

Freedom of information act request for a copy of report on “Lessons Learned from SMP”

Original request

I wonder if you could e-mail me the report on "Lessons Learned from SMP," which you mentioned to me at the Chatham House meeting last month?

Many thanks

Response

REQUEST UNDER THE FREEDOM OF INFORMATION ACT 2000 / ENVIRONMENTAL INFORMATION REGULATIONS 2004

I am writing in response to your e-mail request made on 20 April in which you asked the following

I wonder if you could e-mail me the report on "Lessons Learned from SMP," which you mentioned to me at the Chatham House meeting last month?

I can confirm that the Department holds the information referred to. Your request has been considered under the terms of the Freedom of Information (FOI) Act 2000. However, some of the information which you have requested may constitute “environmental information” for the purposes of the Environmental Information Regulations 2004 (EIRs). As such, to the extent that the information requested can be properly classed as “environmental information”, your request has also been considered under the EIRs.

The information that you have requested is not in a final form and has not previously been released into the public domain. However, we have looked at the document and, after careful consideration, have taken the view that we are able to release those parts of it which do not constitute commercially confidential information. I attach a copy of this material with this letter.

Section 43(2) of the FOI Act exempts information from disclosure if it would, or would be likely to, prejudice the commercial interests of any person. It is a qualified exemption and is therefore subject to a public interest test. There is a general public interest in the disclosure of information, as greater transparency makes Government more accountable. In this case there are also arguments that can be made for the disclosure of information regarding the under performance of a plant which ultimately comes under government ownership. However, having weighed up the pros and cons of full disclosure in this case, the Department takes the view that the balance of

public interest falls in favour of redacting certain passages because of the importance of ensuring that the commercial interests of the Nuclear Decommissioning Authority (NDA) are not prejudiced by the disclosure of information which is not common knowledge and which could have a direct adverse impact on NDA's ability to secure the best commercial and financial deals for the taxpayer in its future business activities.

The information which you have requested contains some information which relates to commercial contracts which exist between the NDA and third party commercial organisations. As such, the Department considers that the release of this information would, or would be likely to, prove highly damaging to the NDA's and other organisations' commercial and economic interests, and could also prejudice the relationship between the NDA and its customers.

The application of this qualified exemption requires us to balance these competing public interests. In this case, having considered matters further, we consider that the public interest in favour of disclosing such information is outweighed by the necessity to protect the commercial interests of NDA and third parties. The Department's decision is therefore to withhold the information that we, and the NDA, consider is commercially sensitive.

As previously stated, we consider that some of the information within the scope of your request may be "environmental information" within the EIR. Where this is the case, we consider that the exception under regulation 12(5)(e) of the EIR, relating to the confidentiality of commercial or industrial information, also applies to some of the information within the scope of your request. This exception is also subject to the public interest test and we would refer you to the public interest arguments already outlined above. Having considered the public interest arguments in relation to this exception, the Department's decision is to withhold the information that we, and the NDA, consider is commercially sensitive.

Appeals procedure

If you are unhappy with the result of your request for information, you may request an internal review within two months of the date of this letter. If you wish to request an internal review, please contact: Information and Security Rights Team (DECC Shared Service), Department of Business, Innovation & Skills, Victoria 3, 5th Floor, 1 Victoria Street, London, SW1H 0ET. Email: foi@decc.gsi.gov.uk

Please remember to quote the reference number above in any future communications.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Cheshire, SK9 5AF.

Yours sincerely

Copy of Redacted Report

SELLAFIELD MOX PLANT – LESSONS LEARNED REVIEW

18/07/12

The objective of this review is to identify the lessons learned from the inception, design, build, commissioning and operation and ultimate closure of SMP in order to inform future capital projects across the NDA estate, and wider nuclear sector projects including future plans for plutonium (Pu) management.

What was the case for building SMP and what were the policy objectives of doing so?

The decision to construct SMP was based on a belief that this would be a profitable activity in itself and also enhance prospects for BNFL's reprocessing business. From a policy perspective it was identified as a means of meeting UK and overseas policy objectives of returning separated material and waste in an acceptable form. From a technical perspective the existing MOX Demonstration Facility had already shown on a small scale that MOX manufacture was proven.

What was the operational performance of SMP?

Actual performance of the plant was very poor. The projected annual throughput of 120te HM put forward in the original SMP business case was reduced over time such that by 2008 the plant's production capability was assessed as being 5-7te HM per year (without modifications) or 15te HM with modifications.

