

**A Wasted Future:  
how the UK's nuclear waste programme melted down**

**Dr David Lowry**

**Nuclear Waste Advisory Associates & Member of the UK energy minister's Geological Disposal Implementation Board**

**Presentation to MKG (Swedish NGO Office for Nuclear Waste Review (Miljöorganisationernas kärnavfallsgranskning) forum**

**Stockholm, 21 November 2013**

# **1. The holes that appeared in the national Managing Radioactive Waste Safely (MWRSS) Programme**

## **Background**

**Thirty years ago this month the United Kingdom government launched its first attempt to find a way to resolve the radioactive waste problem in Britain, when the so called NIREX (Nuclear Industry Radioactive Waste Executive) organization announced it was going to explore underground storage options in two locations, one in the south (Elstow, Bedfordshire), and one in the north (Billingham, Cleveland).**

**In February 1986, three more prospective sites were announced: Killingholme in Humberside, Bradwell in Essex and Fulbeck in Lincolnshire, all in the east of England.**

**The Plan failed four years later, abandoned on the eve of a national General Election.**

**I want to explain now what happened next, by bringing the story forward to the beginning of 2013.**

**For several years, the solid nuclear waste management plan was taken forward in a process called the *Managing Radioactive Waste Safely* (MWRWS) programme, which involved detailed stakeholder consultation with the only community (West Cumbria, near Sellafield) to volunteer itself as a possible site for subterranean storage/disposal of radioactive waste in a so-called Geological Disposal Facility (GDF).**

**I take up the story in the month (January this year) before the local councils in Cumbria are to take their decision whether to continue with the process.**

**[I have highlighted sections of articles that follow to emphasise the key points]**

**Here is an exchange of letters in the Cumbrian press that covers both Sellafield and nuclear waste issues:**

SIR – Having read thoroughly the letter from David I Wood (December 27), I wanted to reassure your readers that we are very happy to share ‘all the relevant facts’ about the process for implementing a geological disposal facility.

We fully support the work of the MRWS Partnership, responding to their requests for information, attending all their meetings and supporting community drop in sessions in order to make ourselves as open and available as possible.

Mr Wood suggests that we have not been wholly frank in our statements suggesting that we have already decided to investigate Ennerdale Fell. However, nothing could be further from the truth. The position is that we would investigate any sites or areas that have been volunteered by the community. Mr Ellis was simply stating the fact that if Ennerdale is volunteered we would investigate it, consistent with that policy.

There is no question of trying 'to make the geology fit'. If the geology is not suitable in any area or site we are asked to investigate, we will simply not proceed in that area.

We are not alone in this approach, with the Canadian authorities currently pursuing the same path.

Finally, it is not true to say that 'on one matter all expert geological opinion seems to be agreed', that finding suitable geology in West Cumbria is at best remote. The British Geological Survey carried out an initial assessment to identify those areas of West Cumbria that do not have suitable geology. Having ruled those areas out, approximately 1,800 square kilometres remain as potentially suitable and include geology similar to that being investigated in Europe and elsewhere.

The most important point of all is that the forthcoming vote is about investigating further the suitability of the area and it is not the final decision on whether to host a geological disposal facility.

**Bruce McKIRDY**

**Managing Director, Radioactive Waste Management Directorate, NDA**

**Whitehaven News, letters, 3 January 20113**

<http://www.whitehavennews.co.uk/letters/you-say/time-for-some-straight-talking-on-the-future-of-our-hospital-1.1025001?referrerPath=letters>

SIR – I wish to respond to the letter from Mr McKirdy of the Nuclear Decommissioning Authority (The Whitehaven News, letters, January 3).

Mr McKirdy states that NDA is happy to share all relevant facts with your readers. May I add a few further relevant facts that Mr. McKirdy seems to have overlooked?

In my letter (December 27) and with regard to the NDA's position that there are no current proposals for Ennerdale, I stated: "This is probably true". Mr Ellis was asked that if Dr Dearlove had identified the Ennerdale fell as having a potential to host a GDF, would the NDA select it for investigation during stage 4. Mr Ellis admitted the NDA would do so. I was standing within six feet of Mr Ellis when he spoke and there were over 100 other people present to hear the same. For clarity, the NDA has not (as yet) identified the Ennerdale fell for investigation but will do so, should the MRWS process continue to stage 4.

Mr McKirdy states in his letter: "The position is that we [NDA] would investigate any sites or areas that have been volunteered by the community." Which community is he referring to? Why, like Mr Clarke, has Mr McKirdy not mentioned the important host community? Or is the existence of the host community not a relevant fact?

Mr McKirdy refers to the approach taken by Canada in pursuing the same path. A relevant fact is that Canada searched for the most suitable geology first and then sought a volunteer community. May I reiterate a further relevant fact that the UK is alone in seeking a volunteer community first and then examining the geology.

Mr McKirdy's final comments relate to the probability of finding suitable geology for a GDF, in West Cumbria. He refers to the British Geological Survey, that sought "to identify those areas in West Cumbria that do not have suitable geology" and only to identify areas that are not suitable. An important relevant fact is that the British Geological Survey did not make any assessment of the probability of finding suitable geology in those areas not excluded. One should avoid the inference that the remaining areas have a good prospect of being geologically suitable. I am aware of three expert geological opinions on the prospect of finding suitable geology in West Cumbria; they range from "none" to "low probability" to "not particularly promising". The need for fiscal probity at a time of austerity is also a relevant fact.

I regret that Mr McKirdy seems to have missed some further relevant facts, in his letter. Our community deserves and has the right to have full disclosure of all information. Our community must have the opportunity to make an informed decision on whether or not it wishes to host a GDF.

And finally, I would suggest that the most important point of all is not about whether or not to investigate further but to ensure that any future host community's wishes are respected and accepted by our politicians.

David I. WOOD

Enerdale Bridge, Cleator

### **Whitehaven News, letters, 10 January 2013**

<http://www.whitehavennews.co.uk/letters/you-say/sadly-welfare-reform-will-mean-other-tragic-stories-like-peter-s-1.1026560?referrerPath=letters>

And in a later letter he pointed out:

The community, where I live, has chosen not to be ignored and we have held a referendum. The results of this referendum are based on a 72.3 per cent turnout, with 5.2 per cent in favour of hosting a GDF and 94.3 per cent opposed – a fairly clear majority by any standards.

David I. WOOD

Ennerdale Bridge, Cleator

### **One week to go: your messages to the decision-makers on GDF**

Whitehaven News, letters, Thursday, 24 January 2013

<http://www.whitehavennews.co.uk/letters/you-say/one-week-to-go-your-messages-to-the-decision-makers-on-gdf-1.1029977?referrerPath=letters>

## **Assurances to Cumbrian councils on nuclear waste plans**

CUMBRIAN councils could still pull out of proposals to host a nuclear waste dump even if they agree to proceed later this month.

Baroness Verma, of the Department of Energy and Climate Change, told The Cumberland News that Copeland, Allerdale and Cumbria councils could opt out at a later stage if they formally express an interest in storing highly radioactive nuclear waste at the end of January.

So far, all three have expressed an interest but have insisted on a guaranteed legal right of withdrawal later in the process.

However, Eddie Martin, leader of Cumbria County Council, said he still wanted a statutory right of withdrawal written into an Act of Parliament – because all that had been offered so far was an assurance.

He added: “We don’t yet have that right in law. We are insisting on it. We don’t want to get to stage four or five and decide, for whatever reason, that we should withdraw and find out we can’t.”

Mr Martin said that they had to do what was right for the Cumbrian people and Cabinet members could make their own decision on Wednesday, January 30.

“It’s probably the most important decision that Cumbria will have to take – if we progress with this,” he said.

Councillor Alan Smith, the leader of Allerdale, said the decision would be made by councillors at the end of the month and added: “It’s something we’ve inherited.”

He said that they have had three meetings with Baroness Verma since she was appointed to the post.

During a visit to Carlisle, Baroness Verma said there had been some constructive discussions with council leaders. She added: “All three councils know that there is a real opportunity for Cumbria.”

The progression from stage three to stage four will involve a ‘desktop geological survey’ which would be followed by invasive tests to fully assess the suitability of selected sites in the west of the county.

The Baroness confirmed that the councils involved in the process would be able to leave later on if they chose to do so.

“The cabinet will take the decision at the end of January over whether to proceed to stage four,” she said.

“Which enables us to get to the next stage – it is about testing and checking the suitability of the geology. At any stage, the councils have the right to withdraw. It’s not that if you get to stage four you can’t proceed. We are pleased that the councils are taking the decisions – but asking the really challenging questions before they take the decisions.

“I hope that we’ve been able to provide answers to their questions and resolved their concerns.”

Engineers have said that the Government's decision to bury the nuclear waste in a specially built storage facility would be a bigger construction challenge than the Channel Tunnel.

It would involve tunnelling between 200 and 1,000 metres, involve around 1,000 construction workers and would take an estimated 15 years to complete – at a projected cost of between £12bn and £20bn.

The waste would need to be stored for tens of thousands of years and so far Cumbria is the only area considering the idea.

Previously, council leaders had asked for more clarification on the benefits of having the storage facility in their area and the Baroness said it would provide both 'economic growth and jobs'. She added: "The inward investment would be huge – it would be long-term."

She said it was a 'complex issue' but the main reason why Cumbria understood it was because of Sellafield but it was most important to select the right location. She added: "We've got to make sure that the geology is right."

Whitehaven News, 14:09, Friday, 04 January 2013

<http://www.whitehavennews.co.uk/assurances-to-cumbrian-councils-on-nuclear-waste-plans-1.1025332?referrerPath=home/2.2837>

Local Sellafield MP Jamie Reed's original press release is below:

### **'Cumbria Should Proceed to MRWS Stage 4' – MPs**

Cumbria's cross party group of MPs today held a fact finding evidence session regarding moving to the next stage (Stage 4) of the Managing Radioactive Waste Safely (MRWS) process.

This session included contributions from Professor Bruce Yardley (University of Leeds), Professor Stuart Haszeldine (University of Edinburgh) and Bruce McKirdy (Radioactive Waste Management Directorate, NDA). The session was also attended by Professor John Fyfe.

Following today's session and the written submissions received from the witnesses in advance, it is the view of the majority of the cross-party group that Copeland Borough Council, Allerdale Borough Council and Cumbria County Council should proceed to Stage 4 of the MRWS process. Moving to Stage 4 will enable the local geology of West Cumbria to be better understood and will ensure that a suitable community benefit package from government is established.

The cross-party group accepts that the right for the authorities to withdraw from this process at any time, for any reason is guaranteed.

The majority group is comprised of Jamie Reed MP, John Stevenson MP, John Woodcock MP and Sir Tony Cunningham MP.

## **SPINNING FURIOUSLY ON THE NUKE DUMP**

**10 January 2013**

Accounts of the cross party meeting of MPs reveals that there is some spinning going on – so much so that the accounts are completely at odds.

Jamie Reed MP for Copeland states:

Following today's session and the written submissions received from the witnesses in advance, it is the view of the majority of the cross-party group that Copeland Borough Council, Allerdale Borough Council and Cumbria County Council should proceed to Stage 4 of the MRWS process. Moving to Stage 4 will enable the local geology of West Cumbria to be better understood and will ensure that a suitable community benefit package from government is established.

While Tim Farron MP for Westmorland and Lonsdale states:

I am an active opponent of any such development because I do not believe that the geology would permit such a scheme to be safe. I am confident that the Councillors are fully aware of my views on this subject, although they must vote on conscience and their understanding of their electors' wishes. I can tell you from the meeting of all Cumbria MPs on the subject that just one is wholly in favour because 1 in 3 working people in Copeland are employed at Sellafield.

Who to believe?

### **Nuclear waste: boreholes next?**

Dr. Ruth Balogh, nuclear issues campaigner for W Cumbria & N Lakes FoE said:

'The government is shifting the rules. After the Councils decided to defer their decisions in October, Baroness Verma wrote to the 3 Councils and to the Cumbrian Association of Local Councils (CALC) and said she has 'concluded that the so-called 'desk studies' of the MRWS process needs a thorough examination' and, over geology she would 'not rule out a change in the process set out in the 2008 MRWS White Paper' .

'So not only do we no longer know what we would be signing up for, but the consultation done by the MRWS Partnership is now invalid because it considered Stage 4 as being restricted to desk studies only. We are seeing here a real possibility of boreholes and associated major industrial works and infrastructure arriving soon in the most beautiful

areas of West Cumbria. This flies in the face of the principle of volunteerism, and is an insult to West Cumbrians and their representatives.'

West Cumbria & North Lakes

friends of the earth PRESS RELEASE January 14th 2013

<http://www.cumbriacrack.com/2013/01/10/clarification-on-cumbrian-mps-nuclear-fact-finding-session/>

## Protests spread on Cumbria nuclear waste dump plan

As Cumbria Tourism joins the Lake District national park in [warning against research](#) in Ennerdale and Eskdale, local meetings and rallies are spreading

Here's more on the growing concern that [nuclear waste](#) burial could be considered within the borders of the [Lake District](#) national park, following [Cumbria Tourism's stand](#) against the prospect earlier this week.

A meeting in Keswick saw all but three of 500 present vote against the idea of pursuing research in Ennerdale and Eskdale, one of the few areas of stable geology in West Cumbria, the home of the Sellafield nuclear complex.

As well as being in the national park, the lonely valley is the subject of an experiment called [Wild Ennerdale](#) which has barred all traffic apart from a few forestry trucks and the Land Rover which services remote Black Sail youth hostel. Even the latter has been limited to the minimum possible number of journeys to sustain the many walkers to whom it is a shrine.

But the hypotheses remain speculative and in any case await [the crunch meeting on 30 January](#) of the three local authorities which have to decide whether to agree to further investigation of the possibilities of an underground store. Following the withdrawal of local authorities in Kent from the process, Cumbria county, Allerdale and Copeland are the only councils still expressing interest. The nuclear industry is of huge importance to the local economy, with over 9000 people directly employed at Sellafield and many more in dependent jobs. You can check out the background on the website of [the West Cumbria Managing Radioactive Waste Safely Partnership here](#).

Guardian, Thursday 17 January 2013

<http://www.guardian.co.uk/uk/the-northerner/2013/jan/17/ennerdale-nuclear-waste>



# Cumbria council leader urged to end 'mad plan' for underground nuclear store

Opponents of Cumbria becoming home to a massive underground nuclear waste dump are urging the county council's leader to end the "mad plan".



Eddie Martin

Protests will take place across the county tomorrow in a show of opposition against any move to create a new atomic store in the county. Cumbria county, Allerdale and Copeland councils are currently considering whether the area should remain in the running to be considered as a potential below-ground dump.

Carlisle News & Star, Friday, 18 January 2013

<http://www.newsandstar.co.uk/news/1.1028584>

## Big turnout at nuclear store meeting

More than 500 people attended a public meeting about the search for a potential underground nuclear waste repository site in West Cumbria.

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SPEAKING: Steven Quas, from Loweswater, who has a background in geophysics



*The Keswick meeting on Friday heard from geologists, local people and representatives of the Nuclear Decommissioning Authority.*

The big turnout reflected the growing debate around the forthcoming votes on January 30 by Allerdale, Copeland and the county councils on whether they want the Government to continue its search for a West Cumbrian site to build an underground repository for high-level radioactive waste.

Commercial lawyer John Wilson, of Portinscale, urged people to sign petitions – which have so far attracted more than 10,000 signatures – and write to councillors who are set to make the crucial decision.

