



Review of the Siting Process for a Geological Disposal Facility (GDF)

Response from Stop Hinkley

prepared by Nikki Clark

December 2013

Summary of points raised by this consultation

- Stop Hinkley's position is one of 'no-confidence' in the government's proposed changes in the siting review.
- **New build wastes must have a separate process to that of legacy wastes - a so-called solution to legacy wastes cannot possibly be used as justification of a new build program.**
- We call on government to abandon its nuclear new build plans.
- Institutional bias towards a certain outcome means that research may be skewed in favour of findings that support the nuclear establishment's pre-determined idea, i.e. that Geological Disposal can be implemented safely.
- The GDF part of the first Committee on Radioactive Waste Management recommendations has been used as a 'Trojan horse' to smuggle in nuclear new build.
- We believe the failure of the Managing Radioactive Waste Safely (MRWS) process in Cumbria - a nuclear-friendly community in the eyes of the Department of Energy and Climate Change (DECC) and the nuclear industry - is a strong indicator, that any legitimacy that may have been achieved via the CoRWM1 process has been damaged by successive governments' perversion of the MRWS process.(1)
- We believe the focus on a GDF, whilst excluding many of the interdependent recommendations a GDF was predicated on, is also a contributory factor to the lack of credibility of the process in the eyes of the public after the experience of engagement in Cumbria.(2)
- Future radioactive waste management policy, should ensure research and engagement collects and analyses gendered data, this should form an intrinsic part of any evaluation process.
- Gender analysis should be retrospectively applied to previous siting processes.
- Stop Hinkley maintains the position that immobilised, retrievable waste in close to surface/near-surface stores are the appropriate form of management for the foreseeable future.

- We feel that the 'accelerated' GDF process exposes the political pressure caused by the planned new build program and violates the principle that "**adequate time must be allowed for the resolution of scientific issues**".(3)
- We believe that the government's subsequent and on-going failure to implement a robust interim storage program is evidence that the new build program is already having a detrimental effect on the management of legacy waste.
- We believe that the focus on a GDF, to the exclusion of many of the interdependent recommendations that it was predicated on, is a contributory factor to the massive threat to people and environment that the Sellafield facility poses.
- We believe the government's failure to adopt the interdependent recommendations about GDF from CoRWM1 points to a worrying government preoccupation with justifying a new build program, as was forewarned by independent experts before the new build program was announced.(4)
- The attempt to force through a nuclear new build programme has de-railed what had begun, at the turn of the century, as a legitimate process to find a socially-acceptable strategy for the wastes.
- We urge the government to review its MRWS policy in its entirety as a matter of urgency, as the proposed revisions to the siting process threaten the whole character of the proposals laid out in the White Paper.
- Many of the technical aspects which are a source of uncertainty have a significant impact on selecting a siting criteria.
- This new build-driven process and its attendant consequences do not represent value for money for British taxpayers.
- The Government's attempt to site a GDF is premature.
- Timescales are too tight and should be community-led.
- Testing of support needs to be continuous as is currently the case with the step-wise (staged) process.
- Testing of support is vulnerable to manipulation and therefore needs to be done via a range of methods that potential communities have a say in designing.
- The continued threat to impose radioactive waste on an unwilling community should be removed from the MRWS White Paper.
- A voluntarist approach that only produces one potential volunteer is problematic and can introduce significant risks into the siting process, potentially compromising the long-term safety of a facility.
- Right of Withdrawal needs to be enshrined in legislation that is clear and unambiguous.
- We have concerns about the ability of a community to exercise the right of withdrawal which is exacerbated if only one community 'expresses an interest'.

