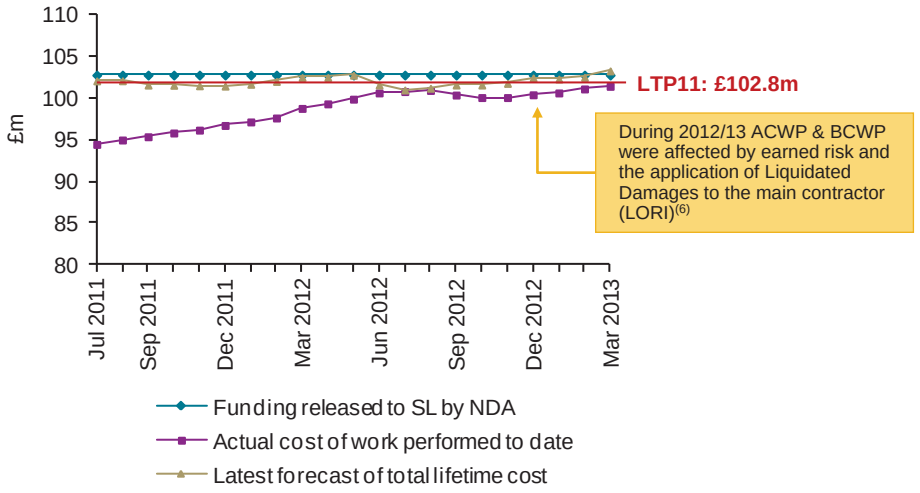


Sources: (1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) EPS 3', May 2012
(2) NDA, 'Project Performance – Summary v2', s.40 ay 2013

Encapsulated Product Store 3 (EPS3) estimated total lifetime cost

	LTP11	May 2013	Variance
Estimated total lifetime cost	£102.8m	£103.3m	£0.6m

EPS3 estimated lifetime costs[(a)(b)(1)(2)(3)(4)]



Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
(b) Please note the y-axis does not start at zero to enable clearer visibility of movements

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Project Information (4 projects)' EPS3, May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40, June 2013
(5) NDA, 'P12 Major Project Report', Mar 2013
(6) NDA, KPMG Project Salient queries doc.doc, s.40 June 2013
(7) NDA, 'Interview with s.40, 9 Jul 2013

Key comments

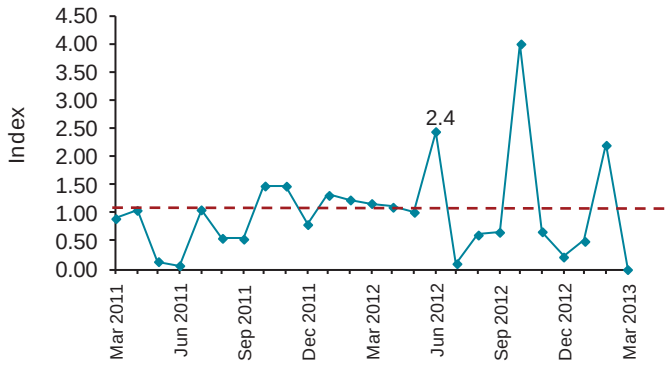
- The EPS3 estimated total lifetime cost exceeds the PP11 estimate by £0.5 million as at May 2013[(1)(2)]
- As at June 2012 the project was progressing well and, based on the scope left to deliver, it was estimated that lifetime costs would decrease to £101.6m[(1)(4)]
- However, ongoing commercial and legal issues, including liquidated damages with the main contractor LORI, impacted completion and the overall estimated lifetime cost increased to £103.3m[(5)]
  - As at 31st May 2013, SL have withheld £1.9 million of value from LORI, with potential to reclaim a further £4.1m[(4)]
- As at May 2013, five months remain to the estimated completion date of October 2013 with £0.5 million of funding remaining[(1)(4)]
  - The May forecast was based on LORI completing their scope. However, this has been slipping a month every month for the previous 8 months and in June 2013 slipped a further month with another £100,000 impact[(7)]
- The project will have to submit a revised business case to DECC for approval to draw down the P80 funding of £0.5 million (the difference between the £103.3 million estimated lifetime cost and the current funding of £102.8 million sanctioned to NDA)

s.43

Encapsulated Product Store 3 (EPS3) schedule

	LTP11	May 2013	Variance
End date	Aug 2012	Oct 2013	+1 year 2 months

EPS3 SPI in period[(a)(1)]



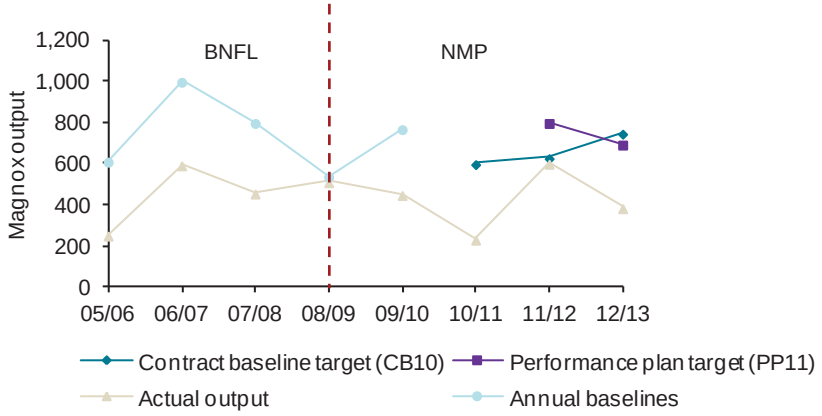
Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Interview with s.40 May 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013

Key comments

- As at May 2013 the Encapsulated Product Store 3 (EPS3) scheduled end date has slipped by 1 year and 2 months relative to the PP11
- This is largely the result of subcontractor performance and, although actions were taken to incentivise LORI in 2012, over the last 10 months the schedule has on average slipped a month for each month passed[(2)]
- The SPI of 2.4 in June 2012 reflects the early completion of transfer tunnel outage works
  - Other in-period peaks are not representative of true peaks in project delivery, as very little scope remains left to deliver and therefore the measure of BCWP against in-period BCWS results in significant fluctuations[(2)]
- As at May 2013 LORI had fully utilised the liquidated damages, leaving little incentive for completion. As such it is anticipated that the estimated end date could move out to Feb 2014[(2)]
- Despite the increasingly difficult circumstances, s.40 commented that '*SL have contract managed this project well; maintaining a credible position when requiring LORI to deliver their contracted allegations, managing outturn with a clear focus on value for money and managing operational options with the other EP Stores*'[(3)]

Annual Magnox reprocessing outputs

Magnox reprocessing (decanning) – teHM(1)



Magnox reprocessing (decanning) - teHM	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Annual baselines	612	1,000	800	540	770			
Contract baseline target (CB10)						600	629	748
Performance plan target (PP11)							800	695
Actual output	253	594	457	512	450	233	602	386

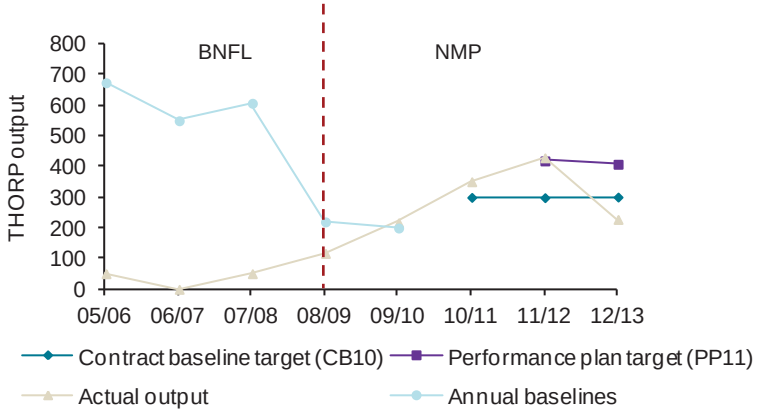
Key comments

- Magnox reprocessing output has not met the CB or PP11 and has been inconsistent when compared year on year(1)
- Actual output fell to its lowest point in 2010/11 at 233 teHM due to pipe bridge 3 activity ceasing completely from Sept 2010 to Apr 2011, because of technical failures(2)
- Performance peaked at 602 teHM in 2011/12 but has subsequently fallen 36% to 386 teHM in 2012/13(1)
  - This reduction is largely due to interruptions to services – short losses of compressed air, domestic water, electrical supply and steam(1)
  - These interruptions may be the result of the age of Magnox plant and site infrastructure, which at ~40 years old is an increasing issue(2)
- NMP notes in its performance review that it 'was slow to recognise some operational deficiencies within the plant'. However, it is credited with developing the Magnox Throughput Improvement Plan (MTIP) which seeks to systematically address the barriers identified(3)

Sources: (1) NDA, 'Performance Data Rev 4 22.02.13', May 2013
(2) NDA, 'Interview with s.40 Jun 2013
(3) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012

Annual THORP reprocessing outputs

THORP reprocessing (Shearing) – teHM[1]



THORP reprocessing (Shearing) - teHM	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Annual baselines	674	550	607	220	200			
Contract baseline target (CB10)						300	299	301
Performance plan target (PP11)							419	408
Actual output	51	-	51	117	217	351	429	228

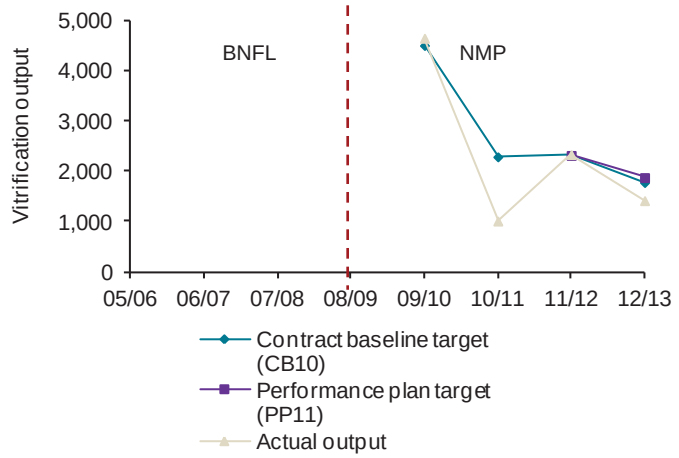
Key comments

- THORP reprocessing has increased by an average compound annual growth rate of 70% per annum between 2006/07 and 2011/12, meeting the PP11 target in 2011/12
- However, actual output of THORP reprocessing has fallen 44% below the performance plan (PP11) and 24% below the contract baseline (CB) in 2012/13[1]
  - This is largely due to non-compliance with pressure system regulations, which shut the plant down for 3-4 months, compounded by further operational interruptions to services in 2012/13[2]. For example, a jammed end assembly in the shear turntable from January 2013 was recovered on 12 February 2013, resulting a period of 3-4 weeks when processing was put on hold[3]
  - In addition there were also interruptions to services – short losses of compressed air, domestic water, electrical supply and steam[1]. These interruptions may partially be the result of the age of THORP plant, which was commissioned in the late 1990s and is now approaching 20-30 years of age[2]

Sources: (1) NDA, 'Performance Data Rev 4 22.02.13', May 2013
(2) NDA, 'Commentary from s.40 9th Jul 2013
(3) NDA, 'Interview with s.40 Jun 2013

Annual Vitrification outputs

Vitrification by volume – teU[a][1]



Vitrification - teU	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Contract baseline target (CB10)					4,500	2285	2313	1775
Performance plan target (PP11)							2,313	1,873
Actual output					4,643	1,008	2,329	1,414

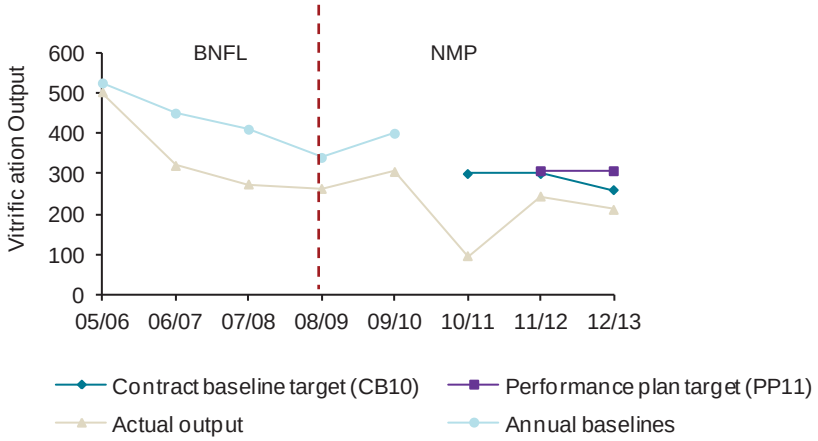
Key comments

- Actual vitrification output by volume has fluctuated year-on-year, exceeding the performance plan (PP11) in 2011/12 by 1% having previously fallen short of the contract baseline (CB) target in 2010/11 by 56%[1]
- In 2012/13 vitrifcation output by volume had fallen 25% below the PP11 and 20% below the contract baseline CB[1]
  - This was largely as a result of failures within the plant, including a line 1 HAL feed blockage in January 2013, which was not rectified until late March 2013 due to the lack of availability of the BD1 crane required to enable repairs[2]
  - Reduced outputs were also compounded by interruptions to services – short losses of compressed air, domestic water and electrical supply [1]
- In 2010/11 measurement of vitrification outputs by teU was officially introduced in recognition that the previous metric, the number of cans produced, did not provide sufficient detail on the specific hazard reduction achieved. Data for 2009/10 is available despite predating official implementation[2]

Note: (a) Please note that prior to 2010/11 vitrification output was measured by the number of cans produced
(b) Contract baseline of 400 vitrifiation cans is taken from QBR Q2 2009/10
Sources: (1) NDA, 'Performance Data Rev 4 22.02.13', s.40 May 2013
(2) NDA, 'Interview with s.40 Jun 2013'

Annual Vitrification outputs

Vitrification cans[a][b][1]



Vitrification cans	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Annual baselines	525	450	410	340	400			
Contract baseline target (CB10)						300	300	260
Performance plan target (PP11)							307	307
Actual output	503	320	274	263	305	96	244	211

Key comments

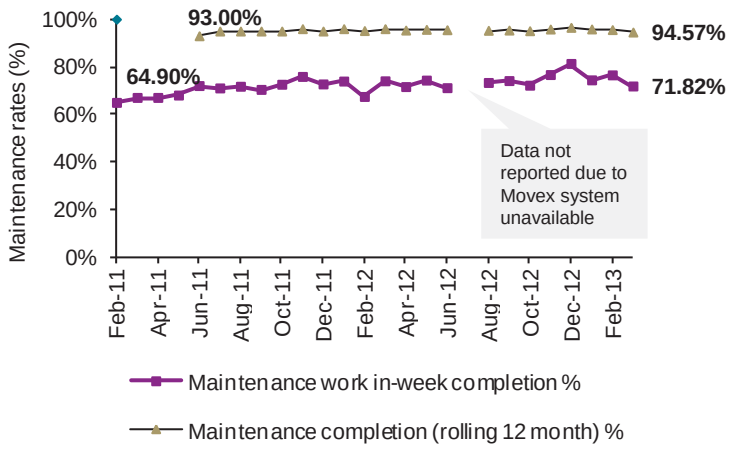
- In 2010/11 measurement of vitrification outputs by teU was officially introduced replacing the number of cans produced, as the official metric[2]
- Annual vitrification output had not met the PP11 or CB when measured by number of cans, and had similarly fluctuated on an annual basis[1]

Note: (a) Please note that prior to 2010/11 vitrification output was measured by the number of cans produced
(b) Contract baseline of 400 vitrifiation cans is taken from QBR Q2 2009/10

Sources: (1) NDA, 'Performance Data Rev 4 22.02.13', s.40 May 2013
(2) NDA, 'Interview with s.40 ', Jun 2

Maintenance performance

Maintenance work scheduled and completed (%), 2011-13[a][1]



	2010/11[b]	2011/12	2012/13
Average maintenance work in-week completion %	65.95%	71.37%	74.29%

Note: (a) Assumed consistent base for reported metrics in flash reports
(b) Data reported for Period 11 and 12 only in FY 2010/11
Sources: (1) NDA, SL_Flash_Report_Period x_20xx.doc
(2) PPRG Review of Sellafield Ltd Engineering for Major Projects Draft 3.0, 17 August 2012

Key comments

- Maintenance metrics commenced as part of the flash reports in P11 FY 2010/11. NDA do not have visibility of trends prior to this
- In-week metrics track maintenance completion for the week in which it was scheduled and show an improving trend since FY 2010/11, with 74% of scheduled maintenance performed in-week during FY 2012/13, compared with 66% in FY 2010/11
- Rolling metrics track overall completion of scheduled maintenance i.e. it includes maintenance completed outside of the week scheduled. This too shows an improving trend with 95% completion in FY 2012/13
- However, the metrics do not capture up to a third of maintenance activity. In an engineering review the PPRG noted that "*SL classifies 66% of maintenance as 'planned'; concerns (were) expressed that a high proportion of maintenance is reactive and that maintenance schedules are not risk-based*"[2]
- There appears to be a lack of structured maintenance planning and an historic lack of visibility over completion, which may have contributed to output interruptions

2. Physical progress with LP&S

Physical progress with LP&S

Key findings

Bid and contractual commitments

Performance to date

Physical progress with LP&S
Key findings (1/3)

Progress on major projects within LP&S is behind schedule and has exceeded PP11 cost estimates, often as a result of poor project management (cost estimation, monitoring, reporting etc.) s.43

s.43

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
2.1	**Progress on high hazard reduction within LP&S has been significantly slower than planned schedule (PP11)**	■ Across the 7 major projects within LP&S, 4 have experienced schedule extensions since the introduction of PP11, equating to a total change in schedule estimate of 14%[1][2][3][4][5] – SDP: estimated end date moved from Jun 2017 (PP11) to Dec 2020, a slippage of 3 years and 6 months – BTF: estimated end date moved from Jan 2017 (PP11) to Nov 2018, a slippage of 1 year and 10 months – PFCS retrievals: estimated end date moved from Aug 2017 (PP11) to Jun 2018, a slippage of 10 months – SPP1: estimated end date moved from Oct 2013 (PP11) to Mar 2014, a slippage of 5 months ■ Schedule slippages have largely been attributed to SL poor project management, including poor design management and limited capability to appropriately incentivise tier 2 and 3 subcontractor schedules[3][4][5][6]. (Please refer to **Sustainable Improvements in SL's capability** section) ■ To date NMP has characterised its approach to LP&S as one of 'asset stabilisation/improvement' rather than progress with decommissioning[7] ■ However on occasion SL Executive secondees and the wider organisation have been proactive in attempting to accelerate the progress of LP&S through the major projects: – SL proposed the removal of silo deflector J plates from the PFCS retrievals critical path and the early procurement of long lead items, potentially reducing the time to start waste retrieval by 6 months[a][8][9]	■ The contract does not stipulate any focus on the physical progress of LP&S ■ Based on evidence gathered, it appears that SL has been largely reactive to issues identified by the NDA – s.43 –

Note: (a) Please note overall PFCS retrievals project schedule is 10 months behind PP11

Sources:
(1) KPMG analysis
(2) NDA, 'NDA Major Project Data Request ALL PROJECTS', s.40, May 2013
(3) NDA, 'NDA project owner interviews', Jun 2013
(4) NDA, 'Major Project Reports', Mar 2013
(5) NDA, 'Project Summary Sheets produced for the NAO', May 2012
(6) NDA, 'PPRGs', 2011-2013
(7) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012
(8) NDA, 'Project Summary Sheet (PSS), PFCS retrievals', May 2012
(9) NDA, 'Commentary from s.40, 9th Jul 2013

Physical progress with LP&S
Key findings (2/3)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
2.2	**The increasing costs evidenced within LP&S major projects may not represent value for money**	■ Major projects estimated total lifetime costs have increased by £1,214 million in total since PP11, equating to 37% cost variance[1][2][3][4][5] This includes: – SDP: forecast lifetime cost increased from £668 million (PP11) to £1,323 million (May 2013), an increase of £665 million – MSSS retrievals: forecast lifetime cost increased from £421 million (PP11) to £729 million (May 2013), an increase of £308 million – PFCS retrievals: forecast lifetime cost increased from £342 million (PP11) to £559 million (May 2013), an increase of £217million ■ Significant cost overruns have occurred as a result of both scope alterations and SL poor project management, including inappropriate factoring of uncertainty within original estimates, schedule delays due to reworks and limited capability to control tier 2 and 3 subcontractor costs[3][4][5][6]. (Please refer to **Sustainable Improvements in SL's capability** section) ■ Major projects account for 26% of budgeted cost but 44% of project over-spend[1][7] – "securing improvement in major project delivery and governance was one of the major reasons for selecting NMP" – Tony Fountain[8]	■ SL has been largely reactive to issues identified by the NDA – s.43 –
2.3	**Efforts have been made to raise the profile of LP&S within SL management structure, although this has not yet driven significant change in outputs**	■ NMP have set up a new Chief Decommissioning Officer post, currently taken up by s.40 which reports directly into the SL MD[9] ■ The High Hazard Workshop forum in 2012, although an NDA initiative, has focused stakeholder attention on accelerated hazard reduction[10]	■ s.43

Sources:
(1) KPMG analysis
(2) NDA, 'NDA Major Project Data Request ALL PROJECTS', s.40 , May 2013
(3) NDA, 'NDA project owner interviews', Jun 2013
(4) NDA, 'Major Project Reports', Mar 2013
(5) NDA, 'Project Summary Sheets produced for the NAO', May 2012
(6) NDA, 'PPRGs', 2011-2013
(7) NDA, 'Performance report p12 2013', s.40 Mar 2013
(8) NDA correspondence, 'Letter to s.40 – feedback from July meetings', Aug 2011
(9) NDA, 'QBR – 5. Sellafield NDA Criterion Owner Summary Q3 2012 13 final', 2012
(10) NDA, 'QBR minutes', Q4 2012/13

Physical progress with LP&S
Key findings (3/3)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
2.4	**The scope of work at Sellafield (and in particular on LP&S) requires a long term planning horizon. However, the contractual arrangements are time bounded in relatively short terms**	■ The existing PBO contract length covers a maximum 17 years, but break clauses every 5 years result in contractual periods that are significantly less than the duration of many of the major project schedules: – Current LP&S major projects estimated end dates are between March 2014 and January 2023(1)(2)(3) ■ The PBO model will always require a contract mechanism and therefore necessitates bounding the solution and associated decommissioning activities into contractual time periods – These timeframes are unlikely to be long-term in the context of Sellafield, given total decommissioning is due to be completed in 2120(4)	■ The existing contract length is not aligned with the duration of the LP&S projects ■ The PBO model will likely always require contractual time periods that are not sufficiently long-term in the context of Sellafield. This can only be mitigated if short-term incentives and targets aligned to longer term outcomes can be appropriately developed by NDA ■ Certain medium-term milestones on specific projects can be identified with sufficient certainty. However this is not the case on a site-wide basis

Sources:
(1) NDA, 'NDA project owner interviews', Jun 2013
(2) NDA, 'Major Project Reports', Mar 2013
(3) NDA, 'Project Summary Sheets produced for the NAO', May 2012
(4) NAO, 'Managing risk reduction at Sellafield', 7 Nov 2012

Physical progress with LP&S

Key findings

Bid and contractual commitments

- Waste management
- Decommissioning and clean up

Performance to date

Physical progress with LP&S – Initial bid and contracted commitments
Waste management

s.43

Decommissioning and clean up

s.43

Physical progress with LP&S

Key findings

Bid and contractual commitments

Performance to date

- Silos Direct encapsulation Plant
- Magnox Swarf Storage Silos
- Box Transfer Facility
- Silos Maintenance Facility
- Pile Fuel Cladding Silo
- BEPPS & CIEF/DIF
- Buffer Sludge Packing Plant 1

Physical progress with LP&S – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43 & s.40

Sources: (1) Interview with s.40
(2) Interview with s.40
(3) NMP comments, 26 July 2013

Summary of major projects in LP&S

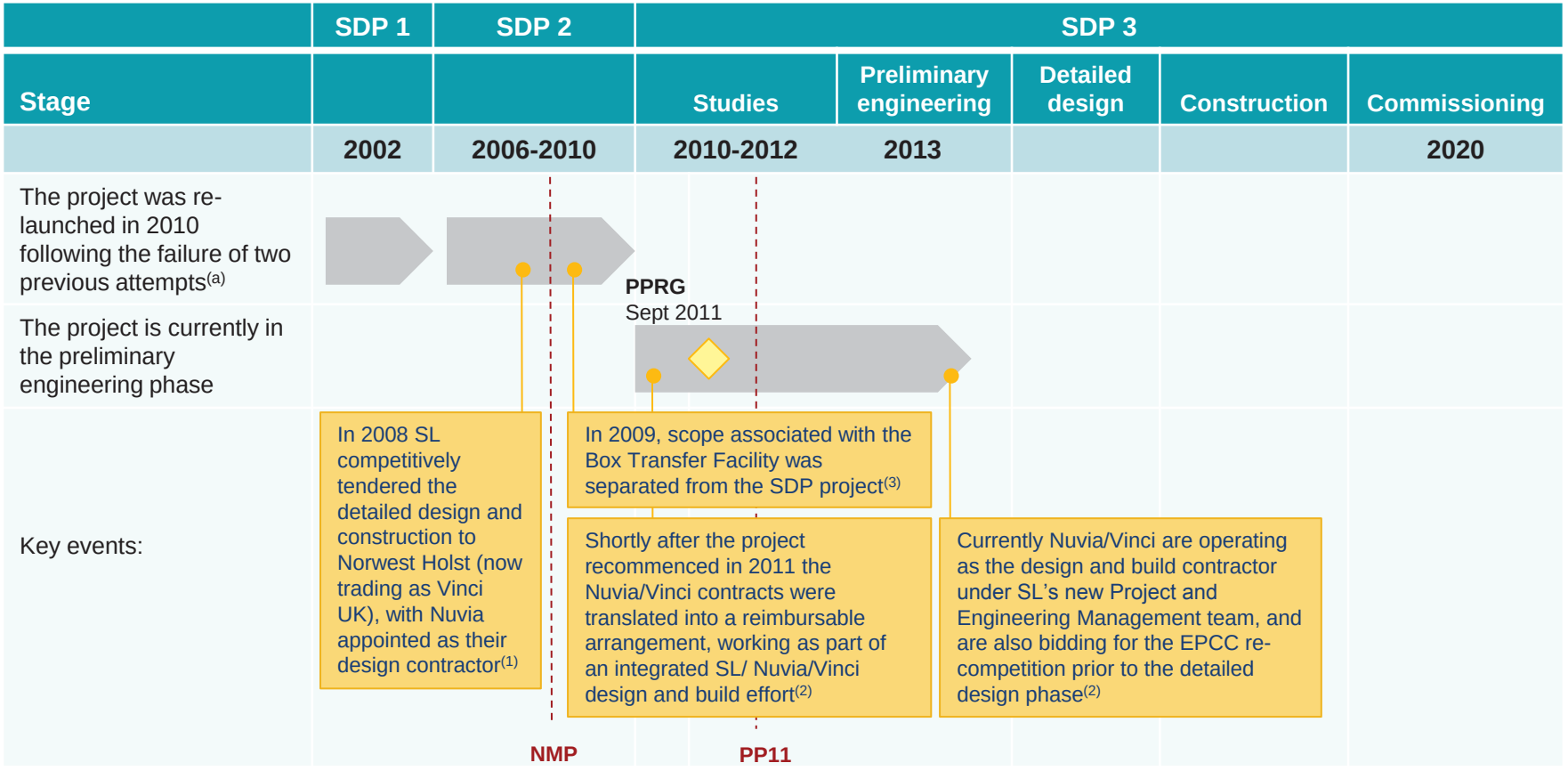
In May 2011, NDA introduced monthly reporting requirements for Major Projects in order to improve the quality of information shared between SL and NDA. Since September 2012, SL reporting has also been updated to reflect the emphasis on programmes, and as such the performance of a number of major projects are now reported within the monthly programme reports, such as MSSS retrievals and PFCS retrievals.