West Cumberland Times & Star, at 11:45, Friday, 18 January 2013

<http://www.timesandstar.co.uk/news/politics/big-turnout-at-nuclear-store-meeting-1.1028522?referrerPath=news/politics>

## Cumbria nuclear dump debate in Carlisle

The arguments for and against the siting of a nuclear dump in west Cumbria will be discussed in Carlisle next week.



Kevin Coyne

The issue will be debated by local MPs, scientists, nuclear workers and industry leaders at a seminar at the Hallmark Hotel on Friday, January 25 at 10am.

The event, is being organised by the Sellafield Workers' Campaign (SWC) and Trade Unionists for Safe Nuclear Energy (TUSNE).

It comes as councillors prepare to meet on January 30 to decide whether to move on to the next stage of the process to determine whether a massive underground store should be in west Cumbria.

Organisers at the meeting say expert advice obtained by the nuclear union Prospect demonstrates that the arguments put so far, mainly based on the work of two academics, should not be taken at face value.

Kevin Coyne, TUSNE chair and Unite national officer, will open the discussion.

He said: "For there to be a full and proper debate there needs to be a full and proper investigation into the feasibility of a geological disposal facility in Cumbria. Only then can we consider how best to proceed. This issue is too important to make decisions without all the evidence."

Carlisle News & Star, at 12:24, Saturday, 19 January 2013

<http://www.newsandstar.co.uk/news/1.1028756>

## Nuclear repository: Residents get organised behind a common cause

Nestled in the Cumbrian countryside, on the road between Wigton and Silloth, lies the village of Abbeytown – you could be forgiven for not giving it a second glance as you drive between its two larger neighbours.

Residents there are getting organised behind a common cause with their campaign posters and stickers displayed in many of the windows with the emphatic slogan 'No to dump'.

It has been organised by campaign group Solway Plain Against Nuclear Dump (SPAND) in reaction to a proposed underground storage facility for high level and intermediate nuclear waste.

Next Wednesday three local authorities – Allerdale, Copeland and Cumbria county councils – are all due to decide whether or not to stay in the running to have it built in their areas.

But Neile Connelly, a 52-year-old truck driver from Abbey Close, says he first heard of the plan in the autumn and feared many people would have been unaware that such a plan was being considered for Cumbria.

"It was the first I knew about it. I saw a stall at a car boot sale in Silloth. I don't want one here at all. I just don't fancy having it dumped here under the ground. They always send it up here from the south."

<http://www.newsandstar.co.uk/news/1.1029880>

Carlisle News & Star, Wednesday, 23 January 2013

## Union's call for nuclear site study

Nuclear plant workers are backing new research into the feasibility of an underground site to dispose of radioactive waste, according to union leaders.

Unite is warning against any further delays as councils in Cumbria prepare to meet next week to decide on the question of launching further investigations into the scheme.

Any such decision would not mean the people of Cumbria would be committing to having a disposal facility in the area, according to national officer Kevin Coyne. He said all that the Sellafield workers wanted was a "full and proper investigation".

He said having a "national waste repository" was an issue that had been hotly-debated for 30 years and as long the uncertainty continued, the workers of Sellafield would continue to be responsible for dealing with most of the waste.

Institution of Occupational Safety and Health, news, 25 January 2013

[http://www.iosh.co.uk/news\\_and\\_events/news/industry\\_news.aspx?i=N0439201359112024732A](http://www.iosh.co.uk/news_and_events/news/industry_news.aspx?i=N0439201359112024732A)

### **It is irresponsible to vote for this in the knowledge that Cumbria is heavily unsuitable'geology**

The damning verdict from professor David Smythe, Emeritus Professor of Geophysics at the University of Glasgow, a retired academic and former member of the British Geological Survey, who argued in a packed public meeting that the Government's strategy to overcome its failure to find a **safe disposal site is as follows:**

- Wait 15 years, commissioning no substantive new research.
- Remove the right to future planning inquiries.
- Find a 'volunteer community' (eg west Cumbria)
- Remove evidence of the planning inquiry where possible.
- Present the inquiry failure as a local technical difficulty at one particular locality (Longlands Farm).
- Ignore the detailed national search carried out by the British Geological Survey in the 1980s.
- Pretend that we don't yet know enough about the area, geologically, to rule it out.
- Ignore international guidelines and practice on repository safety.
- Wrongly claim that other countries have solved the siting problem by volunteerism, and ignoring the geology.
- Spend £1m per annum on PR in West Cumbria.
- Buy off local councils with bribes ('community benefit packages').

Carlisle News & Star, at 09:42, Friday, 25 January 2013

<http://www.newsandstar.co.uk/news/news-focus/it-is-irresponsible-to-vote-for-this-in-the-knowledge-that-cumbria-is-heavily-unsuitable-1.1030296>

## **Sellafield workers back west Cumbria nuclear repository site search**

Sellafield workers have urged senior councillors to move onto the next stage of studies ahead of a crunch decision over nuclear storage.

The plea has gone out to members of three local authorities – Cumbria County, Copeland and Allerdale councils – to go to the next level of feasibility studies into a disposal site for radioactive waste in west Cumbria.

Ahead of a decision on Wednesday, the arguments for and against the move will be debated by MPs, scientists, nuclear workers and industry leaders at a seminar in Carlisle today.

<http://www.newsandstar.co.uk/news/sellafield-workers-back-west-cumbria-nuclear-repository-site-search-1.1030411>

Carlisle News & Star, 13:22, Friday, 25 January 2013

### **Pursuing a process to a point from which ‘there is no return’**

We have no doubt that Cabinet members will be only too aware that some 50 years of both overt and covert searching by successive Governments and the nuclear industry has failed to produce a nuclear waste disposal site – at the same time engendering deep mistrust among the general public. We contend that such mistrust will be exacerbated by a Council decision to move to Stage 4 of the current process, particularly as the focus will be on areas within the County that not only hosts geology of questionable potential but also local communities that are increasingly hostile. The likely failure to secure the tandem MRWS requirement of suitable geology and a willing host community will simply extend half a century of failure by a further few decades.

In summary we reiterate that, in placing volunteerism ahead of geological potential, the current MRWS process has isolated West Cumbria from the rest of the UK as a site for further investigation. This has resulted in localising what, at the outset, was heralded by Government as a national process to deal with a national problem.

**- Martin Forwood. CORE Campaign Coordinator, 28 January 2013**

## **County Council Leader & Cabinet on nuclear waste process**

<http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=311>

"It was a good decision because there were a number of questions they wanted some clarification on and we have worked over the last three months to ensure that we've been able to respond to those questions. I'm hoping now having done all the work that needed to do that the councils are satisfied that they can actually move onto the next stage, however, of course it is a decision that they have to take."

– *Baroness Verma, Energy and Climate Change Minister, 25 January 2013*

### **Hundreds take part in underground nuclear waste store protest**

Hundreds of people marched in protest at Ennerdale over a proposed underground nuclear waste storage facility in west Cumbria.

Roger Parker, a spokesman with the campaign, said: "We believe that the message is clear, nowhere in the Lake District National Park should even be considered as a site for a nuclear waste repository."

Carlisle News & Star, at 12:32, Monday, 28 January 2013

<http://www.newsandstar.co.uk/news/1.1030752>

by [Jamie Reed MP](#)

It will be one of the biggest decisions in west Cumbria's history.

On Wednesday councillors will decide whether the west of the county should look for suitable areas to build an underground nuclear waste store.

The question at the centre of this debate is what to do with the country's nuclear waste.

More than 70% of it is stored in west Cumbria and the community has been looking at whether the answer is to bury it in an underground nuclear waste store.

For four years a group of organisations across the county has been looking at the pro and cons of building the facility in the west of the county.

If built the £12billion scheme could be as deep as the height of Scafell Pike and wider than the city of Carlisle.

High level nuclear waste is already kept and monitored at Sellafield. Employees and unions support the move forward.

## **West Cumbria nuclear waste debate: argument FOR**

The 17th century Pheasant Inn on the banks of Bassenthwaite in the Lake District is an unlikely setting for a political drama with national implications.

But a meeting of friends for afternoon tea there late last year set off a chain of events that has culminated in claims of intimidation and threats in the debate over a proposed £12bn plan to dump radioactive waste in the area.

One of those who met at the Pheasant Inn to set up a campaign against the waste dump said details of the meeting were posted on Twitter and workers from the nearby Sellafield nuclear plant turned up. "They just sat nearby to let us know they were there," said the activist, who declined to be named.

ITV News, Monday 28 Jan 2013

<http://www.itv.com/news/border/2013-01-28/west-cumbria-nuclear-debate-argument-for/UK>

Cumbrian Times & Star, Wednesday, 30 January 2013

<http://www.timesandstar.co.uk>

Cumbria County Council has  
said **NO** to proceeding with a  
search. 7 votes to 3

# Cumbria nuclear project rejected by councilors

Further investigations into building a £12bn underground nuclear waste store in Cumbria have been rejected. Cumbria County Council vetoed a move to "Stage 4" of the search for a site for the radioactive waste facility.

The stage included detailed geological investigations and discussions over the social and economic implications. There were huge cheers from environmental campaigners outside the council chamber in Carlisle when the decision was announced.

**BBC News on line, 30 January 2013 Last updated at 14:19**

<http://www.bbc.co.uk/news/uk-england-cumbria-21253673>

## Nuclear store process finished in west Cumbria - Government

The Government has ruled out the prospect of an underground nuclear waste store being created in west Cumbria.



Eddie Martin, right and Stewart Young at today's meeting

Energy secretary Ed Davey said they respected Cumbria council's decision not to go-ahead with the search for a suitable site.



Members of the county's cabinet voted 7-3 against proceeding at the end of a meeting lasting almost four hours in Carlisle.

That came after Copeland council's executive had earlier voted six to one in favour of moving to stage four of finding an underground site locally to house high-level nuclear waste.

It had been agreed that both county and borough councils needed to be in favour for the process to continue.

"As such, the current process will be brought to a close in west Cumbria," added Mr Davey. "We will now embark on a renewed drive to ensure that the case for hosting a GDF (geological disposal facility) is drawn to the attention of other communities."

The county's decision followed an impassioned speech by leader Eddie Martin who urged members to vote against participation and instead "encourage the Government to make the necessary investment to improve surface storage facilities at Sellafield."

Mr Davey said that while the 'no' vote was disappointing, Cumbria would continue to play a central role in the energy and nuclear power sectors.

"I am confident that the programme to manage radioactive waste safely will ultimately be successful, and that the decisions made in Cumbria today will not undermine prospects for new nuclear power stations.

"We remain firmly committed to geological disposal as the right policy for the long-term, safe and secure management of radioactive waste. We also remain committed to the principles of voluntarism and a community-led approach," he added.

Speaking after today's meeting, Mr Martin said:

"Cabinet believes there is sufficient doubt around the suitability of west Cumbria's geology to put an end now to the uncertainty and worry this is causing for our communities. Cumbria is not the best place geologically in the UK – the Government's efforts need to be focused on disposing of the waste underground in the safest place, not the easiest.

"Members have remained concerned throughout on the issue of the legal right of withdrawal if we proceed to the next stage. Despite assurances from Government that they intend to introduce this as primary legislation, we do believe that this could have been done far sooner to ease our concerns. The fact remains the right of withdrawal is not yet enshrined in statute and we could not take the risk of saying yes today without this being absolutely nailed down.

"Cumbria has a unique and world-renowned landscape which needs to be cherished and protected. While Sellafield and the Lake District have co-existed side by side

successfully for decades, we fear that if the area becomes known in the national conscience as the place where nuclear waste is stored underground, the Lake District's reputation may not be so resilient."

**Whitehaven News, Last updated at 15:31, Wednesday, 30 January 2013**

<http://www.whitehavennews.co.uk/nuclear-store-process-finished-in-west-cumbria-government-1.1031408?referrerPath=home/2.2837>

## **Energy Secretary responds to Cumbria nuclear waste vote**

Cumbria County Council has voted to withdraw from the process to find a host community for an underground radioactive waste disposal facility.

Copeland Borough Council voted in favour of remaining in the process to identify a host community for a geological disposal facility. However, it has previously been agreed that parties at both Borough and County level needed to vote positively in order for the process to continue in west Cumbria. As such, the current process will be brought to a close in west Cumbria.

The Government will now embark on a renewed drive to ensure that the case for hosting a GDF is drawn to the attention of communities, and to encourage further local authorities to come forward over the coming years to join the process.

The Government will also reflect on the experience of the process in west Cumbria, and will talk to the local authorities themselves and others who have been involved to see what lessons can be learned. No changes to the current approach will be introduced without further public consultation.

Responding to the Councillors' decisions, Edward Davey, Secretary for Energy and Climate Change, said:

"We respect the decision made today by Cumbria councillors. They have invested a great deal of time in this project and have provided valuable lessons on how to take forward this process in future. While their decision to withdraw is disappointing, Cumbria will continue to play a central role in the energy and nuclear power sectors.

"We are clear that nuclear power should play a key role in our future energy mix, as it does today. I am confident that the programme to manage radioactive waste safely will ultimately be successful, and that the decisions made in Cumbria today will not undermine prospects for new nuclear power stations.

“It is however absolutely vital that we get to grips with our national nuclear legacy. The issue has been kicked into the long-grass for far too long.

“We remain firmly committed to geological disposal as the right policy for the long-term, safe and secure management of radioactive waste. We also remain committed to the principles of voluntarism and a community-led approach.

“The fact that Copeland voted in favour of entering the search for a potential site for a GDF demonstrates that communities recognise the benefits associated with hosting such a facility.

“For any host community there will be a substantial community benefits package, worth hundreds of millions of pounds. That is in addition to the hundreds of jobs and major investment that such a huge infrastructure project could bring.

“We will now embark on a renewed drive to ensure that the case for hosting a GDF is drawn to the attention of other communities.”

### **Cumbria County Council voted to withdraw from the process to find a host community for an underground radioactive waste disposal facility**

DECC Press release, 30 January 2013

<https://www.gov.uk/government/news/energy-secretary-responds-to-cumbria-nuclear-waste-vote>

## **Nuclear Industry Association responds to Cumbria nuclear waste vote**

30 January 2013

### **Cumbria County Council has voted to withdraw from the process to find a host community for an underground radioactive waste disposal facility.**

Following the news that Cumbria County Council has voted to withdraw from the Managing Radioactive Waste Safely process, Chief Executive of the Nuclear Industry Association (NIA), Keith Parker said:

We are disappointed that Cumbria County Council has decided not to move to Stage 4 of the MRWS process, however we respect their decision and welcome the positive vote from Copeland. This shows that the local communities are interested in hosting a GDF – as suggested by last year's Ipsos Mori poll showing a majority in favour of participating in the process.

The process to plan and implement a GDF is well defined and we are confident it will lead to a solution.

### **Executive decision regarding nuclear repository**

Allerdale Borough Council's Executive has, today, agreed to participate in the next stage of the search for a site for a nuclear repository, subject to conditions

To News Editors for Immediate Use  
30 January 2013 [www.allerdale.gov.uk](http://www.allerdale.gov.uk)

## **Copeland Council agrees to move forward with MRWS process**

Copeland Borough Council has today agreed to move forward to the next stage of the government's Managing Radioactive Waste Safely (MRWS) process,

Councillor Elaine Woodburn, Leader of Copeland Borough Council, said, "We have agreed to move to the next stage of the MRWS process, and have made this decision based on the evidence presented to us, both in the form of the MRWS Partnership's final report, and the recent correspondence we have had with the government and a range of other organisations."

"Whilst we do not know whether this area will be suitable to host a repository, we thought it was appropriate to continue in the process to try and find out. The results of a statistically robust opinion poll showed that Copeland residents supported this decision."

