

**Reprocessing and Waste Management:
Developing a new consensus
(Safe Management - Engage and Listen)****John Hetherington
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Cumbria County Council has, in both the original 1976 Planning Inquiry, and in the subsequent debates over the licensing of THORP, supported the operation of the reprocessing facilities at Sellafield. The Council has no agreed position on the issue of reprocessing. We recognise both its advantages for the Cumbrian economy, and the many environmental concerns raised at its continuation. There are around 10,000 jobs directly associated with the operation of Sellafield. Their continuation needs to be assured and any changes managed carefully and in a measured way. There has also been a steady decline in discharges to the environment since the peaks in the 1980's. Discharges are now at levels where the exposure of those most affected is a small fraction of the natural exposure to radiation which we all experience. The OSPAR agreements will require still further reductions over the coming years. So, the issues are not, in our view, clear-cut.

In this context, it is difficult for the County Council to express a firm view directly into the reprocessing debate. In practice, the County Council's long running concerns have related more to the question of waste management at Sellafield, Drigg and in particular, the proposals that emerged 10 years ago to develop a deep waste repository adjoining Sellafield. We need to be confident that radioactive waste, particularly high level waste, is properly managed to prevent accidents and that other wastes are also secure in passive safe managed and retrievable stores.

My contribution to the debate thus concentrates on reviewing some exciting ways forward for the Industry and its opponents which might move the reprocessing debate forward in the same way as the waste debate seems to have progressed.

The story of Radioactive Waste Management in the UK is a long and tortured one. In many ways we are still at the beginning. The signs are, however, that new approaches to the issues are showing possible convergence in ideas and pointers to a way forward that might be applied to the issues of reprocessing too.

In this short paper I provide, from the perspective of Cumbria:

- a short review of the development of radioactive waste management policy in the UK

- a quick summary of the NIREX Rock Characterisation Facility (RCF) Inquiry arguments and the March 1997 Government decision to refuse permission
- the developing importance of consensus building and stakeholder dialogue processes since the RCF was rejected
- some views and conclusions from Cumbria's perspective

The Development of National Policy

The 1986 Radioactive Waste White Paper was committed to public involvement in site selection, with the industry expected to "pursue policy of openness and consultation". So, on paper the Government commitment to openness and transparency is long-standing. But, policy was influenced by events; leading to a "decide and defend" approach leading to the:

- abandonment of the shallow sites programme (1987)
- the Nirex Deep Waste Repository site selection exercise (1988)
- a decision to focus on Sellafield (made 1991)
- but the pragmatic introduction of an RCF stage in 1993

The Nirex approach from 1989 continued in a sense despite a policy of openness, in effect enshrining "decide and defend". Site selection was never fully documented and made public. The unforeseen RCF stage was simply added by Nirex. The regulators were not involved at key stages. Despite a review by RWMAC / ACSNI in 1994/5 favouring openness and the need to take adequate time, the lessons were not learnt, and the 1995 White Paper backed the RCF. However, the RCF failed to win Cumbria County Council's support as planning authority, leading to the major RCF planning Inquiry. It is relevant to recall a nice quotation in the RWMAC / ACSNI Report, quoting Thomas Jefferson:-

"I know of no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion."

The RCF Inquiry

The Inquiry was in two parts: (1) covering the impact of surface development on countryside and national Park, and (2) geology, safety assessment and site selection. Nirex argued that the impact of the RCF was small, but it was needed to inform the Company's go/no go decision. The site showed 'good promise', and the issue of better alternative sites was relevant only to a full repository Inquiry. Nevertheless, Nirex published a preliminary safety assessment (Nirex 95) and released during the Inquiry a full account of a multi-attribute decision analysis of alternative sites (MADA) produced in 1998. Nirex argued the Board were right in 1989 to focus on sites familiar with the Industry.

Cumbria argued that the site at Gosforth, near Sellafield was a "poor site - chosen for the wrong reasons".