Summary									
#	Project	LTP11 forecast lifetime cost (£m)	May 2013 forecast lifetime cost (£m)	LTP11 estimated end date	May 2013 estimated end date	Cost variance (£m)	% changes in cost estimate	Schedule variance	% changes in schedule estimate
Magnox Swarf Storage Silos (MSSS) programme									
1	SDP	668	1,323	Jun-17	Dec-20	655	98.1%	+3 years 6 months	56.0%
2	MSSS retrievals	421	729	Jun-23	Jan-23	308	73.2%	-5 months	-3.4%
3	Box transfer facility	158	189	Jan-17	Nov-18	31	19.6%	+1 year 10 months	31.4%
4	Silos maintenance facility	165	172	May-17	Feb-17	7	4.3%	-3 months	-4.1%
Pile Fuel Cladding Silos (PFCS) programme									
5	PFCS retrievals	342	559	Aug-17	Jun-18	217	63.5%	+10 months	13.0%
6a	BEPPS & CIEF	277	55	Oct-17	-				
6b	BEPPS & DIF	-	183	-	May-17	-39	-14.1%	-5 months	-14.9%
First Generation Magnox Fuel Storage Pond (FGMSP) programme									
7	SPP1 buffer	202	237	Oct-13	Mar-14	35	17.3%	+5 months	16.1%
	Total					**1,214**	**37.4%**	**+5 years 6 months**	**13.5%**

Sources:
(1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheets (PSS)', May 2012
(3) NDA, Interview with NDA project owners' Jun 2013
(4) NAO, 'Managing Risk Reduction at Sellafield', 7 Nov 2012
(5) NDA, 'PPRG reviews', 2011 - 2013

Silos direct encapsulation plant (SDP) background

The objective of SDP is to treat the hazardous waste material that is mechanically retrieved from the Magnox Swarf Storage Silos (MSSS) into a form suitable for disposal, by immobilising the waste with cementitious grout in stainless steel boxes



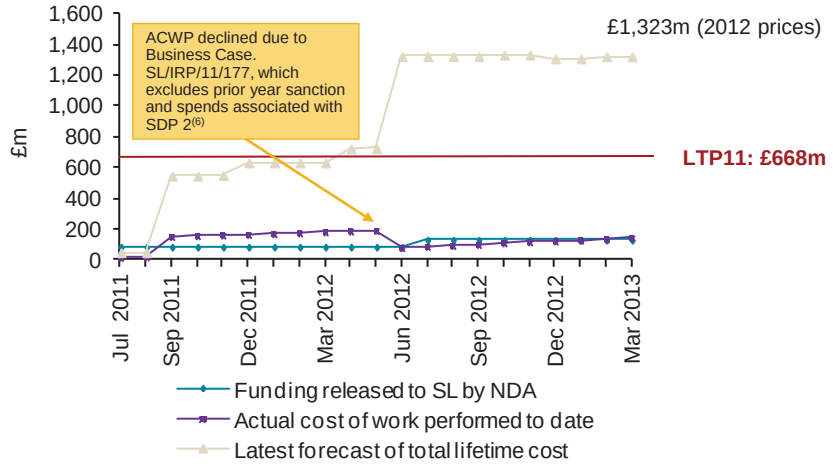
Note: (a) A first attempt to develop SDP capability foundered in 2002 after incurring spend of over £400m, due to the inability to design a flowsheet flexible enough to accommodate the wide range of waste feedstock characterisation. A second attempt to launch the SDP project also failed in 2008 due to technical problems after £128 million was spent on development work

Sources: (1) NAO, 'Managing Risk Reduction at Sellafield', 7 Nov 2012
(2) NDA, Interview with s.40 Jun 2013
(3) Nichols, 'Silos Direct Encapsulation Plant (SDP) project', Sep 2011

Silos direct encapsulation plant (SDP) estimated lifetime costs

	LTP11	May 2013	Variance
Estimated total lifetime cost	£668m	£1323m	+ £655m

SDP estimated lifetime costs[(a)(b)(c)(1)(2)(3)]



Note:
(a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
(b) Please note data was only available from Jul 2011 onwards
(c) Please note that the funding released to SL was made incrementally in a series of smaller tranches, although this granularity was not available in the data provided by SL

Sources:
(1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) SDP', May 2012
(3) NDA, Interview with s.40 Jun 2013
(4) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012
(5) NAO, 'Managing Risk Reduction at Sellafield', 7 Nov 2012
(6) NDA, KPMG Project Salient queries doc.doc, s.40 June 2013
(7) NDA, 'Commentary from s.40, 9th Jul 2013

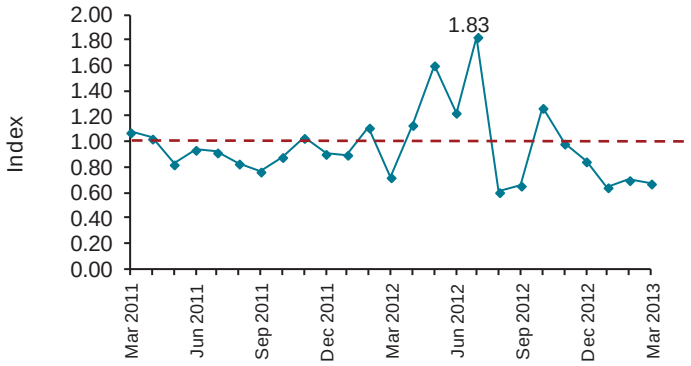
Key comments

- The estimated total lifetime cost as at May 2013 had increased from £668 million as per the PP11 to £1,323 million. This £655 million increase equates to an increase of 98%[(1)] and largely reflects the initial lack of definition of the full project scope during the studies phase[(3)]
- NMP has recognised that it 'needed to more clearly articulate the risk associated with the initial placeholder estimate and the basis for subsequent change'[(4)]
- The increased cost estimate in September 2011 was largely the result of limitations in previous estimates due to the project's early stage of development. For example it was realised that a large building was required (53% greater footprint) to accommodate more equipment, the need for evaporators and provide better operational flexibility[(5)]
- Arising from the above, SL began preparing a new Business Case in November 2011 (approved in July 2012) to cover the period from Initiate Project Gate (IPG) through Preliminary Design Review (PDR) to contract award of the EPC contractor. A sanction value of £129.8 million was approved to cover this scope. The lifetime cost uncertainty range identified was from £826 million to £1,622 million, with a 'most likely' cost of £1,323 million[(3)]
- The succeeding Business Case is currently in preparation and will cover the Detailed Design phase. It is expected to include a full risk analysis profile and reflect P50 and P80 probabilistic cost estimate values[(7)]

Physical progress with LP&S – Performance to date
Silos direct encapsulation plant (SDP) schedule

	LTP11	May 2013	Variance
End date	Jun 2017	Dec 2020[(b)(4)]	+3 years 6 months

SDP SPI in period[(a)(1)]



Note: (a) Please note in period data was only available for 2011 onwards
(b) Please note this is the most likely value

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) SDP', May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Commentary from s.40 , 9th Jul 2013

Key comments

- The initial LTP project delivery date was 2018; this was advanced to 2017 in SL's Performance Plan (PP11), but there is understood to have been little credible, detailed planning and scheduling to support this[(3)]
- Silos direct encapsulation plant (SDP) schedule has slipped by 3 years and 6 months in comparison to the PP11[(1)(2)(3)(4)]
- However, it is recognised that SL are working to create the right level of robustness/ credibility of planning needed for effective project management[(3)]
- A better underpinned lifetime schedule update is due in July 2013. The delivery date will be further revised when the EPC contractor is appointed in December 2013[(4)]
- SL re-baselined the progress-reporting plan in Nov 2012. The previous SPI peak in July 2012 reflected anomalous values against the obsolete plan[(4)]

Magnox Swarf Storage Silos (MSSS) retrievals background

The objective of Magnox Swarf Storage Silo (MSSS) retrievals is to safely retrieve solid and mobile intermediate level waste (ILW) contained within the 22 silos. This involves using Silo Emptying Plant (SEP) machines for mechanical retrieval of the waste via mobile caves before the waste is dispatched to the Silos Direct Encapsulation Plant (SDP)

	MSSS retrievals				
Stage	**Studies**	**Preliminary engineering**	**Detailed design**	**Construction**	**Commissioning**
	1990	**2002-2007**	**2010**	**2011**	**2013**	**2023**
The project is currently in the detail design phase				**PPRG** Nov 2011	**PPRG** Apr 2012	

Key events:

- Construction of the silo-emptying machines began in the late 1990s(1)
- Work was suspended from 2002 – 2007 after the risk of a hydrogen explosion was identified(2)
- NESL was appointed as a Tier 2 subcontractor prior to 2005, with single packages contracted(2)
- Work restarted in 2007, and a cost reimbursable contract was negotiated in April 2007 with NESL(2)
- In 2011 the NESL design contract s.43
- However, work was delayed again when SL identified that the revised design could result in waste catching fire leading to a re-design in March 2010(2)

NMP **PP11**

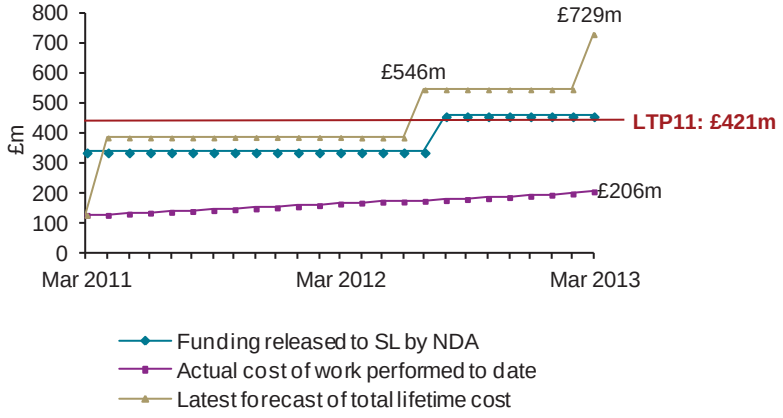
Sources: (1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) MSSS retrievals', May 2012
(2) NAO, 'Managing Risk Reduction at Sellafield', 7 Nov 2012
(3) NDA. 'Project Performance – Summary v2', s.40 May 2013

Physical progress with LP&S – Performance to date

Magnox Swarf Storage Silos (MSSS) retrievals estimated lifetime costs

	LTP11	May 2013	Variance
Estimated total lifetime cost	£421m	£729m	+ £308m

MSSS Retrieval estimated lifetime costs[(a)(1)(2)(3)(4)]



Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) MSSS retrievals', May 2012
(3) NDA. 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40 June 2013

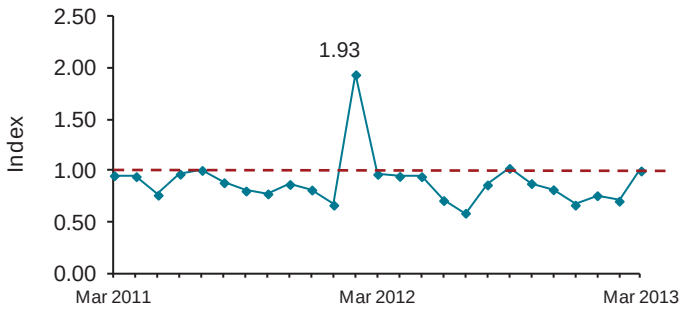
Key comments

- The estimated total lifetime cost included in the PP11 in May 2011 was £421 million[(1)]
- In June 2012 the estimated lifetime cost increased from £385 million to £546 million[(2)]. It was deemed that 38% of this cost increase was the result of increased estimation accuracy regarding the build and commissioning of all 3 SEP machines, with the remainder partly due to design changes to address hazards associated with pyro and hydrogen evolution[(3)]
- Cost increases from suppliers have also compounded lifetime cost movements throughout the project life to date[(3)]
- As at March 2013 the estimated total lifetime cost increased by £308 million to £729 million, an increase of 73% from the PP11
- The new business case sanction request for £729 million was approved by DECC on the 15th May 2013 and was sanctioned in July 2013[(4)]

Magnox Swarf Storage Silos (MSSS) retrievals schedule

	LTP11	May 2013	Variance
End date	June 2023	Jan 2023	-5 months

MSSS Retrieval SPI in period[(a)(1)]



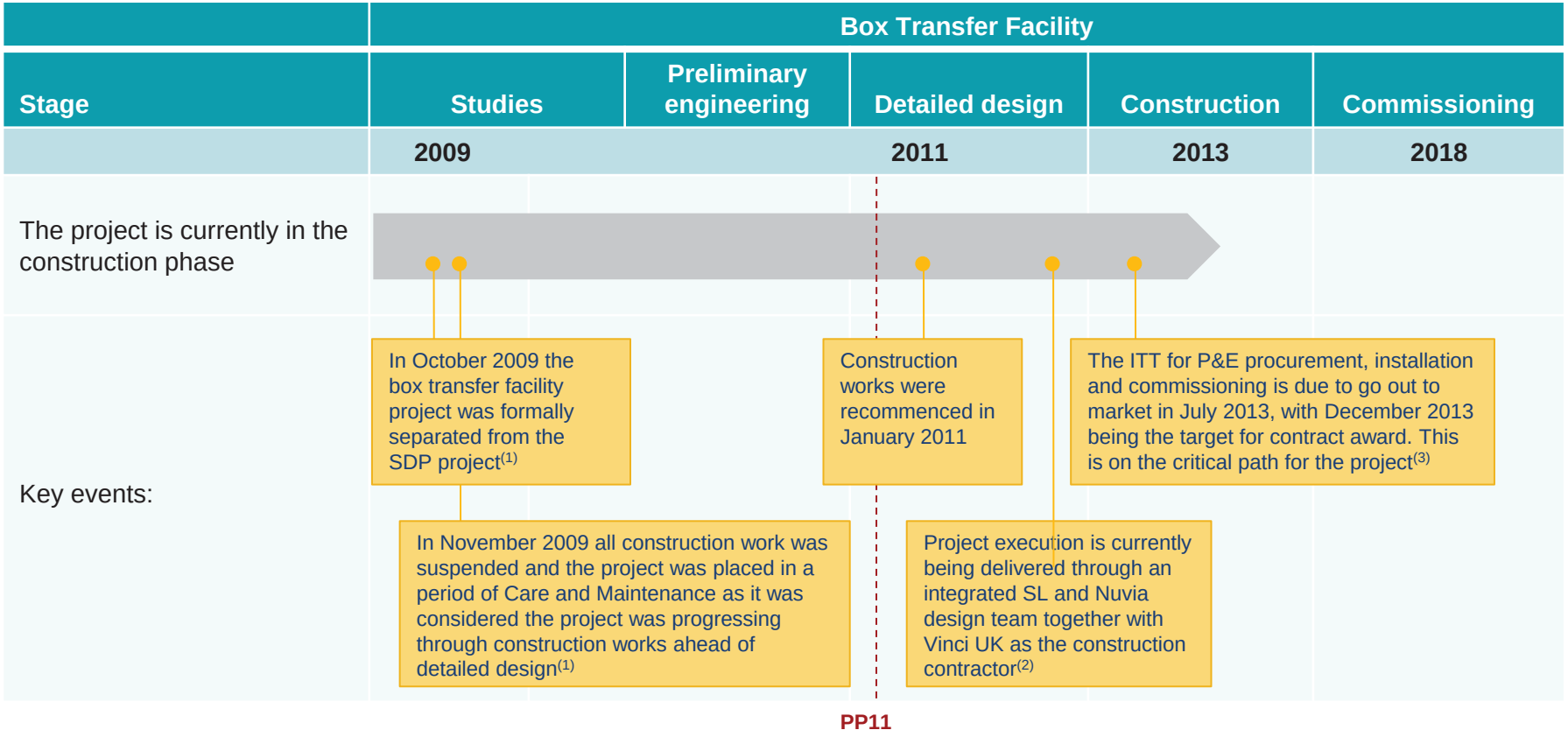
Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects)' MSSS retrievals, May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40 June 2013

Key comments

- Magnox Swarf Storage Silos (MSSS) retrievals estimated end date has been improved upon by 5 months since the PP11
- In February 2012 significant progress was demonstrated with the completion of the SEP2 machine assembly work, leading to the SPI peak of 1.93[(2)]
- However, the business case submitted in Mar 2013 has moved the ultimate completion date of SEP2 back to June 2017, a year behind the PP11 target date. Whilst this component is on the critical path, NDA are challenging SL to plan schedule recovery in future years to meet the MSSS retrievals end date and was a condition of the NDA business case approval[(4)]
- Therefore, the overall schedule improvement of 5 months will only be met if future opportunities for recovery are realised[(4)]

Box transfer facility background

The scope of the box transfer facility project is to design and build a reinforced concrete, nuclear shielded mechanical handling facility, to provide a transfer route from the Silos Direct Encapsulation Plant (SDP) to the current product stores

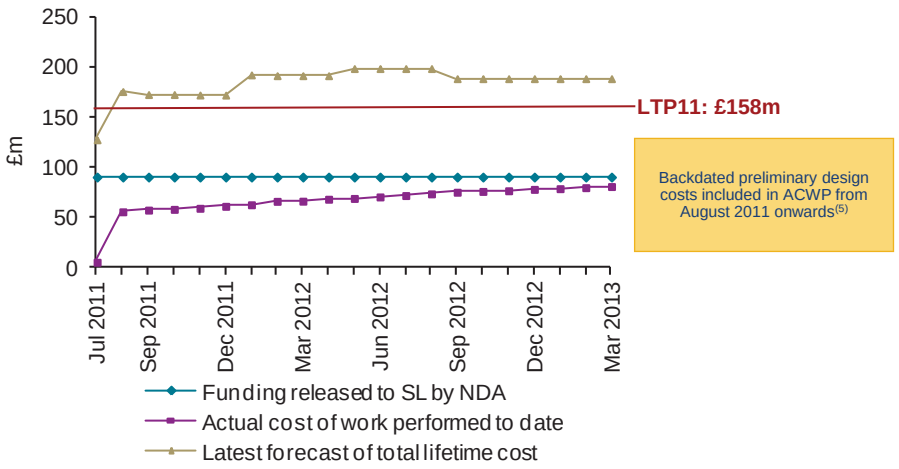


Sources: (1) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) BTF', May 2012
(2) NDA, 'Project Performance – Summary v2' s.40 May 2013
(3) NDA, 'Commentary from s.40 12th Jul 2013

Box transfer facility estimated lifetime costs

	LTP11	May 2013	Variance
Estimated total lifetime cost	£158m	£189m	+ £31m

Box transfer facility estimated lifetime costs[(a)(b)(1)(2)(3)(4)]



Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
(b) Please note data was only available from Jul 2011 onwards

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) BTF', May 2012
(3) NDA, 'Project Performance – Summary v2', s.40 May 2013
(4) NDA, 'Interview with s.40, June 2013
(5) NDA, KPMG Project Salient queries doc.doc, s.40 June 2013
(6) NDA, 'Commentary from s.40, 9th July 2013

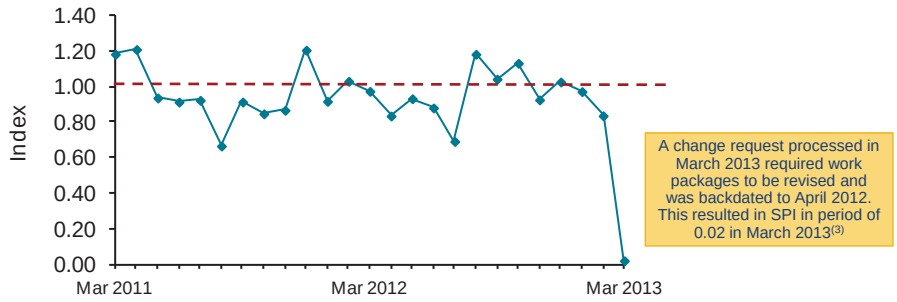
Key comments

- The estimate of total lifetime cost as at May 2013 had increased by £31 million, from £158 million as per the PP11 to £189 million, an increase of 20%[(1)(2)]
- Out-cell and in-cell crane procurement packages created associated cost savings that resulted in a decrease in estimated lifetime cost in September 2012[(3)]
- A revised business case for the installation of plant and equipment and inactive commissioning has been prepared and agreed to be submitted to the board in July 2013[(4)(6)]

Physical progress with LP&S – Performance to date
Box transfer facility schedule

	LTP11	May 2013	Variance
End date	Jan 2017	Nov 2018	+1 year 10 months

Box transfer facility SPI in period[(a)(1)]



Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013
(3) NDA, KPMG Project Salient queries doc.doc s.40 June 2013
(4) NDA, 'Commentary from s.40 9th Jul 2013

Key comments

- The box transfer facility schedule has slipped by 1 year and 10 months in comparison to the PP11
- This schedule slippage is largely due to the delayed completion of the main frame steelwork erection and subsequent blockwork, roofing and cladding, which has had a direct impact on declining SPI in early 2013[(2)]
- In addition the prioritisation of key project resources between the SDP and Box Transfer Facility project in early 2013 impacted the completion of the key works information specifications required for the Invitation to Tender contract package. As this is on the critical path it has delayed the final contract award date to December 2013[(2)(4)]
- Although measures have been implemented by SL to recover the schedule, sustained poor weather to May 2013 has resulted in recovery not yet being realised. However, the recovery plan is beginning to show good signs with a weather tight structure currently forecast for completion in September 2013[(2)(4)]

Silos maintenance facility background

The silos maintenance facility project will provide a high contamination workshop to ensure the Silo Emptying Plant (SEP) machine tools, used to retrieve material from the Magnox Swarf Storage Silos (MSSS), remain functioning or can be replaced throughout the retrieval operation

	Silos maintenance facility				
Stage	**Studies**	**Preliminary engineering**	**Detailed design**	**Construction**	**Commissioning**
	2009		**2013**		**2017**
The project is currently in the detailed design phase					
Key events:	In November 2009 a proposal to relocate the silos maintenance facility, due to constraints regarding surrounding sensitive facilities, instigated the review of four alternative options. Thereafter it was decided to locate the facility to the site of the recently demolished Calder Hall Power Station cooling towers(1)		The business case for main build, procurement, installation and inactive commissioning is due to be submitted to NDA in October 2013 with final DECC approval scheduled for December 2013(2)		

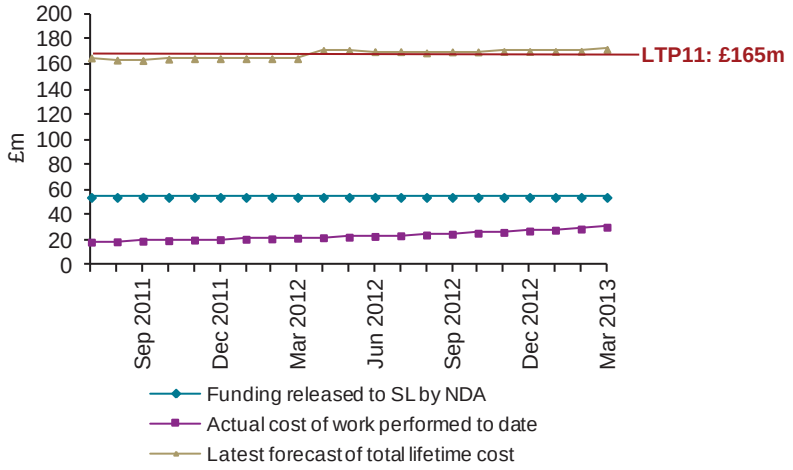
PP11

Sources: (1) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) SMF', May 2012
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013

Silos maintenance facility estimated lifetime costs

	LTP11	May 2013	Variance
Estimated total lifetime cost	£165m	£172m	+ £7m

Silos maintenance facility estimated lifetime costs[(a)(1)(3)]



Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013

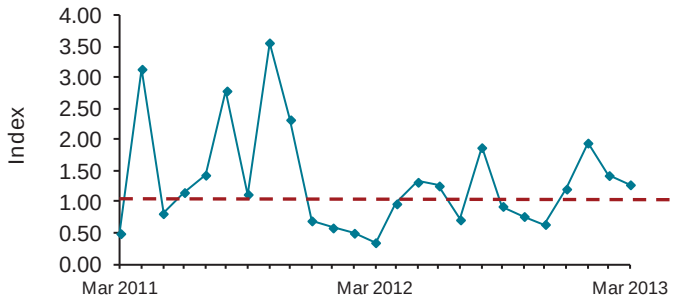
Key comments

- The estimated total lifetime costs as at May 2013 of £172 million does not include contingency. This total lifetime cost represents a £7 million increase from the £165 million estimate per the PP11, equivalent to a 4% increase[(1)]
- As at May 2013 the £7 million increase reflects the net impact of a £15 million increase in the functional specification of the facility, which has been offset by planned efficiencies[(2)]
- The phase 3 final build costs are due for submission from the incumbent contractor in July 2013[(3)]

Silos maintenance facility schedule

	LTP11	May 2013	Variance
End date	May 2017	Feb 2017	-3 months

Silos maintenance facility SPI in period[(a)(1)]



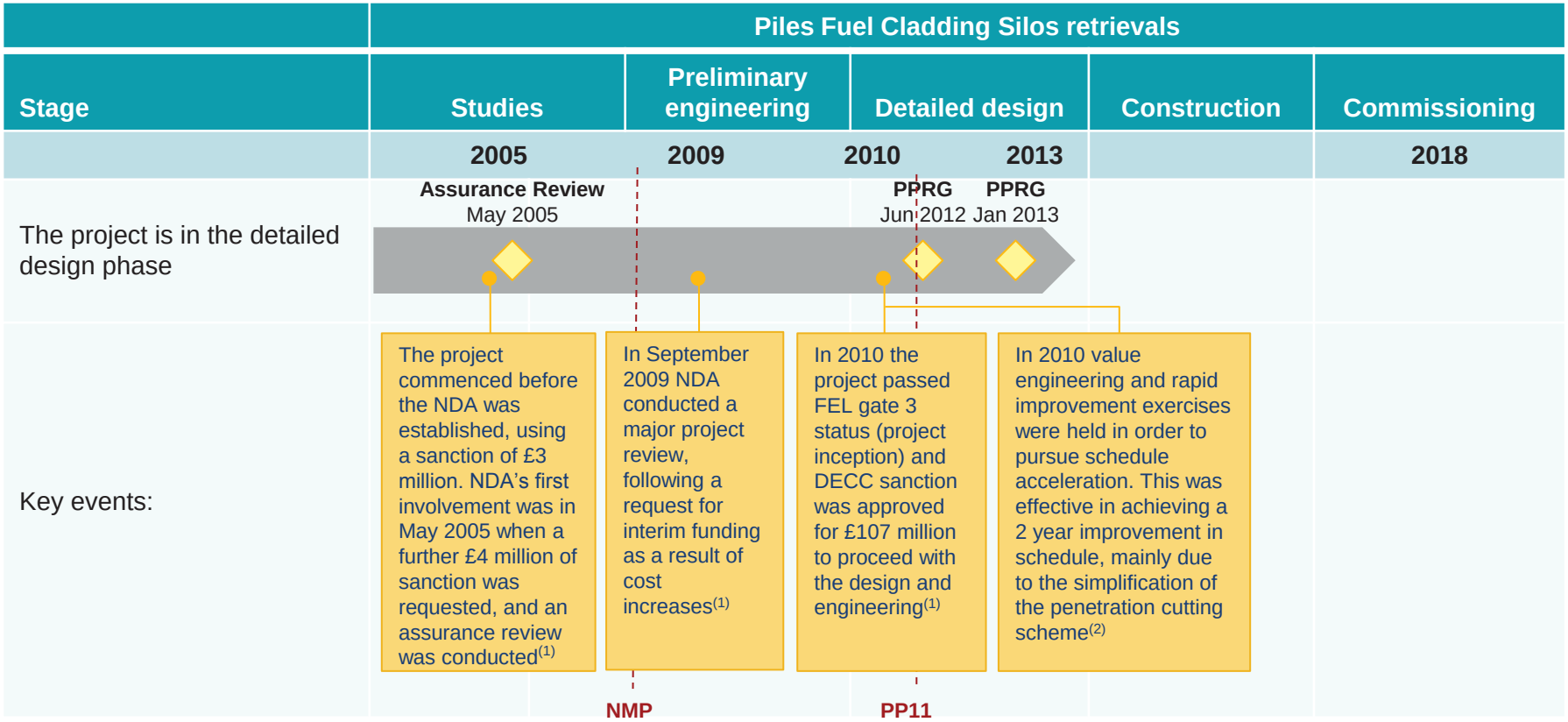
Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Interview with s.40 June 2013
(3) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) SMF', May 2012
(4) NDA, 'P12 SMF Major Project Report', Mar 2013
(5) NDA, 'Commentary from s.40 9th Jul 2013