- The right of withdrawal should continue until as late a stage as possible (as under the current White Paper). It should not be terminated before investigations necessary for a decision to participate begin, as this would dissuade communities from 'expressing an interest'.
- A truly participatory process is essential if any radioactive waste management process is to gain legitimacy and have any chance of success.
- The move to exclude the County Council layer of governance is unacceptable and would be difficult to implement in practice as it runs counter to County Councils' obligations regarding waste management.
- We object in the strongest terms to the proposal that government and the developers 'steer' any siting process. This would create a clear conflict of interests.
- We reject DECC's proposal to relegate 'wider interests' to a consultative body decided on by a steering group.
- We reject DECC's proposal that NGOs are excluded from the siting process completely and the suggestion that the only place for their concerns is on a board whose terms of reference may prevent their participation. We are disappointed that DECC have ignored the recommendations of the independent evaluators in this regard.
- We believe that DECC's proposals represent an ill-disguised shift back to a 'decide announce defend' approach to radioactive waste policy.
- We feel site selection criteria should include a requirement that a facility be remote from human habitations rather than seeking out a 'community'.
- The British Geological Survey (BGS) did considerable work towards this under the previous Nuclear Industry Radioactive Waste Executive (NIREX) process and these findings should be communicated to the public and the strengths and weaknesses debated in the public domain.
- Hydro-geological and geo-chemical selection criteria should be applied to a high-level screening in/out process before communities are invited to participate.
- We strongly object to a GDF being designated under the Nationally Significant Infrastructure Projects (NSIP) process.
- Our experience of the NSIP planning process is that legitimate site specific concerns about radioactive waste management were excluded from consideration by the planning authorities.
- The NSIP process also runs counter to any voluntaristic process and is therefore incompatible with the government's claimed commitment to voluntarism.
- The inclusion of inventory in a consultation that is claimed to be restricted to the siting process is inappropriate and denies the public due process in this regard.
- The inventory should be restricted to wastes already committed and should not include by-products such as plutonium remaining from the processing of existing plutonium stocks into Mixed Oxide Fuel (MOX).
- DECC are misleading the public by not discussing here the fact that they would actually like to see a 75GW programme.

- There should be a separate process for new build wastes as they raise completely different ethical issues and technical challenges.
- There are significant problems with DECC's proposals regarding the inventory that have huge implications on both the siting criteria and the necessary research that needs to be conducted.
- The consultation demonstrates a poor understanding of the scientific literature on socio-economic and community benefits as they relate to attempts to site repositories and the lessons learned from previous attempts around the world.
- DECC's approach to incentivising communities in order to attract participants runs the risk of undermining the long-term safety of a facility.
- We reject DECC's conflation of a Strategic Environmental Assessment (SEA) with the Appraisal of Sustainability (AoS) under a National Policy Statement (NPS).
- We are concerned that government ministers are deliberately misinforming the public about nuclear issues in order to try and create public approval of their nuclear new build plans.
- We believe that the creation of an independent commission to provide and disseminate information on radioactive waste management and the associated issues is an essential pre-requisite for the conditions of trust and legitimacy to be created.
- There is a visible disconnect between the willingness of local authorities to create more waste and their willingness to host waste facilities.

Background

Britain's late-coming to creating its nuclear waste policy did provide an opportunity to learn lessons from experiences elsewhere, and to build on them. It seems, however, that successive British governments are keen to avoid the lessons that an objective position would reveal. Could one of those lessons be that claims of success in siting repositories elsewhere are premature?

The following extract was taken from the website of MKG - the Swedish non-government organisation (NGO) Office for Nuclear Waste Review (who are funded by the nuclear waste industry) on the 2nd December 2013.

*'The Swedes are undecided - A **Clarification** - Contrary to popular belief, the Swedes have yet to decide on a repository for our spent nuclear fuel. We are currently in the midst of a judicial process where the power industry's nuclear waste company SKB is trying to get a license from the government to build a repository according to the KBS concept. However, the application has been fraught with problems, such as insufficient data supporting the claims made as well as an inadequate account of alternative methods. These are staggering issues, as the purpose of the entire process is to decide on the best possible solution, not to decide on the one already on the table. In fact, the only party still insisting on the viability of the KBS is SKB; the very company behind the method.'* (5)

Is this failure to learn lessons another example of 'unlearning' in the nuclear context? Could this failure to learn be a result of the influence of the nuclear lobby in the arena of nuclear and energy policy? We think so.