The County Council argued the surface works caused adverse visual effect on the edge of the Lake District National Park, which was only acceptable if there was an overriding need. However, we felt the prospects of Nirex confirming their safety case was significantly in doubt. The area did not have a "simple and predictable geology". The case relies on dilution in the overlying aquifer. Risk predictions were close to the risk target. There were potentially rapid return times of contamination to the surface. While the County Council accepted that it was appropriate to include Sellafield on the short list of sites, the MADA exercise had recommended a BUSC (Basement Under Sedimentary Cover) site with a margin of safety. We argued that fear of local opposition at the better 'Site 6' (in East Anglia) was not a valid planning consideration. In any case, the whole history of selection was not transparent, contrary to intention of Government policy.

Cumbria County Council was vindicated when on 17 March 1997 the decision to refuse the RCF planning application was announced. In his decision the Secretary of State said that he:

- agrees there was "poor design and layout ... and adverse impact on the National Park"
- remains of concern about the scientific uncertainties and technical deficiencies
- notes with concern "the Inspector's conclusion that site is not suitable and investigations should move to more promising site elsewhere"
- notes the Technical Assessor and Inspector strongly are critical of Nirex "over-optimism"
- "notes with some concern that the site selection process has singularly failed to impress the Inspector in terms of its transparency and the rigour of its scientific logic"
- there needs to be full disclosure on site selection at future RCF stage

New Ways Forward

All this has led to the need for a complete rethink. So, in November 1997 the Parliamentary Office of Science and Technology published its report 'Radioactive Waste - Where Next?' This provided a foundation for the House of Lords to prepare its report, published in March 1999. In addition, the fresh approach to consensus development led to two important steps forward - to a much more open and transparent attempt to look again at the issues. A UK National Consensus Conference was organised by UK CEED in May 1999, and an ongoing Stakeholder Dialogue process is now underway with BNFL. This has made some interesting suggestions which differ from the views of the House of Lords. The next step is expected to be a Government Consultation Paper in the Summer of 2000, possibly leading to a White Paper and primary legislation in 2001/2002. The next section of this paper reviews these processes and sets out Cumbria's reactions.

The House of Lords Select Committee *concluded* that at root the problem is the past legacy of radioactive waste. The present management approach is fragmentary. However, they saw only two approaches, to press ahead with the search for deep repositories or adopt a long term programme of surface management. They did see that public acceptance of a national plan for management is essential, and that openness and transparency in decision making are necessary. However, they suggested that local compensation for blight and benefits in exchange for hosting a repository would help!

They *recommended* that the Government should quickly develop a fully comprehensive waste management policy, subject to wide consultation. They proposed a new "Nuclear Waste Management Commission" - to adopt open approach - and a new "Radioactive Waste Disposal Company" They said Nirex and RWMAC should be disbanded. A comprehensive research programme should be recommenced, though the process of selecting site(s) should be open, transparent and involve Parliament.

The Lord's Select Committee Report was meant to "inform" the government policy rethink, but it still favoured "deep repositories". While promoting an open process in Cumbria County Council's view it seemed to miss the shifting mood of concern at "disposal" as a "solution"

Consensus Conference

Consensus conferencing is one of a number of contemporary experiments with the mechanisms of western democracy. Following a Danish model, consensus conferences provide a way for in depth lay involvement in complex technical developments with ethical overtones. "In the face of a steady increase in public disillusionment with politics and politicians, many of our traditional political institutions have come to seem singularly ill suited to the times." The Consensus Conference enables a broadly representative group to be given a basic framework for understanding the issues on a topic such as radioactive waste, and then enables them to question experts and opinion-formers. It provides an alternative to the inquisitorial planning Inquiry, or the investigatory Select Committee model.

The stated aims of the UK Ceed Consensus Conference were to "stimulate informed public debate, and to contribute to public policy making." It involved, after preparation, a fifteen member Citizen's Panel hearing evidence over a 4-day period from 21-24th May 1999. The Panel conclusions are perhaps less significant than the process, but they agreed that "Radioactive Waste must be removed from the surface and stored underground, but must be monitorable and retrievable. Cost cannot be an issue. We must leave the options open for future solutions."