Key comments

- The estimated end date for the Silos maintenance facility has improved by 3 months since the PP11
  - This could be advanced further to December 2016, due to the planned acceleration of the construction contract placement[(2)]
- A previous scope review by NDA in April 2012 highlighted positive schedule performance as demonstrated by strong SPI metrics. Specifically quoted was the physical site investigation work at the Calder Hall Site, which was completed 8 weeks ahead of schedule in 2011[(3)]
- However, the target cost submission by the EPC contractor for phase 2 slipped in March 2013. This has not yet affected the critical path as the phase 3 schedule (build phase) is expected in July 2013[(4)(5)]

Pile Fuel Cladding Silos (PFCS) retrievals background

The scope of the PFCS retrievals project is concerned with designing, constructing and actively commissioning a new waste retrieval plant alongside the PFCS to enable the retrieval of its hazardous inventory

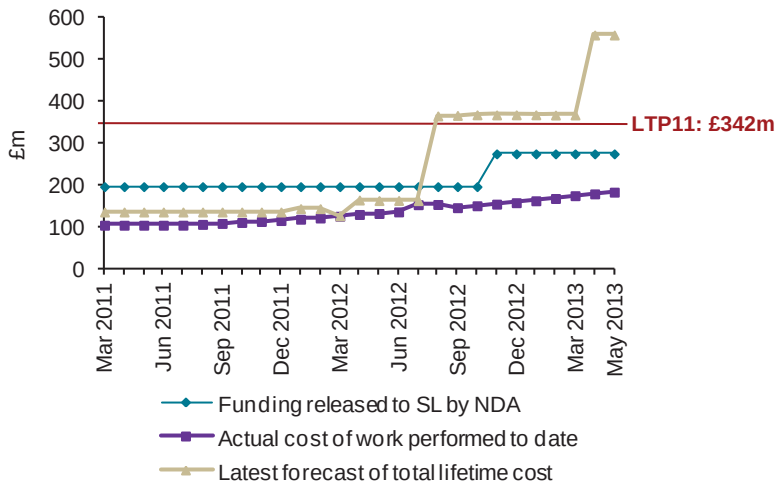


Sources: (1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) Evap D', May 2012
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013

Pile Fuel Cladding Silos (PFCS) retrievals estimated lifetime cost

	LTP11	May 2013	Variance
Estimated total lifetime cost	£342m	£559m	+£217m

PFCS Retrievals estimated lifetime costs[(a)(1)(2)(3)]



Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table

Sources:
(1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, KPMG Project Salient queries doc.doc, s.40, June 2013
(3) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) PFCS retrievals', May 2012
(4) NDA, 'Project Performance – Summary v2' s.40 May 2013
(5) PPRG review, 'PFCS Programme', April 2012
(6) NDA, 'Interview with s.40 Jun 2013
(7) NDA, 'Commentary from s.40 9th Jul 2013

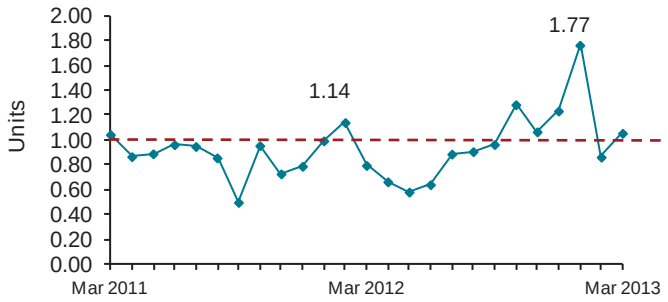
Key comments

- Pile Fuel Cladding Silos (PFCS) retrievals estimated lifetime cost has increased to £559 million from the PP11 of £342 million, an increase of 64%
- This is largely due to poor initial design estimates for access to the penetration rig and silo doors, overall cost estimate uncertainty and performance of the main contractor Bechtel Babcock Nuclear Services (BBNS)[(4)(7)]
  - However, there is some evidence that significant increases in cost estimates were to be expected, as efficiency assumptions in the PP11 were described as "heroic"[(5)]
- Although the management team leading the programme are deemed to be capable, and facilitate effective engagement between the project team and NDA, it is noted that the project team "exhibit a clear and strong focus on short-term plans" and that this "short-termism" may lead to an emphasis of schedule performance over lifetime cost and hazard reduction[(5)(6)(7)]
  - The focus of schedule imperative over cost efficiency in the subcontractor arrangement appears to "lack competitive tension or risk transfer" as the incumbent contractor is challenged only to "deliver his target cost"[(5)]

Pile Fuel Cladding Silos (PFCS) retrievals schedule

	LTP11	May 2013	Variance
End date	Aug 2017	Jun 2018	+10 months

PFCS Retrievals SPI, in period[(a)(1)]



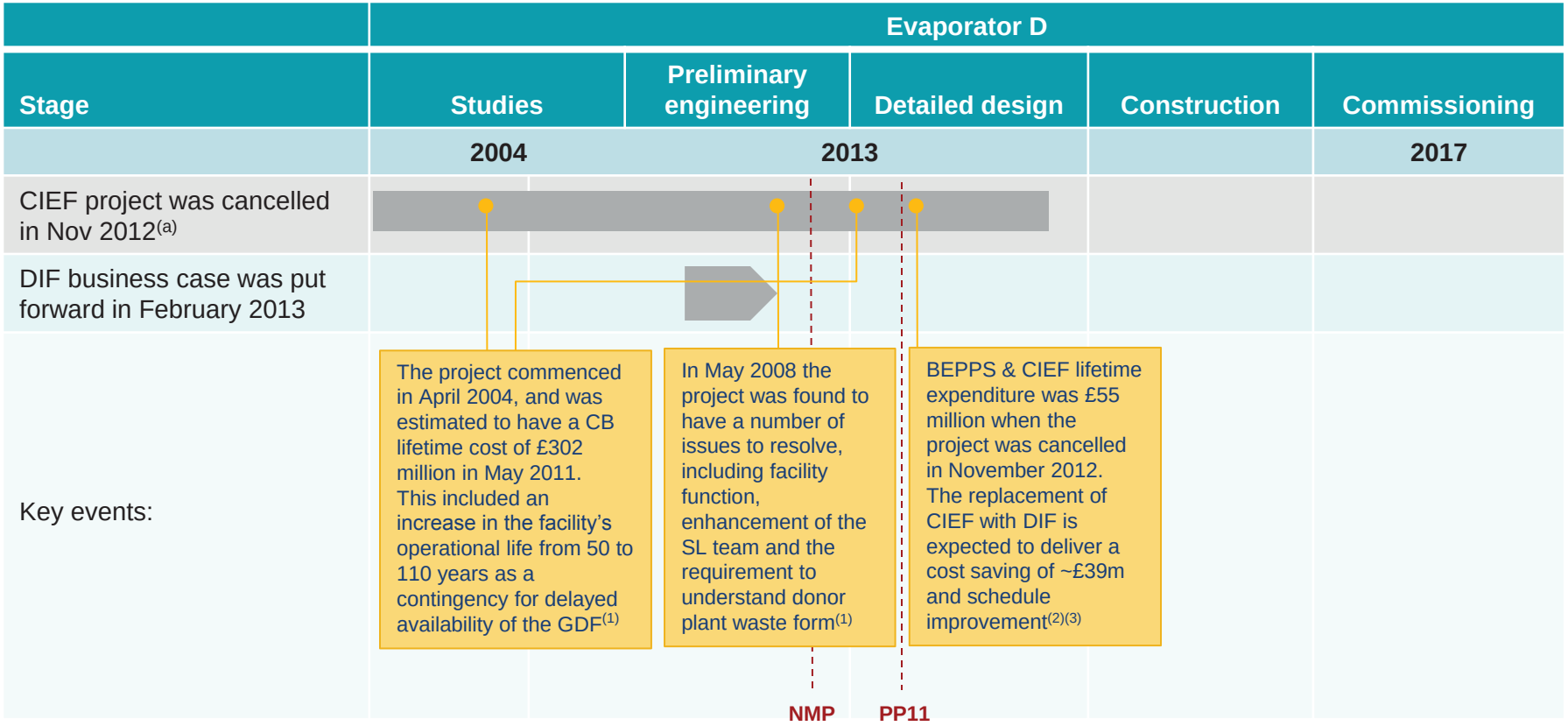
Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013
(3) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) PFCS retrievals', May 2012

Key comments

- The Pile Fuel Cladding Silos (PFCS) retrievals schedule has slipped by 10 months in comparison to the PP11[(1)]
  - SL are concerned with schedule delays as a result of design slippages on the main retrieval and processing modules[(2)]
- Stretch targets were introduced in 2011/12 and, whilst not fully achieved, an opportunity to improve the waste retrieval start date by up to 6 months was identified by removing the silo deflector J plates from the critical path to become a parallel activity[(3)]
- Further progress was made on site in January 2013, including the construction of the support structure for the retrievals modules and installation of the semi-goliath crane, contributing to the high SPI of 1.77 for the month[(2)]

BEPPS & CIEF/ DIF retrievals background

The Combined Import Export Facility (CIEF) was to provide an import route, via overhead cranes and an underground tunnel, for LP&S intermediate level waste (ILW) containers to a suite of stores known as the Box Encapsulation Plan Product Stores (BEPPS) and an export route to the Geological Disposal Facility (GDF). The Direct Import Facility (DIF) is a simplified design, which was introduced to enable schedule alignment with the commencement of retrievals for PFCS



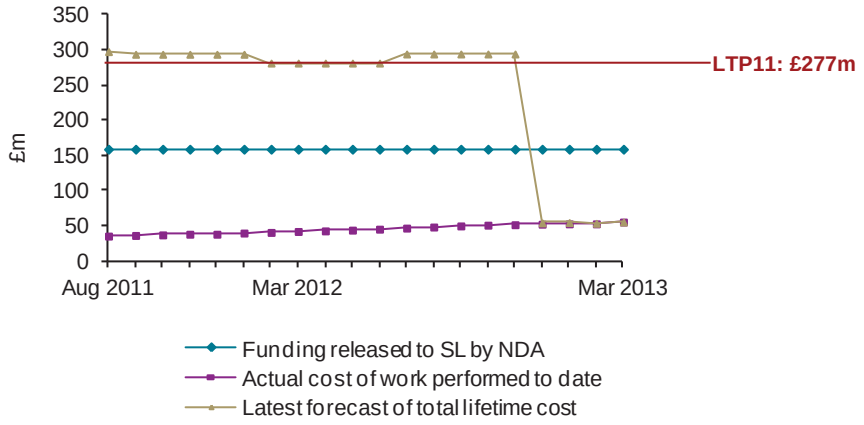
Note: (a) Please note BEPPS & CIEF was still included on the NDA major project list as at May 2013
Sources: (1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects) Evap D', May 2012
(2) NDA, 'Project Performance – Summary v2', s.40 May 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013

Physical progress with LP&S – Performance to date
BEPPS & CIEF/ DIF retrievals estimated lifetime costs

CIEF	LTP11	May 2013	Variance
Estimated total lifetime cost	£277m	£55m	-£222m

DIF – Business Plan	LTP11	May 2013	Variance
Estimated total lifetime cost	-	£183m	+£183m

BEPPS and CIEF estimated lifetime costs[(a)(1)(2)]



Key comments

- The BEPPS and CIEF lifetime costs are held at £55 million as the project was cancelled in November 2012
- The decision to cancel BEPPS and CIEF was largely driven by schedule concerns, in addition to further doubts that the CIEF project could be delivered within the estimated lifetime cost[(3)]
- The P50 lifetime cost estimate for DIF per the business plan is £183 million
- Therefore the replacement of CIEF with the simplified design for DIF is expected to deliver cost savings of approximately £39m[(3)]
- However, the DIF Business Case remains unsanctioned by NDA due to concerns with the contractor acquisition strategy. The intention is to place an EPC contract on a target cost in January 2014[(4)]
- Despite this SL have been able to internally sanction and deliver much of the studies phase through delegated authority. DIF is not currently designated as a major project by NDA[(3)]

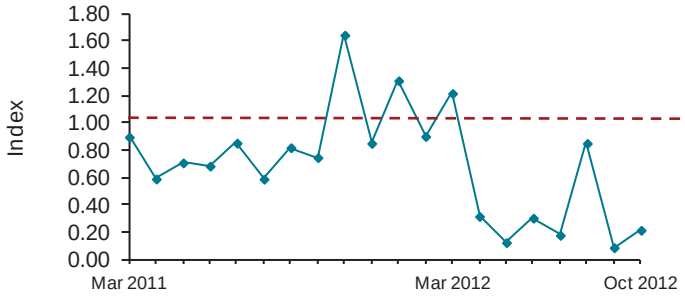
Note: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) BEPPS1 – CIEF', May 2012
(3) NDA, 'Interview with s.43 Jun 2013
(4) NDA, 'Correspondenc s.40 , 30 May 2013

BEPPS & CIEF/ DIF retrievals schedule performance

CIEF	LTP11	May 2013	Variance
End date	Oct 2017	cancelled	-

DIF – Business plan	P50	Target	Variance
End date	Jun 2018	May 2017	-1 year 1 month

BEPPS & CIEF SPI in period[(a)(1)]



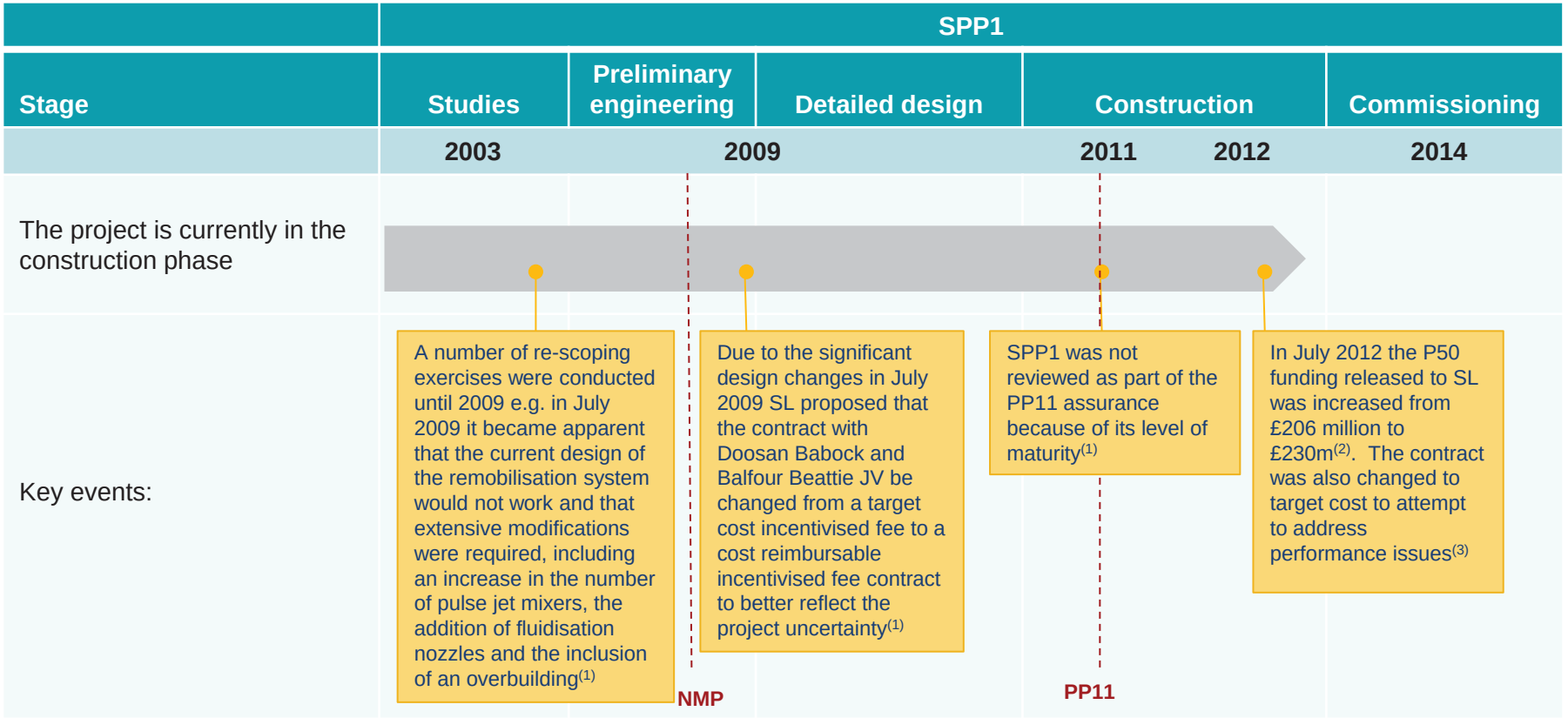
Key comments

- CIEF was cancelled in November 2012; the more accurate reduced profile of LP&S waste produced challenged the original CIEF functionality, the simplicity of the envisaged DIF facility presented greater schedule confidence and could be built in time to support PFCS retrievals[(2)(3)]
- The estimated (P50) end date for DIF per the business plan is June 2018. The stretch date of May 2017 is driven by the desire to bring forward PFCF retrievals, for which the DIF is a critical enabler[(3)]
- In addition to design simplification, the DIF project is expected to benefit from transferable technical content from the CIEF project to help realise the schedule efficiency[(4)]
  - However, the business plan, submitted in February 2013 is still awaiting sanction approval by NDA due to unresolved issues with the acquisition strategy
  - Whilst resolution to this is expected imminently it represents a notable delay since the initial business plan[(2)]

Note: (a) Please note in period data was only available for 2011 onwards
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Intervie s.40 Jun 2013
(3) NDA, 'Commentary from s.40 11th Jul 2013
(4) NDA, 'Correspondence s.40 30 May 2013

Buffer Sludge Packaging Plant (SPP1) background

The objective of the SPP1 buffer project is to provide storage capability for the sludge generated by storing Magnox fuel in an open pond, until it can be processed into a suitable waste form for final disposal.

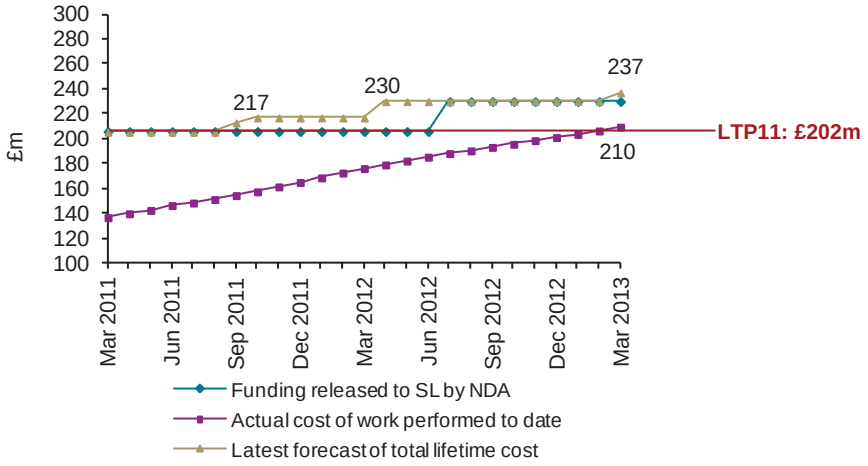


Sources:
(1) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) SPP1', May 2012
(2) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(3) NDA, 'Commentary from s.40 9th Jul 2013

Buffer Sludge Packaging Plant (SPP1) estimated lifetime cost

	LTP11	May 2013	Variance
Estimated total lifetime cost	£202m	£237m	+£35m

SPP1 estimated lifetime costs, in period[(a)(b)(1)(2)]



Key comments

- Buffer Sludge Packaging Plant (SPP1) estimated lifetime cost has increased by £35 million, from £202 million as per the PP11 to £237 million as at May 2013. This is the equivalent of a 17% increase compared to the PP11[(1)]
- Cost increases have largely been due to the quality management of tier 2 contractors Doosan, and despite various attempts to address this there is limited improvement to date[(3)]
- The First Generation Magnox Storage Pond Programme, including SPP1, entered "Special Arrangements" in January 2013. This has not led to any significant changes to date, due to SPP1 being in the construction phase and largely constrained by the tier 2 sub-contract. However, it has enabled the programme to prioritise SL resource when required[(3)]
- Concerns exist regarding whether the project will exceed its existing sanction level, which is currently under scrutiny by NDA[(5)]

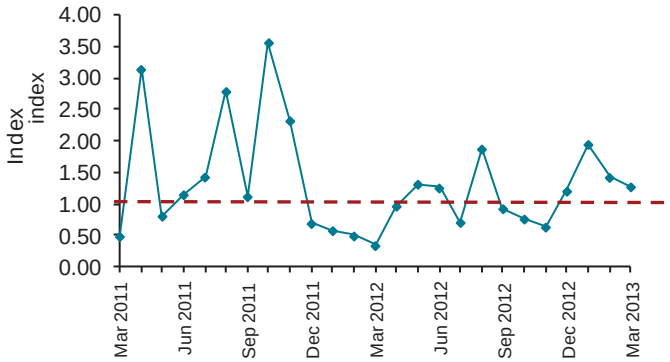
Notes: (a) Funding released to SL by NDA = The minimum project range as per SL data records and the major project report data table
(b) Please note this does not include DP5, which is an additional £4 million

Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Project Summary Sheet (PSS) – High Level Major Projects Information (10 projects) SPP1', May 2012
(3) NDA, 'Interview wit s.40 NDA project owner', June 2013
(4) NDA, 'Project Performance – Summary v2' s.40 May 2013
(5) NDA, 'Commentary from s.40 , 9th Jul 2013

Buffer Sludge Packaging Plant (SPP1) schedule

	LTP11	May 2013	Variance
End date	Oct 2013	Mar 2014[(b)]	+5 months

SPP1 SPI in period[(a)(1)]



Note: (a) Please note in period data was only available for 2011 onwards
(b) Please note the end date may move out to November 2014 pending decision 5
Sources: (1) NDA, 'NDA Major Project Data Request ALL PROJECTS', May 2013
(2) NDA, 'Interview with s.40 NDA project owner', June 2013

Key comments

- The Buffer Sludge Packaging Plant (SPP1) schedule has slipped by 5 months in comparison to PP11
  - However, the end date could slip by a further 8 months to November 2014 pending the outcome of decision 5, which relates to physical modifications of the jet mixers to the enable sludge remobilisation[(2)]
  - If the date is pushed out to November 2014 SPP1 will move onto the critical path for the start of sludge retrievals
  - There are further NDA concerns that the length of time for completing the pipe spools are underestimated[(2)]

3. Safe site stewardship

Safe site stewardship

Key findings

Bid and contractual commitments

Performance to date

Key findings

Health and safety performance metrics have generally improved since the commencement of the PBO model, with security also becoming a key focus at the request of the regulators. This appears to be largely attributable to SL, supported by the introduction of NMP process initiatives. However, all parties are recognised to have a common interest in this area.

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
3.1	**Overall improvements in health and safety performance over the last 5 years**	■ Health and safety metrics have improved on average over the PBO model period, with particular improvement noted over the last 12 months – The average Days Away Case Rate (DACR) over the 5 year PBO model period improved by 12% from an average of 0.33 pre-2008 compared to an average of 0.29 post-2008. In 2012/13 DACR was 0.17, significantly below the MPS of 0.38(1)(2) – International nuclear event scale (INES) events have been less than or equal to four per annum for the last three financial periods. This is below the MPS of 6 per annum(1)(2) – The average RIDDOR over the 5 year PBO model period improved by 25% from an average of 35.50 pre-2008 compared to an average of 28.40 post-2008, and was 19 in 2012/13(1)(2) – Conventional safety performance was poor in 2011/12. Strong challenge from NDA led to SL delivering a programme of improvement activities, including joint safety inspections with trade unions, which resulted in the improvement seen in 2012/13 figures ■ Calder Hall awarded URS 'Safe Facility of the Year', noting this was the first time a facility outside the US had won this award(3) ■ SL received ISO recertification with positive feedback received from LRQA(a), highlighting improvements in training and quality(4) ■ ICP safety initiatives have had limited impact on safety metrics as measured by any Initial Event Report (IER) as reported in ATLAS(5)	■ Improvements in safety have been driven in part by SL business-as-usual under the leadership of SL Executive secondees and also the introduction of NMP process initiatives such as ACEMAN, SNPM (Standard Nuclear Performance Model) and MoveSmart
3.2	**Security has become a significant focus following direction from government, although performance data over the last 12 months has been inconsistent**	■ The number of security events reported to ONR-CNS have fluctuated over the last 12 months, since this metric was first monitored, between 5 and 17(6) ■ Considerable focus has been placed on security since the Sellafield Security Enhancement Programme (SSEP) commenced in April 2012 – A WANO visit in mid-2012 identified significant SSEP progress(7) – However, a PPRG review in Nov 2012 highlighted the need to submit a revised scope due to cost escalation and schedule slippage(8)	■ The focus on security is largely driven by government via NDA

Sources:
(1) NDA, '2012_13_Dashboard_EHS_Stats', s.40, May 2013
(2) NDA, 'Interview with s.40 NDA Safety, Security and Environmental department', May 2013
(3) NDA, 'QBR minutes', Q1 2012/13
(4) NDA, 'QBR minutes', Q4 2011/12
(5) NDA, 'ICP Summary Period 12 Report' s.40, Mar 2013
(6) NDA, 'Sellafield PI Info', s.40, May 2013
(7) NDA, 'QBR minutes', Q2 2012/13
(8) NDA, 'PPRG', Nov 2012

Safe site stewardship

Key findings

Bid and contractual commitments

- Health, Safety, Security and Environment
- Risk management

Performance to date

Safe site stewardship – Initial bid and contracted commitments
HSSE

s.43

Safe site stewardship – Initial bid and contracted commitments
HSSE (cont.)

s.43

Risk management

s.43

Safe site stewardship

Key findings

Bid and contractual commitments

Performance to date

- Minimum performance standards
  - DACR
  - INES
- Operational performance to date
  - RIDDOR
  - TRIR
  - Security
  - Environmental non-compliance

Safe site stewardship – Performance to date
Minimum performance standards

The MPS in relation to health and safety contains specific metrics that as at 31st May 2013 have been achieved

HSSE MPS

- See measurement box below for elements that make-up the standard

How has the minimum performance standard been measured?

- The PBA contained a series of specific areas to be covered in health and safety:
  - DACR 0.38
  - INES events 6 p.a.
  - x number of personal injury claims
  - no unplanned individual dose limits beyond the 15m/Sv

  No work related fatality;
  - that occurs onsite or results from an onsite event;
  - that occurs offsite and where the SLC is found to have responsibility
- MPS did not contain guidance on how these are to be achieved

Has the minimum performance been achieved?