A review of the scientific literature on behalf of Genewatch UK, on deep disposal in 2010 revealed a significant number of technical and scientific barriers to the creation of a safety case **that may or may not be resolvable.** (6)

The following is an extract from the executive summary of the 'Rock Solid?' report listing phenomena that could compromise containment barriers causing potentially significant radiation releases:

- *Copper or steel canisters and overpack containing spent nuclear fuel or high-level radioactive wastes could corrode more quickly than expected.*
- *The effects of intense heat generated by radioactive decay, and of chemical and physical disturbance due to corrosion, gas generation and biomineralisation, could impair the ability of backfill material to trap some radionuclides.*
- *Build-up of gas pressure in the repository, as a result of the corrosion of metals and/or the degradation of organic material, could damage the barriers and force fast routes for radionuclide escape through crystalline rock fractures or clay rock pores.*
- *Poorly understood chemical effects, such as the formation of colloids, could speed up the transport of some of the more radiotoxic elements such as plutonium.*
- *Unidentified fractures and faults, or poor understanding of how water and gas will flow through fractures and faults, could lead to the release of radionuclides into groundwater much faster than expected.*
- *Excavation of the repository will damage adjacent zones of rock and could thereby create fast routes for radionuclide escape.*
- *Future generations, seeking underground resources or storage facilities, might accidentally dig a shaft into the rock around the repository or a well into contaminated groundwater above it.*
- *Future glaciations could cause faulting of the rock, rupture of containers and penetration of surface waters or permafrost to the repository depth, leading to failure of the barriers and faster dissolution of the waste.*
- *Earthquakes could damage containers, backfill and the rock.*(7)

We feel that any genuine scientific program would be aimed, in the face of such uncertainties, at establishing whether or not deep disposal can be implemented safely.(8)

Trust

We share the concerns expressed by NFLA about the institutional bias exhibited towards a certain outcome by CoRWM1's recommendation that "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** at generic and site-specific levels". We note that these concerns have been expressed by independent experts such as former NIREX employee, Dr Rachel Western (9) and author of the 'Rock Solid?' Genewatch report, Dr Helen Wallace, also.(10) The assumption here is that the uncertainties can be reduced to acceptable levels.

Part of the controversy around the issue of a Geological Disposal Facility (GDF) is that the uncertainty that exists is enough to create significant doubt as to the ability to create a credible safety case, that can stand up to scrutiny. This aim of 'reducing uncertainty' is an example of 'orientation bias' as it introduces the possibility that the hypothesis itself will introduce errors or prejudices and become a determinant of experimental outcomes.

Trust and confidence are synonymous with certainty, and the nuclear establishment's desire for a political solution must be balanced by an acknowledgement that the degree of certainty necessary to create confidence in a GDF is potentially unachievable, as pointed out by CoRWM1.

We share the NFLA position that "the UK Government should scrap this consultation and go back to the drawing board."(11)

We are concerned that the consultation document seeks to mislead the uninformed when it claims in para 1.26 that "This [Geological Disposal] ensures that no harmful quantities of radioactivity ever reach the surface environment".(12) As stated elsewhere in this submission, that the repository will eventually leak is not contested, when it will leak is. **This kind of glib statement designed to misinform, makes clear why the Department for Energy and Climate Change (DECC) cannot be trusted to provide the public with unbiased objective information about a GDF, or what alternative waste management options are.** Indeed, the government's role as facilitator of new build is clearly a conflict of interests with it's institutional role as owner, regulator of waste and implementor of radioactive waste policy.

This consultation shows DECC to be misinformed and is also misleading to lay members of the public. DECC should bear in mind that trust is hard to gain, but easy to lose.