Stakeholder Dialogue

A second major new initiative currently underway in the UK is "Stakeholder Dialogue". BNFL has a particular interest in trying to improve understanding and begin dialogue with its many critics. So, the BNFL National Dialogue was launched in September 1998. The existence of the dialogue is open, but all those involved have agreed to work within a variant of Chatham House rules, in which opinions are not attributed to individuals or organisations. Any conclusions are published by the facilitator – the Environment Council – who co-ordinate all procedures and meeting sessions. Outside the dialogue it is "business as usual"

In the process, it was agreed to address key issues in turn. The first two selected topics were Waste and Discharges. In the Waste Report agreement was reached that:

- "early recovery and treatment of historic waste arisings into adequately long-lived forms for above ground passively safe, retrievable, monitorable storage and the prompt treatment of current waste arisings, were priorities."
- waste volumes should be minimised.
- "BNFL's current waste management policy for its interim treatment programme (which) aims to deal with historic wastes meets these priorities."
- "at the outset of this interim phase it is essential that a comprehensive review of the safety and feasibility of disposal is carried out."
- A "programme to develop and implement deep geological disposal will only be possible after the development of a sufficient stakeholder group, public and political consensus on this."
- There remain divergences of view on the role and appropriateness of reprocessing.

Much of the rest of the Group's work focused on the examination of scenarios covering lifetimes of Magnox reactors, and of Magnox and Thorp reprocessing. Waste storage was examined across a range of scenarios, and the planned storage was found to be adequate for all but the maximum scenarios.

Of particular interest to Cumbria was the recognition that local socio-economic consequences of any earlier close down need to be taken into account in later work.

In the context of a discussion on the House of Lords report, notes that: "the consensus on the current science of disposal was not sufficiently robust to say with any confidence that disposal could be undertaken now or at some time in the future... Simply re-launching the disposal programme would be likely to lead to a repeat of the mistakes of the past and would not result in a scientifically, publicly, and politically acceptable programme for the treatment of waste."

Given the context in this key dialogue process this is a significant conclusion, likely to be influential in the forthcoming Government consultation.

The Government Consultation is expected "soon" (Summer 2000). The Government's response to Lord's Report gives some clue to what their approach might be. It should be wide ranging and based on a transparent approach. The Government appears to welcome the new approaches based on consensus building and stakeholder dialogue.

Cumbria's suggested approach

Where does Cumbria County Council fit into this picture? We clearly welcome the new approaches to consensus building. Cumbria accepts there is a need to properly manage waste arisings (which means we play host to surface store of ILW/HLW for 30+ years). On balance we think this is better than proceeding at a "poor site" chosen for the "wrong reasons". WE think surface storage is now the only acceptable *medium term* option. It is:

- technically well demonstrated (and features in industry plans)
- virtually cost neutral (as noted in the 1995 White Paper), and
- unlikely to be publicly contentious

We do not agree with the House of Lords support for deep disposal - but welcome much of the rest. In our view there is no 'solution' possible in the medium term. We need full "stakeholder" involvement in any proposals and in defining procedures.

What is needed is a flexible strategy based medium to long term on effective 'management'. Options could include:

- continuing managed surface storage
- shallow managed underground storage
- deep underground storage in secure geological host rocks
- deep storage designed to allow a future generation the option for final closure.

"The essential characteristic of this proposed approach is a publicly agreed sustainable radioactive waste management strategy for the UK, which can be flexible to changing circumstances and knowledge."

We must build on best practice and reflect emerging consensus

In our evidence to the House of Lords, we did venture a view on what should happen if a site search process were ever to recommence. We think:

- Site selection needs to be a fully open process (with sites allowing for long term storage and retrievability)
- We must not *assume* closure, but should facilitate it in terms of safety assessment
- The process should be driven by clear and agreed scientific (geological and safety) criteria
- There should be open review, involving local communities as site selection narrows to specific options
- Steps must not be time constrained

- A properly financed independent body should work with affected local communities throughout.
- Future generations can make decisions on closure in light of current scientific position

There is a broad measure of agreement now on the way forward. Exploring a consensus that includes a long period of passively safe surface storage is a prerequisite. Sellafield is in effect the UK's radioactive waste store, and safety needs to be assured as does the social and economic well being of the West Cumbrian community. The County Council has not reached a view on what might be the best long term management option, but in my personal view any approach that includes underground storage does need to keep open the possibility of retrieval, while ensuring safety for future generations. Future generations too must be allowed a say in final decisions on the safe management of the legacy of radioactive waste.