- Table below summarises where evidence has been obtained:

Minimum performance standard	Achieved?	Evidenced through other data?	Evidenced?
DACR 0.38	To be confirmed	*See following slides*	*Note 2*
INES events 6 p.a.	YES	*See following slides*	
Personal injury claims	YES	-	Note 1
no unplanned individual dose limits beyond the 15m/Sv	YES	-	Note 1
No work related fatality	YES	-	*Interview(1)*

Note: 1 Personal injury claims and dose limits supporting data is received at the end of each financial year. It is all reviewed and settled as part of the abatement review of fee. No known issues to date

s.43

Conclusion

- DACR under dispute resolution of which could be that the MPS is failed

Source: (1) Interview with s.40
(2) Interview with

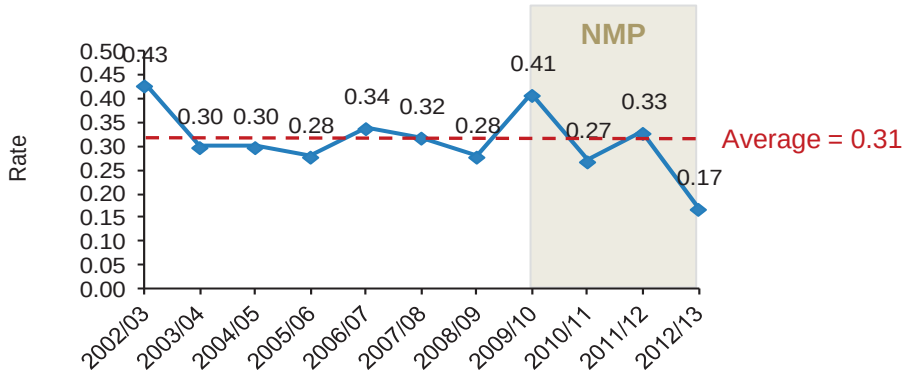
Safe site stewardship – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43

MPS: Days Away Case Rate (DACR)

Days away case rate (DACR)[a][b][c][d][e][1][2]



	2005/06-2012/13	pre-2009/10	post-2009/10
Average	0.31	0.32	0.30

Note:
(a) Please note FY 2008/09 excluded from the PBO contract period, as the contract did not commence until Nov 2008
(b) DACR data is a rolling 12 month figure
(c) DACR data includes Sellafield and also Windscale from Sept 2010
(d) 2002/03 DACR and TRIR figures are estimated for SM&OS which includes Sellafield, Calder Hall & LLWR
(e) SLC TRIR and DACR data does not include Capenhurst, as under the reporting agreements these were excluded. Given this relates to approx 150 the exclusion was deemed immaterial.

Sources:
(1) NDA Safety and Environment '2012_13_Dashboard_EHS_Stats', May 2013
(2) Interview with s.40 NDA Safety, Security and Environmental department

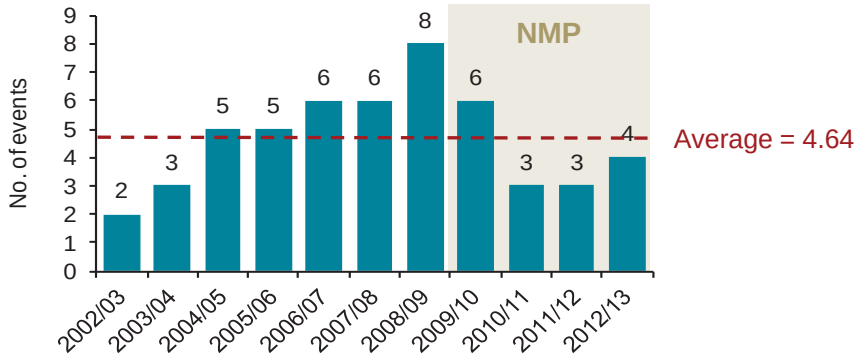
Key comments

- Days Away Case Rate (DACR) have on average been less than the Minimum Performance Standard of 0.38 under the current PBO
- However, on an annual basis, in 2009/10 DACR of 0.41 exceeded the MPS
- DACR has improved on average since the start of the PBO contract by 8%
- In 2012/13, the DACR metric was significantly better than in the period prior to commencement of the PBO contract, and showed an improvement of 48% when compared to 2011/12
- The NDA stopped monitoring DACR in 2010, as TRIR was considered to be a more appropriate, internationally recognised, metric. This was despite DACR being included as a Minimum Performance Standard in the NMP contract(2). NMP and SL have continued to monitor DACR.

Safe site stewardship – Performance to date

MPS: International nuclear event scale (INES) events

International nuclear event scale (INES) events (level 1 and above)[a][b][1][2]



	2002/03-2012/13	pre-2009/10	post-2009/10
Average	4.64	5.00	4.00

Note: (a) Please note FY 2008/09 excluded from the PBO contract period, as the contract did not commence until Nov 2008
(b) INES data includes Sellafield and Capenhurst for the whole period, Calder Hall until March 2008 when it was moved out of the SL entity and also Windscale from March 2008 when it was moved into the SL entity

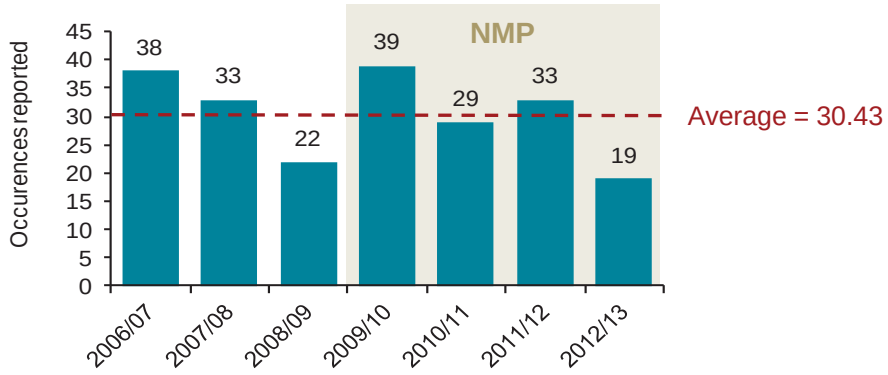
Sources: (1) KPMG Analysis
(2) NDA Safety and Environment '2012_13_Dashboard_EHS_Stats', May 2013
(3) Interview with s.40 NDA Safety, Security and Environmental department

Key comments

- International Nuclear Event Scale (INES) events have on average been fewer than the Minimum Performance Standard of 6 per annum under the current PBO
- The number of INES events have improved over the last three financial years following a period of increased occurrence, peaking at 8 in 2008/09
- Overall, INES events have decreased on average since the start of the PBO contract by 20%, this is in part driven by the high level of incidents in 2008/09, although an 11% improvement was achieved excluding 2008/09[1][3]

Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDORs)

Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR)[(a)(b)(c)(d)(1)]



	2005/06-2012/13	pre-2009/10	post-2009/10
Average	30.43	31.00	30.00

Note:
(a) Please note FY 2008/09 excluded from the PBO contract period, as the contract did not commence until Nov 2008
(b) Please note FY 2009/10 was amended to 29 due to data received after year end as per the NDA Annual Report and Accounts 2011/12 p 19
(c) Comparable RIDDOR data is not available prior to 2006/07 as it is aggregated at the level of British Nuclear Group Sellafield Limited
(d) RIDDOR data includes Sellafield and Capenhurst for the whole period, Calder Hall until March 2008 when it was moved out of the SL entity and also Windscale from March 2008 when it was moved into the SL entity

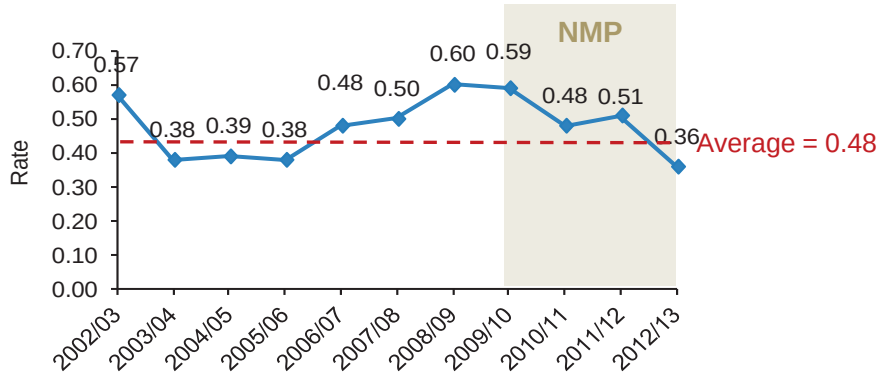
Sources:
(1) NDA Safety and Environment '2012_13_Dashboard_EHS_Stats', May 2013
(2) Interview with s.40 NDA Safety, Security and Environmental department
(3) NDA, 'Annual Report and Accounts', 2009/10
(4) NDA, 'Annual Report and Accounts', 2011/12

Key comments

- Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDORs) has improved on average since the start of the PBO contract by 3%
- A significant proportion of the Lost Time Accidents (LTAs), which constitute the majority of RIDDOR events, result from conventional safety issues such as trips and falls[(2)]
- The high level of RIDDORs in 2009/10 largely reflects such falls, which may have been associated with extreme weather conditions in the winter of 2009/10[(3)]
- Conventional safety performance declined in 2011/12, and strong challenge from NDA led to SL delivering a programme of improvement activities. This included:
  - Joint safety inspections with trade unions, which contributed to the improvement seen in 2012/13 figures
  - The Safety and Security Committee was formally established in 2011/12, and internal and external assessments of safety procedures and technical safeguards led to some initial upgrade work[(4)]
- This improvement may be seen in the 42% decrease in RIDDOR from 2011/12 to 2012/13, improving from 33 to 19 respectively

Total recordable incident rate (TRIR)

Total recordable incident rate (TRIR)[a][b][c][d][1][2]



	2005/06-2012/13	pre-2009/10	post-2009/10
Average	0.48	0.47	0.49

Note: (a) Please note FY 2008/09 excluded from the PBO contract period, as the contract did not commence until Nov 2008
(b) TRIR data is a rolling 12 month figure
(c) 2002/03 DACR and TRIR figures are estimated for SM&OS which includes Sellafield, Calder Hall & LLWR
(d) SLC TRIR and DACR data does not include Capenhurst, as under the reporting agreements these were excluded. Given this relates to approx 150 the exclusion was deemed immaterial.

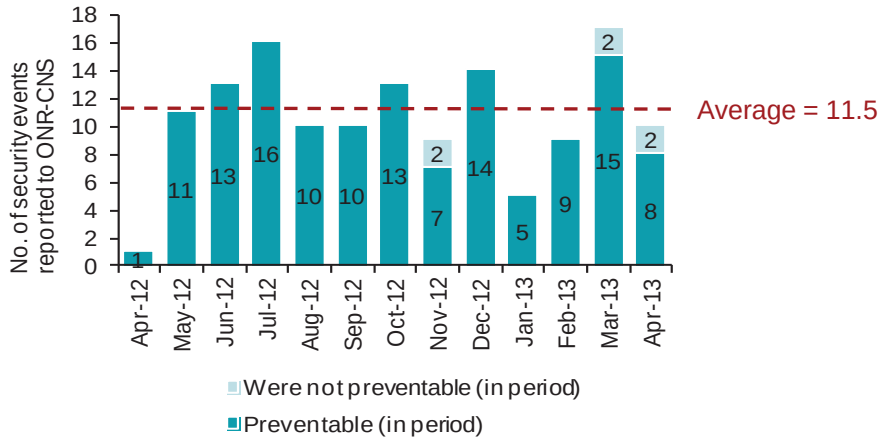
Sources: (1) NDA Safety and Environment '2012_13_Dashboard_EHS_Stats', May 2013
(2) Interview with [redacted] NDA Safety, Security and Environmental department
(3) NDA, 'Commentary with s.40 9th Jul 2013

Key comments

- Over the last three financial periods TRIR has improved, in particular the TRIR improved by 29%, from 0.51 in 2011/12, to 0.36 in 2012/13
- It is hard to draw comparisons with earlier years as reporting tolerances have changed significantly over the last decade[3]
- As such relatively high TRIRs in 2009/10 and 2011/12 are believed to be partly due to iterative improvements in safety reporting processes[2]
- Following the decline in conventional safety performance in 2011/12, strong challenge from NDA led to SL delivering a programme of improvement activities, including the joint safety inspections with trade unions, which resulted in the improvement seen in 2012/13 figures

Number of security events reported to the ONR-CNS

Number of security events reported to the ONR-CNS by month, April 2012 – April 2013[a][b][c][1]



Note:
(a) Please note the security project commenced in April 2012, and hence there is no data prior to April 2012
(b) Please note the NDA do not separately track the security data
(c) However, the NDA do record security information in the RAG tracker for each SL entity, collated from the SL Flash report info for each period

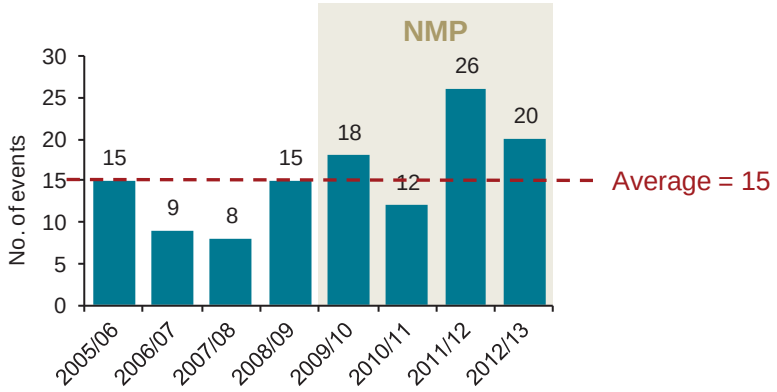
Sources:
(1) NDA Safety and Environment 'Sellafield_PI_Info.xlsx', May 2013
(2) Interview with s.40 NDA Safety, Security and Environmental department

Key comments

- The Sellafield Security Enhancement Programme (SSEP) commenced in April 2012, in response to earlier reviews led by government
- SL has established a substantial programme delivery organisation with a supply chain consortium lead by Carillion to deliver the work[2]
- Since the start of the SSEP an average of 11.5 security events have been reported per calendar month. However, there does not appear to be any trend evident
- There is agreement that considerable progress on security has been made, although this is yet to be clearly evidenced in the number of security events reported to the regulator

Environmental non-compliance and pollution events

Environmental non-compliance and pollution events[a][b][1]



	2005/06-2012/13	pre-2009/10	post-2009/10
Average	15	12	19

Note: (a) Number of non-compliance events as assessed by SLCs (all CSC categories, all CICS categories, each breach identified in EA Warning Letters or on RSACAR forms)
(b) Please note FY 2008/09 excluded from the PBO contract period, as the contract did not commence until Nov 2008

Sources: (1) NDA Safety and Environment '2012_13_Dashboard_EHS_Stats', May 2013
(2) Interview with S.40 NDA Safety, Security and Environmental department
(3) NDA, 'Commentary from S.40 9th July 2013

Key comments

- Environmental non-compliance events have increased post commencement of the PBO contract, averaging 19 per annum Compared with 12 prior to NMP
  - This increase has been particularly noticeable in 2011/12 and 12/13
- There are a number of factors cited as potential drivers of the increase:
  - Improvements in data capture and greater focus on reporting[2][3]
  - Increased on-site activity in removal of hazardous waste
  - Discrete high profile events, such as the radio-active waste sent to landfill, being reported as multiple breaches

4. Efficiency

Key findings

Bid and contractual commitments

Performance to date

Key findings (1/2)

As at 31st May 2013, SL has achieved the MPS for efficiency although the final year forecast is currently under target. The achievement of savings is attributable to SL, under NMP direction, whilst the driver for this appears to have been the incentivisation structures embedded in the contract. Whilst savings have been made, overall schedule progress has not met expectations. Over time this may cost more than the efficiency savings generated.

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
4.1	**Efficiency savings of up to £1,005m(1) have been identified**	s.43	■ The current contract incentivises efficiency savings ■ SL, under NMP direction, has successfully pushed through these savings

s.43

Key findings (2/2)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
4.2	**Efficiency fee encourages cost reduction over schedule performance**	■ Whilst benefits have been realised through efficiency, it is recognised that an over-reliance on efficiency '*was sub-optimal and that it had some undesirable consequences when applied in a blanket manner*'(1) – This should be considered in the context of the NDA commitment made to DECC to achieve 2% efficiency savings each year in order to support meeting a Departmental Strategic Objective ■ The major consequence appears to have been a lack of focus on schedule performance, particularly for major projects (see finding 2.1) ■ As a result, it is likely that the schedule variance will ultimately cost more than the efficiency savings generated (though no direct correlation can be proven between the two elements of the plan) ■ Both NDA and NMP have accepted this may result from an indirect link to the initial incentivisation structure and the introduction of a revised LP&S APM was designed to mitigate this	■ NMP as a private sector organisation is incentivised to focus on activities that generate income – The terms of the original contract therefore appear to have driven this behaviour

Source: (1) OGC Gateway 5: Operations review and benefits realisation – 2012

Key findings

Bid and contractual commitments

Performance to date

Efficiency – Initial bid and contracted commitments
Efficiency

s.43

Key findings

Bid and contractual commitments

Performance to date

Efficiency – Performance to date
Minimum performance standard

To date SL has achieved the required 80% of the total s.43 benefits

Efficiency MPS

- Increased LTP performance by x% derived from benefits realisation framework (to be developed in June 2009)

How has the minimum performance standard been measured?

- The PBA contract did not include a clause for the percentage of efficiency achievement required to reach this MPS. Subsequent to the contract being signed a target rate of 80% was agreed
- Calculation to assess the generation of efficiency savings is included later in this section of the report
- An element of the efficiency fee calculation is titled P50-80 which is contingency variance between the LTP07 and LTP10 plans. Savings are based on LTP07 on a P80 basis which had more contingency than LTP10 which was calculated on a P50 basis; to bridge this variance an element of efficiency is added back
- The calculation used to assess savings is agreed between NDA and NMP and each year the calculation is signed off between the parties to ensure that they are in alignment
  - 12/13 yet to be finalised
  - 13/14 is forecast only at this stage

Has the minimum performance been achieved?

- To date the MPS has been met with the first three years achieving in excess of 80% (figures below are cumulative):
  - 09/10 – 116%
  - 10/11 – 115%
  - 11/12 – 98%
  - 12/13 – 82% (numbers not yet finalised with SL)
- s.43
  - Current performance expectation is below the required 80% threshold however these numbers are only forecast (1)

Conclusion

- As at 2011/12 financial year end, the MPS has been met with all parties in agreement on the calculation/balances used to support achievement
- 13/14 forecast indicates that NMP may not achieve this MPS, unless forecast is exceeded

Notes: (1) NDA management interview with s.40 indicated that whilst the current forecast is that the efficiency MPS may not be achieved until the numbers are finalised no conclusions can be drawn
Source: (a) Taken from Competition Programme Board Special Meeting Update, 23 May 2013 – see slide later in this section for an explanation of how the £1,367 million fits with the wider business

Measurement and incentivisation of efficiency

Within the current contract with NMP/SL, cost efficiency is explicitly incentivised through:

- The efficiency fee mechanism: the achievement of cost savings against the contract baseline drives the generation of a fee pool that is released upon achievement of milestones
- Minimum performance standard 1: in order to automatically rollover into the second contract term NMP is required to achieve 80% of the savings agreed in the Benefits Realisation Framework (savings also measured against the contract baseline) – this is only one of several measures
- The cost variance source data for both calculations is the same, although different adjustments are made to each to reflect agreed calculations

Evolution of the Benefits Realisation Framework:

- **ICBM:** The content of the Benefits Realisation Framework started with the savings commitments made by NMP in its original bid. These were collated in the ICBM submission and totalled s.43 The savings were calculated based upon LTP07 and the application of NMP experience to information available on Sellafield
- **PAIS:** on contract award, NMP determined that the PAIS (Partner, Assess, Innovate, Sustain) review needed to be accelerated to determine approach to the site. This concluded in April 2009, with 69 recommendations
- **ICP:** The Integrated Change Programme was NMP's response to the recommendations of PAIS. This has evolved significantly over time. It is intended to produce savings which have been quantified as part of the agreed Benefits Realisation Framework
- **BRF:** The BRF was developed through 2010 and 2011 to take account of the changes arising as a result of the full redevelopment of the contract baseline (CB10), the PAIS review and ICP initiatives. The final BRF was submitted to NDA in December 2010 and agreed in August 2011. It includes a benefits target s.43
  - A mapping exercise between ICBM commitments and ICP initiatives/the BRF was undertaken in 2011 as required in the CMIA, 'although this does not provide any 'detailed mapping of the ICP initiatives to individual programmes and projects', as was recommended in R10 of the June 2010 Due Diligence Review'(1)

Source: (1) NDA, 'Internal Audit Follow Up Report to the Sellafield Performance Plan Assurance Approach Due Diligence Review of June 2011', January 2012

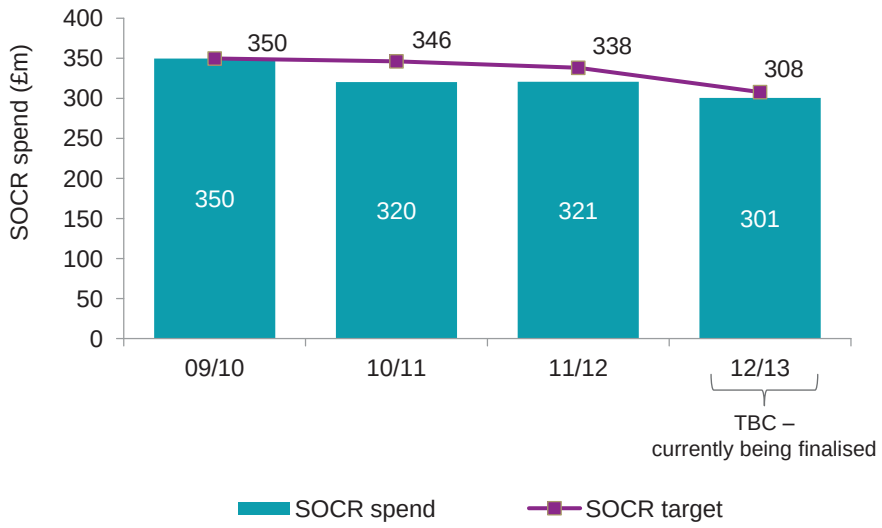
Efficiency – Performance to date

Achievement of efficiency targets: The Benefits Realisation Framework (MPS)

s.43

Support and Overhead Cost Reduction

Support and Overhead Cost reduction, 2009/10-2012/13(1)



Source: (1) Slides for Competition Programme Board Special Meeting Update, 23 May 2013
(2) NDA, 'Interview with s.40 Jun 2013
(3) NDA, 'PBI milestones trackers', 2010/11, 2011/12 and 2012/13

Support and overhead costs have been successfully reduced by 14% since 2009/10 from £350 million to £301 million in 2012/13

- Initiated in 2010/11 as an additional incentive to reduce back-office costs
- Fee is measured by a % improvement against an adjusted cost baseline from 2009/10
- The target is stepped so the challenge is increased each year to encourage the changes to become embedded

s.43

- Earning fee is binary – it is all or nothing

5. Sustainable improvement in SL’s capability

Sustainable improvement in SL's capability

Key findings

Bid and contractual commitments

Performance to date

Key findings - general approach

Whilst some change has occurred, there is limited evidence that significant improvements in SL's capabilities have yet been realised, with continued deficiencies in project management, supply chain management and resource allocation apparent. This is in spite of the development of ICP initiatives led by SL executive secondees and high utilisation of reach back resources.

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.1	**Capability improvement and culture change is a long term outcome. It cannot be measured in near-term metrics, therefore there is a risk that any actions are perceived as ineffective**	■ ICP was created to be the mechanism for organisational change and capability development to drive efficiency ■ ICP evolved through several iterations from its first inception in 2009 which had 18 focus areas, to the current version that was developed in July 2011 and established in 2012 with 7 focus areas that are aligned to the Standard Nuclear Performance Model (SNPM)(1). Examples of the focus areas covered include: Nuclear Safety and Operations, Organisation and Leadership, Training, Commercial ■ Management interviews with NDA indicate that the SNPM are aligned to US operations. Certain focus areas such as Integrated Works Management can be used at Sellafield, however there may be other best practice behaviours, particularly for Major Projects, that would be better aligned to the Sellafield site requirements(2) ■ Regular changes to focus areas, activities, and the metrics in use mean that the information currently available to Sellafield cannot easily be used to draw conclusions on performance over a period greater than a single financial year ■ The number of relaunches the ICP programme has undergone, indicates that early attempts were largely unsuccessful. However, there are instances, such as radiological roll back, where ICP initiatives have become standard practice ■ The current focus areas also require a longer time in place before conclusions on their overall impact can be made. NMP refers in its performance summary to a requirement for 'up to 8 years from the start of the contract' to judge success of the overall programme(3)	■ NMP and SL Executive secondees have been inconsistent in the development and application of ICP changes ■ NDA detailed understanding and monitoring of this area has been variable

Sources: (1) Sellafield Limited ICP Summary Period 12 Report
(2) NDA management interview with s.40
(3) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012

Key findings – project management (1/2)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.2.1	Project management – **The project management review structure has been through iterative developments to try to improve project overview**	■ In May 2011 NDA introduced monthly reporting for major projects, and created the Project & Programme Review Group (PPRG) Jul 2011(1) – A new Major Projects Directorate was put in place in 2012, and a new SL project management support team was appointed including a senior Deputy MD of Projects(2) ■ NDA Business Intervention Lead (BIL) post was appointed in Oct 2011 in response to Evap D, with the remit of monitoring specific problem areas(3) – Between Sep 2011 and May 2012 SL completed over 90% of the required improvements highlighted in the BIL 7 point response plan(1) ■ NMP have introduced a gated project process, a Project Management Career Path Programme and an improved suite of project execution SLPs all designed to improve capability(8)	■ NDA has largely led the introduction of the new working groups and the development of the review framework ■ NMP has introduced processes and programmes based on URS models for project management
5.2.2	Project management – **The quality and consistency of major project data reported currently limits effective monitoring of progress**	■ The project controls function has primarily fulfilled a reporting role with limited focus on managing future risks, and the planning, risk and estimating functions have historically operated in independent silos(4) ■ Inability to easily track the major projects over time and delays in updating system data impede the identification of issues in a timely manner – Weaknesses in SL reporting resulted in little warning of estimated Evap D cost increases in 2011, as all reports indicated the project was on track(1) – Project schedule for SDP ineffective as a control due to the excessive level of detail and lack of use by the project team as a daily tool(4) – Late SL system updates of change controls to SPP1 in Sep 2012 resulted in SL operating against an agreed plan from Jun 2012 but reporting against an old baseline for 3 months(5) ■ The quality of Business Case submissions have often resulted in resubmission requirements, which have delayed schedule by 3-4 months in some cases: – SL resubmitted the BTF business case 3 months late in March 2012 with £6.5 million unsubstantiated costs removed, after a PT&C review found costs were overstated (6) – PFCS retrievals business case was completed after the Nov 2009 deadline(7)	■ SL appear largely reactive to NDA challenge ■ NMP intervention appears to have had limited impact, with skills regarding estimation not consistently evidenced in improved business case quality ■ SL major project data is inconsistent and NDA challenge is not fully comprehensive

Sources:
(1) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects)' Evap D, May 2012
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information (4 projects)' SDP, May 2012
(3) NDA, 'Rapid Review of Evaporator D', 30 Sept 2011
(4) Nichols, 'Silos Direct Encapsulation (SDP) project', Sep 2011
(5) NDA, 'Interview with s.40 following KPMG analysis of SPI and estimated lifetime cost from data provided by SL via s.40 Jun 2013
(6) NDA, 'Project Summary Sheet (PSS) – BFT', May 2012
(7) NDA, 'Project Summary Sheet (PSS)' PFCS retrievals, May 2012
(8) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012

Key findings – project management (2/2)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.2.3	Project management **The level of contingency incorporated in the early development of projects appears insufficient and not appropriately allocated to specific risks**	■ Cost estimates for SDP as at Sep 2011 did not include a range of estimates to reflect the level of uncertainty, and although some design contingency was included there was no explicit allowance for schedule contingency or other risks(1) ■ Of BEPPS/DIF P50 only £13 million of £47 million contingency is attributed to specific risks(2) ■ Evap D project risks and challenge of Sellafield environment was not fully appreciated by NMP, and risk assessments were not robust(3) ■ Work required to complete the on site fabrication of the SPP1 vessel was significantly under-estimated, leading to the initiation of a double shift schedule(4)	■ There is a tension between the NDA request to underpin cost forecasts and the inherent uncertainty of the conditions
5.2.4	Project management **Onsite design and engineering issues are not identified and escalated in a timely manner**	■ SL did not identify early enough design deficiencies in Evap D, leading to delays and additional costs(5) ■ Increases in SDP cost estimates were identified in July 2011, but the SL executive team were unaware of internal reviews being conducted by SL(6): – As a result the MSSS Head of Programme was replaced due to poor communication of the cost increases, both within SL and to the NDA(6) ■ In Feb 2013 SL executives engaged the Doosan European MD to address subcontractor quality issues regarding SPP1 which were originally identified in May 2012(7)	■ s.43 ■ Escalation to SL executive secondees and NMP, whilst deemed effective when applied, may not occur soon enough, as is largely a response to NDA intervention
5.2.5	Project management **SL consistently lack the ability to manage dependencies between projects, and the innovation to more effectively manage overall programme integration**	■ Where NMP and SL have been challenged to deliver above expectations on designated projects, these initiatives have not been successful, for example B6 pile chimney(7) ■ Project CIEF was cancelled and replaced by DIF, which was granted 'fast track' status to speed up internal processes and challenge ingrained behaviours. However, a PPRG review highlighted that new ways of working were not implemented, as many staff transferred from CIEF after opposing its termination(2) ■ NMP originally stated that major projects should be delivered by the relevant operating units, but this did not adequately address the interdependencies with other major projects(10) ■ On less complex projects, such as SMF, SL achieve minimal cost increases and good schedule performance(8)(9)	■ NMP led initiatives and pilot projects designed to exemplify innovation have not historically been successful ■ NDA has appeared to lead the development of holistic programme structures to address operating unit interdependencies