Regarding radioactive waste management policy, Mackerron and Berkhout (2009) argue that legitimacy is achieved when 'social actors will consent to it and comply with it, or at least cease to object to and resist it' and that legitimacy is a place where 'facts and values merge, and it demands procedures for an open exchange of arguments, in which participants have a particular commitment to the search for agreement based on a shared understanding of normative positions and a reasonable consensus about the state of knowledge'.(13)

The controversy over previous and current governments' interpretation of the CoRWM1 recommendations, and subsequent failure of the Managing Radioactive Waste Safely (MRWS) process in Cumbria, demonstrate that there is still significant objection and resistance to government radioactive waste policy. Mackerron & Berkhout (Learning to Listen, 2009) define radioactive waste policy as a core policy domain, i.e. essential, whilst nuclear new build is a peripheral policy domain, i.e. non-essential. They argue that the primacy of industrial objectives driving policy in the peripheral domain, i.e. new nuclear, is at a cost of legitimacy in the core policy domain, radioactive waste management.(14) They argue (from a policy perspective) that the political response could be 'to withdraw from decisions in the peripheral domain.'(15)

The authors' claim that legitimacy needs to be secured over four domains:

- 1 - The legitimacy of the generation of radioactive wastes
- 2 - The legitimacy of storage versus disposal of radioactive wastes
- 3 - The legitimacy of standards of protection in radioactive waste disposal
- 4 - The legitimacy of claims about waste management.(16)

By these definitions it can be clearly demonstrated that UK policy is not achieving legitimacy in the public domain. The existence of a significant number of grassroots and NGO groups expressing concerns about, and resistance to, all four of these domains demonstrate this legitimization deficit.

Mackerron and Berkhout (2009) point out that 'the commitment of Government to establishing stable conditions for legitimacy, (principally, a segregation of industrial objectives in new build from environmental and safety objectives in pursuing waste management), has been inconsistent.'(17) We agree, and would further point out, that this is a flaw of rad-waste policy caused by the short-term electoral cycle as well as being an undesirable effect of political lobbying by powerful interests.

The authors developed 'three indicators that connect institutional change with the generation of legitimacy:

- institutional segregation between operators and overseers;
- the autonomy of regulatory and oversight bodies; and
- the diversity of oversight bodies.' (18)

We note that many of the criticisms in this submission relate to these indicators, as no doubt, do the responses of others engaging with this consultation. Mackerron *et al* were concerned that the ability of government to 'listen and create conditions for construction of legitimacy', somewhat achieved under CoRWM1, was under threat. The MRWS process has realised their concerns as demonstrated by the failure of the process in West Cumbria.

We also notice that gender imbalance continues to be built into all of the radioactive waste management processes and their oversight - with respect to the failed MRWS process, 24% of Cumbria County Council, 23% of Copeland Borough Council and 30% of Allerdale were women. This reflects the trends at the national level with only 22% of MPs being female. Men outnumber women 5-1 in the government's Cabinet.(19)

The MRWS Partnership had 22 men to only 4 women(20), whilst the Geological Disposal Implementation Board failed to have any women at all in two of their four meetings. Of the other two meetings, only one woman was present out of twenty-three attendees and she was from DECC, so not even a voice independent of government.¹

The independent evaluation of the MRWS process failed to incorporate any gender analyses into their evaluation of the structure, governance or operation of the MRWS partnership.(21) We would wish to see this remedied in the future and for gender analyses to be incorporated into future independent evaluation of radioactive waste management processes.

We raise this because attitudes to risk and 'normative values' show strong differences according to gender. 'Women are especially protective of the welfare of future generations'. (22). Differences in male and female risk perception were surveyed in Finland in 2008, the differences were 'highly significant'(23) as found elsewhere. Given that the impacts of radiation on health have a stark differential impact between genders, the greater part of the risk being borne by women and children. (24) It is essential from an ethical perspective, that women have their voices heard.

From the 'Counting Women In' campaign:

¹ The Geological Disposal Implementation Board minutes of meetings on 30th Nov 2010, 28th June 2011, 6th Dec 2011, 11th July 2012. We note that this board are supposed to meet several times a year and that the board do not appear to have met this year (2013) at all.