*Wednesday 30 January 2013. For immediate release [www.copeland.gov.uk](http://www.copeland.gov.uk)*

One local resident, Mark, posted this comment on a post-decision blog:

"Congratulations to CCC for standing up to the Government, big business and the unions all of whom showed little or no concern for the health and safety of Cumbrians present and future. CCC's refusal to be swayed by the promise of riches in return for turning a blind eye to the obvious geological deficiencies of the area is to be applauded. As for Allerdale BC, holding its meeting after ccc result was known was cowardly and pathetically transparent."

Posted on 31 January 2013 at 15:46

<http://www.whitehavennews.co.uk/letters/you-say/you-say-n-waste-questions-continue-1.1031533?referrerPath=home/2.2837>

### **31 January 2013 : Column 55WS**

Energy Secretary Ed Davey said: "Cumbria county council's vote against further participation does not come as a surprise, and indeed this decision point was built deliberately into the process in order to enable local authorities to consider their future

role and halt their involvement if they chose to do so. Of course, I respect the council's decision....

The fact that two local authorities in the UK voted in favour of entering the search for a potential site for a GDF demonstrates that communities recognise the substantial benefits associated with hosting such a facility—both in terms of job creation and the wider benefits associated with its development.

The construction of a GDF is a multi-billion pound infrastructure investment. It will directly create hundreds of jobs for many decades, even more during peak construction periods, and potentially hundreds more in the supply chain and in local service industries.

The Government are also committed to providing a community benefits package, potentially worth hundreds of millions of pounds, to support the social and economic well-being of the host community, which will have a lasting impact for generations.

### **Ministerial Statement to Parliament on Radioactive Waste Policy**

<http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm130131/wmstext/130131m0001.htm#13013127000006>

**As a result of the Cumbria County Council decision, myself and Peter Wilkinson, another NGO member of the Energy Secretary's Geological Disposal Implementation Board wrote the following letter to the minister:**

The Rt. Hon Edward Davey MP

Secretary of State for Energy and Climate Change

Department of Energy and Climate Change

3 Whitehall Place

London

SW1A 2AW

31 January 2013

Dear Secretary of State

The important decisions taken on 30 January by the three councils in Cumbria on participation in stage 4 of the MRWS programme clearly pose a critical challenge to the plans to take forward development of a geological disposal repository for long-lived radioactive wastes. In 2007 The Prime Minister David Cameron, during a visit to Greenpeace, insisted that that the problems of nuclear waste had to be dealt with to make investment in new nuclear power possible. It is clear that the decision of the Cumbria County Council also impacts the new nuclear build programme, although we note your views on this in your Written Statement to Parliament today.

([http://www.parliament.uk/documents/commons-vote-office/January\\_2013/31-1-13/6.DECC-ManagementofNuclearWaste.pdf](http://www.parliament.uk/documents/commons-vote-office/January_2013/31-1-13/6.DECC-ManagementofNuclearWaste.pdf))

Moreover, during Energy Questions in the House of Commons this morning, the former energy minister Charles Hendry MP, who until recently chaired the GDIB, expressed the view that the Cumbria decision will have a significant impact on the plans to emplace radioactive waste arisings from any new build programme in a subterranean repository.

In light of these comments, and the reassurance by Baroness Verma, in her written answers on Tuesday this week, that "Work to identify and assess potential candidate sites will only begin in west Cumbria should the local authorities decide to proceed to the next stage of the managing radioactive waste safely (MRWS) process." (Official Report, 29 Jan 2013: Column WA301) we, being members of the Geological Disposal Implementation Board, would like to strongly encourage you to convene a meeting of the board as a matter of urgency, so that it may deliberate the consequences of the Cumbrian County Council decision, how the MRWS programme could and should develop, and to consider what options are now available to ministers for the long term management of radioactive waste.

We look forward to hearing your views.

Yours sincerely

Dr David Lowry

Peter Wilkinson

## Radioactive Waste: Cumbria

**Paul Flynn:** To ask the Secretary of State for Energy and Climate Change with reference to the decision by Cumbria County Council on 30 January to vote against proceeding with stage four investigations for a subterranean repository under his Department's Managing Radioactive Waste Safely programme, what consideration he has given to proposed above-ground secured stores for radioactive waste. [141855]

**Mr Hayes:** Government policy on long-term management of higher activity radioactive waste is based on the recommendations of the independent Committee on Radioactive Waste Management (CoRWM). That policy is to pursue geological disposal as the best available approach for long-term management of higher activity waste with robust interim storage in the meantime.

Existing waste is already held in above-ground stores and, following the 2006 CoRWM report, the Nuclear Decommissioning Authority (NDA) carried out a nationwide review of interim storage arrangements, the 'UK Radioactive Higher Activity Waste Storage Review NDA', March 2009:

<http://www.nda.gov.uk/documents/upload/UK-Radioactive-Higher-Activity-Waste-Storage-Review-March-2009.pdf>

In accordance with the results of that review, the NDA will continue to upgrade interim storage arrangements wherever necessary, with the aim that all existing and new stores will allow safe and secure storage for at least 100 years. Government has consistently stated that safe and secure surface storage will be maintained for as long as is necessary to site a geological disposal facility, however, interim storage is not a permanent solution and as announced by the Government on 31 January we remain committed to geological disposal as the best approach for the long-term management of higher activity radioactive waste.

**Hansard, 6 February 2013 : Column 243W**

### Managing Radioactive Waste Safely

**The Secretary of State for Energy and Climate Change (Mr Edward Davey):** The Government remain committed to geological disposal as the right policy for the long-term, safe and secure management of higher-activity radioactive waste. For the reasons I gave in my written ministerial statement on 31 January 2013, *Official Report*, column 54WS ([www.gov.uk/government/speeches/written-ministerial-statement-by-edward-davey-on-the-management-of-radioactive-waste](http://www.gov.uk/government/speeches/written-ministerial-statement-by-edward-davey-on-the-management-of-radioactive-waste)) I remain confident that the objective of the managing radioactive waste safely (MRWS) programme is sound and will be put into effect, and that a site for a geological disposal facility (GDF) will be found.

Further to my previous statement, I can now confirm that the Government will today launch a call for evidence on the site selection process of the managing radioactive

waste safely (MRWS) programme. The evidence provided in response to this call will inform a public consultation later this year.

The invitation remains open for communities to come forward and express an interest, without commitment, in the site selection process for a GDF.

**Hansard, 13 May 2013 : Columns 26-7WS**

<https://www.gov.uk/government/news/views-sought-on-managing-radioactive-waste-safely-site-selection-process-and-government-responds-to-plutonium-reuse-consultation>

## **Geological Disposal Facility siting process review**

[Department of Energy & Climate Change](#)

Published 12 September 2013

Policy: [Managing the use and disposal of radioactive and nuclear substances and waste](#)

### **Summary**

This consultation seeks views on potential amendments to the site selection process for a Geological Disposal Facility (GDF). This consultation document seeks views on proposals which aim to revise and improve the site selection process for a GDF, while maintaining an approach based on voluntarism and partnership.

This consultation closes on 5 December 2013



**[Consultation: Review of the Siting Process for a Geological Disposal Facility](#)**

Ref: 13D/250 PDF, 1.49MB, 64 pages



## **Nuclear repository consultation rejected by Cumbria back on**

Energy minister Baroness Verma said:

“Geological disposal is the right approach for the long-term, safe and secure management of the UK’s higher activity radioactive waste. Hosting a site would bring lasting economic benefits with jobs, opportunities for businesses, and a generous benefits package to support the community. We want to make sure those benefits are well understood and supported by all those in the area surrounding any host community.”

**Whitehaven News, Thursday, 12 September 2013**

<http://www.whitehavennews.co.uk/nuclear-repository-consultation-rejected-by-cumbria-back-on-1.1083910>

## **The, at the end of last month, a new group emerged in Cumbria, concerned over the nuclear waste plans:**

### **New group aims to stop underground nuclear waste store in Cumbria**

The Cumbria Trust says it will campaign against any store on “geological and safety” grounds and fight to preserve the integrity of the Lake District.

The trust’s initial board members include former Cumbria County Council leader Eddie Martin, lawyer John Wilson, from Keswick and Geoff Betsworth, from Silloth.

It wants to build on the county council's decision earlier this year to stop Cumbria being considered as the site of a huge store for high-level radioactive material. Both Allerdale and Copeland said they wanted to continue.

The Department of Energy and Climate Change has since has launched a new consultation which enables the district councils to continue without the county.

Mr Martin, who retired as the county council leader in May and lives in Crosby, said the government’s decision to exclude the county is “astonishingly undemocratic”.

“Whilst David Cameron talks about the big society and localism he abandons these principles when they do not suit him,” he said.

Mr Wilson, a local commercial lawyer from Keswick, said: “Anyone can see what is going on here – it is a shameless, brazen, unlawful and outrageous attempt by the Government to usurp our democratic rights to get the result they want.”

Mr Betsworth said he felt democracy was being side-stepped with the latest development and they wanted to provide a co-ordinated voice to the campaign.

He said: “We are not, as a group, anti-nuclear; what we are against is an erosion of democracy. It’s not nimbysism at all. They are ruling out the waste authority and they are not taking into account the parish councils.”

Mr Betsworth said that, while there was already a lot of nuclear waste and correct storage had to be

found, it had to be in the right place.

"We are against putting the waste where it would be irresponsible to do so," he added.

Mr Parker described the organisation as a "coordinated umbrella group" and added: "I am amazed that local councils across the country are not jumping up and down about this process. It's an assault to democracy."

For further information visit [www.cumbriatrust.org](http://www.cumbriatrust.org)

Whitehaven News, Wednesday, 30 October 2013

<http://www.whitehavennews.co.uk/new-group-aims-to-stop-underground-nuclear-waste-store-in-cumbria-1.1094825>

## Cumbria Trust: champions of democracy or just a self-appointed pressure group?

Whitehaven News, Thursday, 07 November 2013

<http://www.whitehavennews.co.uk/letters/you-say/cumbria-trust-champions-of-democracy-or-just-a-self-appointed-pressure-group-1.1096728>

SIR – Members of the newly-formed Cumbria Trust (CT) bring much expertise and experience to the table.

Having a catholic membership from many different backgrounds, we do not agree on everything.

Nonetheless, there is much that we are united on, not least the critical analysis of the government's on-going consultation process on how and where to site a deep underground nuclear waste repository and which local authority should make the decision.

Given the county council's many responsibilities, it would be quite bizarre, if not plain silly, to exclude it from the process; it would also be an affront to democracy. We believe, therefore, that many of the proposals in this consultation are fundamentally flawed.

You can read our extensive and considered response, and much else, on our website at

[www.cumbriatrust.org](http://www.cumbriatrust.org)

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We are alarmed at the statement by the chairman of the Public Accounts Committee that the buildings at Sellafield present an "intolerable risk to people and the environment". For over 30 years, the government has searched for an underground repository and spent half a billion pounds in the process. Thus far, however, their efforts have been futile and fruitless.

We are arguing, therefore, that there should be much greater and more focused investment in surface and sub-surface storage at Sellafield (generating many more jobs) and that the search for an underground repository must be nationwide and conducted through an independently-reviewed national geological survey.

Before communities are invited to volunteer, the final site selection MUST be based on the safest geology rather than being motivated by political or economic considerations.

Geological maps clearly show that, over many years, boreholes for gas, oil, and seismic activity have been drilled in the area stretching from Maryport to the south of Sellafield. There are hundreds of such boreholes. Contrary to what some people believe, we therefore know a great deal about the geological structure of West Cumbria. The inescapable conclusion is that it is simply not safe. It is riddled with fissures, fractures and fast-flowing aquifers. And disused coal mines.

The UK has, indeed, a moral obligation to deal with nuclear waste but it would be quite immoral to bury such waste in sites which could not geologically guarantee the safety of future generations.

It would be even more immoral to bury nuclear waste in Cumbria simply because of financial

inducements.

We also believe that West Cumbria has been short-changed for many years: we need new schools, we have too many children (and adults) living in poverty next to the highest-paying company in Cumbria, the transport infrastructure is quite inadequate, the coastal rail needs investment, the local economy must diversify, we need enterprise zones... the list could go on and on.

Building an underground waste repository will not resolve those issues; greater investment in existing storage facilities at Sellafield would go some way towards addressing them. But, essentially, West Cumbria should be properly remunerated for the interim and surface storage solutions it already provides for most of the country's nuclear waste. This should be a significant annual rental, paid in perpetuity. The present amounts paid out, whilst welcome, are frankly derisory.

Cumbria Trust is very supportive of Sellafield and West Cumbria, and we would wish to see both flourish. Neither will benefit, however, from 30 years of considerable disruption and uncertainty associated with building an underground nuclear waste repository, or by removing the county council from the equation.

Copeland's MP may castigate us because we do not accept his assertions, but let me assure your readers that Cumbria Trust has issued no "mistruths"; we are not "scaremongering"; it remains neutral on the issue of nuclear energy – and we are certainly not the "same old faces". Such remarks are the remarks of a bankrupt argument. I can only despair at his entirely predictable and uncooperative comments. Would that he might find it possible to work with us rather than simply resort to unhelpful confrontation. That would certainly benefit West Cumbria, if not the whole of our beautiful county.

Eddie MARTIN

Chair of Cumbria Trust

SIR – The recent formation of Cumbria Trust has led to some inaccurate "assertions" about Cumbria Trust from Jamie Reed, the MP for Copeland.

These assertions include dishonesty regarding geology; scaremongering; claiming that Cumbria Trust aims to launch an attack upon the people and businesses of West Cumbria and a smear campaign against the people of West Cumbria.

Cumbria Trust is not anti-nuclear, nor is it anti-Sellafield, and it is most definitely not anti-West Cumbrian. Many of our founder members are themselves West Cumbrians.

#### GEOLOGY

Firstly, our views are honestly held. Secondly, our geological stance is based on the known geology of West Cumbria and the views of leading and independent academics as well as the accepted international criteria for any geological disposal facility; in short, geology has to be stable, simple and predictable.

In fact, it would be a nonsense for, and dishonest of, anyone with any knowledge of the subject to pretend that West Cumbria is some kind of frontier geological region which we need to explore. The fact is that, owing to the Nirex enquiry and the work of the oil and gas industries, we probably know more about West Cumbria's geology than about that found anywhere else in the UK.

In the 1980s and '90s, Nirex carried out a UK-wide search to find a site for a geological disposal facility. This process took many years and, overall, cost over £400million in old money, ending up in a huge planning enquiry in 1996 after Nirex had ended up "choosing" a site near Sellafield.

Nirex had originally identified more than 500 possible sites, pointing, alongside others, to vast areas of suitable geology elsewhere in the UK (East Anglia and East/Central England) which meet the international guidelines. In the end, Nirex, irrationally (according to the inspector) chose Sellafield as a location...

After a huge enquiry, and the submissions of a vast number of experts, the Nirex case was thrown out by the inspector and by the then Secretary of State.

In 2007, concerned about the new process about to start and the myths which had "evolved" over West Cumbrian geology, the inspector, Chris McDonald, wrote in The Guardian and clarified that: "The site (a GDF) should be in a region of low groundwater flow, and the geology should be readily

characterisable and predictable, whereas the rocks there are actually of a complex volcanic nature, with significant faulting.”

He added: “The [Nirex] site selection process was flawed, not treating safety as the most important factor, and irrationally affected by a strong desire to locate close to Sellafield.”

On the subject of Nirex myths, it is a myth that:

- (i) Nirex looked only at the Longlands-Farm site in West Cumbria;
- ii) there is some pocket of suitable geology lurking somewhere in West Cumbria which no-one knows about.