Sources:
(1) Nichols, 'Silos Direct Encapsulation Plant (SDP) project', Sep 2011
(2) NDA, 'PPRG Review – Early phase review of BEPPS/ DIF project', 4 Apr 2013
(3) NDA, 'Rapid Review of Evaporator D', 30 Sep 2013
(4) NDA, 'Project Summary Sheet (PSS) – SPP1', May 2012
(5) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information' Evap D, May 2012
(6) NDA, 'Project Summary Sheet (PSS) – SDP', May 2012
(7) NDA, 'Interview with s.40, May 2013
(8) KPMG analysis
(9) NDA Major Project Data Request ALL PROJECTS', s.40 May 2013
(10) NDA, 'Interview with s.40 Jun 2013

Key findings – supply chain management

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.3.1	Supply chain management – **SL often appears to lack the commercial skill set to identify the appropriate procurement strategy and set up effective subcontracts**	■ A PPRG review of PFCS retrievals in Jan 2012 highlighted a need for SL to improve its commercial capability to ensure robust challenge of the sub-contract price(1) ■ Following NDA challenge SL decided to tender the design validation of the existing robotic manipulator tool in MSSS retrievals to the open market, having previously decided to perform the validation in-house(2) ■ SL BTF project delivery strategy proposed 6 different contracts with Nuvia/ Vinci, which following NDA challenge was consolidated into one integrated contract(3) ■ s.40 on Evap D: *'We should have done more upfront investigation on the capabilities in the supply chain. We did not. We have certainly learned from that'*(4) ■ Supply chain management is often hampered by inadequate subcontracts negotiated before the PBO model: – Of the top 20 sub-contracting firms 90% are the same pre and post-NMP, largely due to pre-PBO contracts that are still in duration(5) ■ Despite 30-40 contract reviews having been undertaken from 2012(5), SL have often opted to renegotiate contracts rather than re-tender due to the absence of a coherent replacement acquisition strategy(6)	■ SL is largely reactive to NDA challenge, and is constrained to a certain extent by historic contracts that have not been renegotiated - s.43 limited reachback has specifically been used to support the development of procurement strategy
5.3.2	Supply chain management – **SL does not have sufficient capability to manage escalating supply chain costs, schedule slippage and resourcing**	■ The supply chain is often managed using reimbursable prime contracts, limiting the ability of SL to appropriately incentivise the supply chain: – Mott MacDonald the sub-contractors on SDP exceeded their planned spend by £1.6m(7) – Costain's cost-reimbursable contract for Evap D included only milestone incentives(8) ■ Attempts have been made to change cost reimbursable subcontracts to target cost arrangements, such as the SPP1 subcontract with Doosan from 1 Apr 2012(9): – However, it took SL 12 months from May 2012 to May 2013 to finalise the renegotiated contract(10) ■ Resource churn within the supply chain was identified as a key concern in 2013(11)	■ SL appear to not have the capability or capacity to effectively manage subcontractor relationships - s.43

Sources:
(1) NDA, 'PPRG Review of PFCS Programme', 2 Apr 2012
(2) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information' MSSS retrievals, May 2012
(3) NDA, 'Project Summary Sheet (PSS) – BTF', May 2012
(4) Committee of Public Accounts, 'NDA: Managing risk at Sellafield', 23 Jan 2013
(5) NDA, 'QBR minutes', Q3 2011/12
(6) NDA, 'Project Summary Sheet (PSS) – Evap D', May 2012
(7) NDA, 'Project Summary Sheet (PSS) – In Depth Major Projects Information' SDP, May 2012
(8) NDA, 'Rapid Review of Evaporator D', 30 Sep 2011
(9) NDA, 'PPRG Review of FGMSP SPP1 Project', 23 Apr 2012
(10) NDA, Interview with s.40, May 2013
(11) NDA, 'QBR minutes', Q4 2012/13

Key findings – resource management (1/2)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.4.1	**Reach back has been overused compared to contractual intent, with limited substantive evidence of capability improvement as a result**	■ The PBA anticipated that reachback would be used to provide 'ad hoc support' to SL, enabling the introduction of experts for discrete tasks. It was envisaged to be one of the key means of developing capability within SL – It was estimated that this would amount to 50,000 hours per annum over the first contract term ■ Actual reachback hours have been significantly higher, peaking in 12/13 at 159,000 hours at a cost of s.43 the cost forecast in PP11 ■ Analysis of the operating units in which reachback has been used shows that c.30% of hours are for non-technical functions such as project management, finance and commercial, where it seems plausible that skills could be found within the UK and not require overseas experts ■ An NDA review of reachback in Feb. 2012 found that overall strategic planning for this resource within SL was weak, with poor data collation and assessment of benefits. NMP's role was also found to be unclear – Subsequently, monthly reachback reporting has been implemented and a strategy for 2013/14 developed. However, this still struggles to articulate the overall benefits ■ Anecdotally, there is evidence that reachback employees have provided key support to specific projects; for example: – NMP provided a new SDP project management team of 6 senior reachback staff to oversee the project team of ~400 SL staff in July 2012. This team has been largely successful at stabilising the project (note that this was a reactive response to issues and not proactive anticipation)(1) – The Evap D project currently has approximately 5 reachback staff on the project, with indicative feedback over the last 12 months being positive(2)	■ SL executive secondees are not adequately driving strategy for use of reachback ■ Limited NMP oversight or involvement

Sources: (1) NDA, 'Interview wit s.40 , May 2013
(2) NDA, 'Interview with Jun 2013

Key findings – resource management (2/2)

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
5.4.2	**Allocation of key resources and skills within SL is constrained and inflexible, especially with regard to commercial, risk and delivery skills**	■ SL and NDA jointly recognised that there was an issue of resource availability(1) due to SL headcount as at Dec 2012 of 9,967 being below the ORSE 'approved staffing level' of 10,119 (a)(3) – Resource shortages have impacted the delivery of SDP(2) – A resourcing gap was identified regarding FGMSP, where HR previously prevented any increase in recruitment from detailed resource plans. This resulted in the Head of Programme being given accountability for recruitment through Special Measures(3) – Operational plant stoppages and constraints have partly arisen as a result of a lack of frontline supervisors and ability to deploy systems engineers at an appropriate rate(6) ■ The ICP shows that the NMP has attempted to address succession planning of resources, with 75% of roles having a successor identified as at Mar 2013 – However, due to delays in releasing staff from current roles and the inflexibility of staff mobility across the site, in reality a large proportion of these identified successors are not available to start the new role for a number of months(4) – The lack of resourcing mobility across site has become a demotivating factor for SL staff as individuals are constrained from taking up new opportunities and promotions(7) ■ Lack of resource availability is particularly true regarding specific skill sets, as highlighted by the PPRG review of BEPPS/ DIF which showed that within the project team there were ~40 engineers and limited resource with commercial, risk and delivery skill sets(5)	■ SL recruitment capability has not addressed the resourcing requirements to date ■ NMP reachback does not appear to have addressed resourcing of specific skill sets ■ s.43

Note: (a) Please note SL is requesting an additional 300 people compared to the ORSE for security enhancements(3)

Sources: (1) NDA, 'QBR minutes', Q3 2012/13
(2) Nichols, 'Silos Direct Encapsulation Plant (SDP) project' Sep 2011
(3) NDA, 'QBR minutes', Q4 2011/12
(4) NDA, 'Interview with s.40, May 013
(5) s.40 'PPRG Review – Early phase review of BEPPS/DIF project', 4 Apr 2013
(6) NMP/SL, 'Sellafield Performance 2008-2012: Balanced Self-Assessment', Oct 2012
(7) NDA, 'Commentary s.40, 9th Jul 2013

Sustainable improvement in SL's capability

Key findings

Bid and contractual commitments

- Project controls management
- Commercial operations/contract
- Technical and engineering capability
- The supply chain
- Quality management
- HR management
- Finance management

Performance to date

Sustainable improvement in SL's capability – Initial bid and contracted commitments
Project controls management

s.43

Sustainable improvement in SL's capability – Initial bid and contracted commitments
Commercial operations/contract

s.43

Technical and engineering capability

s.43

Sustainable improvement in SL's capability – Initial bid and contracted commitments
The supply chain

s.43

Sustainable improvement in SL's capability – Initial bid and contracted commitments
Quality management

s.43

HR management

s.43

Sustainable improvement in SL's capability – Initial bid and contracted commitments
Finance management

s.43

5. Sustainable improvement in SL's capability

Key findings

Bid and contractual commitments

Performance to date

Sustainable improvement in SL's capability – Performance to date
Minimum performance standards

People plans have been developed by SL, however, the quality of these plans to address the underlying issues has been questioned by the NDA

Workforce assessment MPS

- Workforce assessment with respect to the forward demands of the LTP with skills gaps identified and an appropriate action plan developed

How has the minimum performance standard been measured?

- MPS requires the development of a 'People Plan' which identifies skills gaps in the current workforce
- MPS wording does not state how regularly it should be produced but management interviews indicate that this document should be considered to be continuous and always being updated
- The most recent People Plan was provided to the NDA in May 2013. This is not considered to address reasonable expectations of the People Plan as it does not include a "direction of travel" regarding organisation design or identified resource and skills gaps(1)
- Achievement of the MPS is driven by the production of a plan only; the wording does not include any clauses around its quality

Has the minimum performance been achieved?

- Upon receipt of the most recent plan NDA raised a series of concerns about its effectiveness, including that it does not link its people plan to any organisational design(2)
- Formal correspondence between s.40 has taken place discussing these issues and the current proposal is that SL are looking to bring in external consultants to help develop the plan

Conclusion

- Per the contractual wording NMP are likely to have achieved the MPS because they have produced a People Plan
- Requirement to use external consultants is an indicator that the plan is not reaching the expected quality

Source: (1) NDA, 'Commentary from s.40 9th Jul 2013
(2) NDA, 'Interview wit s.40 Jun 2013

Sustainable improvement in SL's capability – Performance to date
Minimum performance standards (cont.)

s.43

s.43

Source: Interview with s.40

Minimum performance standards (cont.)

PCP13 reporting requirement has been achieved, though SL receive special dispensation to report on Major Projects one day later than other sites.

Reporting MPS

- No material failure to comply with reporting procedures in line with PCP13

How has the minimum performance standard been measured?

- PCP13 reporting is an NDA reporting requirement that all sites are to produce
- PCP13 reports cover several areas and vary in terms of requirements for delivery: monthly, quarterly, annually

Has the minimum performance been achieved?

- Interviews indicate that the PCP13 reporting requirements have been delivered though SL do receive special dispensation for additional time to report certain numbers
  - Major Projects reporting from Sellafield is a day later than other sites (1)

Finance MPS

- No material failure to adhere to the Authority's reasonable cashflow management requirements in accordance with clause 6 (Finance) and Schedule 6 (Finance Schedule) of the Site M&O Contract

How has the minimum performance standard been measured?

- Measurement is defined as whether SL has attempted to draw down cash in excess of the cash flow they submit to the NDA
- SL submit an annual cashflow forecast which is updated monthly and NDA will challenge any material variances for cash requests

Has the minimum performance been achieved?

- No instances of SL exceeding their cash requirements to a material degree have been noted(2)
- Access to cash is essential for the day-to-day running of SL and with NDA having a relatively low ceiling for excess cash it is essential to get this reporting here correct

Source: (1) Interview with s.40
(2) Interview with

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43

Source: (1) Interview with s.40

Sustainable improvement in SL's capability – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments (cont.)

s.43

Source: (1) Interview with s.40
(2) Interview with
(3) Interview with
(4) PPRG review, *"Engineering for Major Projects"*, August 2012

Assessment of delivery of a sample of NMP non-contractualised bid commitments (cont.)

s.43

Source: (1) Sellafield Flash Report
(2) Interview with s.40
(3) Sellafield Performance 2008 – 2012 Balanced Self-Assessment (Draft), October 2012

Sustainable improvement in SL's capability – Performance to date
Evolution of ICP

ICP was created as the mechanism for delivering organisational change and capability development at Sellafield. Since contract inception it has gone through several iterations with limited consistency in reporting and monitoring of metrics. This makes drawing conclusions on its achievement to date challenging

November 2008: the contract with NMP commenced

PAIS review identified 12 key areas to drive organisational change(2)

- 69 innovations identified

Six4Five (2009-2012)

- Developed from the PAIS findings
- Goal of Six4Five was to deliver 6 years of efficiency in 5 years
- During Six4Five the number of focus areas fluctuated which may be an indicator of uncertainty on how best to proceed with the overall programme

Early ICP reporting contained a low number of reporting metrics instead providing commentary by active directorate on their performance

- Included a total saving by directorate but was not clear how these savings were being achieved
- Management interview indicates that at this point directorates could decide which efficiencies to pursue – items were not mandatory

Standard Nuclear Performance Model ('SNPM') (2012 onwards)

- Post-Fukishima ICP ratified to implement SNPM which aimed at achieving industry standards and less focus on short-term efficiency gains
- 7 key focus areas: Nuclear Safety and Operations, Organisation and Leadership, Training, Commercial, IWM, Engineering, Project Execution
  - Analysis in this document reviews some of these focus areas

SNPM shows activities being performed in each focus area and links these to an output measure for success/failure

- Measurement of inputs is against plan to see if SL are meeting the targets they established up front
- Output measures vary depending on the goal of focus area and inputs
- Reporting since inception has been consistent but still focuses on in year benefits

In 2013 a new reporting tool 'QlikView' has been developed that will replace the current reporting

- Enables drill down into individual activities showing interdependencies
- Although developed within SL NDA's access to the tool has yet to be finalised which impacts ability to better understand and manage the data
- SL are reviewing the scope of ICP under the Excellence Programme to bring clarity on how these initiatives should be targeted in specific units(3)
- However, there remains confusion over the intended focus of the Excellence Programme; is it to reduce costs and deliver efficiencies, enhance nuclear standards or deliver a business change programme, or all of the above(3)

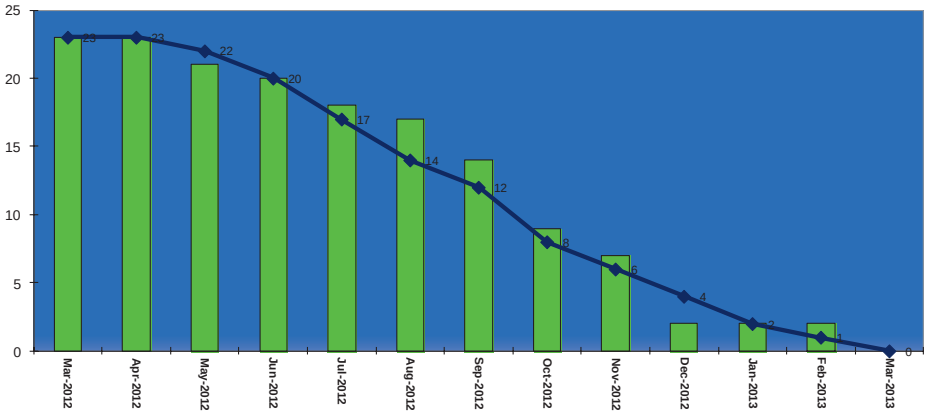
Note: Timetable above has been generated using information provided by the NDA. ICP reporting provided is incomplete therefore have used it to generate an overview above

Source: (1) ICP documentation held by s.40
(2) CD_085 – PAIS FINAL REPORT – 14 April 2009 master[1]
(3) NDA, 'Commentary from s.40 ', 9th July 2013

ICP – Establishment of Plant Operating Control Centres

Establishment of a POCC is one of many inputs being performed across SL to effect organisational change. A POCC is a 'nerve centre' for each Operating Unit/asset that gathers and monitors a wide range of performance data

Establishment of Plant Operating Control Centres (O&LD42)(1)



The burn-down(a) chart shows SL has established the number of POCC's in the period as planned

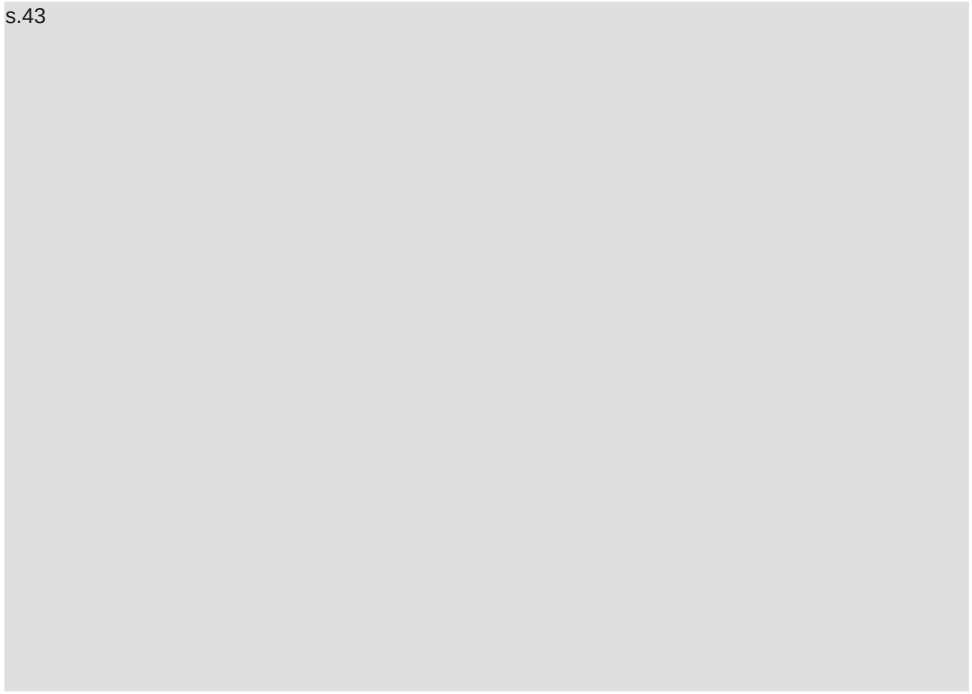
- A POCC is generally a room at each Operating Unit (OU)/Asset which gathers all data so that there is a single source for data requests and analysis
- Although each POCC is established with similar aims the metrics being recorded will vary between OU/Asset depending on their needs
- POCC enables more data to be gathered and analysed
  - This level of detail is for SL as would not expect NDA to have this.

Note: (a) The burn-down chart shows the level of activity still to complete
Source: (1) ICP Summary Period 12 (March 2013) Report

ICP – Actual benefit from commercial focus area

Commercial focus was planned to achieve £139 million savings in 12/13 across various aspects of the supply chain. However, this aspirational target was missed despite achievement of all planned actions(1)

s.43



Source: (1) ICP Summary Period 12 (March 2013) Report
(2) Interview with s.40

Actual benefit s.43 below the plan for 12/13

- Plan number based on aspirational target s.43 for first 5 year period
  - £139 million was based on the target at inception requiring s.43 s.43 to be achieved by the end of 12/13 and it had been expected that s.43 would have been achieved as at 31st May 2013
- Use of an aspirational target enables goals to be set however the significant variance between plan and actual may be an indicator that the target is unrealistic and driving the wrong behaviours
- 41 in-year milestones were identified covering areas such as procurement process improvement, contract review, make vs. buy etc.
  - Management interviews indicated that the benefits associated with each area cannot easily be disaggregated however it is noted that contract reviews were a significant driver of savings in current year(2)

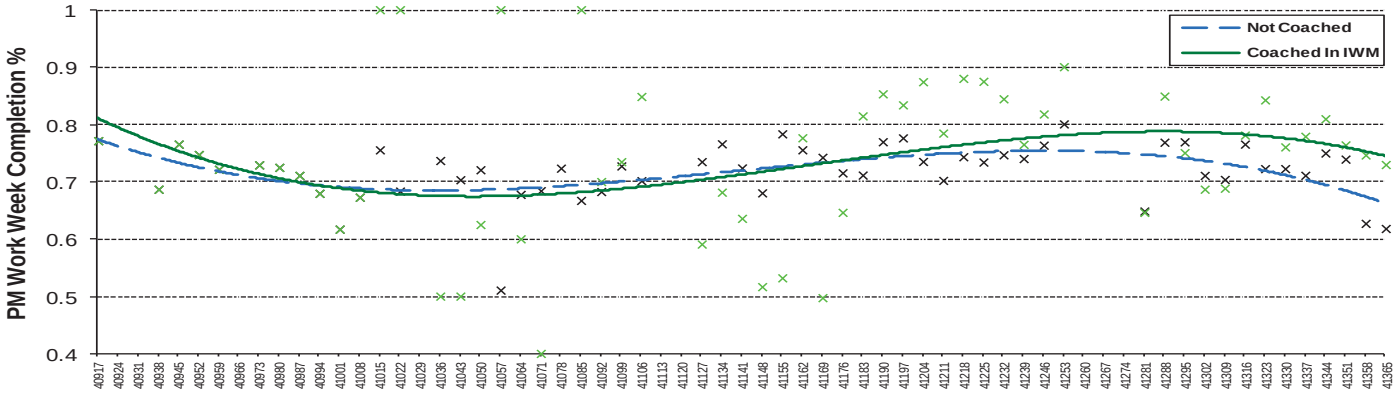
Assessment of the metric

- Plan savings are high and achievement appears unrealistic
- Savings are based on a variety of inputs which the current measure does not disaggregate meaning an assessment on their individual contribution is difficult
- The metric measures savings not the performance improvement as a result of initiatives, both are important but not necessarily directly aligned

ICP – Integrated work management

Integrated Work Management (IWM) is a training suite for operating units/plant that trains staff to improve integrated planning capability. Results indicate that towards the end of the year those that had received training were improving the delivery of planned work

IWM engagement impact on schedule adherence(1)



The x axis should show the date of each week

Coached employees at year end are delivering more planned work than employees who have not been through the IWM coaching

- This graph shows the number of jobs completed as per the weekly maintenance attributes report
- Management interviews indicate that the performance dip in the first half of the year was a result of more data being captured than previously(2)
- Input to this metric is the number of integrated work management teams that have been established (i.e. coached)
  - The input measures training and output measures performance but the metrics do not currently make clear how the impact on work schedules translates to a tangible cost saving

Achievement of the metric

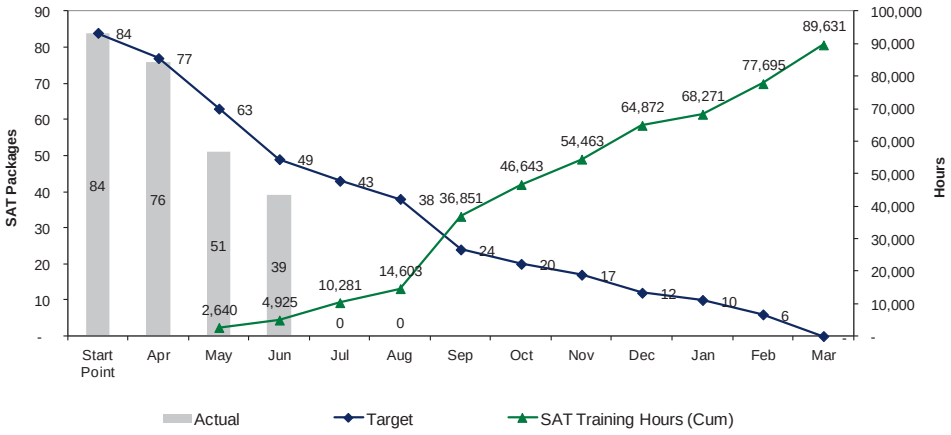
- The current metric does look to compare the performance of those who have received the training and those who have not. However being at a high level it relies on the potential issues (discussed above) being normalised and does not enable a firm conclusion on whether the training is driving the right behaviours

Source: (1) ICP Summary Period 12 (March 2013) Report
(2) Interview with s.40 who works for Sellafield Limited

ICP – Systematic approach to training

Systematic approach to training shows that training is being delivered as planned. The overdue mandatory training output measure shows that performance is better than targeted.