*"We believe the under-representation of women in Westminster, the devolved assemblies, and town halls across the UK represents a democratic deficit that **undermines the legitimacy of decisions** made in these chambers". (emphasis added) (25)*

We feel it is incumbent upon decision-makers to ensure that women, as a constituency, are involved in nuclear decision-making within government and that women's concerns and voices are heard in any future public engagement on radioactive waste management processes.

Furthermore, elected representatives cannot claim to have any democratic mandate on this issue. Nowhere in the main parties' manifestos, upon which elections were fought, was nuclear waste disposal mentioned.

Consultation

We are concerned that this consultation has been rushed into. We note that the Treasury representative failed to attend a recent geological disposal steering group meeting on the 12th September 2013 to discuss the size and timing of community benefits.(26) We feel that it would have been prudent for DECC to ensure important discussions such as these were allowed sufficient time to take place before this consultation was launched. This is evidence of the problems created by new build being coupled to waste management policy processes.

We question the basis for this consultation and feel very strongly that its conduct has been shambolic. We are unhappy at the fact that stakeholder engagement was not held until the end of the consultation period. The date, timing and location of venues for such engagement were still unknown by DECC officials as late as the beginning of October. The arbitrary two week extension given by DECC to this consultation is insufficient, particularly in light of the fact that DECC omitted to invite some key stakeholders with an interest in radioactive waste management, such as People Against Wylfa B.(27) Were other stakeholders overlooked or excluded?

We feel that the consultation is misleading to the public when it points to the experiences of countries such as Finland and Sweden in implementing GDFs. Successes achieved to date there in terms of public acceptance are because those countries engaged in a far more deliberative and participatory decision-making process about siting of repositories than has thus far been achieved in the UK.

Stop Hinkley's position on radioactive waste

Para 1.30 of the consultation document cites the Nuclear Energy Agency claiming:

"there are no credible alternatives to GDF" and that "geological disposal is technically feasible; it can be made safe for current and future generations."(28)

We disagree with this statement and note the concern in 'Rock Solid?' that the Nuclear Energy Agency's (NEA)² position is *"based on the collective opinion of its radioactive waste management committee and not on analysis of existing scientific evidence."*(6)

2 An agency of the Organisation for Economic Co-operation and Development (OECD)

We note that there is inevitably slow progress, in terms of the state of current knowledge. Publication of an updated list of Features, Events and Processes (FEPs) that will inform future GDF Research & Development is not due to be completed until 2015.(29) Stop Hinkley maintains its position that, **in the current state of knowledge**, GDF does not provide a credible alternative strategy to that of storage. A strategy of above ground/near surface stores for radioactive waste is our preferred waste management option.(30)

This is in line with Scotland's policy on Higher Activity Wastes (HAW) that is shared by independent bodies such as the Nuclear Free Local Authorities (NFLA)(31) and Nuclear Waste Advisory Associates (NWAA). Stop Hinkley notes, as per chapter one of the siting review consultation, that **none** of the devolved administrations support the UK policy of GDF as a long-term solution,(32) despite the DECC's claim that international consensus exists on GDF. It is clear that a consensus does not exist **within the UK**.

Despite GDF enjoying 'in principle' support in numerous countries, this is not sufficient to demonstrate GDFs actually being feasible.(33) This concern was acknowledged by CoRWM1, and underlies their recommendation that **robust interim storage must be pursued**:

*"A robust programme of interim storage must play an integral part in the long-term management strategy. The **uncertainties surrounding the implementation of geological disposal**, including social and ethical concerns, lead CoRWM1 to recommend a continued commitment to the safe and secure management of wastes that is **robust against the risk of delay or failure in the repository programme**."(34)*

We believe that the lack of consensus among both public at large and the devolved administrations about GDF in the UK, is due to scientific and technical uncertainty. If a GDF is implemented in the current state of knowledge, i.e. at too early a stage, it would create intolerable risks.