Nirex spent hundreds of millions of pounds and surveyed an area of 65x60 km in West Cumbria, extending as far north as Workington and as far east as the eastern end of the Ennerdale valley. It also included a significant area offshore.

Nirex clearly did choose the best site they could find in West Cumbria, yet the site failed on safety. As a consequence of Nirex, and oil and gas work, there are literally thousands of known boreholes in West Cumbria, as the British Geological Survey’s own data shows.

More recently, a geologist employed by the Managing Radioactive Waste Process (Dr Dearlove) admitted that the prospects of finding a suitable site in West Cumbria were slim and that, if it were a commercial operation, it would be aborted.

It is self-evident that, on geological criteria alone, no-one in their right mind would centre a UK-wide search for a geological disposal facility in West Cumbria, as there are obviously so much better and safer sites elsewhere.

Indeed, we believe that there should be an independent national survey to identify the best place for any geologic disposal facility.

#### WEST CUMBRIAN BUSINESS AND PEOPLE

For the record, our stated aims call for greater – not lesser – nuclear investment in West Cumbria. Specifically, we support a far greater investment in much better interim (meaning up to maybe 200 years) storage, quite possibly an enormous near-surface facility like that constructed in Sweden to deal with our legacy waste.

We also call for a greater proportion of the billions being expended on decommissioning Sellafield to be spent in West Cumbria. Amazingly, West Cumbrian politicians have allowed a situation to develop where over £500million – maybe £600million per annum – of Sellafield expenditure ends up outside Cumbria, let alone West Cumbria.

We also call for greater diversity in the West Cumbrian economy.

There is another myth: the jobs myth. The story which has been spun is that a geological disposal facility will generate many jobs. Not true.

Maybe hundreds (say 200 or so) would be employed in GDF once constructed – a number similar to that of those working in a large supermarket – but those jobs would probably be of mainly a janitorial and security nature.

It is true that the construction boom would be huge, and it would have an enormous effect on any region and its environment, but the actual tunnelling work would all go to specialist and outside contractors and, at best, lead to a short-term “Thorp-like” period of activity.

There is no evidence that a GDF would improve employment at Sellafield; in fact, the reverse might be true.

And as for community benefits – well, we believe that, over the last 60 years, West Cumbria has been treated derisively and see no evidence whatsoever suggesting that this will ever change. For your evidence, look at the poor current infrastructure, including hospitals, and at social deprivation. As for decision making – it is true: we do not believe that either Allerdale or Copeland should, on their own, be the decision-making bodies.

In terms of resources and personnel, both are very small local authorities incapable of dealing with a GDF on their own. Moreover, Copeland, in particular, appears to be struggling to survive at all.

There are thus genuine concerns about the extent to which it may be increasingly reliant on the contribution and largesse of its biggest industry.

So we believe that Cumbria County Council must be involved in any decision-making and regard the DECC proposal to exclude the county council as an attempt to subvert democracy to get the result it

wants. Similarly, with regard to the minimal proposed the role of parish and town councils. We also note that Copeland, Allerdale and Cumbria all agreed with the Government that consent at local, county and government level was needed. Given the magnitude of the issue, this seems entirely reasonable in a democracy. Why the change?

We are also concerned that efforts to groom and control opinion leaders in West Cumbria have been successful.

#### SCAREMONGERING

WHEN nuclear waste is concerned, it is not scaremongering to put safety before everything else. Nor is it scaremongering to question the approach of the Government, bearing in mind that, Nirex has already tried to “irrationally site a GDF” in West Cumbria and Government is now taking an ostrich-like approach to what was learned during the process.

Nor is it scaremongering to be worried that Copeland’s position has changed so much since Nirex. For example, when, in 2008, the Government invited communities to volunteer for a GDF, the first to come forward (within a matter of weeks) was Copeland – this being the only area in England which had been ruled out before!

This unseemly eagerness flew in the face of the Copeland’s earlier objections to siting a GDF in West Cumbria. In Nirex 96, Copeland stated: “Although concerned that the future of civil nuclear activities in the Borough could be put at risk by investigations elsewhere, Copeland regards safety as being paramount in the search for the ‘best’ site, wherever it is”.

And: “As it is, Copeland regards the selection process as being flawed, with insufficient attention being given to alternative sites...”

**Safety as paramount – there’s a thing!**

Nor is it scaremongering to be worried that the Government is now downplaying the importance of geology by intimating that “engineering solutions” can remedy any geological shortcomings. Are we worried by this? Too right we are – given that this is plain nonsense and that no other civilised country has adopted this approach, nor will it.

All other countries are relying on a proper and suitable geological barrier for reasons which should be obvious to a small child.

It is not scaremongering to be concerned about the forces of political expediency. In fact, it would be naïve in the extreme for any community like West Cumbria not to be, at the very least, very distrustful of London-based politicians and civil servants, who are motivated by the easiest – not the best – solution.

Nor is it scaremongering to be, in this context, concerned about the effects of new nuclear waste on this process. As we all know, Sellafield currently houses the UK’s legacy nuclear waste, but the planned new nuclear build will apparently increase by over 400 per cent the radioactivity of the UK’s nuclear waste as well as tripling the size of any repository.

The West Cumbrian people need to understand that any repository will hold not just the legacy waste currently being stored at Sellafield but the vast amounts of new radioactive waste now to be produced elsewhere in the UK by – ironically – French and Chinese companies. And, for this, we will take all the risk but receive – probably – nothing in return.

To conclude, you don’t, in our view, have to be anti-nuclear, or against a nuclear waste repository, to realise that West Cumbria should not be the site for any UK geological disposal facility.

John WILSON

Director, Cumbria Trust

[www.cumbriatrust.org](http://www.cumbriatrust.org)

SIR – Halloween was expected to bring some surprises, but the arrival of what sounded a worthy addition to our community resources turned out to be just a sad misrepresentation of the title “Trust”. Years before I became involved with local politics, I was a founding trustee of the Cumbria Community Foundation, an organisation which, over many years, has raised millions to help Cumbrian communities. Everyone is rightly proud of the work done during foot and mouth, the floods, and the many grants for facilities and activities across our county, which the Foundation has

delivered.

Now we have a “Cumbria Trust”, but what will it deliver? Apparently it is just a single-issue pressure group, opposing nuclear waste disposal in Cumbria, which seeks to give itself credibility by adopting a seriously misleading title. It also appears to be a desperate attempt by some to regain the headlines and dubious status they achieved earlier this year, while purporting to represent our county and the interests of its people.

It probably won't matter to this self-appointed group that I and many others also feel that the Government's latest policy proposals on higher level nuclear waste disposal are both hurried and flawed. Many of us also don't agree that the county council should be squeezed out of its role and wouldn't agree to the development of any repository, unless it was accepted as safe by independent regulators and complied with internationally accepted safety standards. Many of us also believe that any GDF should not be located in the Lake District National Park and that it should not be a location for intrusive research.

However and unfortunately, the facts are that 70 per cent of the nation's higher level nuclear wastes are already at Sellafield, held in facilities with a limited lifespan. Many believe that current generations have created this waste and have the responsibility to ensure a safe future for it. I am certainly not in a minority in West Cumbria in preferring that we seek a disposal solution which utilises our community's nuclear skills and minimises any need to move this material unnecessarily. If that proves impossible, because genuine, comprehensive research and analysis proves it so, then alternatives must be sought. We cannot just turn our backs and use language like “shameless, brazen, unlawful and outrageous” to justify a massively negative, headline-seeking sulk about Government's attempts to fumble its way through this huge problem.

My message to the “Cumbria Trust” is: tone down the rhetoric, stop headline hunting, call yourselves what you are – a self-appointed pressure group – and consider engaging positively with trying to solve this uniquely Cumbrian problem.

Tim KNOWLES

County Councillor for Cleator Moor East & Frizington  
Former Chair of West Cumbria MRWS Partnership

## Referendum call on nuclear store for Cumbria

By Ian Duncan Political reporter

Cumberland News, Saturday, 09 November 2013

<http://www.cumberlandnews.co.uk/referendum-call-on-nuclear-store-for-cumbria-1.1097273#>

**CALLS have been made for a referendum to decide whether Cumbria should be considered to house a giant underground nuclear waste store.**

**A veteran Carlisle politician is among those demanding that the people – not just politicians – should decide whether the county should be in the running for the controversial scheme.**

Liz Mallinson spoke amid increasing speculation that a fresh attempt could be mounted to house an atomic repository in Cumbria – but with the county council stripped of its power to veto a site search.

She said: “I am concerned that the people of Cumbria are being disregarded. We need a referendum for the whole of Cumbria. It’s not just Copeland and Allerdale.”

The search for a high-level waste store site in Cumbria was blocked earlier this year after the county council’s ruling cabinet – of which Conservative Mrs Mallinson was then a member – pulled the area out of the process.

It was a decision that triggered fierce political debate after Allerdale and Copeland councils voted to stay in the process, but were unable to do so without the county’s support.

Chances of the search restarting have emerged after the Government announced details of a possible new consultation process that could see the district councils going ahead without the county’s support.

County councillors debated the issue yesterday ahead of its cabinet formally responding to the Government consultation later this month.

Town and parish councils may also be excluded from the process to decide whether there should or could be a Geological Disposal Facility in any specific area.

West Cumbrian councillor Stan Collins said it was unusual that the county council – as the waste authority – was being excluded and that the community benefits of any scheme, were it to go ahead, had to be more transparent.

He said: “Any community that is considering volunteering is putting itself under a planning blight. Any business that is considering investing in that area could be thinking what is that decision going to be?”

Mr Collins also called for a referendum, adding: “Let’s make sure that those areas, if they are part of it, are properly compensated and not just with a few goodies in a crumpled paper bag.”

Labour councillor Tim Knowles resigned from his cabinet position in the Conservative-Labour coalition running the authority at the time of the no vote. He told colleagues in Kendal yesterday that a solution to the atomic store issue had to be found, with 70 per cent of Britain’s nuclear waste already in Copeland.

“It’s essential that we engage – we just can’t take our ball home and refuse to continue,” he said.



Councillor David Southward, the portfolio holder for economic development, said there had already been a very long process and January's decision had been the right one

It was no surprise to him, however, that the Government had produced this latest consultation.

He added: "This is the same process except the decision-making body isn't the county council, it is the district councils."

Campaign group the Cumbria Trust, fronted by former county leader Eddie Martin, has been formed to oppose moves to search for a storage site in the area.

Consultation on the approach runs until December 15, with the re-launch of the national selection process next year.

Published by <http://www.cumberlandnews.co.uk>

## Residents asked for GDF views

ST Bees residents are being asked for their views on the search for a site for an underground store for nuclear waste.

The government is currently inviting feedback into what form the search for a nuclear geological disposal facility (GDF) should take.

And St Bees Parish Council has written to each household in the village for their input.

A parish council spokesman said: "We held a public meeting on October 21 to discuss a parish response. Only three members of the public turned up, and although good discussion was held, all those present recognised there should be a wider response.

"The consultation document is large and covers complex issues, so our document being sent out lists questions, a summary of the government's proposals and comments from the parish meeting.

"It is hoped that when the document is returned (before the November 17 deadline), the public parish council meeting on November 18 will be able to review the results and get a clearer idea of the public attitude to these extremely important issues."

Members of Cope-land Council's Executive are set to discuss the consultation at a meeting on Tuesday, November 19.

Under the new search launched in September, the government wants to give powers to district councils as the "representative authority", giving them – and not the county – the final say on whether to proceed or withdraw from the process.



During the previous Managing Radioactive Waste Safely (MRWS) process, Cumbria County Council's 'no' vote in January overruled the boroughs and ended Copeland and Allerdale's progress in the search to find a site locally.

The new nationwide process, launched by Department for Energy and Climate Change (DECC) lasts until December 5 and is seeking views on what form the next process will take.

It could include communities being provided with more information at an earlier stage in the process; a positive community-wide demonstration of support being required before a community could host a GDF; and communities having an on-going right to withdraw.

It is expected the search for a site itself – and invitations for volunteers – would begin next year.

Campaign group the Cumbria Trust, fronted by former county council leader Eddie Martin, has been formed to oppose moves to search for a storage site locally.

Baroness Verma, the Parliamentary Under-Secretary for Energy and Climate Change, has written to The Whitehaven News to respond to comments made by Cumbria Trust, see p13.

Cumberland News, Thursday, 14 November 2013

<http://www.cumberlandnews.co.uk/residents-asked-for-gdf-views-1.1098438>

## **GDF: Minister replies to Cumbria Trust**

SIR – I am writing in response to letters from the Cumbria Trust relating to the Government's consultation on proposals to review the siting process for a geological disposal facility (GDF) for higher activity radioactive waste (The Whitehaven News, November 7).



fact-finding: Baroness Verma on a visit to West Cumbria last year, with Coun Tony Markley and Coun Alan Smith from Allerdale, Coun Tim Knowles from Cumbria County Council and Coun Elaine Woodburn from Copeland

I understand the concerns expressed in those letters, but am keen that there should be no misunderstanding about what the Government is proposing or why.

After the previous GDF siting process ended in West Cumbria, we considered what lessons could be learned both from that experience and from other processes internationally. We launched a national consultation, running from September 12 to December 5, in order to improve the future process.

Two points are fundamental: that this is an issue of huge strategic national importance; and that the solution will depend on local community support.

Our aim is that we can find potentially suitable sites throughout the country – which may or may not be in Cumbria – with a strong, clear and final voice for local communities in the decision-making process.

Safety and independent regulation will also be paramount. Establishing a proven safety case for a site will take years and be influenced by many factors – including geology – and a facility will not be constructed at any location until the project is demonstrably safe and secure against very stringent standards.

Contrary to statements made by some others, the geology of Cumbria has not been shown to be unsuitable for hosting a GDF. Previous geological studies were never completed in Cumbria. Further detailed exploration would be needed to establish the suitability or otherwise of geology in any specific area.

Continued storage would not (as has been suggested) provide an alternative solution, but would instead place a financial burden on future generations, as storage costs are recurrent. There would be no additional jobs associated with continued storage compared with the construction of a GDF.

Geological disposal is the right approach for the long-term safe and secure management of the UK's higher activity radioactive waste, and is internationally recognised as the preferred approach for protecting human health and the environment.

I urge the people of Cumbria to consider the full facts when informing their view on the matter.

Baroness VERMA

Parliamentary Under-Secretary for Energy and Climate Change

SIR – It is interesting to read the comments and arguments put forward by the newly-formed Cumbria Trust.

At the moment it would appear that they are only a single-issue pressure group.

They state that they are not anti nuclear, anti-Sellafield nor anti-West Cumbria. How very odd! It begs the question, what is their real purpose and what outcome?

Several of their arguments convey mixed messages, deflecting attention away from the real issue to find a long-term solution for the nuclear waste stored here in West Cumbria.

Coun Knowles, in his letter, states that Cumbria Trust should consider engaging positively to try and solve this uniquely Cumbrian problem. I fully agree with him. This is a local issue and very much a unique one.

In order for this group to be seriously credible in the eyes of the community, they must offer clarity by way of a clear mission statement and a willingness to engage in rational debate with stakeholders, local politicians and the mandarins in Whitehall, rather than indulging in headline-grabbing hysteria.

Graham ROBERTS

Aikbank Road Whitehaven

SIR – I rather think that being dismissive of, or sneering at, a “self-appointed pressure group”, as Tim Knowles did, is less than helpful. A pressure group (and is there any kind other than “self-appointed”?) may be an irritant to politicians, but it is quite simply an interest group that tries to influence public policy.

Many people have major concerns about the wisdom of burying nuclear waste in less than satisfactory geology. So would Coun Knowles have us sit on our hands, do nothing and leave these desperately important decisions to the debatable wisdom of politicians at either local or national-government level? I suspect not.