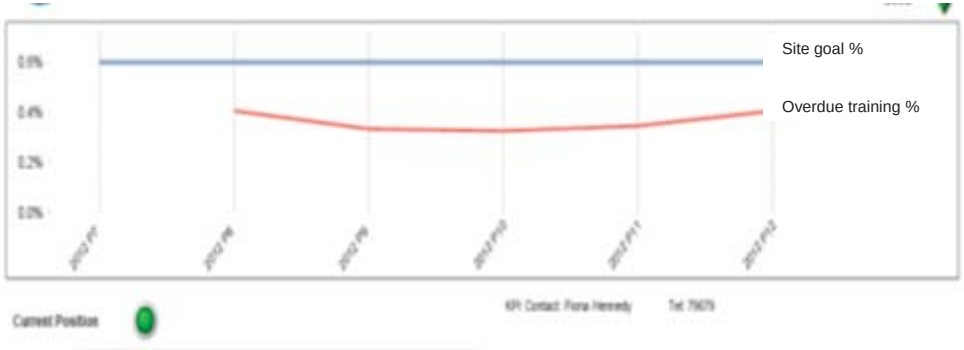
Systematic approach to training (input)(1)



Burn-down chart shows that SL is ahead of its targeted volume of training packages delivered

- Training packages included here are not limited to specific areas e.g. health and safety but may include other role specific and elective training
- Burn-down only shows that training has been delivered not whether this training is meeting the wider training requirements of SL
  - Anecdotal evidence indicates that skills shortages exist across the site suggesting that the burn-down may meet the actual site training needs

Overdue mandatory training (output measure)(1)



The number of employees overdue on mandatory training is better than the overall site's target

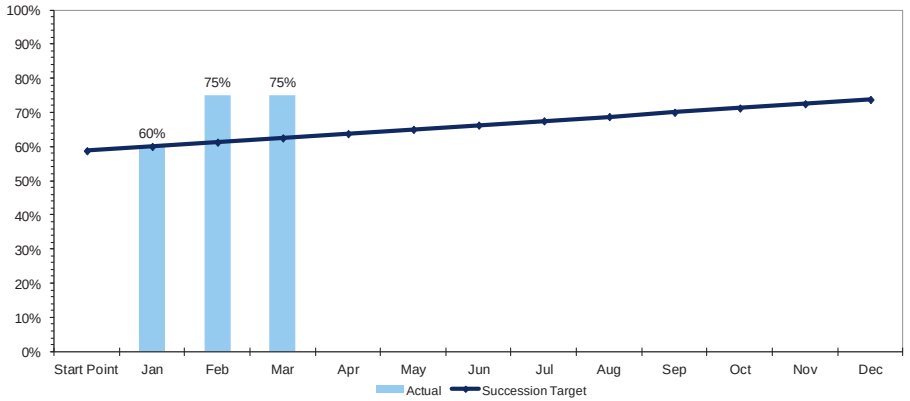
- Output does not benchmark against other sites therefore cannot conclude on site performance
- Mandatory training measure does not consider if the wider skills requirement of the site are being met – a crucial element of improving the wider organisation

Source: (1) ICP Summary Period 12 (March 2013) Report

ICP – Succession planning

SL is currently ahead of plan target for the number of successors that are in place and ready to take on responsibilities of their new role immediately. However, this does not consider if the individual can vacate their old role

Succession planning (immediate successors in place) 2013(1)



12/13 is ahead of the site succession target

- 426 individuals have been identified against 475 roles (90% coverage)
  - Of the 90% 356 have immediate successors identified (75% of the 475)

Assessment of the metric

- The output metric appears to show a high number of staff have successors in place and ready to work but this does not account for the ability of the individual to move out of their current role
- Succession planning is included as the output metric under 'Organisation & Leadership' in the ICP Period 12 Summary Report. Although this is a reasonable assessment of whether staff are being prepared for management positions it does not directly assess the quality of leadership in place and being developed

Source: (1) ICP Summary Period 12 (March 2013) Report

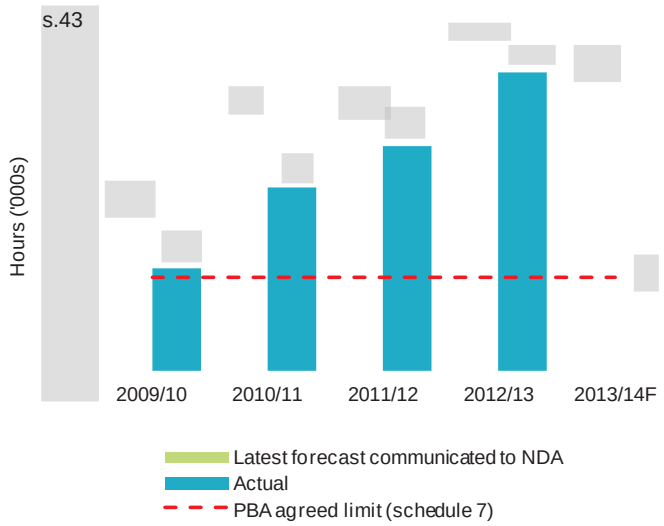
Reach back: Description and contractual intent

Reach back is a mechanism whereby the PBO 'reaches back' into the parent companies to provide staff and skills to support activity at Sellafield. It was designed to offer targeted expert support for SL and was positioned as a key contributor to the development of SL capability. It has a wide remit, with no specific functions or areas identified as being particularly relevant

Area	Detail
Contractual requirement / commitment	■ PBA clause 16B: - *'If during the Term the SLC requires additional support of the type referred to in Schedule 7 (Provision of Support to the SLC) from the Parent Body Organisation or an Affiliate in order for it to fulfil its obligations under the Site M&O Contract, it may invoke the provisions of Schedule 7 (Provision of Support to the SLC) subject always to the SLC continuing to comply with its obligations under the Site M&O Contract and the SLC and the Parent Body Organisation continuing to comply with their respective obligations under this Agreement.'* ■ PBA Schedule 7: - **Description of services under reach back:** 'Ad hoc support' - no further detail provided - **Anticipated volume of use:** s.43 per contract year - **Cost reimbursement arrangements:** ■ *'the normal payroll costs of the Provider (including employee taxes incurred by the employer, retirement benefits and benefits in kind including medical benefits) together with reasonable assignment related benefits (together the 'Payroll Costs')'* plus ■ s.43 *of the Payroll Costs',* plus ■ *'reasonable travel and subsistence costs'.* ■ All of the above, should be *'in accordance with the Allowable Cost and Disallowable Cost regime'* - **Notification of changes**: *'If the SLC believes it will require additional support in any Contract Year in excess of the anticipated hours... It shall notify the Authority as soon as reasonably practicable and will not exceed the hours stated without prior consent.'*
Subsequent agreements	■ 4 Dec 2009 – Letter from NDA to NMP: Confirmation that reach back hours may exceed s.43 target for 2009/10 and that those in excess of 50,000 hours may be charged on s.43 - s.43

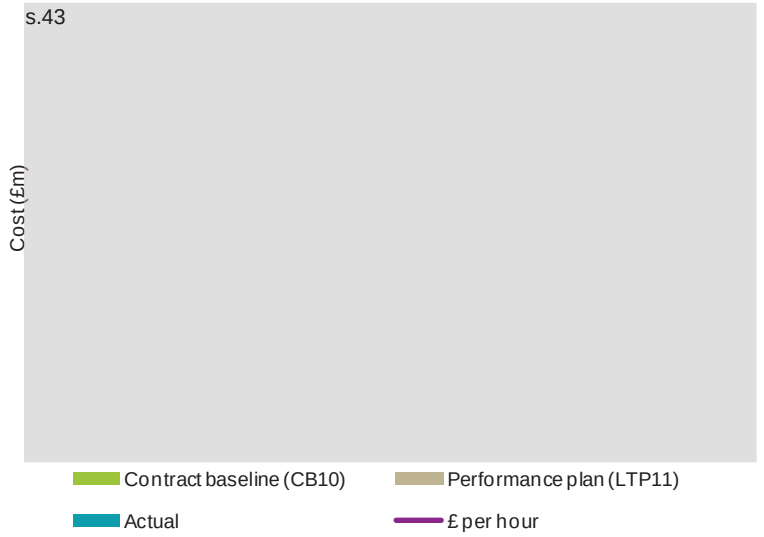
Sustainable improvement in SL's capability – Performance to date
Reach back: Hours and costs

Reach back hours, 2009/10-2013/14F[1)]



- NMP was anticipated to provide s.43 of reach back support per annum through the PBA, . In order to exceed this, it is obliged to seek consent from NDA
- The s.43 limit has been exceeded in every year of the contract, with significant year on year increases
- In 2010/11 and 2011/12, the limit was exceeded without NDA explicit agreement

Reach back costs, 2009/10-2013/14F[(1)]



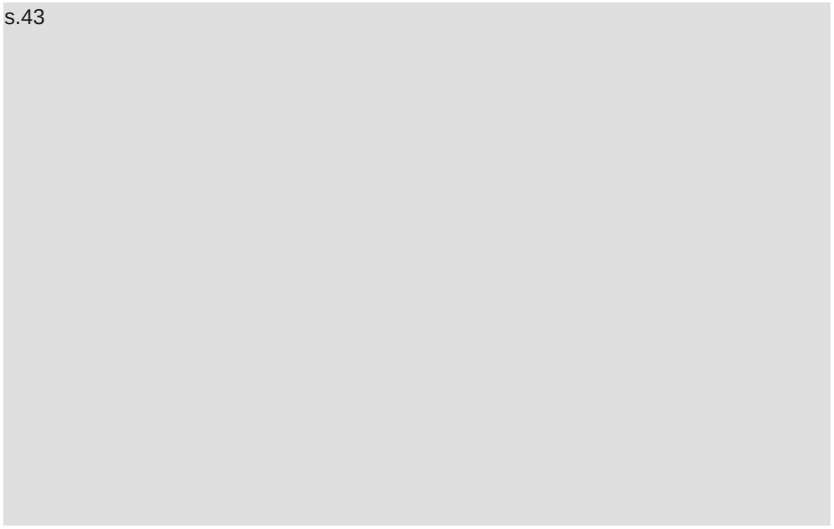
- In line with the increase in hours, reach back costs have grown each year to 2012/13 at a CAGR of s.43
- Costs are significantly greater than anticipated in either CB10 or PP11. For example, in 2012/13 reach back costs were s.43 he PP11 estimate
- Average cost per hour peaked in 2011/12 and 2012/13 at s.43 and s.43 respectively. Latest 2013/14 forecasts suggest this will fall in the current year. (Note that this is a blended rate of payroll cost s.43 for first s.43 hours and fully absorbed cost thereafter).
- Actual rates vary significantly between individuals from s.43 s.43

Source: (1) NDA, Commercial Review: Report: Provision of Support to the Site Licence Company, 21 February 2012, DRAFT Reachback Report P12 issued to NDA 25-04-12.xls, NDA Reachback Report P12 data includes working version 04.04.13.xls, NDA Enhancer Support Report P1 data includes working version 11-04-12.xls, KPMG analysis

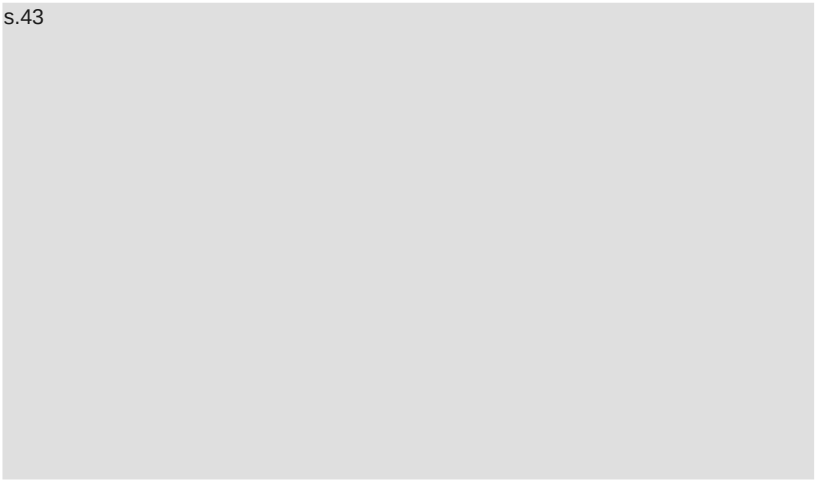
Sustainable improvement in SL's capability – Performance to date

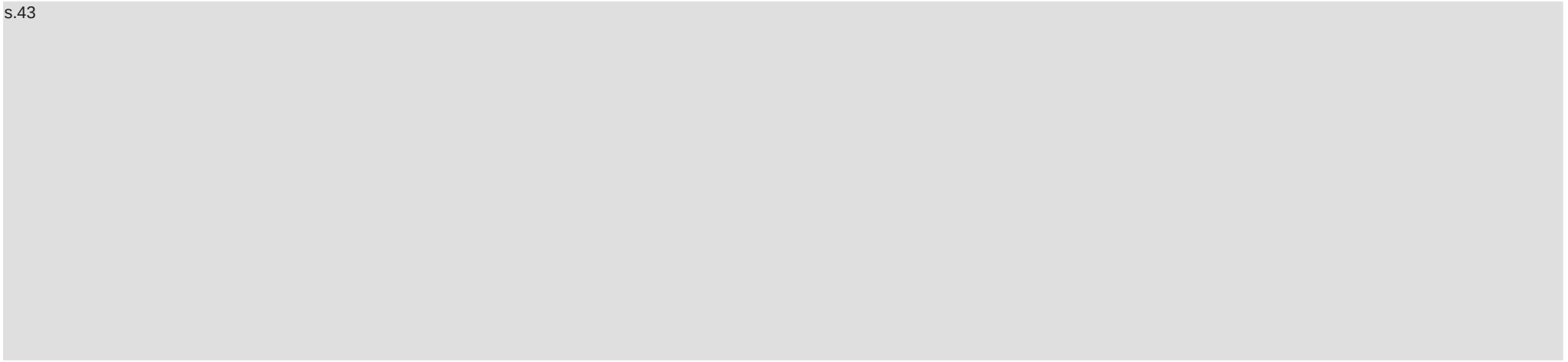
Reach back: Average headcount and hours by Operating Unit

Reach back average annual headcount, 2009/10-2013/14F[1]



Reach back hours by Operating Unit, 2012/13[1]





Reach back: Findings of Commercial Review, Feb 2012

NDA conducted a commercial review of the operation of reach back arrangements, which reported in February 2012. The key findings were as follows:

Planning

- SL does not have a documented strategic approach or plan for use of reach back
- There is no standard or detailed definition of reach back, other than the PBA description of 'ad hoc support'

Approvals process

- Variability in quality of reach back requests submitted by business units e.g. limited evidence of consideration of other procurement options, limited detail on scope and approach to skills transfer
- The role of NMP in the governance arrangements of reach back is not clearly defined
- No standard decision-making criteria are applied to approve/reject
- Limited challenge or benchmarking on hourly rates proposed by parent companies. These are not transparently broken down in order to aid comparison

Monitoring and benefits analysis

- Data retained by a number of different teams within SL and not reconciled or analysed to inform decision-making
- No strategy for managing and monitoring benefits of reach back, therefore difficult to assess contribution to capability improvement and business needs
  - However, anecdotal examples of direct improvement of workforce skills by reach back individuals have been provided
- Variability in completion of LFE summaries and 'completion brief' section of reach back request form. There is no evidence that this data is systematically captured, analysed or shared with the Reach back Panel and relevant business units

NDA

- NDA has not routinely or consistently reviewed use of reach back or followed through on its own requirements

Reach back: Strengths and weaknesses

In response to NDA's review of reach back, NMP and SL have made changes to the way the SLC monitors and evaluates reach back

- Improved monthly reporting and monitoring of reach back has been developed. This is shared with NDA each month
- Development of a Reach back Strategy (now called Enhancer Support) for 13/14, which includes:
  - Description of when reach back should be used
  - Improved controls on use of reach back
  - Greater level of analysis on seniority of roles, directorates and type of benefit provided for 13/14 forecast
- However, ability to articulate financial benefit of reach back and link to site capability improvement is still unclear
- Use of reach back remains significantly higher than originally anticipated within contract each year forecast to 2018/19

A number of examples have been identified whereby use of reach back has had a positive impact on site and project delivery

- NDA major project owners noted:
  - The SDP management team of 6 senior reach back staff has been largely successful at stabilising the project
  - The Evap D project currently has c.5 reach back staff, with indicative feedback over the last 12 months being positive
  - Reachback employed on the Windscale Vitrification Plant (WVP) has provided valuable information from the Areva experience of operating a similar plant in France
- s.40 SL Deputy MD, at the PAC hearing gave other examples:
  - A review of operating strategy for evaporators by reach back staff identified options for lengthening lives, giving more risk mitigation and ultimately allowing for the deletion of Evaporator E from the scope
  - The simplification of plans for the cutting of holes in pile fuel cladding silo as a result of reach back staff has saved £100m cost
- Additionally, NMP credit reach back resource with:
  - Vitrification and MOX improvements
  - Introduction of a world class risk management approach
  - Strengthening nuclear and conventional safety

However, concerns remain within both NDA and wider government as to the overall value for money of the reach back arrangements

- OGC Gateway 5 Review (Dec 2012): *'There is an overwhelming view that this is being abused within the contract. Main areas include inappropriate use of non-UK skills and a lack of plans for upskilling the SL workforce'*
- PAC findings (Feb 2013): *'[The Authority] admitted that it had struggled for some time to get an adequate description of why 'reachback' was being used on occasions'*
- NDA would support benefits brought to WVP and SMP but would challenge view on risk management(1)
- The lack of transparency on cost rates of individuals and the apparent preference for using reach back over other forms of skills sourcing has led to a perception that the PBO uses reachback to drive revenue for parent companies

Source: (1) NDA, 'Commentary from s.40, 9th Jul 2013

6. Leadership and Management

Key findings

Bid and contractual commitments

Performance to date

Key findings (1/2)

As at 31st May 2013, SLC does not appear to have benefited from injection of strong leadership through PBO constructs, with both SL executive secondees and NMP Board seeming to operate in a reactive manner. In general, this is attributable to the approach of the existing contractor. However, it is noted that some of the tasks required of the SL leadership may be more challenging in a private sector context, due to commercial and reputational pressures

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
6.1	**Rapid turnover of SL executive secondees, results in a lack of engagement with long term needs of the site and SLC**	■ Executive secondees are generally on fixed term contracts which do not have standard clauses for length of service before being rotated and replaced(1). The MPS simply require the secondee to be retained in their role for the defined period – Management interviews indicate that a standard length of service is not in place but upon review almost all roles have now been through a rotation(1) ■ OGC Gateway 5 noted '*Concerns that the high churn rate in the NMP executive team coupled with a worry that NMP may not have their 'A' team deployed in leadership roles may undermine the early wins seen in this contract period*'	■ NMP have continued to rotate staff despite recognised issues in doing so

s.43

Sources: (1) NDA management interview with s.40
(2) NDA, 'Project Summary Sheet (PSS) – BEPPS1-CIEF', May 2012
(3) NDA, 'Project Summary Sheet (PSS) – EPS3', May 2012

Sources: (4) NDA, 'Project Summary Sheet (PSS) SAV', May 2012
(5) NDA, 'Rapid Review of Evaporator D', 30 Sep 2011
(6) NDA, 'Commentary from s.40 9th Jul 2013

Leadership and management

Key findings (1/2)

s.43

Key findings

Bid and contractual commitments

- PBO Structure
- SLC structure and organisation
- Transition
- Consolidation

Performance to date

PBO structure

s.43

SLC structure and organisation

s.43

Leadership and management – Initial bid and contracted commitments
Transition

s.43

Consolidation

s.43

Key findings

Bid and contractual commitments

Performance to date

Minimum performance standards

The MPS in relation to the retention of Executive Secondees in place per the terms of their contract has been met. However, the length of the secondments may not be long enough to enable each secondee to have the desired impact

SLC structure MPS

- Maintain nominated staff in their posts for predefined periods as per Schedule 4 of the M&O

How has the minimum performance standard been measured?

- Nominated staff include executive secondees
- Predefined periods not standardised and vary across roles though management interviews indicate that a standard period of service is 2 years(1)
- Measurement defined as staff working their term of service or any change to the term of service being agreed through due process

Has the minimum performance been achieved?

- No breaches identified therefore MPS achieved
- Achievement of MPS does not assess whether the predefined periods are themselves correct, with interviews indicating that almost every role has now been through at least one rotation(1)
- The complexity of the Sellafield site means that it takes secondees longer to adjust to the role than other NDA sites; the length of secondment could factor in this additional complexity to ensure that each individual gets long enough in their position to have a meaningful impact
  - Management interviews indicate that a term of 2 years or less may not be long enough to enable the secondee to make a meaningful impact before rotating into another role

Conclusion

- MPS achieved. However NDA and NMP to assess if the current arrangements are for long enough to enable the secondees to make the impact they expected

Source: (1) NDA, 'Interview with s.40 un 2013

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43

Source: (1) NDA, 'Commentary from s.40 9th Jul 2013

7. Governance

Key findings

Bid and contractual commitments

Performance to date

Key findings

The current governance regime between SL and NMP does not appear to be effective or unified. In particular, reporting mechanisms do not appear to lead to timely escalation of issues. This appears to be attributable to NMP's hands off approach to governance, which may not be appropriate in the context of Sellafield.

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
7.1	**NMP Board lacks active involvement in SL activities and decision-making**	■ NMP's stated approach to governance is *'not to engage in day to day management. We subscribe to the idea that assigning our best leaders to the SLC with responsibility, authority and accountability to manage activities... is preferred to using these same leaders for oversight'*(1) ■ A number of instances have been identified where NMP (and SL Executive secondees) appear to have been unaware of key issues on site; for example: – SL Executives were unaware of internal reviews being conducted to verify increases in SDP cost estimates identified in July 2011(3) ■ Whilst NMP leadership attend the Quarterly Business Review meetings, they do not appear to be active participants in discussion, indicating an arms length relationship (SL Executive secondees do actively participate)(4) ■ The establishment of Performance Appraisal Group in Q4 2012/13 to provide the NMP Board with independent scrutiny, advice and guidance and a voice to the monthly QBR meetings indicates that the lack of active participation has recently been recognised by NMP(2)	■ NMP approach to the governance of SL does not appear to have been effective
7.2	**The partners in NMP do not appear to be aligned, giving rise to additional complexity**	■ Fractured leadership may distract from focus on Sellafield issues and prevent ability to implement one culture on site. The evidence for this is largely anecdotal, but has been referred to by a number of individuals – 'Evidence of internal division within the partners of NMP... giving impression of a US culture dominant and implications when working with existing workforce' OGC Gateway 5 review ■ There is recognition from NMP that it has taken time for the partners to learn to work together effectively. However, there is now commitment from all parties to make the relationship work and to draw upon the most appropriate skill set for the benefit of Sellafield Ltd(1)	■ s.43

Sources: (1) Letter from s.40 'PBO Governance and Assurance', 30 August 2012
(2) QBR meeting minutes
(3) NDA, 'NDA, 'Project Summary Sheet (PSS) – SDP', May 2012.
(4) Quarterly Business Review meeting minutes

Key findings

Bid and contractual commitments

- PBO Governance of the SLC
- Governance of the PBO

Performance to date

PBO governance of the SLC

s.43

Source: (1) The “controlling mind” is the concept where ownership for management decisions must remain within SL, as SL are the legal entity that have the regulatory responsibility to maintain safety standards

Governance of the PBO

s.43

Key findings

Bid and contractual commitments

Performance to date

Governance – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43

8. Alignment

Key findings

Bid and contractual commitments

Performance to date

Key findings

Performance to 31st May 2013, indicates that parties in the PBO model are not aligned in their objectives. This is partly a result of specific contract weaknesses, but in the context of Sellafield may also be due to inherent limitations of the PBO model, which requires clearly defined outcomes to build an appropriate incentive structure

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
8.1	**NDA is not yet an "intelligent client"**	■ NDA is unable to define its requirements for Sellafield in sufficient detail to be able to effectively contract and hold a contractor to account for performance. This is largely due to the continued uncertainty of the task at Sellafield, although also reflects a lack of detailed understanding of the site within NDA (see below) ■ NDA is not always internally aligned on approach and priorities – The OGC Gateway 5 noted '*NDA needs clearer mechanisms in place to achieve a consistent view before communicating this to NMP*'(1) – NDA wants significant capability improvements at SL, with the ICP intended to drive this forward. However, NDA currently only commits one individual part-time to monitoring ICP and general understanding of the programme is weak ■ Although NDA challenge has led to the identification and resolution of a number of issues at Sellafield, NDA does not appear to provide effective challenge in all areas. – Conversations with project managers indicate that some lack detailed understanding of the projects that they are managing. This is in part due to the complexity of reporting and volume of data received from SL	■ NDA continues to evolve into its strategic authority role ■ Defining detailed outcomes for Sellafield that are widely agreed and can be contracted effectively is challenging
8.2	**The PBO is driven by the pursuit of value for its shareholders. This is not aligned with NDA objectives under current incentive structures**	■ A consequence of contracting with the private sector is the introduction of objectives additional to NDA's own. Chief among these is a duty to protect shareholders interests and to maximise shareholder returns ■ In many circumstances, the use of such commercial drivers can be harnessed by an effective contractual incentivisation structure. However, (as noted above) NDA is not able to define its requirements in sufficient detail to develop an incentive structure that drives full alignment	■ Current contract terms are inappropriate for driving aligned behaviour ■ An effective PBO model requires an incentive structure that enables alignment of objectives and outcomes, generally achieved via a clearly defined scope

Sources: (1) OGC Gateway 5 Review.

Key findings

Bid and contractual commitments

- Corporate structure

Performance to date

Alignment – Initial bid and contracted commitments
Corporate structure

s.43

9. Simple interface between NDA, SL and PBO

Key findings

Bid and contractual commitments

Performance to date

Key findings

Existing arrangements do not deliver a simple interface between NDA, SL and NMP. There are numerous reporting levels, meetings and documents. In aggregate, this appears to cloud rather than illuminate issues. The necessary contractual and regulatory distinctions between parties in the PBO model drive a degree of this complexity, however concerns over performance appear to have exacerbated this

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
9.1	**The significant number of reporting levels, meetings, documentation and datasets adds unnecessary complexity to interfaces between parties**	■ Reporting from SL includes numerous inconsistent datasets, with different figures reported month on month and different types of figures reported by different projects. There is also limited trend analysis or explanation of movements. The audit of data is challenging – Major project data, and underlying data included in SL flash reports, is not easily accessible from SL in a format different to the pdf monthly reports received and is therefore not easy to analyse. Although excel reports are provided by SL in some instances, and electronic reports are available from EDS, there are often inconsistencies between these different data sets ■ Measurement of performance and fees is split between two separate plans that do not easily reconcile due to a series of adjustments. Managing plans between which reconciliation is difficult adds a layer of administrative complexity: – More people required to process reporting – Harder to get a clear understanding of the root cause of issues – Increased risk of errors not being noticed because of the complexity in both measurements ■ There are a significant number of different review and monitoring interfaces, which do not all operate effectively – SL to NDA, SL to NMP, NMP to NDA, plus NDA reporting to Government – Monthly performance reviews, commercial reviews, PPRG reviews, SPG working groups, QBRs etc. – s.40, s.43 ■ The OGC Gateway 5 review noted '*The level of resource required to administer a complex contract... was considered high by many interviewees. Some questioned... whether resource might be better focused on physical delivery outcomes rather than administration of the NDA to NMP/SL interface*'	■ Partly due to approach of parties within relationship and concerns over performance ■ Underlying this is the need for some duplication of roles as a result of the contractual interface between NDA and SL/NMP and the PBO model structures

10. Incentive mechanism

Key findings

Bid and contractual commitments

Performance to date

Key findings

Current fee mechanisms incentivise in year activity in preference to the longer term actions required to deliver capability improvement and project progress. Whilst a feature of the current contract and NMP's interpretation of it, this may also be attributable to the PBO model as private sector companies are likely to require in year (or in planning horizon) reward

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
10.1	**Fee mechanisms are designed to deliver annual fee to maintain interest of PBO**	■ The majority of fee structures are established on an annual basis, in particular the allocation of PBI fee to payment milestones and the generation of an annual efficiency fee pool ■ Longer term targets e.g. in relation to significant milestones beyond the immediate term length do not feature in fee arrangements – This appears to drive a focus on short-term activity and not long-term strategy ■ s.43	■ Annual fee is a feature of the current contract, although it is recognised that there is the potential facility to incentivise longer term objectives ■ However, given commercial incentives of the private sector, a focus on in-year returns may also be perceived as core to the underlying PBO model
10.2	**The contract allows for additional opportunities for the PBO to earn revenue e.g. through reachback and supply chain activities. There** s.43	■ In 2012/13, SL spent £25.9 million on reachback staff and at any one time had an average of 86 individuals under these arrangements working at Sellafield. This equates to an average annual cost of a reachback individual of £300k – This appears significant and given challenges on verifying cost rates may be indicative of parent companies achieving revenue on these services. However it is noted that all costs have been subject to audit ■ PAC findings noted similar concerns: '*The costs of seconding staff from NMP's parent companies appear excessively high*'(1) ■ The PAC also focused on the use of NMP parent companies in the onward supply chain and noted, '*All payments to NMP and, indeed to their constituent companies, need to be strictly controlled and determined by robust verified assessments of the value gained, so that payments are not made which would seem to constitute a reward for failure*'(1)	■ Allowed within current contract, s.43

See also Section 4 – Efficiency for detail on how fee currently incentivises certain activities.

Sources: (1) PAC findings, Feb 2013.

Incentive mechanism

Key findings

Bid and contractual commitments

- Migration to output based arrangements

Performance to date

Migration to output based arrangements

s.43

Key findings

Bid and contractual commitments

Performance to date

Minimum performance standards

The MPS on achievement of payment milestones is at risk of not being achieved over the initial contract term

Payment milestones MPS

- 90% of payment milestones have to be achieved on time and in full cumulatively over the term

How has the minimum performance standard been measured?

- Payment milestones are payments by NDA to SL as part of the fee mechanism:
  - *Performance based incentives*: achieved by performing x, y, z
  - *Efficiency pool*: the achievement of efficiency can earn fee but this fee will not be released until a milestone has been reached
- Achievement of the MPS is calculated by taking the number of agreed milestones for the financial year and comparing how many were achieved on time in full
- To achieve the MPS 90% of the milestones are to be met over the term

Has the minimum performance been achieved?

- Table below summarises the total % of milestones met per the first 4 years of the contract:

	2009/10	2010/11	2011/12	2012/13[a]
Total % met (in year basis)[1]	92.9%	89.1%	90.2%	89.2%

Conclusion

- Based on the data above achievement of the MPS is at risk of failure, although NMP state the MPS does not reference annual assessment and instead refers to the overall contract period which they believe is forecast to exceed 90%[2]:
  - 2010/11 is 0.9% below the 90% threshold
  - 2012/13 is 0.8% below the 90% threshold (please note the 2012/13 position is outstanding as at 9th July 2013 and has yet to be finalised)
- Interviews indicate that there are some queries outstanding between NDA and SL

Note: (a) 2012/13 position is outstanding as at 9th July 2013 and has yet to be finalised
Source: (1) MPS Spreadsheet at Period 12 Rev 1 200513.xls
(2) NMP comments, July 2013

Incentive Mechanism – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43

Source: (1) NDA, 'Commentary from s.40 9th Jul 2013
(2) SL Commercial Capability Review: Report Findings – November 2012
(3) NMP comments, July 2013.