SMP actually manufactured 13.8te HM of MOX fuel during its operating life, achieving its highest annual throughput of 4.8te HM in 2009/10.

Why did SMP perform so badly?

The original business case assumed that BNFL would acquire Siemens, including its MOX expertise. When the Siemens acquisition was abandoned, BNFL proceeded with SMP nevertheless and relied on its relatively limited in house expertise. As a result, SMP had very significant gaps both in its design and operating capability. This meant that the plant as built was not fit for purpose and struggled from the start with a wide range of operational problems. Construction of the plant before it had been justified resulted in a significant hiatus between completion of construction and the plant entering operations. In addition, the SMP culture (as part of the Sellafield site) was not well suited to a precision manufacturing production facility and for much of its operating life there was an unwillingness to face up to the scale of the problems facing the plant.

What were the costs and financial performance compared to plan?

The original SMP business plan projected an NPV of £400m from the project. In fact the costs of the plant very significantly exceeded the revenues earned:

£M	Lifetime to 2011/12	Post closure 2012/13- 2016/17	TOTAL
SMP			
Revenue			
From MOX fabrication			
From JU contract			
Costs			
Operating and overheads	(921)	-	(921)
Capital / projects	(550)	-	(550)
	(1,471)	-	(1,471)
Net costs			
Sub-contracts			
Revenue			
Costs			
Net costs			
Total net costs	(1,373)	(51)	(1,424)

Note: Figures are stated at historical money values. Projected figures relating to future years are in constant September 2011 money values

- The capital and operating costs of SMP through to its closure in 2011/12 were £1,471M. Within this, capital costs through to the operational phase of commissioning at the end of 2001/02 were £484M, compared with BNFL Board approval in June 1993 of £280M.

- The total net costs of the plant, including losses on sub-contracts, are projected to be £1,424M. In addition to this, the future costs of cleaning out and decommissioning the plant are estimated at £0.8BN (in 2011 money values), giving an aggregate net total loss for the full plant lifecycle of around £2.2BN. Against this, however, there would have been substantial costs of dealing with the separated Pu and waste arising.

What will prevent similar mistakes being made in the future?

If a decision is made to construct a new MOX plant in the UK, lessons from SMP should be used to inform decision making, planning and execution of the project covering areas including:

- having the right skills and capability which may involve making use of appropriate third party experience;
- ensuring there is a good design in place and early resolution of any design issues;
- realistic costing and planning;
- avoiding imposition of artificial time and cost constraints;
- safeguarding value for money (VFM) by seeking to minimise risk exposure of the UK taxpayer through, inter alia, a robust contractual framework;
- ensuring fit for purpose, consistent operational / safety design criteria that are as far as possible, not modified over time;
- not carrying on when issues arise until there is clarity on the cost implications and scale of the correction that is required;
- clarity and consistency in the basis of VFM analysis;
- ensuring good quality project management including realistic targets, performance metrics and a gated process;
- ensuring appropriate phasing in the project plan, for example, only building the plant and entering into contracts with customers after justification is in place;
- ensuring there are robust governance arrangements in place, both with government and with the responsible corporate board, an appropriately qualified governance team with the necessary commercial and financial skills and that government has appropriate levers over its funding commitments and a clear monitoring framework; and
- addressing cultural issues, including openness, honesty and realistic reporting.

Project check list – lessons learned from SMP

Significant improvements in project management have been developed in recent years by NDA and its contractors but there is still room for improvement. Based on the SMP experience, it is considered that existing project assessment procedures should be reviewed to ensure that any check list should include the following items:

- Design and technology
 - Is the technology well established or if not is it supported by a robust development programme?
 - Are innovations pragmatic and / or underpinned by demonstrated performance in a directly relevant environment?
 - Are there any outstanding design issues?
 - Have operational and production risks been identified and addressed?

- Has direct operational experience been fed into the concept and the detailed design?
 - Has projected performance been demonstrated to a high degree of confidence?
- Funding
 - Have any artificial funding or timescale constraints been imposed that could prejudice delivery?
 - Is the project scope, schedule and cost fully developed and understood?
- Project management
 - Are the project milestones and targets realistically achievable?
 - Have clear parameters and trigger points been identified for decision making?
 - Is there an integrated project team in place that will see the project through from initial design through construction, testing, commissioning and into operation?
 - Are robust arrangements in place to ensure accurate and honest reporting?
- Governance
 - Have all regulatory and other legal requirements (including justification) been addressed?
 - Are governance arrangements and controls clear and appropriate to the scale of the project?