The Cumbria Trust is effectively a community-based organisation with a growing membership which has sprung out of local people’s own initiatives and their deep-rooted concerns. Although we are not in government and Coun Knowles is, does he suggest we should be denied the freedom and democratic right to influence people in

power? Amnesty, Oxfam, Greenpeace, CPRE, the RSPCA and hundreds of others are all “self-appointed” pressure groups; so are the Copeland groups that are campaigning to stop on-street parking charges and protesting against the closure of the Civic Hall. The fact that individuals with similar beliefs come together in an attempt to influence politicians seems entirely reasonable and, more importantly, entirely democratic.

My colleagues and I are strongly of the opinion that if DECC, the government department responsible, attempts to focus, once again, on Cumbria, it is setting off on another futile search. Given that UK governments have spent more than 30 years looking for a suitable site and half a billion pounds on fruitless attempts to find it (including the failed Nirex process of 1997), we are anxious to ensure that no more time is lost in dealing with the “intolerable risk” at Sellafield and in finding a geologically-suitable and safe site in England.

The situation will, of course, be exacerbated by the commissioning of new nuclear power stations which, it is estimated, will increase our nuclear waste radioactivity levels by 400 per cent and triple the size of any repository. Whatever one’s views are on nuclear new-build, we must have a safe solution to the disposal of the nuclear waste. This is, indeed, a national problem requiring a national solution, so we are asking for a national geological survey of England before volunteer communities are invited to come forward. How complicated is that?

We maintain that safety (for countless generations yet to come) – not economic or political considerations – must surely be the overriding factor.

The Cumbria Trust is simply saying to the government: (a) find the safest place in England to bury nuclear waste, not the most politically convenient; (b) don’t rule out county councils, and do involve the parish councils; (c) do not bribe a community to host the waste and do give it the right to pull out; (e) invest more in Sellafield and build internationally-approved storage facilities; and (f) spend more of this, and the Sellafield decommissioning monies, in West Cumbria. The latter (now £1.8billion pa) is, according to Margaret Hodge, currently being “scattered like confetti” but, sadly, not in West Cumbria!

The Cumbria Trust will work with anyone to achieve these aims. We have told no mistruths, we are not scaremongering, we are not “the same old faces”. In fact, much of what we are saying is very supportive of the county council’s decision of January 30. And, as the ‘Call for Evidence’ and the latest consultation clearly demonstrate, it was, indeed, the right decision at the time.

Eddie MARTIN

Chairman, Cumbria Trust

SIR – Having read Tim Knowles’ comments about the Cumbria Trust, I think he has a bare-faced cheek.

He accuses the Cumbria Trust of grandstanding, but what was the point of his letter, other than to raise his own profile? Most of his diatribe confirms that his own beliefs mirror those of the Cumbria Trust. So all he seems to be doing is to knock an organisation that is aiming to press for securing the safety of the population of West Cumbria, something he and his colleagues have patently failed at doing.

If Coun Knowles, together with the Copeland Cabal of Jamie Reed and Elaine Woodburn had done so well by West Cumbria, why, after all this time and the alleged support from the nuclear industry, is Copeland in such a state? (Please note, I say the “nuclear industry” – I do not seek to criticise the Sellafield workforce, but I certainly want to blame the oversight of Government and management that exposed the population of Cumbria to such an “intolerable” risk).

The people of West Cumbria should be adequately rewarded for the job they have been doing hosting the nation’s dangerous waste over the years, not held hostage to the Government’s “hurried and flawed” plans to dump its rubbish on Cumbria, just because it is expedient and no-one else wants it.

To use the words of our MP Jamie Reed, it is “morally indefensible” to place our nuclear waste in a leaky sieve and place future generations at risk. We need adequate investment to deal with the existing waste until a SAFE disposal site is found and constructed. If our current politicians have failed us, why should Coun Knowles pour scorn on an organisation that seeks to make sure that they up their game and do what they are supposed to do? That’s democracy. Stop grandstanding and get on with the job!

Roger PARKER

NOEND

SIR – Tim Knowles’ protestations always make me laugh as he tries to regain some semblance of credibility before the 2015 elections.

In the Keswick Reminder of November 7, his self-proclaimed Jedi MP friend stated in his tirade against people who were against the GDF that they were “embarking upon a deliberate campaign of scaremongering, lies and deceit”. From this point on the usage of this phrase, or parts of it, grew with Coun Woodburn and even the likes of Lord Hutton and Baroness Verma and himself jumping on this verbal and written bandwagon.

I am not a member of Cumbria Trust and don’t intend to be one, but decrying their existence and their democratic rights is simply wrong.

I also wonder what happened to the term “Brand Cumbria” that Copeland’s MP used in the letter quoted. If, as the councillor points out, “shameless, brazen, unlawful and outrageous” terms are being used why are the “unlawful” instances not being challenged in court by him and his ilk?

The councillor was against low-level waste from just across the border but, incredibly, promoted high-level waste from further north which is being shipped in by rail over the next five years. As some of the existing waste has come via various routes from around Britain and the world safely, and will no doubt continue to do so for reprocessing, how come it is not dangerous to bring it to Cumbria but dangerous to transport it back in a more refined or in its original state?

To admit that he was the one of the rotating MRWS Partnership “chairs” is to me his ultimate political folly as this was a three-year £3.25million catastrophic and biased attempt to act as both judge and jury on the GDF subject which can now only be resolved by holding democratically-guaranteed referendums in both Copeland and Allerdale, as the democratic principles of both borough councils and their MPs is irrefutably damaged by their past and present actions.

Arthur MILLIE

Longcroft, Egremont

SIR – Having failed to achieve their expensively hard-fought aim to convince Cumbria County Council to agree to host the intended high level toxic nuclear waste repository in our county, the so-called democratic government of this country most shockingly changed the goalposts to exclude all county councils from the Governments renewed efforts to find a willing host.

Elaine Woodburn and MP Jamie Reed are in favour of high-level nuclear waste storage in Cumbria. Therefore the existing highly toxic radioactive waste in Sellafield, and the predicted large increase in the amount of imported nuclear waste to that site, which all agree must be safely stored somewhere, and then Sellafield with the workforce and local politician’s blessings would appear to be the only sensible acceptable location.

Dependent on the local geology within the Sellafield site, I suggest a comparatively shallow bunker is excavated for the purpose of long-term safe storage of the highly toxic nuclear waste which is already on site. For safety the bunker would remain accessible at all times and be constantly manned by workers tasked with the vital responsibility of the 24- hour safe policing/monitoring of the highly toxic waste. By far a much cheaper and less alarming option than the government’s preference to bury the toxic potential time bomb waste underground in a hole the size of Carlisle at a depth of around 3,000ft then fill in the immense hole and seal it to leave it to its own unpredictable fate, simply praying nothing would go wrong in this untested method of storage, which incredibly the nuclear industry were actually proposing to do to our county until Cumbria County Council very wisely voted against the idea.

As I object in the strongest possible terms to Cumbria being the dumping ground for all high-level nuclear waste, immediate action should be initiated to immediately stop any more or future import into our county of what is accepted and known to be environmentally dangerous high-level nuclear waste. Current environmental law dictates

that contaminated soil/waste from whatever source is stored as close to its origin as possible. Clearly this law is being flouted by the nuclear industry which regardless brings highly toxic nuclear waste to Sellafield from all over Britain on an almost daily basis.

Scotland is currently dumping into Sellafield their decommissioned highly radioactive dismantled nuclear buildings. Obviously with the blessing of our government who, despite great expense and many years of scientific effort, have found no satisfactory solution to the conundrum of safe long-term storage of toxic high level radioactive contaminated materials.

Scotland has thousands of acres of uninhabited land, which then begs the question why the Scots are not dealing with their own contaminated toxic nuclear waste? Is Cumbria heading towards becoming the nuclear dustbin for the whole world?

Joe SANDWICH

Low Seaton, Workington

Whitehaven News, letters, Thursday, 14 November 2013

<http://www.whitehavennews.co.uk/letters/you-say/gdf-minister-replies-to-cumbria-trust-1.1098410>

On Monday this week, DECC hosted an on-line webchat on the nuclear waste plans. Some of the comments were revealing.

## **Webchat: improving site selection for radioactive waste Geological Disposal Facilities**

We are looking for your views on proposals to revise and improve the site selection process for Geological Disposal Facilities (GDF) for radioactive waste.

We will be holding a [webchat](#) from **11:00 – 12:00 on Monday 18 November**.

### **DECC webchat**

**Geological disposal of radioactive waste: Review of the site selection process**

<http://tools.decc.gov.uk/en/content/cms/webchat/>

Monday November 18, 2013

So that is where we currently stand in the great policy debate.

Here are some relevant recent technical developments which impact the changing policy process.

## Technique to cut nuclear waste "by 95%"

Process Engineering, 11 November 2013

<http://processengineering.theengineer.co.uk/power-and-water/1017461.article>

By [Robert Smith](#)

Engineers from the University of Sheffield have developed a technique to reduce the volume of higher activity nuclear wastes.

The process, which involves mixing plutonium contaminated waste with blast furnace slag and turning it into glass, could reduce the volume of waste by up to 95%, according to the researchers.

As well as the potential waste reduction, researchers have said the vitrification technique also creates a stable product as radioactive plutonium is effectively "locked in" to the glass.

"Our process can stabilise the plutonium in a more corrosion-resistant material." -Prof Neil Hyatt

Lead researcher Professor Neil Hyatt said: "The overall volume of plutonium contaminated wastes from operations and decommissioning in the UK could be upwards of 31,000 m<sup>3</sup>, enough to fill the clock tower of Big Ben seven times."

Currently, the estimated minimum UK plutonium contaminated material (PCM) inventory is 31,140 m<sup>3</sup>. If his team's process were to be incorporated across UK nuclear plants, Hyatt claimed the remaining waste would only consume the same volume as one Big Ben clock tower.



Hyatt also said that the current method for treating non-compactible plutonium-contaminated wastes involved cement encapsulation, but this can typically lead to more overall waste being generated.

“Our process can stabilise the plutonium in a more corrosion resistant material, so this should improve the safety case and public acceptability of geological disposal,” Hyatt added.

A key element of the research was to show that a single process and additive could be used to treat the expected variation of wastes produced, ensuring the technique would be cost effective.

The research was partly funded by Sellafield, which operates a nuclear re-processing site in west Cumbria, and accounts for around 75% of all stored nuclear waste within the UK.

The next stage of the team’s research will involve optimising the vitrification process to support full scale demonstration.

## **Sizewell: Radioactive waste could be transported to Sizewell A from Kent**

**by David Green**

Radioactive waste from Dungeness in Kent could be transported to the Sizewell A site for storage if plans being discussed by the Nuclear Decommissioning Authority are adopted.

Waste from Sizewell would also go in the opposite direction for processing, according to the NDA’s “preferred option” for dealing with part of the radioactive legacy of Britain’s first generation nuclear power stations.

The NDA is currently consulting on ways of treating and storing waste classified as of intermediate level which is ultimately destined – along with high level waste – for a deep burial facility at a site in the UK yet to be identified.

Intermediate level waste consists partly of debris created by the removal of highly radioactive fuel elements from the reactors and residues and contaminated components from other parts of the plant.

Current plans are for the fuel element debris (FED) to be treated by immersion in acid in order to reduce volumes, and specialised

dissolution plants would be needed.

Under an alternative option, each site would have its own FED dissolution plant and intermediate level waste store.

However, in line with the NDA's preferred option, the dissolution plant for Sizewell A and Dungeness would be located at the Kent site, with packaged intermediate waste from Dungeness being stored at Sizewell, in a new building, if a similar store at Bradwell is not able to accommodate all of it.

Twenty lorry loads of packaged waste from Dungeness would have to be transported between the Sizewell railhead and the A station site.

Meanwhile, 60 lorry loads would transport the 84 tonnes of Sizewell A fuel debris to the railhead for transfer to Dungeness.

The NDA says there would also be an opportunity for some shared storage with the Sizewell B site.

A spokesman said the preferred option would "make use of existing facilities, ensure a balance of development across the sites, reduce overall environmental impact and reduce costs by about £90million".

Marianne Fellowes, chair of the Sizewell Stakeholder Group, said members had yet to decide their response. "Personally, I am uncomfortable with the dissolution of FED, wherever it occurs, but the current preferred option to treat it at Dungeness does mean no additional nitrate oxide discharges here."

Pete Wilkinson, Suffolk environment consultant and former member of a Government committee on radioactive waste management, said he remained opposed to dissolution because, unlike storage, it involved discharges to the environment.

Magnox Limited, the management company for Sizewell A, is hosting two public drop-in sessions about the waste management options. These will be held at the United Reformed Church, Leiston on November 20, from 2pm to 6,30pm, and in Saxmundham Market Hall the next day, from noon to 4pm.

**East Anglian Daily Times, Monday, November 18, 2013,6:00 AM**

[http://www.eadt.co.uk/news/sizewell\\_radioactive\\_waste\\_could\\_be\\_transported\\_to\\_sizewell\\_a\\_from\\_kent\\_1\\_3010800](http://www.eadt.co.uk/news/sizewell_radioactive_waste_could_be_transported_to_sizewell_a_from_kent_1_3010800)

### **Other Sources**

**CORWM 1 final report**



**ILW and FED proposed preferred options public information events schedule**  
Magnox and the NDA are holding public information events to provide more information on the set of proposed preferred options for the number and location of fuel element debris (FED) treatment plants and intermediate level waste (ILW) interim storage facilities for Magnox sites in England.

<http://www.nda.gov.uk/news/preferred-options-facilities-magnox-ltd.cfm>  
[Preferred options for FED and ILW Storage facilities](#)

## **Future disposal of radioactive waste to the Low Level Waste Repository in West Cumbria**

### **Invitation to Environment Agency workshop**

**11 December 2013 - Rheged Centre, Penrith, 0930-1630 hours**

We would like to invite you to participate in an independently facilitated workshop to discuss the future disposal of radioactive waste to the Low Level Waste Repository near Drigg. The day will provide an opportunity to hear about, discuss and comment on the operator's Environmental Safety Case, their application to vary the environmental permit and to identify and discuss any other relevant issues with regard to the facility.

The workshop will include a small number of presentations with equal time for table discussions and an exploration of issues. We are hoping to have speakers from Low Level Waste Repository Ltd and Cumbria County Council (the Planning Authority).

LLW Repository Ltd

<http://www.environment-agency.gov.uk/business/sectors/115658.aspx>

LLW Repository Ltd run the Low Level Waste Repository (LLWR) near Drigg, Cumbria. This site is used for the disposal of low level solid radioactive waste (LLW).

We authorised this site in 2006, when it was run by British Nuclear Group Sellafield Ltd (BNGSL). This authorisation is still current and allows LLW Repository Ltd to dispose of LLW in one part of the facility, called Vault 8.

Vault 8 is now almost full, and LLW Repository Ltd have built Vault 9. We have not authorised disposal of radioactive waste in this new vault, but waste may be stored, subject to regulation by the Office for Nuclear Regulation.

The 2006 authorisation specified a number of improvements and requirements for information. A key requirement was for LLW Repository Ltd to carry out a

'comprehensive review of national and international developments in best practice for minimising the impacts from all waste disposals on the site', including 'a comprehensive review of options for reducing the peak risks from deposit of solid waste on the site', by 1 May 2008.