Incentive mechanism – Performance to date

Fee paid to NMP over first contract term

s.43

Incentive mechanism – Performance to date
Fee structure (1/2)

s.43

Incentive mechanism – Performance to date
Fee structure (2/2)

s.43

Milestone structure and operating plan targets

Operating plan targets align to, and are a high level summary of fee payment milestones targets, including both PBI and efficiency milestones, which are set to incentivise SL to behave in a particular way and prioritise particular activities

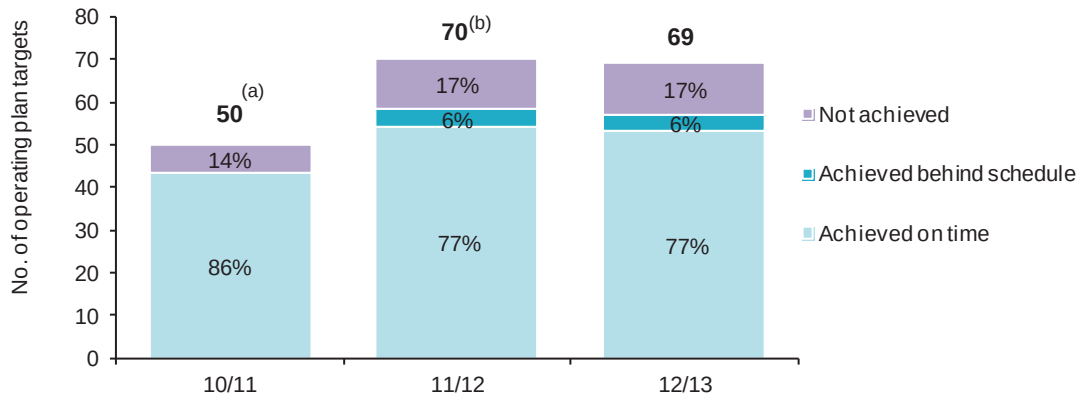
- Operating plan targets, and PBI and efficiency milestones, are contractualised through Performance Agreement Forms (PAFs)
- Operating plan targets are reviewed on an annual basis by agreement between NDA and NMP/SL, with any changes requiring CEO sign off
- In the majority, operating plan targets cover the period of a year, with the exception of a number of three year operating plan targets for operational throughputs
- Operating plan targets include specific project milestones as well as ICP/capability related actions

Notes: (a) Please note data for the number of milestones achieved for 2009/10 is not available by site area
(b) 'Other' in 2012/13 includes Capenhurst, SOCR and RSRL
'Other' in 2011/12 includes as previously stated for 2012/13 less SOCR plus Finance
'Other' in 2010/11 includes Finance, SMP and Strategy and Programmes
and in 2009/10 'Other' includes SMP, Production, Engineering, Governance, HR, Procurement opportunities etc.

Source: (1) KPMG analysis
(2) NDA, 'PBI Tracker 2009/10 – 2011/12', May 2013 via s.40
(3) NDA, 'Milestone Tracker 2012-13', May 2013 via s.40

Operating plan targets

Achievement of operating plan targets[1][2][3]



Key comments

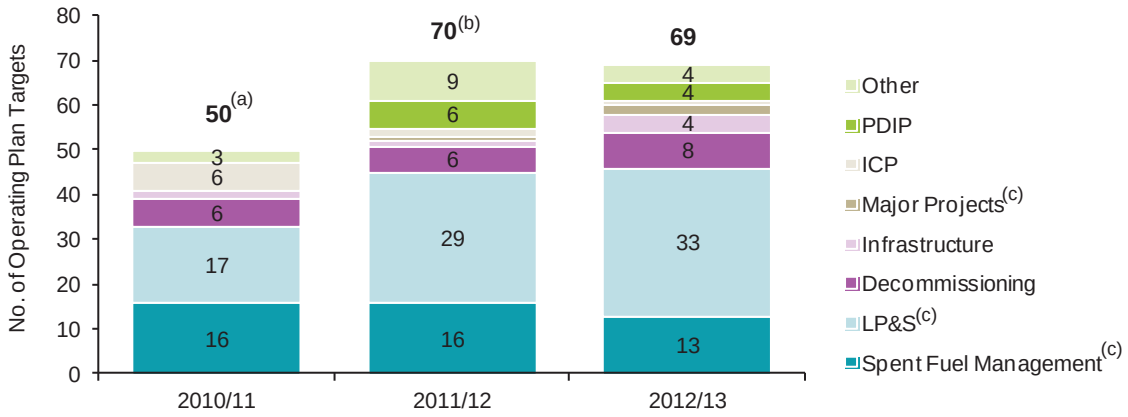
- Of the 69 operating plan targets set for 2012/13, 77% were achieved on time, 6% were achieved behind schedule and 17% were not achieved
- This, and the similar results in 2011/12, is a decline from 2010/11 when 86% of targets were achieved and 14% were not achieved

Notes: (a) 2010/11 excludes three stretch elements against Magnox processing, Magnox deliveries and THORP processing. These were not achieved
(b) 2011/12 includes ten additional targets included through change controls, but excludes an SMP target which was removed within the year due to closure of the SMP plant

Sources: (1) NDA, 'Performance Data Rev 4 22.02.13', May 2013
(2) NDA, 'Operational Data' s.40 ne 2013
(3) NDA, 'Data provided by Jul 2013

Operating plan targets by site area

Allocation of operating plan targets by site area(1)



Key comments

- The site area of Legacy Ponds and Silos has the largest number of operating plan targets attached to incentivise activity. This has also increased over the last three financial periods from 34% in 2010/11 to 48% in 2012/13
- Spent Fuel Management has also consistently been a key focus for incentivisation over the last three financial periods , although this has declined proportionally from 32% in 2010/11 to 19% in 2012/13
- ICP was significantly incentivised in 2009/10, equating for 12% of the total number of operating plan targets, but has since not featured significantly in the target milestones assigned, only accounting for 3% and 1% in 2011/12 and 2012/13 respectively
- Programme Development Improvement Performance (PDIP) was not incentivised in 2010/11, but increased in importance to be allocated 9% and 6% of the total number of operating plan targets in 2011/12 and 2012/13 respectively

Notes: (a) 2010/11 total excludes three stretch elements against Magnox processing, Magnox deliveries and THORP processing. These were not achieved
(b) 2011/12 total includes ten additional targets included through change controls, but excludes an SMP target which was removed within the year due to closure of the SMP plant
(c) Please note that EVAP D targets are incorporated into HLW within Spent Fuel Management and SDP targets are incorporated into Magnox Swarf Storage Silo within LP&S, rather than Major Projects

Sources: (1) NDA, 'Data provided by s.40 , Jul 2013

Incentive mechanism – Performance to date

Target and achieved fee allocated to PBI and efficiency milestones

s.43, s.40

Incentive mechanism – Performance to date
Fee allocated to PBI milestones

s.43, s.40

Incentive mechanism – Performance to date

Fee allocated to efficiency milestones

s.43, s.40

11. Risk appetite

Key findings

Bid and contractual commitments

Performance to date

Key findings

Under the current model appetite to assume greater risk by NMP/SL has been very limited. The current contract (both mechanisms and incentives) was not established with a view to the PBO taking risk. There is, therefore, limited incentive for NMP to do so

#	ISSUE: Headline finding	DETAIL: Key facts and impact	CAUSE: PBO model component
11.1	**The lack of risk transfer under a fully cost reimbursable contract results in limited incentive to take risks or be innovative in approach**	■ The general attitude to activities on site is characterised by a preference for taking the most safety focused, risk averse approach to tasks ■ This has been particularly noted with reference to the Engineering function where PPRG assessed that '*the historical focus on quality of engineering needs to be better balanced against the time imperatives for dealing with intolerable hazards and, for less urgent projects, cost.*'(1) ■ NMP have also noted that '*staff need 'permission' to come up with innovation*'(2), indicative of the lack of creative approaches within SL	■ Under current contractual mechanisms and fee structures there is limited incentive or requirement for the PBO to assume risk

Source: (1) PPRG Review of Sellafield Ltd. Engineering for Major Projects, 17 August 2012
(2) s.40 in an email dated 13 August 2013 to the executive team summarising a discussion on NMP PBO.

12. Stakeholder confidence

Stakeholder confidence

Key findings

- Regulators
- Shareholder Executive
- Local Government
- NMP
- Trade unions

Bid and contractual commitments

Performance to date

Stakeholder confidence

Key findings – Regulators (1/3)

s.43, s.40

Stakeholder confidence

Key findings – Regulators (2/3)

s.40, s.43

Stakeholder confidence

Key findings – Regulators (3/3)

s.43, s.40

Stakeholder confidence

Key findings – Shareholder Executive

s.43

Stakeholder confidence

Key findings – Local Government

s.43, s.40

Key findings – NMP (1/6)

s.43

Stakeholder confidence

Key findings – NMP (2/6)

s.43

Stakeholder confidence

Key findings – NMP (3/6)

s.43

Stakeholder confidence

Key findings – NMP (4/6)

s.43

Key findings – NMP (5/6)

s.43

Key findings – NMP (6/6)

s.43

Key findings – Trade unions (1/2)

s.43

Source: Trade union interviews, July 2013

Key findings – Trade unions (2/2)

s.43

Source: Trade union interviews, July 2013

12. Stakeholder confidence

Key findings

Bid and contractual commitments

- Business relationships
- Socio-economic proposals

Performance to date

Business relationships

s.43

Socio economic proposals

s.43

Stakeholder confidence

Key findings

Bid and contractual commitments

Performance to date

Stakeholder confidence – Performance to date
Minimum performance standards

Stakeholder engagement takes place as required by the MPS. However, there is a sense that NMP does not engage with stakeholders as effectively as it could do.

Business relationships MPS

Two elements:

- Routine engagement with stakeholders evaluated by reference to relationship surveys planned, completed, issues identified and plans developed to address them
- No unreasonable termination or breach of an agreement with a trade union

How has the minimum performance standard been measured?

- Stakeholder engagement covers all aspects: employees, regulatory, local community etc.

Relationship surveys

- MPS requires a survey to be completed
- The survey will then form the basis of any actions required
- Changes made to be evidenced to the NDA

Union

- NDA staff liaise with the unions and expect to be notified of any union issues which would support the breach of this MPS

Has the minimum performance been achieved?

Relationship surveys

- Stakeholder and workforce surveys undertaken by the SL Communications Directorate have been completed annually and output shared with the NDA(1)
- Output has been produced satisfactorily and has traceability to NDA survey outputs

Union

- No breaches of agreement with trade unions have occurred to date

Conclusion

- The stakeholder engagement has been achieved by the letter of the contract terms
- There is a sense that NMP developed an expectation above the MPSs at the bid process and thus it is questionable whether there exists a 'positive stakeholder environment'(1)

Sources: (1) Interview with s.40
(2) Interview with

Stakeholder confidence – Performance to date

Assessment of delivery of a sample of NMP non-contractualised bid commitments

s.43, s.40

s.40

Appendices

Appendices

A. Evolution of NDA objectives for Sellafield

Appendix A:
NDA's objectives for Sellafield have been through a number of iterations over time

Original objectives as per 2008 Business Case[1]

High level (p.6)

1) Contribute to extant DSO Targets – reduction of civil liability of at least 10% by 2010 compared with 2008 baseline and annual efficiency gains of 2%

SLC specific (p.6)

2) Acceleration of hazard reduction e.g. HAL, Ponds and Silos
3) Safe, timely and efficient performance of Commercial Operations
4) Acceleration of clean up
5) Develop a cost effective, fit for purpose organisation
6) Ensure effective use of a supply chain
7) Innovation

PBO model (p. 13)

8) Delivery of value for money and incentivised acceleration of LTP by rewards for performance
9) Provision of longer term stability for PBO, SLC, Regulators and NDA in terms of contract duration
10) New PBO provides a conduit for deployment of key management resource along with technical and process expertise

High level outcomes presented to the Board Sept 2012[2]

1) Alignment between NDA's objectives and the personal drivers for SLC staff at all levels
2) Effective Board-Level Governance of the SLC Executive Team
3) Inspired Leadership of people to build excellent organisational capabilities in SL and ensure SL employees feel central to the solution
4) Simple and cost-effective interfaces between NDA and SLC
5) Excellence in programme and project management
6) Excellence in procurement and contract management thereby maximising supply chain value
7) Stakeholder confidence (Regulators, Unions, Local Govt, Site Stakeholder Group)
8) Faster reduction of risk enabled by a willingness to take on more near term conventional and nuclear risk
9) Drive efficiency into current plans

Board top level outcomes Sept 2012[3]

1) Operations
2) Safety
3) Capability and capacity
4) Costs
5) Project delivery
6) Culture change

Focus areas for commercial renegotiation, 2013[4]

1) **Safe site stewardship** – Under NMP ownership SL will maintain safety, security and environmental legal compliance
2) **Alignment** – To ensure clear alignment between the NDA, NMP, SL, partner organisations within NMP and supply chain
3) **Governance** – NMP and SL will operate a seamless, timely and unified regime of governance that is flexible to respond to difference requirements as appropriate
4) **SLC capability** – Create a competent, effective and flexible workforce
5) **LP&S** – Demonstrable physical progress on the clean up of the LP&S
6) **Procurement and commercial** – Reposition procurement to become a major influencer within SL
7) **NMP and SL interfaces** – create simplified NDA, NMP and SL interfaces
8) **Leadership & Management –** Strong, effective management team capable of leading and developing SL
9) **Fee** – A simple and proportionate fee regime that facilitates and rewards delivery

Sources: (1) NDA, 'Sellafield Competition Final Business Case,' 2008
(2) NDA, 'Board Paper', Sept 2012
(3) NDA, email of main points and actions from Board meeting from S.40 NDA Board Sellafield Contract Review Feedback', 27 Sep 2012
(4) NDA, 'NDA requirements for contract extension', 2013

Appendix A:
Alignment of objectives by subject matter (1/3)

	Original objectives as per 2008 Business Case[1]	High level outcomes presented to the Board Sept 2012[2]	Board top level outcomes Sept 2012[a][3]	Focus areas for commercial renegotiation, 2013[4]
Efficiency	1) Contribute to extant DSO Targets – reduction of civil liability of at least 10% by 2010 compared with 2008 baseline and annual efficiency gains of 2%	9) Drive efficiency into current plans		
Hazard reduction	2) Acceleration of hazard reduction e.g. HAL, Ponds and Silos 4) Acceleration of clean up	1) Faster reduction of risk enabled by a willingness to take on more near term conventional and nuclear risk	5) Project delivery	**5) LP&S** – Demonstrable physical progress on the clean up of the LP&S
Operations	3) Safe, timely and efficient performance of Commercial Operations		1) Operations	
Capability development and organisational change	5) Develop a cost effective, fit for purpose organisation 10) New PBO provides a conduit for deployment of key management resource along with technical and process expertise	5) Excellence in programme and project management 3) Inspired Leadership of people to build excellent organisational capabilities in SL and ensure SL employees feel central to the solution	3) Capability and capacity 6) Culture change	**4) SLC capability** – Create a competent, effective and flexible workforce **8) Leadership & Management –** Strong, effective management team capable of leading and developing SL

Sources: (1) NDA, 'Sellafield Competition Final Business Case,' 2008
(2) NDA, 'Board Paper', Sept 2012
(3) NDA, email of main points and actions from Board meeting from s.40 'NDA Board Sellafield Contract Review Feedback', 27 Sep 2012
(4) NDA, 'NDA requirements for contract extension', 2013

Key:
Outputs
Inputs

Appendix A:
Alignment of objectives by subject matter (2/3)

	Original objectives as per 2008 Business Case[1]	High level outcomes presented to the Board Sept 2012[2]	Board top level outcomes Sept 2012[a][3]	Focus areas for commercial renegotiation, 2013[4]
Supply chain	6) Ensure effective use of a supply chain	6) Excellence in procurement and contract management thereby maximising supply chain value		6) **Procurement and commercial** – Reposition procurement to become a major influencer within SL
Innovation	7) Innovation			
Rewards for performance	8) Delivery of value for money and incentivised acceleration of LTP by rewards for performance		4) Costs	9) **Fee** – A simple and proportionate fee regime that facilitates and rewards delivery
Stability	9) Provision of longer term stability for PBO, SLC, Regulators & NDA in terms of contract duration			

Sources: (1) NDA, 'Sellafield Competition Final Business Case,' 2008
(2) NDA, 'Board Paper', Sept 2012
(3) NDA, email of main points and actions from Board meeting from s.40 'NDA Board Sellafield Contract Review Feedback', 27 Sep 2012
(4) NDA, 'NDA requirements for contract extension', 2013

Key:
Outputs
Inputs

Appendix A:
Alignment of objectives by subject matter (3/3)

	Original objectives as per 2008 Business Case[1]	High level outcomes presented to the Board Sept 2012[2]	Board top level outcomes Sept 2012[a][3]	Focus areas for commercial renegotiation, 2013[4]
Safety			2) Safety	1) **Safe site stewardship** – Under NMP ownership SL will maintain safety, security and environmental legal compliance
Governance		2) Effective Board-Level Governance of the SLC Executive Team		3) **Governance** – NMP and SL will operate a seamless, timely and unified regime of governance that is flexible to respond to difference requirements as appropriate
NDA relationship		1) Alignment between NDA's objectives and the personal drivers for SLC staff at all levels		4) **Alignment** – To ensure clear alignment between the NDA, NMP, SL, partner organisations within NMP and supply chain
		4) Simple and cost-effective interfaces between NDA and SLC		7) **NMP and SL interfaces** – create simplified NDA, NMP and SL interfaces
Stakeholders		7) Stakeholder confidence (Regulators, Unions, Local Govt, Site Stakeholder Group)		

Key:
- Outputs
- Inputs

Sources:
(1) NDA, 'Sellafield Competition Final Business Case,' 2008
(2) NDA, 'Board Paper', Sept 2012
(3) NDA, email of main points and actions from Board meeting from s.40 NDA Board Sellafield Contract Review Feedback', 27 Sep 2012
(4) NDA, 'NDA requirements for contract extension', 2013

B. NMP bid commitments

Appendix B

Summary of NDA requests per ITSFT

#	Category	Detail
1	Executive summary	- summary of efficiency initiatives - summary of the benefits associated with these initiatives - summary of supporting evidence
2	HR management	- resourcing staff with the right skills - develop policies for cultural change - clear investment to build relationships with staff - reward system that supports successful org. performance - develop staff at all levels
3	Risk management	- consistently applied risk management process - process to recognise the wider implications of risk - proactive management of risks and opportunities - comprehensive risk reporting and review
4	Finance management	- ensure strong internal controls - deliver a professional and innovative finance function - function that appropriately supports the operational activities - consistent operation of optimised working capital
5	Quality management	- integrated and fit for purpose quality management system in place - fully embed and maintain a process of continuous learning, innovation and improvement - Ensure that quality management is consistent across the SLC and Supply Chain
6	Project controls management	- develop and maintain improved processes too enhance the planning of the work - deliver a fully underpinned LTP - develop and maintain improved processes and system to optimise the working/delivery of the plan - develop and maintain a fully capable and fit for purpose Project Control Function
7	Commercial operations/ contract	- ensure commercial contracts are managed successfully with predictable optimised revenue - establishing and maintaining reliability and predictability in Plan Ops - Optimising asset utilisation
8	Business Development	- ensure that SLC internal decisions, recommendation, submissions to the NDA are consistently underpinned by robust and appropriate business care - provide support to the NDA in pursuance of new business opportunities
9	Migration to output based arrangements	-alignment of fee against the delivery of outputs rather than annualised deliverables - full visibility of the actual cost of delivery - clear alignment of fee to LTP

Appendix B

Summary of NDA requests per ITSFT (cont.)

#	Category	Detail
10	Project management	- ensure delivery of a robust and fit-for-purpose business case for each project/programme - ensure that the design/definition consistently meets business needs - consistent and accurate reconciliation of design/definition - completion of the execution phase on time and on budget - ensure that a learning from experience process operates consistently and effectively
11	Strategic planning	- ensure robust and timely strategic decision making and planning - ensure that the SLC maintains the capability to enable the development and implementation of government and NDA policies - provision of a combined fit for purpose LTP for Sellafield Ltd, which accurately includes the approved strategic assumptions, uncertainties and consequences
12	Transition	- preparation of the nominated secondees to take up the Managing Director/Head of Site role - preparation of other secondees to take up their duties *(refers specifically to initial transition not ongoing)*
13	Consolidation	- preparation and appointment of executive secondees to take up their duties during Phase - Phase 1 initial organisational changes including Regulator and SLC Board engagement in implementing remaining executive secondees deployment - Completion of due diligence on wider issues not covered by transition - Confirmation of Efficiency Initiatives - Implementation of Efficiency Initiatives
14	Plant operations	- ensure stable, predictable and optimised plant operation - identification and declaration of operational end state - optimising the transition between operations and decommissioning
15	Decommissioning & clean up	- prioritised and optimised decommissioning projects within ASFLs - ensuring fit-for-purpose infrastructure is provided to support decommissioning in a timely and cost effective way - ensuring appropriate waste categorisation - ensuring sustained and predictable retrieval of waste - identification and declaration of the decommissioning end state
16	Waste management	- development of an integrated strategy and plan for all wastes - optimised waste management - ensuring sustained and predictable processing and storage of waste - optimising the use of existing assets to deal with decommissioning waste arising - unconstrained optimised waste routes

Appendix B

Summary of NDA requests per ITSFT (cont.)

#	Category	Detail
17	Technical & engineering capability	- develop and maintain a fit-for-purpose Design and Engineering capability to support current and future work within the current LTP - optimising design and engineering performance and delivery - optimising assets - ensuring that customer requirements are defined and met - use of R&D, knowledge and technology management to improve performance within the SLC and across other NDA sites
18	Infrastructure & site support	- ensuring a significant and genuine reduction in the mortgage cost for the SLC - development and implementation of a mature long term plan for demand and optimised delivery - improved delivery of service - improved response to opportunities for improvement
19	HSSE	- evidence of compliance with NDA's expectations of a PBO's HSSE attributes (NSG 32) - moving the SLC's safety performance from good to world class - gaining and maintaining an international reputation for world class nuclear safety - ensuring best practise in radioactive waste management - improving industrial health and safety performance - ensuring that the SLC is regarded as one of best in class by environment agencies - ensuring that effective regulatory interaction is in place and a continuously improving relationship is achieved
20	Business relationships	- production and implementation of an over-arching fully coordinated stakeholder plan - production and implementation of a transparent process to demonstrate how stakeholders view have been taken into account in PBO/SLC's thinking - development and implementation of a programme to continuously improve the skills required for stakeholder engagement and embeds an open and transparent culture in the organisation - ensure effective and appropriate engagement with stakeholders in the transition and consultation period
21	Supply chain	- ensuring that a mature and effective Supply Chain Strategic Plan is in place, implemented and maintained by the SLC - ensuring that in-sourcing/out-sourcing allocations are consistent with core/non-core nature of work – e.g. Through the progressive implementation of Make/Buy exercise - ensuring that the SLC is always perceived as an attractive customer - ensuring that equitable risk transfer is consistently reflected in supply chain arrangements - ensuring that sub-contract incentivisation is aligned to key site performance objectives - mandatory flow-down conditions are incorporated - selective and beneficial participation in 'shared services' principles - OJEU compliance is maintained

Appendix B

Summary of NDA requests per ITSFT (cont.)

#	Category	Detail
22	Socio-economic proposals	- active contribution to Masterplan's 'Energy Coast' vision, with significant active presence in W. Cumbria - demonstrable and active role in developing sustainable employment through education and skill development - PBO shows an active and effective contribution to the diversification of the local economy - demonstrable and active role in promoting the development of sustainable communities
23	Governance of the PBO	- the alignment of arrangements with those for the PBO's governance of the SLC - the alignment of arrangements with those for Corporate governance at PBO parent level - ensuring that governance arrangements establish clearly terms of reference for the PBO, providing the PBO and therefore the SLC with appropriate delegated authority to operate effectively
24	PBO governance of the SLC	- full alignment with PBO and PBO owner governance arrangements - clearly defined terms of reference exist for the exercise of PBO governance roles - PBO is able to exercise appropriate beneficial influence to drive improvements in SLC performance - the SLC's “controlling mind” is not impaired by an intrusive PBO regime - how will the PBO exercise governance over the SLC? - authority levels delegated to the SLC - criteria for the SLC referring matters to the PBO
25	PBO structure	Demonstrate the following: - organisational structure (personnel, reporting lines etc.) - operating model for the PBO - consortium shareholdings - consortium voting rights - ability of the PBO to draw upon the capability and experience of the PBO Owned Organisation(s) - composition of any Board - terms of reference for Board declared - identification of any advisory or committees arrangements directly supporting the Board in its role relative to the SLC
26	SLC structure and organisation	- top level structure (PBO Executive Secondees) addresses all required accountabilities with roles clearly articulated - SLC Board appropriately structured including non-Exec membership - demonstration of mapping of existing SLC organisation to any changed Exec structure - the SLC is sustained and avoids without lasting dependency on the PBO Should also define the first line organisational structure reporting directly to the Executive Secondees

Appendix B

Summary of NDA requests per ITSFT (cont.)

#	Category	Detail
27	Corporate Structure	- clearly defined corporate organisational arrangement - cohesive linkage in all aspects of corporate structure from SLC through to ultimate Parent Company/Companies
28	CVs for PBO Representatives	- to be included in each relevant section
29	Expenditure Profile Management	- development, agreement and maintenance of a readily available prioritised list of works that can/should be advanced in the event that NDA instruct an increased expenditure profile than planned or efficiency gains generate headroom in the ASFL

Appendix B

10 benefit areas proposed by NMP in bid

The tranches represent the grouping of activities together for when they are to be performed

s.43

Appendix B

10 benefit areas proposed by NMP in bid (cont.)

s.43

Appendix B

NMP responses to ITSFT categories

Extracts below are consolidated from the NMP bid

s.43

Appendix B

NMP responses to ITSFT categories (cont.)

s.43

Appendix B

NMP responses to ITSFT categories (cont.)

s.43

Appendix B

NMP responses to ITSFT categories (cont.)

s.43

Appendix B

NMP responses to ITSFT categories (cont.)

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NMP responses to ITSFT categories (cont.)

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NMP responses to ITSFT categories (cont.)

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NMP responses to ITSFT categories (cont.)

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NMP responses to ITSFT categories (cont.)