We assessed the review reports and our comments and recommendations to LLW Repository Ltd can be found in the following reports:

- **An overview of our main findings (PDF, 500KB)**
- **Assessment of risk reduction options (PDF, 1MB)**
- **Inventory and near field (PDF, 400KB)**
- **Site understanding (geology, hydrogeology and site evolution) (PDF, 350KB)**
- **Performance assessment (PDF, 200KB)**

### **Environmental Safety Case**

A further major requirement within the authorisation (now an environmental permit under the Environmental Permitting Regulations) was that LLW Repository Ltd submit an updated environmental safety case (ESC). We received this on 1 May 2011 and started our review. We are looking at the ESC in detail against our Guidance on Requirements for Authorisation (GRA) on near surface disposal. The comprehensive review will take around two and a half years and we expect to report during spring 2014.

- **Guidance on Requirements for Authorisation (GRA) on near surface disposal (PDF, 1.55MB)**

Our review of the ESC will inform a review of the environmental permit for disposal at the LLWR, by LLW Repository Ltd, to Vault 9 (and future vaults). We anticipate consulting on this issue in autumn 2013, before reaching a final decision on the suitability of the LLWR for continued disposals of LLW by the end of 2014.

### **Latest news**

We are producing briefing notes about the progress of our review of the Low Level Waste Repository's Environmental Safety Case (ESC).

- **Briefing note - Low Level Waste Repository - September 2013 (PDF, 245KB)**
- **Briefing note - Low Level Waste Repository - April 2013 (PDF, 293KB)**

## 2. Sellafield

**I want next to explain a scandal in the mismanagement of Sellafield. We need to go back five years to understand the beginnings....**

### **IoS Investigation: Officials plotted Sellafield cover-up**

**MPs were denied the chance to challenge sweetener to private firm's nuclear deal**

By Geoffrey Lean , Andy Rowell and Rich Cookson

Top civil servants and nuclear administrators colluded to prevent MPs from challenging a massive sweetener to a private business taking over the running of Sellafield, internal documents in the hands of *The Independent on Sunday* reveal.

The documents, obtained through the Freedom of Information Act, also disclose that the Government pushed through the handover at breakneck speed because it feared that the "unstable management arrangements" of the controversial Cumbrian nuclear complex risked its safety.

Yesterday, a leading Labour MP announced that he would try to get a parliamentary investigation into the revelations in the documents, which run to 140 pages and had been so heavily censored prior to release that many whole pages, and the names of most of the officials involved, have been systematically blanked out. Paul Flynn MP, a member of the House of Commons Public Administration Committee – which examines the performance of the Civil Service – is to ask it to inquire into what he calls "an egregious example of obstruction of parliamentary accountability".

The cover-up arises from the awarding, late in November, of a contract to run the nuclear complex to Nuclear Management Partners, a consortium of US, French and British companies. Although the contract is worth some £22bn, the consortium told ministers that it would walk away from the deal unless it was fully indemnified against the costs of cleaning up an accident at what is one of the world's most hazardous nuclear sites.

Normally, as the documents repeatedly acknowledge, the Government would place a special minute before Parliament if it intended to undertake a liability of more than £250,000. MPs would then have 14 days to raise an objection, which would stop the undertaking going ahead until it had been dealt with. But MPs were not told about the

Sellafield indemnity until 75 days after the last moment when they could object, even though it potentially exposes the taxpayer to liabilities running into billions.

The energy minister Mike O'Brien blames a "clerical oversight" for this. But the documents clearly show that the senior civil servants and nuclear administrators had been actively discussing how to limit MPs' chance to object at least since early last year.

The documents have come to light only as a result of persistent pressure from Dr David Lowry, an independent environmental policy and research consultant, who is a member of Nuclear Waste Advisory Associates. The documents make it clear that the Government was determined to hurry through the handover of operations at Sellafield as quickly as possible because of what one of them calls "the current unstable management arrangements overseeing these extremely sensitive sites, and their high hazard inventories". Another adds that this instability "constitutes a genuine risk to health, safety and environmental performance" at the complex.

A rushed timetable was drawn up which involved naming a preferred bidder for the contract on 11 July and signing a transitional agreement on 6 October. But this clashed with the long parliamentary summer recess, which ran from late July to the very day set aside for the signing.

If the Government were to stick to its speeded-up timetable, the documents say, "the very earliest date" in which the minute could be laid before Parliament would be 14 July, shortly before the recess began on the 22nd.

Determined not to slow down the handover, the Government decided to reduce the period in which MPs could object. On 26 March, an official whose name and department has been blanked out emailed the official Nuclear Decommissioning Authority (NDA) to stress the requirement to "shorten the 14 working parliamentary days that an indemnity would normally need before it can become effective".

The official added: "To get this down to five days, we will need to muster some persuasive arguments and I wondered where you had got to on assembling these." Two days later he was sent a "first draft" of the argument including an assertion that the "vulnerability of Sellafield operations is already seen as a significant safety risk".

But by early June, the idea of giving MPs any time at all to object had been abandoned. Another email to the NDA, from apparently the same blanked-out official, reported a "conclusion" that a letter should merely be written to Edward Leigh MP, the chairman of the House of Commons Public Accounts Committee, "rather than go for a shorter notice period to the House".

A minute "explaining what has happened" would be laid before MPs only "when Parliament reconvenes in the autumn", by which time it would be too late to raise objections. On 14 July, the then energy minister Malcolm Wicks duly wrote to Mr Leigh; he did not object and the indemnity went into force before MPs knew about it.

In his letter, Mr Wicks assured Mr Leigh that he was placing a copy of the letter and the minute in "the libraries of the house". In fact this did not happen until 15 October, 75 days after the final date on which MPs could raise an objection. Mr O'Brien, who succeeded Mr Wicks, blamed "a minor error by a junior official", but later conceded that his department had not checked for three months whether the documents had reached the libraries.

Mr Flynn says that he and other MPs had already been raising questions about the indemnity and would have been likely to raise objections, and accuse the Government of trying to push it through "without anyone noticing".

Independent on Sunday, 04 January 2009

<http://www.independent.co.uk/news/uk/politics/ios-investigation-officials-plotted-sellafield-coverup-1224473.html>

## Sellafield costs ‘an appalling waste’

THE spiralling cost of the clean-up project at Sellafield has been described as “an appalling waste of money” with cash being “scattered like confetti”.



MP Margaret Hodge was speaking as chair of the influential Public Accounts Committee (PAC), which had called the management of Sellafield's owners, the Nuclear Decommission Authority (NDA), to review progress made on the site.

The estimated clean-up cost has risen from £67.5bn in February, to today's £70bn, Monday's hearing was told. It also heard that 14 clean-up projects remain behind schedule.

Mrs Hodge said: "Time extends and extends. I have looked at this two or three times, and every time I look, the cost goes up – not in hundreds of millions, but in billions. We



are now talking about £70bn being spent on cleaning up the nuclear waste at Sellafield, and I don't think that is the end of the sums required."

Monday's review followed on from February's PAC report, which criticised rising costs and projects behind schedule. The review also considered the NDA's recent decision to award an extension to Nuclear Management Partners (NMP) to manage the Sellafield site.

John Clarke, the NDA's chief executive, attended. He said: "Costs will continue to increase over a number of those projects and that is down to the nature of the projects rather than the actions or inactions of NMP. There are inherent challenges on the site.

"We have nuclear waste placed into facilities in the 50s and 60s with no thought as to how that was to be taken out. As we uncover issues, we find challenges are a lot more difficult than we expected."

Following the hearing, a spokesman for NMP said: "We are proud of the progress that has been made in a number of areas, but equally recognise that not everything has gone to plan.

"Over the last five years, we have learned an enormous amount about the challenges and areas that we need to focus on and improve.

"Our job now is to use the experience we have gained to efficiently deliver the NDA's mission, while further accelerating the pace of change and providing value for money to our customer and the UK taxpayer."

Copeland MP Jamie Reed says that "many of the failings at Sellafield are due to the performance of NMP".

He added: "NMP is responsible for the day-to-day operation and has real questions to answer. I have asked the PAC to call NMP to account for their failings at Sellafield before the end of the year. NMP will also have to account for the damage it is doing to the local supply chain and its failure to deliver a 'Contract with the Community'.

"NMP's contract contains an immediate termination clause.

"So far, NMP has over-promised and under-delivered. Neither the local community or the nuclear industry can continue to tolerate this failure. We need to see progress or – inevitably – the contract will be terminated."

Whitehaven News, Thursday, 07 November 2013

<http://www.whitehavennews.co.uk/news/sellafield-costs-an-appalling-waste-1.1096703>

# Report damns Sellafeld firm over clean-up

Security breaches and delays are rife as nuclear contractor 'puts shareholders before taxpayer'

By Mark Leftly

The £70bn project to rid Sellafeld, Europe's most hazardous nuclear site, of its waste legacy is more than a decade behind schedule and is managed in shareholder, not taxpayer, interests, a damning confidential report reveals.

The Commons Public Accounts Committee chair, Margaret Hodge, said yesterday that the failings at the Cumbrian plant proved how "outrageous" the decision had been to trust a private company to decontaminate the facility.

*The Independent on Sunday* can reveal that nine of the 11 biggest projects to make Sellafeld safe, including building a storage facility for radioactive sludge, are £2bn over budget. Seven will complete late, with a combined delay of eleven and a half years. The expansion of a huge waste processor, Evaporator D, is now expected in February 2016, a year and nine months later than planned.

The evaporator, which has been likened to a "giant kettle" for reducing liquid waste, has also been found to be a prime example of poor project management, as design deficiencies were discovered too late to avoid delays and spiralling costs.

A report detailing the problems at Sellafeld, produced by the accountant KPMG, runs to 292 pages and will heap pressure on the Nuclear Decommissioning Authority's (NDA) decision last month to hand a five-year extension of the contract to clean up the site to Nuclear Management Partners (NMP). The consortium, led by US engineer URS, includes the British nuclear reactor specialists Amec.

Unions wanted to see NMP stripped of the contract, and KPMG, for its part, looked into the option of bringing the clean-up back under the control of the public sector.

Buried deep in the KPMG report is a finding that the structure of the contract is "inappropriate", arguing that the "NDA is not yet an 'intelligent client'". The report added: "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."

Mrs Hodge said: "That is outrageous, actually, an incredibly powerful finding. This demonstrates that NMP does not have the taxpayer's interest at the heart."

Dr David Lowry, the research consultant who obtained the report through the Freedom of Information Act, pointed out security breaches had been raised by KPMG. Since April 2012, it found there had been 11.5 "security events" per month.

He said: "Sellafield actually has quite a lot of security issues that have been played down and I'm concerned that a site of that size with that amount of radioactive material has any breaches. There has to be 100 per cent security and clearly there is not."

An NDA spokesman said: "The NDA continues to focus on resolving the underlying issues at the site while ensuring its safe stewardship."

<http://www.independent.co.uk/news/uk/politics/report-damns-sellafield-firm-over-cleanup-8930953.html>

Independent on Sunday 10 November 2013

#### KPMG report on Sellafield performance

13 November 2013

<http://www.nda.gov.uk/news/kpmg-report-on-sellafield-performance.cfm>

The NDA has made available a report by KPMG that provides data and information on the performance of Sellafield Ltd since the appointment of Nuclear Management Partners to be its Parent Body. The report has been redacted in accordance with Freedom of Information (FOI) procedures for commercially sensitive material. The KPMG report provides an independent review of performance during the first five years on the contractual arrangements with Nuclear Management Partners. It was commissioned by the NDA to inform its decision on contract extension. The report does provide independently collated performance data but does not provide advice to the NDA.

The NDA announced on the 4 October 2013 the intention to extend the Sellafield contract with Nuclear Management Partners into a second five year period. The first 5 year period of the 17 year contract comes to an end in March 2014.

 **KPMG report on Sellafield Performance to 31 May 2013 (500Kb)**

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Remember that comment from NMP: "We are proud of the progress that has been made in a number of areas, but equally recognise that not everything has gone to plan."

Let's look more closely to what prestigious international business auditor, KPMG, said about Sellafield's management.

From the report the PBO model at Sellafield: Performance to 31 May 2013, commissioned by the Nuclear Decommissioning Authority from KPMG. obtained by my FOI request

**"NMP approach to the governance of SL does not**

**appear to have been effective"**

**- KPMG**

## ➤ **Number of security events reported to the ONR-CNS**

### Key comments

- The Sellafield Security Enhancement Programme (SSEP) commenced in April 2012, in response to earlier reviews led by government
- **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**

## ➤ **Replacement of Sellafield's 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 raffinate liquors from magnox and oxide fuel reprocessing, begin to fail, which is estimated to be in 2017

The project was cancelled in 2013

- Physical progress with LP&S (legacy ponds & silos)

## Key findings (2/3)

ISSUE: Headline

■ 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, scheduled delays due to reworks and limited capability to control tier 2 and 3 subcontractor costs(3)(4)(5)(6).

## 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

### *NDA*

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

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

## OGC (Office of Government Commerce) 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 Sellafield workforce'***

- 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

**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'*

- 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**

**Current contract terms are inappropriate for driving aligned behavior - KPMG**

-- 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

## Conclusion

■ Based on the data above achievement of the MPS (minimum performance standard) 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%

## Governance

*The [Nuclear Decommissioning] 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

*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,*

*Sellafield Limited did not allow sufficiently for uncertainty in the cost estimates it initially submitted to the [Nuclear Decommissioning] 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



*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.*

*Sellafield Limited does not bear risks for delay and cost increases. Risk transfer is not equal*

*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*

*The [Nuclear Decommissioning] 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**

*Until mid-2011, the Authority did not collect enough robust and timely information on projects from Sellafield Limited to enable timely intervention.*

*The Authority should routinely report externally on its major projects.*

## **Operations and projects**

*Sellafield Limited's performance in carrying out ongoing commercial performance mainly fuel processing, 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.*

*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.*

*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.*

## **Inaccuracy of estimations**

*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.*

**Last week we learned:**

### **Evacuation zone for Sellafield plant in Cumbria ‘may be extended’**

PLANS to extend the emergency evacuation around the Sellafield site in Cumbria would have “major implications” for large parts of Copeland, it has been claimed.

The Office for Nuclear Regulations (ONR) – which oversees the nuclear industry – is expected to recommend an increase in the surrounding evacuation zone in the event of an emergency incident.

The current Detailed Emergency Planning Zones (DEPZ) are 2km for immediate evacuation, and 6km for a secondary evacuation.

It is expected a recommendation to increase both areas will be made in a new ONR report, produced in light of the 2011 Fukushima disaster in Japan, which is due by the end of November.

David Moore, chair of West Cumbria Stakeholders (nuclear sites) Group, said: “It will have major implications if, as we expect, the ONR recommends extending both the immediate and secondary evacuation areas when it publishes its findings.”

Mr Moore added: “Seascale currently touches the very edge of the immediate 2km evacuation zone, and if it is extended even slightly, it will take in Seascale, Beckermeth and other surrounding areas.

“If the secondary evacuation zone is increased – and it could go up to 10km – it will take in large towns with large populations including Egremont, although falling just short of Whitehaven.”

Whitehaven News, Thursday, 14 November 2013

<http://www.whitehavennews.co.uk/evacuation-zone-for-sellafield-plant-in-cumbria-may-be-extended-1.1098513>

For an article published in this week's issue of the local weekly newspaper, *The Cumberland News*, I was asked these questions, and my answers follow below:

1. Why do you think it has it got so bad at Sellafield?

A lack of accountability to Parliament and local people ignoring of the critics such as CORE in Barrow (for over 30 years!) and Friends of the Earth Cumbria over many years. Pigheaded refusal to diversify out of nuclear, exemplified by nuclear-centred obsession in Energy Coast initiative; over-weaning secrecy derived from military origins, still Sellafield has a joint military-civil mission.

2. What would you like to see done to improve things?

Sack NMP immediately; bring some real environmentalists onto board of Sellafield Limited and NDA; increase regulation by beefed-up Office for Nuclear regulation; ensure total openness in Site Stakeholder group, which has to contain more critics, not just cheer-leaders; halt all reprocessing; convert plutonium stockpile into stabilized form ready for permanent storage; charge customers much higher fees to cover waste management and storage costs, to reduce taxpayer subsidies. There needs to be a root and branch review of security vulnerabilities, and robust changes need to be made ASAP. The customers should be fully re-charged for this, again to avoid taxpayer subsidy to private company Sellafield Ltd.

3. Unions are saying the clean-up should be done by the public sector rather than a private company. Do you agree?

Yes, but paid for by Sellafield Ltd's Customer companies, not taxpayers

4. If we can't deal with the waste properly, how could we expect a proposed underground waste repository in Cumbria to be run properly?

You can't!. Instead of a burial programme, The Government should develop a proper Stewardship /Guardianship programme for permanent storage, increase transparency over costs, and admit the failures to date. There should also be a recognition by Public Health England, the Environment Agency and NDA that radiation is considerably more damaging at low levels than their prevalent models suggest, and reform the radiation protection regime accordingly.

And any other comment you want to make.

Sellafield (Windscale) has been mis-managed for decades, so the problem is not just NMP is private sector; the problem is the whole plant suffers from bloated atomic ambition, beyond the capacity of human ingenuity.

**A Motion was submitted to the UK Parliament on 9 September that summed up the scandalous mismanagement at Sellafield. Early Day motion ( EDM ) Number 490 on Nuclear Management Partners and expenses claims, stated:**

That this House notes that the consortium, Nuclear Management Partners (NMP), who has been responsible for mismanaging Sellafield for five years, has included in its expenses claims to the taxpayer-funded Nuclear Decommissioning Authority **for charging the taxpayer £714 to provide a taxi for a cat and that executives charged £2,795 for flights to the US Masters golf tournament, claimed an £82 per person dinner in France and billed £719 for Amazon purchases without providing a receipt;** recalls that NMP is jointly owned by Amec from the UK, Areva from France and US firm URS Washington; further recalls Early Day Motion 397 which calls on the Government to replace NMP with a competent management team and to bring the proposed new contract for Sellafield management before Parliament for scrutiny before finalising the deal; and believes that this reinforces the urgency of proper financial oversight of the top-tier management at Sellafield.

<http://www.parliament.uk/edm/2013-14/490>

Sellafield is indeed a major mess!

### 3. The Copper Conundrum

Four years ago this weekend, this article was published in the Sunday newspaper, *The Observer*.

## Nuclear disposal put in doubt by recovered Swedish warship

The plan to use copper for sealing nuclear waste underground has being thrown into disarray by corrosion in artefacts from the Vasa

- By [Terry Macalister](#)
- [The Observer](#), Sunday 15 November 2009

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Plans for [nuclear waste](#) disposal could be thrown into confusion tomorrow at a summit because of new evidence of corrosion in materials traditionally used for burial procedures.

The Nuclear Decommissioning Authority (NDA) says it will keep careful watch on a meeting organised by the Swedish National Council for Nuclear Waste, which will look at potential problems with copper, designated for an important role in sealing radioactive waste underground.

Concerns have risen from a most unexpected quarter. Examination of copper artefacts from the Vasa, a seventeenth-century galleon raised from Stockholm harbour, (having sunk immediately after its inaugural launch in 1628) has shown a level of decay that challenges the scientific wisdom that copper corrodes only when exposed to oxygen.

Dr David Lowry, a consultant on the nuclear industry, said the latest evidence had profound implications. "As the British nuclear industry gears up to build a new generation of nuclear reactors, so the pressure builds to demonstrate there is a solution to the long-term management of nuclear waste. But plans to adopt the Swedish system of nuclear waste disposal look as if they might have hit the rocks."

The NDA said that no decision had been taken on what materials would be used for containment. "It's not a showstopper. There are other options," a spokesman said.

Researchers from the Royal Institute of Technology (KTH) in Stockholm have prepared a report for tomorrow's meeting which says its findings "cast additional doubt on copper for nuclear waste containment and other important applications."

<http://www.theguardian.com/environment/2009/nov/14/copper-nuclear-containment-vasa-sweden>

I next want to explore some key developments since in UK interest in the KBS system and use of copper canisters.

There is no doubt the United Kingdom's preferred choice of packaging is the Copper-based KBS system from Sweden.

NDA's *Radioactive Waste Management Directorate (RWMD)* has also published independent research commissioned to review the performance of five potential metals that could be used in the manufacture of canisters for the disposal of High Level Waste (HLW) and Spent Fuel (SF) in a geological disposal facility.

At this stage no site for a facility has been selected and Government is leading the search for a site based on voluntarism and partnership with potential host communities.

The research therefore considers the use of the metals in a variety of geological environments and focuses particularly on the period following the eventual closure of a facility. The potential canister materials are:

- o copper
- o carbon steel
- o titanium alloys

- o nickel alloys and
- o stainless steels.

Lead has also been considered as a material to be used inside the canister.

Cristiano Padovani, RWMD's Corrosion Specialist said:

NDA Insight Stakeholder Newsletter, 09 August 2010

<http://www.nda.gov.uk/stakeholders/newsletter/waste-canister-design-options.cfm>

NDA's RWMD has carried out a number of studies looking at the potential for technology transfer with radioactive waste management organisations abroad.

A study with SKB, the Swedish Waste Management Organisation, issued in June 2012, sought to:

“identify and quantify the potential benefits of technology transfer for their KBS-3 concept, which was developed for disposal of spent nuclear fuel in higher strength rock.”

The report notes:

“SKB Technology Transfer - Identification and quantification of potential benefits . Another study looking broadly at the whole disposal system is ongoing with the French Waste Management Organisation, ANDRA. This study is using the methodology developed with SKB and applying it to the French technology. ANDRA's disposal concept has been developed for long-lived intermediate level waste and high level waste in a clay host rock. The wastes will be disposed of in a co-located facility, like that planned for the UK.”

The SKB report says the following on the applicability of the KBS-3 technology in the UK

“The applicability of the KBS-3 technology to the UK was assessed based on expert judgement. About 25 interviews were made with SKB's most experienced experts. The applicability of each of the eight technology areas was analysed for three generic geological settings and the types of waste in the UK inventory. Technology area 3 Repository was analysed in more detail, in terms of its eight component parts, due to the importance and amount of technology associated with this area. The outcome of the interviews was documented and reviewed by an expert panel of senior SKB staff members.

The results are presented as percentage figures, to indicate to what level the technology is judged to be applicable to the UK programme. The figures are based on expert judgement and are not derived from a specific formula. The basis for the percentage figure is the proportion of the total work completed by SKB for the Swedish programme that is applicable to the UK situation.

The analysis indicates that the KBS-3 technology would be 80–90% applicable to the needs of the UK programme for disposal of SNF and high-level waste (HLW) at a site with higher strength host rock. There is a high applicability for the canister, the encapsulation, the repository design and the assessment of long term safety. The technology would also be applicable to a similar level to UK stocks of plutonium and highly enriched uranium if immobilised as a ceramic. The parts that are not applicable are related mainly to differences in site investigations, RD&D needs and safety assessment of disposal of HLW and certain fuels specific to the UK.”

It adds:

“The KBS-3 technology is estimated to be 40–50% applicable also for ILW/LLW if a UK GDF was constructed in higher strength host rocks. This is due to similarities in the technology for system analysis, facility description, description of underground opening construction, description of backfill, description of plug in deposition tunnel, description of closure, site characterisation and site assessment, transportation and logistics, long-term safety assessment, environmental impact assessment and nuclear licence application.”

#### **UK needs not covered by the KBS-3 technology**

There are inevitably areas and needs of the UK programme that will be covered only partly or not

at all by a transfer of the KBS-3 technology. There will be a need for adaptation and closing of

identified gaps, which will require a work programme, including RD&D in a number of areas. NDA

RWMD is best placed to determine this need but the study discusses briefly a number of areas where the applicability of the KBS-3 technology is considered to be lower

- ❖ Deep geological disposal of low-level and intermediate-level radioactive waste.
- ❖ Site characterisation technology in a geological setting other than higher strength rocks.
- ❖ Disposal in a geological setting other than higher strength rocks.
- ❖ Co-location of radioactive wastes.
- ❖ Meeting specific UK regulatory requirements and permit regimes.

#### **Potential benefits and risks of technology transfer**



The high applicability of the KBS-3 technology to a UK site with higher strength host rocks offers NDA RWMD an opportunity to reduce the amount of development work that it needs to carry out by itself and its contractors. This would reduce or possibly eliminate the need to design, site, construct and operate large laboratories for establishing the scientific basis of the disposal concept and for developing and testing detailed technical solutions in full scale. It would allow NDA RWMD to build upon existing scientific and technical material used in an existing comprehensive licence application.

This material has already been subject to international review and is currently undergoing further scrutiny by the regulatory authorities in Sweden.

The potential reduction of work as a result of transfer of the KBS-3 technology follows in principle directly from the analysis of its applicability to the UK programme. As an example, if SKB's canister technology is considered 90 % applicable to RWMD's needs (assuming that the geological setting is higher strength rocks) then 90% of the work carried out by SKB could be used to reduce the work of NDA RWMD in this area. In reality there will be further work required by RWMD in addition to that carried out by SKB due to the work needed to import, take active ownership of and adapt it to RWMD's programme, considering the more diverse UK wastes and potential geological settings.

Nevertheless, the transfer of applicable technology could allow RWMD to focus on the UK-specific aspects of its work programme.

Reduced development needs translate into a potential for lower costs, shorter schedule and reduced risks in the programme.

SKB International Report 157

## SKB Technology Transfer

Identification and Quantification of Potential Benefits

Final Report, June 2012

<http://www.nda.gov.uk/documents/biblio/upload/SKB-International-157-SKB-Technology-Transfer.pdf>

The UK Nuclear Decommissioning Authority (NDA) state SKB has challenged recent evidence that "copper can corrode rapidly even in the absence of oxygen."

**Geological disposal: RWMD approach to issues management, March 2012**



See page 41: <http://www.nda.gov.uk/documents/upload/Geological-Disposal-RWMD-approach-to-issues-management-March-2012.pdf>

I tried to find out from the UK's nuclear regulator, the *Office for Nuclear Regulation*, what research they had undertaken into copper corrosion problems.

Here is the e-mail trail of how ONR answered my request:

**From:** David Lowry [mailto:drdavidlowry@hotmail.com]  
**Sent:** 02 May 2013 15:27  
**To:** Marie Railton  
**Subject:** FOI request on Copper corrosion

marie.railton@hse.gsi.gov.uk

Marie

Please could you provide me under the FOI Act 2000 copies of all papers or reports (1) produced by ONR; (2) contracted to be produced by consultants for ONR, on copper corrosion problems, since 2005. Additionally, can you provide a list of all papers assessed internally by ONR on copper corrosion over the same time frame.

I would also like to have copies of any correspondence on copper corrosion with (a) the NDA and (b) DECC over the same time period. Please redact any personal names in e-mail traffic to protect privacy.

I would prefer to receive the material in electronic form if possible.

Many thanks

Sincerely  
Dr David Lowry

**From:** Lynne Hesketh **On Behalf Of** ONRenquiries  
**Sent:** 07 May 2013 15:53  
**To:** drdavidlowry@hotmail.com  
**Cc:** ONRenquiries  
**Subject:** EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005

Dear Dr Lowry

**Environmental Information Regulations Request Reference No: 2013050092**

Thank you for your enquiry received on 2 May 2013, in which you have request the following

Copies of all papers or reports (1) produced by ONR; (2) contracted to be produced by consultants for ONR, on copper corrosion problems, since 2005. Additionally, can you provide a list of all papers assessed internally by ONR on copper corrosion over the same time frame.

I would also like to have copies of any correspondence on copper corrosion with (a) the NDA and (b) DECC over the same time period.

Your enquiry is being dealt with as a request under The Environmental Information Regulations 2004 (EIR). Under the terms of the Act you are entitled to a response within 20 working days of receipt.

If we cannot meet this deadline we will let you know the reasons and tell you when you can expect a response. In some circumstances a fee may be payable and if that is the case, I will let you know.

If you have any queries about this letter, please contact me, via the ONRenquiries email account. Please remember to quote the reference number above in any future communications.

Yours sincerely

L Hesketh (Mrs)

Lynne Hesketh

ONR – Parliamentary Business Team

Desk 15, 4S.3 Redgrave Court,  
Merton Road, Bootle L20 7HS

E: [lynne.hesketh@hse.gsi.gov.uk](mailto:lynne.hesketh@hse.gsi.gov.uk)

**Office for Nuclear Regulation**  
**An agency of HSE**

Subject: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response

Date: Mon, 20 May 2013 13:41:31 +0100

From: [ONRenquiries@hse.gsi.gov.uk](mailto:ONRenquiries@hse.gsi.gov.uk)

To: [drdavidlowry@hotmail.com](mailto:drdavidlowry@hotmail.com)

CC: [ONRenquiries@hse.gsi.gov.uk](mailto:ONRenquiries@hse.gsi.gov.uk)

Dear Dr Lowry

Please find in attachment our response to your request.

Kind regards

L Hesketh

**From:** David Lowry [mailto:drdavidlowry@hotmail.com]

**Sent:** 03 June 2013 11:02

**To:** ONRenquiries

**Subject:** RE: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response

Lynne

I find this answer incredible, because I was told in response to a publicly asked question to ONR at the most recent Stakeholder meeting that such reviews of copper corrosion have been undertaken and communicated to NDA & DECC. In light of this, I would request an urgent internal review.

many thanks

Dr David Lowry

Subject: FW: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response

Date: Mon, 3 Jun 2013 11:56:45 +0100

From: ONRenquiries@hse.gsi.gov.uk

To: drdavidlowry@hotmail.com

CC: ONRenquiries@hse.gsi.gov.uk

David,

I will arrange for an internal review as requested, but it would help me greatly if you could provide me with some more details please. The reason I ask is that when your request came in we weren't sure who in ONR might hold information on copper corrosion, so we wrote to a cross-section of inspectors, but they didn't hold anything or know anything about it.

In your last email to Lynne you said that you asked the question at the most recent Stakeholder meeting. Was this the NGO Forum or another meeting? Whichever meeting it was, could you tell me who you asked the question of please. Once I've got the context, I'll be able to get to the bottom of this and identify any information we might hold.

Kind regards

Steve

Steve Newman

Office for Nuclear Regulation  
An agency of HSE

Strategy and Assurance

Desk 17, 4S.3 Redgrave Court,  
Merton Road, Bootle L20 7HS  
T: + 44 (0)151 951 4142

**From:** David Lowry [mailto:drdavidlowry@hotmail.com]  
**Sent:** 03 June 2013 12:20  
**To:** ONRenquiries  
**Subject:** RE: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response

Steve

It was the latest national NGO forum. The person who answered the question said he was involved in nuclear waste regulation, but I don't know his name.

regards

David

Subject: RE: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response  
Date: Wed, 5 Jun 2013 10:06:03 +0100  
From: ONRenquiries@hse.gsi.gov.uk  
To: drdavidlowry@hotmail.com  
CC: ONRenquiries@hse.gsi.gov.uk

David,

I've tracked down the person you spoke with, Frans Boydon, to get more information, and I think I can clarify what ONR's position is with regard to copper corrosion.