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Appendix B

NMP responses to ITSFT categories (cont.)

s.43

Appendix B

NMP responses to ITSFT categories (cont.)

s.43

NMP responses to ITSFT categories (cont.)

s.43

Note: (a) Text here is taken from the main body of the management plan. Where appropriate the wording has been edited to cut down on space

C. Contractualised commitments in M&O and PBA

Appendix C

SL contractual commitments as per the M&O contract

M&O contract is between NDA and Sellafield Limited

NMP commitments per the M&O
Contract section 2.2 states that the contractor shall perform its obligations in a safe, secure, efficient and cost effective manner
Contractor is to follow the LTP for any given year unless it has express permission or a change is considered an emergency action
Socioeconomic The Contractor shall be required to give encouragement and support to activities which benefit the social and/or economic life of communities living near the Site or that produce Environmental benefits for such communities
Socioeconomic Annually will produce a Socioeconomic plan including the costs and reasons for the selection of these events
LTP 2.6.1 The Contractor shall prepare the LTP in accordance with Paragraph 2 (The LTP and the Contractor's Responsibilities) of Part 3 (Setting the LTP and Change Control) of Schedule 2 (Programme Management and Change Procedure)
LTP If the contractor wishes to delete scope or bring a particular part of the LTP forward a business case must be provided to the Authority
Contractor shall observe all requirements arising under CDM regulations
Submit monthly reports in accordance with setting the LTP, other monthly progress reports and any other that the Authority reasonably requests
Seconded staff cannot be withdrawn from site without prior written consent from the NDA
Organisational structure of the Contractor cannot be changed without prior consent of the NDA
Make versus buy decisions must be made in the context of keeping skills in the UK
LTP Within 18 months a review of the LTP to have taken place between Contractor, PBO, the Authority and an independent third party

Note: (a) Text here is taken from the main body of the management plan. Where appropriate the wording has been edited to cut down on space

Appendix C

NMP contractual commitments as per the PBA contract

PBA contract is between NDA and NMP

NMP commitments per the PBA (main body)
PBO must gain consent from the NDA before it undergoes any Change in Control (change in voting power)
PBO must ensure that the SLC's Approved Working Capital Facility (AWFC) of a max s.43 is maintained
Contract can be terminated if the NDA reasonably believe the SLC will fail to earn more than 25% of the Fee it anticipated it could earn in any Contract Year
PBO must notify the SLC if they want to remove any nominated (seconded) staff and NDA's written approval of a replacement is also required. PBO cannot remove anyone until a replacement is found
NDA will compensate the PBO for any dividend that it does not receive as a result of the SLC having to pay a fine, other penalty, or damages which result from pre-share transfer event or from SLC having to comply with a Regulator specification
NMP commitments per PBA minimum performance guarantees (Schedule 5)
Increased LTP performance by x% derived from benefits realisation framework (to be developed in June 2009) *Detail of calculation included in document*
Workforce assessment with respect to the forward demands of the LTP with skills gaps identified and an appropriate action plan developed
LTP benchmarking will be undertaken and consequent adjustments to the LTP implemented where appropriate
Foster the capability of the supply chain: - conducting supply chain seminars - annually publishing the SLC procurement plan - no successful challenge of OJEU - conducting satisfaction surveys
Develop a make versus buy plan in accordance with SLC's relevant internal procedures
No material failure to comply with reporting procedures in line with PCP13
Excellent health and safety performance including: - DACR 0.38 - INES events 6 p.a. - x number of personal injury claims - no unplanned individual dose limits beyond the 15m/Sv No work related fatality; - that occurs onsite or results from an onsite event; - that occurs offsite and where the SLC is found to have responsibility

Note: (a) Text here is taken from the main body of the management plan. Where appropriate the wording has been edited to cut down on space

NMP contractual commitments as per the PBA contract (cont.)

PBA contract is between NDA and NMP

NMP commitments per PBA minimum performance guarantees (Schedule 5)
Routine engagement with shareholders evaluated by reference to relationship surveys planned, completed, issues identified and plans developed to address them
No reasonable termination or breach of an agreement with a trade union
Maintain nominated staff in their posts for predefined periods as per Schedule 4 of the M&O
NMP commitments per PBA provision of support to SLC (Schedule 7)
Table detailing the rates and expected timeframes for the use of secondee staff
- an estimate of s.43 is to be provided per anum via reach back - any additional support in excess of thes.43 it shall notify the Authority as soon as is reasonable possible

Note: (a) Text here is taken from the main body of the management plan. Where appropriate the wording has been edited to cut down on space

D. Summary of findings from internal and external reviews

Relevant review findings have been collated in this appendix and categorised by the areas of interest considered in the rest of the pack.

OGC Gateway 3: Investment decision (18/09/2008)

s.43

OGC Gateway 4: Readiness for service (8/10/2009)

s.43

OGC Gateway 5: Operations review and benefits realisation (18/12/2012) (1/2)

s.43

OGC Gateway 5: Operations review and benefits realisation (18/12/2012) (2/2)

s.43

Appendix D: Summary of findings from internal and external reviews
NAO review: *'Managing risk reduction at Sellafield'* (7/11/2013) (1/2)

Area of interest	Ref	Statement from report	Comment
Governance	p. 7	*The Authority did not have robust benchmarks to make judgements on proposed levels of performance, the scope for acceleration, or the potential for efficiencies. Nor did the revised plan provide sufficient information to allow the Authority to understand programme-level risks fully*	Few comparisons were made with other nuclear sites/ comparable industries regarding disaggregate tasks
Operations and projects	P 7	*There is still considerable uncertainty in the schedules and costs of the projects that account for 26 per cent of annual spending.*	Uncertainty remains high
Sustainable improvement in SL's capability	p. 8	*Sellafield Limited did not allow sufficiently for uncertainty in the cost estimates it initially submitted to the Authority for the silos direct encapsulation plant project. It prepared these estimates before it had assessed the full cost implication of the design.*	Lack of appropriate quantification and presentation of risk
Governance	p. 8	*Delays and increases in some estimated project costs are partly due to the inherited conditions and inherent complexity of the hazards at Sellafield. They also reflect poor project design and delivery by Sellafield Limited and weaknesses in the Authority's oversight.*	Recognise that conditions on site are unique to Sellafield
Incentive mechanism	p.8	*Sellafield Limited does not bear risks for delay and cost increases.*	Risk transfer is not equal
Sustainable improvement in SL's capability	p. 9	*There are gaps in the capacity of subcontractors to undertake the required work. The supply chain lacks capacity to take on cost risk in complex nuclear projects.*	The contractor never bears the same level of risk
Governance	p. 9	*The Authority gave approval for the construction of evaporator D to start in 2009 before design issues were resolved. The Authority has revised its approvals processes to try and prevent construction starting prematurely.*	Weaknesses in NDA oversight
Governance	p. 9	*Until mid-2011, the Authority did not collect enough robust and timely information on projects from Sellafield Limited to enable timely intervention.*	Improvements required in internal management information
Stakeholder confidence	p.11	*The Authority should routinely report externally on its major projects.*	
Operations and projects	p.15	*Sellafield Limited's performance in carrying out ongoing commercial performance mainly fuel processing, has improved but not fully met planned levels of performance.*	Some performance improvement as at 2011/12
Sustainable improvement in SL's capability	p.19	*Of particular concern was the Authority's focus on compliance with procedures, rather than the nature or cost of proposed work, and the lack of benchmark data.*	Approach is often lead by bureaucratic procedures

NAO review: *'Managing risk reduction at Sellafield'* (7/11/2013) (2/2)

Area of interest	Ref	Statement from report	Comment
Sustainable improvement in SL's capability	p. 26	*Nuclear Management Partners Limited's primary means of improving performance at Sellafield is through deploying staff on short- or long-secondments*	Limited mention of other innovative approaches
Governance	p.26	*In February 2012, the Authority identified a lack of evidence to support using reach back resources. In response, Sellafield Limited has taken steps to improve its governance arrangements and in August 2012 produced a reach back deployment strategy. .*	Limited measurement of value and evidence of transferring skills to the SL workforce
Incentives	p. 26	*The Authority is considering alternative incentives to balance rewarding operational and decommissioning outcomes and cost efficiency.*	
Operations and projects	p. 36	*By the end of 2010, the Authority knew that the project [Evap D] was in distress, but firm figures for cost increases and schedule delays were not available to include them in the May 2011 plan.*	Lack of available and timely data
Sustainable improvement in SL's capability	p. 41	*HM Treasury guidance expects government to allow for optimism bias in business cases… risks have not been fully reflected in contingency allowances and the provision may give insufficient allowance for optimism bias.*	Accuracy of estimations
Governance	p. 43	*We found evidence of gaps in information the Authority collected from Sellafield Limited on project estimates and risks. There were also weaknesses in communication between Sellafield Limited and the Authority on some projects.*	Lack of clear communication
General	p. 43	*There are still some issues in the quality and presentation of information that the Authority and Sellafield Limited are seeking to address..*	Improvements required in internal management information

Appendix D: Summary of findings from internal and external reviews

PAC report: *'Nuclear Decommissioning Authority: Managing Risk at Sellafield'* (4/2/2013) (1/2)

Area of interest	Ref	Statement from report	Comment
Stakeholder confidence	p.4	*There needs to be a clearer ambition for what this investment* s.43 *can achieve [in socio-economic terms] and a proper process for measuring and monitoring its actual impact*	
Sustainable improvement in SL's capability	p.3	*Basic project management failings continue to cause delays and increase costs, while doubts remin over the robustness of the plan*	
Physical progress with LP&S	p.8	*Recent performance has not been satisfactory. In 2011-12, only 2 out of the Authority's portfolio of 14 major projects were being delivered on or ahead of schedule for that year.*	Major projects focus
Operations and projects	Ev. 4	Evaporator D: Subcontractor lacked experience in welding to necessary nuclear standards resulted in £50 million of £244 million cost increase. s.43 *'We set some design seismic standards for seismic performance. They were very conservatively dealt with in the supply chain... That was not spotted early enough, so that conservative design flowed through into fabrication, construction and resulted in a lot of additional cost and delays. We should have spotted that much more rapidly than we did.'* *'We should have done more upfront investigation on the capabilities in the supply chain. We did not. We have certainly learned from that.'*	NMP admission of responsibility re. Evap D
Incentive mechanism	p.5	*The Authority should determine how and when it will have achieved certainty to expect Sellafield Ltd. to transfer risk down the supply chain on individual projects and then to reconsider its contracting approach for the site as a whole*	Requirement for greater risk transfer
Incentive mechanism	p.3	*All payments to NMP and, indeed to their constituent companies, need to be strictly controlled and determined by robust verified assessments of the value gained, so that payments are not made which would seem to constitute a reward for failure.*	Implication that contractual structure and monitoring enables payment for failure
Incentive mechanism	p.3	*The costs of seconding staff from NMP's parent companies appear excessively high*	Critical of reachback
Efficiency	p.5	*NMP claim to have achieved efficiency savings worth almost* s.43 *The Authority is verifying these savings but NAO reports have shown that, across government, claimed savings figures are often overstated*	Scepticism on quantification of savings
Incentive mechanism	p.6	*The Authority should ensure all payments are linked to the value delivered and that payments are not made where companies have failed to deliver*	
Incentive mechanism	p.10	*The Authority does not operate a cap on salaries at Sellafield, unlike in the United States, where the Department of Energy has set a cap of $750,000 on executive pay*	

Appendix D: Summary of findings from internal and external reviews

PAC report: *'Nuclear Decommissioning Authority: Managing Risk at Sellafield'* (4/2/2013) (1/2)

Area of interest	Ref	Statement from report	Comment
Operations & projects	p.5	*The Authority should develop and apply benchmarks to assess the robustness of the lifetime plan and challenge existing assumptions on costs and timescales for critical projects*	Emphasis on NDA use of benchmarks
Operations and projects	p.5	*The Authority should invite the Major Projects Authority to review the critical and largest projects and should report publicly on progress of key risk reduction programmes against plans and budgets*	Encourage NDA to report more publicly – assumption that this will lead to more accurate reporting?
Sustainable improvement in SL's capability	p.8	[Poor project performance has been due to] *Sellafield Ltd's failure to spot deficiencies in a key element of design, or adequately to check the capability of the supply chain.*	
Sustainable improvement in SL's capability	p.10	[The Authority] *admitted that it had struggled for some time to get an adequate description of why 'reachback' was being used on occasions*	
Sustainable improvement in SL's capability	Ev. 9	s.40 *'We have a fantastic workforce at Sellafield, very capable, an asset to the nation and the nuclear sector, but you always have to look at how you continue to improve and how you keep ahead and there were some gaps in performance.'* *'We have made a real impact working with the Sellafield team and bringing some global capability to the site'. (Ref. activity around LP&S)*	Positive re. workforce – contrary to most interpretations
Sustainable improvement in SL's capability	Ev.11	John Clarke on costs of secondees & reachback*: 'What we are bringing in is the individuals and the capability of the organisation behind them'*	Reachback rationale
Sustainable improvement in SL's capability	Ev.18	Benefits of reachback cited by s.43 - Review of operating strategy for evaporators – identified options for lengthening lives, giving more risk mitigation - Simplification of holes cutting in pile fuel cladding silo – s.43	

Capstone review (21/07/2010) (1/2)

s.43

Capstone review (21/07/2010) (2/2)

s.43

Internal Audit report: Sellafield Parent Body Contract (including LTP10 rebuild) (May 2010) (1/2)

s.43

Internal Audit report: Sellafield Parent Body Contract (including LTP10 rebuild) (May 2010) (2/2)

s.43

Internal Audit report: Sellafield Performance Plan Assurance Approach – Due Diligence Review (April 2011)

s.43

Internal Audit report: Follow up to 'Sellafield Performance Plan Assurance Approach' (Jan 2012)

s.43

E. Summary of correspondence reviewed

Appendix E

Summary of correspondence reviewed – NDA CEO to NMP/SL

Correspondence reviewed has been selected on a sample basis and does not include all items

04/06/2013	s.40	Meeting wit s.40	s.40
14/05/2013		Re: Parent Body Agreement Extension Discussions	
07/05/2013		COO-NMP-NDA-0086	
22/04/2013		COO-NMP-NDA-0085	
11/04/2013		SL Personnel Changes	
11/04/2013		SL Personnel Changes	
08/04/2013		L08Apr01(s.40	
25/03/2013		Call	
19/03/2013		A suggestion for the next NDA/NMP Partnering session	

Appendix E

Summary of correspondence reviewed – NDA CEO to NMP/SL (cont.)

08/03/2013	s.40		Commercial Model	s.40, s.43
24/01/2013			L24Jan02 s.40	
20/12/2012			[PROTECT] Evap D letter to PAC – response to NAO required	
20/11/2012			[PROTECT] Allegation of quality issues re Evaporator D	
19/12/2012			Ref:05	
01/11/2012			L01Nov01 s.40	
30/04/2012			PBO Governance and Assurance	
04/08/2012	s.40	Executive Team	NMP PBO Meeting	

Appendix E

Summary of correspondence reviewed – NDA CEO to NMP/SL (cont.)

18/05/2012	s.40	Commercial resolution for reachback	s.40, s.43
12/03/2012		NDA summary of Sellafield Performance: Q3 Dec 11	
09/03/2012		NDA summary of Sellafield Performance: Q3 Dec 11	
10/02/2012		Dear s.40	
10/10/2011		L10Oct09(s.40	
22/09/2011		Evaporator D Project	

Appendix E

Summary of correspondence reviewed – NDA CEO to NMP/SL (cont.)

03/08/2011	s.40	Feedback from July Meetings	s.40, s.43
02/06/2011		Acceptance of the Sellafield Performance Plan and importance of delivery in 2011/12 and beyond	
12/10/2010		s.40 Letter to you dated October 1 2010 Capstone Report	
20/09/2010		NDA/PBO Partnering Sessions	
21/01/2010		Making the most of our resources at Sellafield	

Appendix E

Summary of correspondence reviewed – NDA COO to SL

Correspondence reviewed has been selected on a sample basis and does not include all items

20/02/2012	s.40	PROTECT – COMMERCIAL >> RE URGENT Request from s.40 s.40	▪ two excel file attached for 8 week look ahead for projects and programmes
14/07/2012		PROTECT >> ICP MP diagram	s.43
28/11/2012		PROTECT – Information as discussed – SSEP Programme Baseline and Business Case Development process 28 11 2012	
26/11/2013		PROTECT >> Re [PROTECT] 26 11 2012	
18/02/2013		PROTECT >> Sellafield Ltd Major Project Reporting	
20/02/2013		Apologies for Rescheduling	

Appendix E

Summary of correspondence reviewed – NDA COO to SL (cont.)

Date	From	To	Title	Comment
07/01/2013	s.40		C0007Dec12	s.43, s.40
14/09/2012			C0014Sep12(ICP)	
14/09/2012			C0014Sep12(PFSP)	
14/09/2012			C0014Sep12(SPP1)	
29/10/2012			COO26Oct(s.40	

Appendix E

Summary of correspondence reviewed – NDA COO to SL (cont.)

Date	From	To	Title	Comment
25/09/2012	s.40		MSSS update on programme and project business case 25 09 2012	s.43
18/02/2013			Fw: short summary – SL Improvements	
22/08/2011			L22August(s.40	
29/01/2013			Letter – COO – NMPL – NDA – 0081	
17/06/2011			Meet with NDA Exec on ICP and related initiatives	

Appendix E

Summary of correspondence reviewed – NDA COO to SL (cont.)

13/02/2013	s.40	Principles 3M3 Box	s.43
18/01/2013		Re: EvapD	
05/09/2012		Sellafield Incentive Plan	
30/03/2012		T1.35..05.SL 19172 Major Projects Reporting	

Appendix E

Summary of correspondence reviewed – Site facing team

Correspondence reviewed has been selected on a sample basis and does not include all items

Date	From	To	Reference	Title	Comment
27/08/2010	s.40		T1-35-05-SL-16013v2	LTP10 – Way Forward	s.43
11/11/2010			T1-35-05-SL-16536	LTP – Contract Baseline: Qualified Acceptance	
21/02/2011			T1-35-05-SL-17024	Request to Replace Nominated Staff Waste & Effluent Disposition Director	
26/07/2011			T1-35-05-SL-17768	Secondment Agreement: s.40 s.40 July 2011 – Dec 2012	
07/01/2008			T1-35-05-eNDA-1775	Knowledge Management	
14/03/2008			T1-35-05-NDA-1906	Resolution of ASFL for 2007/8	
18/12/2008			T1-35-08-NDA-2445	Lifetime Plan Build 2009/10 & 2010/2011	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

17/02/2010	s.40	T1-35-08-NDA-3041	Support and Overhead Cost Reduction Programme	s.40, s.43
10/03/2010		T1-35-08-NDA-3068	LTP10 Outyear Plan EDS PSWBS Reporting Level	
02/04/2010		T1-35-08-NDA-3108	Rejection of CCR 290 – Additional Scope to Deliver 4 Year Detailed LCP10	
21/05/2010		T1-35-08-NDA-3180	Technical Baseline and underpinning Research and Development Requirements (TBuRD) (EGG10) – M&O Deed of Contract Amendment	
01/06/2010		T1-35-08-NDA-3186	New format Major Project Report	
21/06/2010		T1-35-08-NDA-3206	Performance Reporting – reversion to current practice rather than output based measures	
15/11/2010		T1-35-08-NDA-3326	Nominated Staff Secondment – s.40	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
30/11/2010	s.40		T1-35-08-NDA-3368	Approval of Acceleration resp to T1-35-05-SL-16201, 16413 and 16553	s.43, s.40
17/05/2011			T1-35-08-NDA-3556	SEL-2010-11-03 Spent Fuel Deliveries and SEL-2010-E-12-09 Magnox Throughput Improvement Plan	
28/07/2011			T1-35-08-NDA-3641	Provision of Training for Amec to support LLWR	
21/09/2011			T1-35-08-NDA-3683	Tier 2 and Strategic/critical supplier Information	
17/10/2011			T1-35-08-NDA-3717	Collaborative Procurement: Facilities Management	
27/01/2012			T1-35-08-NDA-3856	Approval of secondment of employees	
02/02/2012			T1-35-08-NDA-3878	Alignment of Performance Plan with Urenco URS	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
01/05/2012	s.40		19352	Evaporator D Project Follow-up to Update 11	s.43, s.40
30/04/2012			19372	Procurement Plan Submission 2012/13	
30/04/2012			19381	FY 12/13 Annual Site Funding Limit (2 parts)	
13/06/2012			19638	s.43	
16/07/2012			19763	Final NDA Reports for Major Projects and Major Projects MPR Summary>	
31/07/2012			19851	Evidence Required to Demonstrate Mapping of Performance Plan to Contract Basel	
01/08/2012			19909	LP&S Recovery Plans	
17/08/2012			20018	Ponds Solids Treatment and Hazard Reduction	
24/08/2012			20050	Evaporator D Project Update	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
28/09/2012	s.40		20168	BTF Project – NDA Action Response: (PT&C Action 002)	s.40, s.43
26/02/2013			21077	2012/13 True Cost Variance	
12/04/2013			21368	Submission of 2013 LTP PP Documentation	
02/04/2012			4008	Output Based Metrics	
18/05/2012			4022	PPRG FGMSP Review Feedback Letter	
18/04/2012			4031	s.40, s.43	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
01/05/2012	s.40		4043	Evaporator D – Update 12	s.40, s.43
22/05/2012			4071	Settlement Agreement – Engineering Construction Industry Training Board (ECITB)	
14/06/2012			4107	PPRG – MSSS Retrievals Review Report	
18/07/2012			4167	Evidence Required to Demonstrate Mapping of Performance Plan to Contract Baseline in Financial Year 2011/12	
19/07/2012			4169	PPRG Review of Sellafield Ltd Infrastructure Strategic Alliance	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
05/09/2012	s.40		4268	Approval of ■ CCR_SELLA_2012_00007_01_BCP Sellafield Ltd LTP – Performance Plan Indexation. ■ CCR_SELLA_2012_00006_01_BCP Sellafield Ltd LTP – Contract Baseline Indexation. ■ CCR_SELLA_2012_00004_01_BCP Capenhurst LTP – Performance Plan Indexation. ■ CCR_SELLA_2012_00003_01_BCP Capenhurst LTP – Contract Baseline Indexation.	s.40, s.43
11/10/2012			4334	Rejection of Change Proposal	
03/12/2012			4403	Benchmarking RFI from Sellafield	
10/12/2012			4443	Legacy Ponds and Silo's (LP&S) Alternative Pricing Model (APM)	
31/01/2013			4515	Assurance Review of the support and overhead cumulative savings 2012/12	

Appendix E

Summary of correspondence reviewed – Site facing team (cont.)

Date	From	To	Reference	Title	Comment
26/03/2013	s.40		4640	Signed Performance Agreement Forms FY13/14	s.40, s.43
26/03/2013			4641	Recruitment Data	
24/05/2013			4761	Advance Agreement Reference 02/2013 – Vitrification Throughput Improvement Plan 1 (VTIP1)	
			4767	Update on the People Plan	

F. Interview participants

Appendix F
Interview participants

Name	Organisation	Job Title
s.40	NDA	s.40
	NDA	
	NDA	
	NDA	
	NDA	
	NDA	
	NDA	
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	NDA	
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	NDA	
	NDA	
	NDA	
	NDA	
	NDA	
	NDA	
	NDA	
	NDA	

Name	Organisation	Job Title
s.40	NDA	s.40
	NDA	
	NDA	
	NDA	
	Shareholder Executive	
	Shareholder Executive	
	ONR	
	Environment Agency	
	NMP	
	NMP	
	NMP	
	NMP	
	Sellafield Ltd.	s.40
	Sellafield Ltd.	
	Sellafield Ltd.	
	Sellafield Ltd.	
	GMB	
	Prospect	
	Unite	

G. Source Documents

Appendix G
Data Sources

Data Sources

Internal/external reviews

- OGC reviews: Gateways 3, 4, 5
- NAO report, Managing risk at Sellafield, Nov 2012
- PAC report, NDA Managing risk at Sellafield, Jan 2013
- Capstone report
- Findings Presentation 121106-known as the Nicholls Group Report on Supply Chain
- Annual Report and Accounts, 2012-2013
- PPRG Reviews', 2011-2013
  - PPRG Review – Early phase review of BEPPS/DIF project, 4 Apr 2013
  - Human Capital Management Review, Mar 2013
  - SL Commercial Capability Review: Report Findings, 6 Nov 2012
  - PPRG Review of Sellafield Ltd Engineering for Major Projects, 17 Aug 2012
  - PPRG Review of Sellafield Ltd Infrastructure Strategic Alliance, 29 May 2012
  - PPRG Review of PFSP Programme, 30 Apr 2012
  - PPRG Review of FGMSP SPP1 Project, 23 Apr 2012
  - PPRG Review of PFCS Programme, 2 Apr 2012
  - PPRG Review of FGMSP Export Building Project, 9 Mar 2012
  - PPRG Review of FGMSP Programme, 20 Feb 2012
  - PPRG Review of MSSS Programme, 18 Jan 2012
  - Silos Direct Encapsulation Plant (SDP) project, Sep 2011
  - Rapid Review of Evaporator D, 30 Sep 2011

Internal audit reviews

- Internal Audit Report: Sellafield Parent Body Contract Including LTP10 Rebuild, May 2010
- Internal Audit Report: Sellafield Performance Plan Assurance Approach – Due Diligence Review, April 2011
- Internal Audit Follow Up Report to the Sellafield Performance Plan Assurance Approach Due Diligence Review of June 2011, January 2012

Data Sources

Competition and Contract documents:

- NDA business case for competition
- ITSFT (including evaluation criteria)
- NMP bid documents (incl. iCBM)
- M&O contract
- Parent Body Agreement
- PAIS report
- MPS Spreadsheet at Period 12 Rev 1 200513

Board level meetings

- Board reports and minutes related to Sellafield decision (March 2012-Jun 2013)
- Quarterly business reviews and meeting minutes (Q1 2011/12-Q4 2012/13)
- Board Meeting papers, 6 June 2013
- Competition Programme Board Special Meeting Update, 23 May 2013

NDA correspondence reviews

- s.40
-
- Site Facing Team

Stakeholder views

- Shareholder Executive perspective on Sellafield performance and contract review, May 2013

Appendix G
Data Sources

Data Sources

Performance reporting:

- NMP, Sellafield Performance 2008-2012: Balanced Self Assessment (DRAFT), Oct 2012
- Monthly SL Flash Reports', 2011-2013-06-19
- Monthly Performance Reports, Mar 2013
- NDA Performance Management team, 'Sellafieldslcsites_pr2005-2013_costs' via EDS, May 2013
- Performance Data Rev 4 22.02.13, May 2013 from s.40
- Project Performance – Summary v2', s.40 May 2013
- Performance Management team, Performance Report pd12 2013.xls, May 2013 from s.40 s.40
- Sellafield Performance Assessment draft 4, s.40 May 2013

Health & Safety analysis

- Safety and Environment '2012_13_Dashboard_EHS_Stats', s.40 May 2013
- Safety and Environment 'Sellafield_PI_Info.xlsx', s.40 May 2013
- Sellafield PI Info, s.40 May 2013

Major Project analysis

- NDA Major Project Data Request ALL PROJECTS, from SL team via s.40 May 2013
- Monthly Major Project Reports, Mar 2011-May 2013
- Project Summary Sheet (PSS) – All projects, May 2012

ICP analysis

- Integrated Change Programme – an evolution
- Integrated Change Programme Summary report – March 2011
- ICP Period 12 Summary Report (March 2013)
- 2012-13 Period 12 ICP graphs
- ICP Report – June 10 – V1 0 MASTER
- SL Commercial Capability Review: Report Findings – November 2012

Data Sources

Fee analysis

- s.43 s.40
- Sellafield Operating Plan 13-16 v2 6, 2013 07 01_Restricted, from s.40

Reach back

- s.43

H. KPMG scope of work as per updated terms of reference dated 22nd April 2013

Appendix H:
KPMG scope of work as per updated terms of reference dated 22nd April 2013

Gate 0 – Research and data gathering:

Approach to key areas of interest	
Area	**Proposed KPMG activities**
Historic context and NDA's expectations of PBO model	■ Review key documentation, including NDA strategy documents, procurement documents and specifications (ITPD, ITFST etc.), any public statements ■ Identify key strategic rationale for model and detailed list of required outcomes, categorised by subject matter, plus proposed monitoring approach for each
NMP commitments	■ Review NMP bid documents, NMP public statements, papers of relevant NMP-NDA meetings (e.g. NDA Sanction Committee, Sellafield Remediation Forum, ICP etc.) ■ Interview key NDA stakeholders ■ Identify detailed list of commitments made, categorised by subject matter, and agreed monitoring approach (if available) ■ Cross refer NMP commitments back to NDA expectations to identify where these were aligned and where and why there were differences (if any) ■ Trace development of commitments over time and by subject matter to understand how they have evolved ■ Seek to understand evolution within the context of changes at Sellafield
Performance to date	■ Review terms of M&O contract with Sellafield Ltd. and PBA with NMP ■ Review performance data collated by the NDA e.g. cost and schedule progress against contract baseline and performance plan, achievement of key project milestones and schedule movements ■ Review external reports on Sellafield e.g. NAO, PAC findings ■ Seek to clearly separate performance metrics for NMP from those of SL ■ Interview key NDA stakeholders for perceptions of NMP performance ■ Summarise performance metrics in one concise document in order to identify and resolve any conflicting data points

Gate 0 – Research and data gathering:

Approach to key areas of interest	
Area	**Proposed KPMG activities**
PBO model design	■ Using the data points gathered from the above three work packages, review the overall design of the existing model to consider: ■ What works well? ■ What tensions exist in current structure? ■ What mechanisms have been deficient? ■ What unintended consequences have arisen?

cutting through complexity