At the NGO Forum you asked a question about geological disposal of spent fuel or high level waste in copper canisters during the session on the geological disposal facility (GDF) along the lines of whether we had taken into account the recent research work that indicated that copper was unsuitable to use as a container for waste packages in a GDF. Frans replied that this was a level of detail below that to which we were currently working. No definitive design has been proposed by ONR's Decommissioning, Fuel and Waste (DFW) programme. When it does, if copper is the material that is proposed then we would expect that choice to be justified in the safety case taking into account all available evidence including the recent evidence that you are citing. At that time ONR will then decide whether an adequate safety case has been made. Copper is the most commonly proposed material worldwide for this use but we are also aware of both titanium and stainless steel clad mild steel containers being considered as well.

Looking at your original request;

- We have not currently commissioned any research work ourselves on corrosion as this would be NDA's Radioactive Waste Management Directorate's (RWMD) prerogative if it chose to pursue that material.
- As RWMD has not chosen to opt for a specific material at this time our reply that we have done no work on copper at this time is accurate.
- ONR is currently funding work to determine if additional research work should be carried out to support GDFs but this is work in progress.

You still have the option of an internal review, but if the explanation above satisfactorily answers your request, I will close the FOI/EIR request down.

Kind regards

Steve

Steve Newman

Office for Nuclear Regulation  
An agency of HSE

Strategy and Assurance

Desk 17, 4S.3 Redgrave Court,  
Merton Road, Bootle L20 7HS  
T: + 44 (0)151 951 4142

**From:** David Lowry [mailto:drdavidlowry@hotmail.com]

**Sent:** 07 June 2013 17:26

**To:** Steve Newman

**Subject:** re: EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005 - ONR's response

Steve

I do not want to be awkward, but I remain unconvinced by this response below, particularly the comment: "As RWMD has not chosen to opt for a specific material at this time our reply that we have done no work on copper at this time is accurate."

I have a strong memory that the NDA specifically cites copper as their preferred canister material in their reports. I have pasted some extracts below.

In light of this, could you press ahead with internal review?

Have a good weekend.

thanks

David

**From:** Lynne Hesketh **On Behalf Of** ONRenquiries  
**Sent:** 10 June 2013 11:44  
**To:** drdavidlowry@hotmail.com  
**Cc:** ONRenquiries  
**Subject:** 2013060092 - Internal Review requested for EIR 2013050092 - Dr Lowry - request on Copper corrosion all reports since 2005

Dear Dr Lowry

**Environmental Information Regulation Review Reference No: 2013060092**

**Original Request Reference No: 2013050092.**

Thank you for your request for an internal review.

It was received on 3 June 2013 and I am dealing with it under the HSE internal review procedures in accordance with the terms of the Freedom of Information Act 2000.

We hope to let you know the outcome of the review as quickly as possible. In most cases this will be within 20 working days.

Please contact me if you have any queries about this letter. It would be helpful if you could quote the reference number above in any future communications.

Yours sincerely

Lynne Hesketh

ONR – Parliamentary Business Team

Desk 15, 4S.3 Redgrave Court,

**Office for Nuclear Regulation**  
**An agency of HSE**

Merton Road, Bootle L20 7HS

Subject: 2013060092 - Internal Review requested for EIR 2013050092 - Dr Lowry - request on  
Copper corrosion all reports since 2005  
Date: Thu, 4 Jul 2013 17:01:12 +0100  
From: ONRenquiries@hse.gsi.gov.uk  
To: drdavidlowry@hotmail.com  
CC: ONRenquiries@hse.gsi.gov.uk

Dear Dr Lowry

Please see attached response to your Internal Review. Please accept our apology for the delay.

Kind regards

Lynne Hesketh

Lynne Hesketh

**Office for Nuclear Regulation**  
An agency of HSE

ONR – Parliamentary Business Team

Desk 15, 4S.3 Redgrave Court,  
Merton Road, Bootle L20 7HS

Subject: RE: Copper canister confusion  
Date: Mon, 9 Sep 2013 13:50:02 +0100  
From: Steve.Newman@hse.gsi.gov.uk  
To: drdavidlowry@hotmail.com

David,

Frans Boydon has given me a reply to your email.

Kind regards

Steve

Our original statement is correct in so far as we (ONR) have done nothing definitive on canister materials to date. What we have done can be found on our joint geological disposal facility (GDF) website with EA

(<http://www.environment-agency.gov.uk/business/sectors/111766.aspx>). In more detail though: The Radioactive Waste Management Directorate (RWMD) produced a generic design for the GDF. In an advisory capacity at the moment (because ONR currently has no vices) we published our views on this generic design which has led to a large number of issues to be resolved for RWMD to include in its safety case if this design is pursued. Within its generic design RWMD for illustrative purposes gave an example of a "multi barrier system" for containing the waste. Copper was one of the materials chosen for the illustration (two other examples were also shown which did not use copper). At this stage ONR would not provide a definitive view on the suitability of copper but it did raise a few issues to be addressed relating to the possibility of galvanic corrosion and creep. ONR has not provided any definitive views on copper's suitability and we would not do so until, firstly, we had the legal vices, and, secondly, RWMD had selected its chosen option and presented a far more detailed safety case than anything we have received so far. Because there has been no definitive proposal so far, and in view of our available resources, ONR has therefore not done any specific work itself on the suitability of copper and probably would not do so until further into the process

Please have a look at the ONR web-site where you can explore everything that we publish on this issue, but I am confident that there is nothing on the suitability of copper beyond that which I have described above. We are shortly due to produce a further joint report on everything both regulators did on the GDF last year.

Steve Newman

Office for Nuclear Regulation  
An agency of HS

Secretariat & Parliamentary Business Team

Desk 17, 4S.3 Redgrave Court,  
Merton Road, Bootle L20 7HS

**In conclusion I want to draw your attention to an excellent recent paper my research colleague, Professor Emeritus Andy Blowers presented to an academic seminar in which both he and I participated at the University of Liverpool, England on 1 November 2013. We have been working on these themes together for a few years, both as analysts within the Nuclear Waste Advisory Associates (NWAA) and as members of the NGO nuclear forum with the Department of Energy & Climate Change (DECC).**



Andrew Blowers, Liverpool, 1<sup>st</sup> November 2013

## Key Points

- Nuclear waste management is a social and political as well as a scientific and technical issue
- Policy making for radioactive waste requires an integrated approach, not a single solution
- Radioactive waste management policy requires consensus based on public support and consent

## Nuclear discourses

- 1. Trust in Technology 1940s – 1970s
- 2. Danger and Distrust 1970s to 1990s
- 3. Consensus and Cooperation 1990s to 2000s
- 4. Energy and Environmental Security?

## Flowers Report

- “It must be demonstrated beyond reasonable doubt that a method exists to ensure the safe containment of long-lived radioactive waste for the indefinite future”

*-Royal Commission on Environmental Pollution, Nuclear Power and the Environment, Cm 6618, 1976*

Committee on Radioactive Waste Management (CoRWM)

- “to oversee a review of options for managing solid radioactive wastes in the UK and to recommend the option, or combination of options, that can provide a long-term solution, providing protection for people and the environment’

- 

to work in ‘an open, transparent and inclusive manner’ to arrive at recommendations which ‘must inspire public confidence.’”

## Continuing responsibility

“Responsibility has to extend to the reach of the impact of our actions. Thus, if we create technologies and products that are potentially harmful to the end of time then this is the timescale of responsibility that has to be encompassed when such products are used for the benefit of the present.”

- 

(Barbara Adam, CoRWM 2007)

## Diminishing responsibility

‘...language which suggests that obligations continue unchanged for all time is simply not realistic. On sufficiently long time-scales, any statement at all about the impacts of current actions and about obligations of current societies towards the future eventually becomes meaningless.’  
NEA, 2006

## CoRWM's recommendations

- 1. Within the present state of knowledge CoRWM considers geological disposal to be the best available approach for the long-term management..when compared with the risks associated with other methods of management.
- 2. A robust programme of interim storage must play an integral part in the long term strategy..that is robust against the risk of delay or failure in the repository programme.
- 4. There should be a commitment to an intensified programme of research and development into the long-term safety of geological disposal aimed at reducing uncertainties..
- 
- 5. The commitment to ensuring flexibility in decision making should leave open the possibility that other long-term management options..could emerge as practical alternatives

## CoRWM's recommendations on implementation

- 10. Community involvement in any proposals for the siting of long-term radioactive facilities should be based on the principle of volunteerism, that is an expressed wish to participate.
- 11. Willingness to participate should be supported by the provision of community packages...Participation should be based on the expectation that the well-being of the community will be enhanced
- 12. Community participation should be achieved through the development of a partnership approach, based on an open and equal relationship between potential host communities and those responsible for implementation.
- 13. Communities should have the right to withdraw from this process up to pre-defined point.
- 14. In order to ensure the legitimacy of the process, key decision should be ratified by the appropriate democratically elected body/bodies.

## Well being

“By well being we mean those aspects of living which contribute to the community's sense of identity, development and positive self-image. Community well being may be realised in a variety of ways through economic development, through greater control over its affairs and through an ability to define and realise its own future..The principle must be that any community hosting a long-term radioactive waste facility should enjoy a perceptible improvement in its quality of life becoming, thereby, a better place in which to live.”

- (Moving Forward: CoRWM's Proposals for Implementation, CoRWM Document 1703, February, 2007)

## Shifting Discourses

- during first decade of this century a shift seemed to be occurring from a Discourse of Consensus and Cooperation to a Discourse of Security

### Discourse of Security

- Concern about national and global security
- Concern about economic security
- Concern about energy security
- Concern about environmental security

Within this context nuclear renaissance seen as part of the solution – Part of the energy mix to plug energy gap Low carbon source of electricity

## Changing Governance

- Less inclusive and participative
- More centralised and closed decision making
- Power relations shifting towards nuclear interests
- But, a transition rather than transformation

## Nuclear Renaissance

- Proposal for unspecified number of new nuclear power stations to be built at eight coastal sites near existing (or closed) nuclear facilities
- Spent fuel and other wastes to be stored at each site
- Processes of site selection, justification, generic design assessment and accelerated land use planning
- Premature legitimization of predetermined policy

## Government's Approach

- 1.CoRWM's proposals substantially accepted by Government but with important exceptions
- 2.Emphasis on geological disposal as soon as possible
- 3.Emphasis on finding volunteers rather than suitable geology
- 4.Neglect of interim storage as integral aspect
- 5.Introduction of new build wastes
- 6.No screening out of unacceptable areas
- 7.Inadequate application of voluntarism

## New Build Wastes

- “The main concern in the present context is that the proposals might be seized upon as providing a green light for new build. That is far from the case. New build wastes would extend the timescales for implementation, possibly for very long, but essentially unknowable, future periods. Further, the political and ethical issues raised by the creation of more wastes are quite different from those relating to committed – and therefore unavoidable – wastes”

- 

CoRWM's Recommendations, 2006, p.15

Waste Management – the Government's Claim

“Having considered this issue, the Government is satisfied that effective arrangements will exist to manage and dispose of the waste that will be produced from new nuclear power stations”

(Revised Draft National Policy Statement for Nuclear Power, DECC, 2010, Annex B, p.18)

## Nuclear Renaissance Slowing Down

- Fukushima 2011 caused review of nuclear energy world wide. Some countries abandoned it, some paused and some, like the UK, continued with their programmes
- Economics have slowed the progress of nuclear in some countries. The UK's programme has fallen behind Government's expectations

- Alternative forms of energy, notably gas and some renewables are developing more rapidly

## The Process Stalls

- Communities invited to express an interest in participating in a process of siting a geological repository
- Only three local authorities took up the invitation
- Siting partnership established and reported to local authorities
- Two authorities voted to proceed to next stage of the process, one did not
- Consequently, the process is currently at standstill and under review

## A Revised Process

- Narrow focus on GD
- Voluntary but less participative
- Continuous rather than staged
- Decision making in hands of lower tier local authorities
- Oversight by Steering Group
- Partnership – consultative rather than participative
- Expression of community support

## A Way Forward?

- Time-scale for GD is long – more focus on problems of long-term storage of spent fuel and highly active wastes
- Concentrate on near term problems, especially Sellafield
- Adopt an integrated approach
- Clarify inventory, carry out separate process for new build wastes
- Ensure equitable process and outcomes, both intragenerational and intergenerational
- Consider carefully how to implement a voluntary process in terms of who participates, who decides and when

- Recognise the need to take sufficient time to achieve consensus to proceed

Source:

[https://www.dropbox.com/sh/9w5vd9efo8lej9z/XCeqB64Tfo/10\\_Andy%20Blowers\\_Nuclear%20energy%20and%20radioactive%20waste.pptx](https://www.dropbox.com/sh/9w5vd9efo8lej9z/XCeqB64Tfo/10_Andy%20Blowers_Nuclear%20energy%20and%20radioactive%20waste.pptx)

## Annex

# UK Radioactive Waste Inventory

Any community expressing a willingness to host a Geological Disposal Facility (GDF) should know exactly what it is letting itself in for. So the first question such a community might be expected to ask would be “how much waste will we be expected to host?” In this paper and presentation written for the West Cumbria Managing Radioactive Waste Safely Partnership in August 2010, Pete Roche takes a critical look at the NDA’s inventory of waste likely to be destined for a Geological Disposal Facility, and discusses the ethics of creating more waste by building new reactors.

[Inventory presentation to WCMRWS Aug2010](#)

<http://www.nuclearwasteadvisory.co.uk/member-docs/peter-roche/radioactive-waste-inventory-2/>

**Materials  
(Maximum  
Inventory)  
Packaged Volume  
(cubic metres)**  
HLW 23,000  
ILW 599,000  
LLW (not for  
LLWR)  
156,000  
Spent Fuel 34,480  
Plutonium 10,400  
Uranium 208,840  
Total 1,031,720

Dr David Lowry

David Lowry is an independent research consultant with specialist knowledge of UK and EU nuclear & environment policy.

He is one of three co-authors of a book, *The International Politics of Nuclear Waste*, covering France, Germany, Sweden, UK and USA, published by Macmillan press (1991).

Since 1992, David Lowry has prepared over 10,000 parliamentary questions for UK MPs, and MEPs from UK, Ireland and Germany, drafted motions for resolution, speeches and articles on their behalf, suggested amendments to Euro-Parliament reports and researched, drafted and steered through to successful European Parliament Plenary Assembly endorsement two committee reports. Up to the 1997 UK General Election David Lowry acted as policy adviser and researcher for former UK environment minister Michael Meacher MP (when he was shadow Secretary of State for Environmental Protection). In 2000-01 he was a contributing author to a major report on the environmental and health implication of nuclear reprocessing at La Hague & Sellafield for the Science & Technology Options Assessment (STOA) programme of the European Parliament (2000-01), acted as a contributing editor of *Plutonium Investigation* ([www.pu-investigation.org](http://www.pu-investigation.org) 1999-00) and contributed to an international scientific and policy study project on plutonium fuel (International MOX Assessment IMA Project 1995-97).

He has lectured for several summers on Energy at an MSc course at Reading University, an MBA course for BNFL middle managers at Lancaster University and conducted sponsored research in France, Germany and Japan for an ESRC on global environmental change for the Open University.

David Lowry was awarded a PhD on nuclear decision making by the Open University in 1987. He previously studied at the State University of New York (1978-79) and the London School of Economics, London University (1975-78).

In 2001 he was presented with a special award for education at the Nuclear Free Future Foundation annual awards and the UK Campaign for Freedom of Information 1995 Award in the politics category (jointly with Llew Smith MP).



**He is currently a member of the Secretary of State for Energy & Climate Change's Geological Disposal Implementation Board (GDIB) and a research associate with the Institute for Resource and Security Studies, Cambridge, Massachusetts**