CoRWM1 further stated that:

"Due regard should be paid to:

- reviewing and ensuring security, particularly against terrorist attacks*
- **ensuring the longevity of the stores themselves***
- **prompt immobilisation of waste leading to passively safe waste forms***
- minimising the need for repackaging of the wastes*
- the implications for transport of wastes."(35)*

As stated above, our current position is based on **current levels of knowledge** and we believe that after, and only after, a serious program of waste immobilisation and interim storage is implemented should attention to be turned to exploring whether or not a GDF can be safely implemented.

The reason for this position is because genuine efforts to find an acceptable solution for waste are constantly hijacked by the nuclear industry as justification to create more poisons. The issues created by the radioactive waste go far beyond the selfish needs of the nuclear industry, government, or current generations, and the only two areas where there seems to be consensus, is around the idea that **further intensive research and development is needed**, and that any implementation is going to take extended periods of time.(36)

Nuclear new build undermines the process of trying to resolve the legacy issues, by introducing more uncertainty, more radioactivity, and undermining public confidence in the process. This acts as a further barrier to achieving public acceptance of long-term proposals for nuclear waste.(37) Political pressure to 'accelerate' programs in order to legitimate nuclear new build also introduces further risks: for example, the introduction of error and the cutting of corners, as we know is prone to happen.

Stop Hinkley's position on nuclear new build arises, at least in part, because of the intractable nature of radioactive waste. We continue to stand by the recommendation of the Flowers report (1976),(38) that no new wastes should be created whilst there is no safe solution for the existing legacy waste. Nearly 40 years after that report, and no significant progress has been made to 'solving' the nuclear waste issue, yet more poisons continue to be produced, both in our own communities and around the country.

Progress on interim waste storage

We note with regard to CoRWM1's recommendation about storage, that little, if any, progress has been made with respect to interim storage and waste immobilisation. This excerpt is from the Nuclear Decommissioning Authority (NDA) 2012/13 financial report:

*"When I took on the role I stated that my top priority was Sellafield.... Sellafield illustrates the difficulties the NDA and our SLCs face in tackling legacy issues... Before many of these plants can be accessed to allow them to be emptied and decommissioned, a significant number of major new construction programmes are required. This means that Sellafield is set to become one of the biggest construction sites in Europe **over the next 20 years**"(39)*

Despite criticisms dating back to 2009 of both CoRWM1 and the NDA's 'lack of urgency' in their respective reviews of waste storage,(40) it is apparent that schedule slippages and project cost overruns are the norm when it comes to nuclear waste management.

Half of the HAW there remains unconditioned, and only around a tenth of existing Intermediate Level Waste (ILW) has been conditioned, let alone immobilised. The above statement also makes clear the prematurity of the siting process when the NDA are years away from even being able to access some of the legacy waste. The prioritising of GDF has been to the exclusion of storage.(41) Reduction of hazard at Sellafield through the construction of suitable interim stores is a matter of great urgency, the siting of which, should also be subject to consultation and voluntarism. Sellafield poses a massive threat to people and the environment, and the Public Accounts Committee are not convinced, given the industry's track record, that their future plans are adequate. (42) - We feel that this lack of urgency among government advisors and implementors is due to its lack of focus on this area, as set out in the MRWS policy, which stated that "there is a need for interim storage". We suggest that the government's attention should be on progressing its policy to an open, transparent and implementable plan for interim storage and that this should be prioritised, at least in parallel, if not ahead of, an intensified R&D program into GDF, as recommended by CoRWM1.(43)

New Build derailment of waste plans

Critics have long warned governments that continued production of radioactive waste makes it more difficult to achieve a consensus on how to deal with the problem. Professor Andy Blowers warned in a 1999 NFLA Briefing that, in conditions of such [technical, political and social] uncertainty, **"it must be concluded that a scientific consensus does not exist sufficient for a repository solution to proceed at the present time... So long as production continues, it is likely to prove more difficult to achieve a political consensus over the ways of dealing with the radioactive waste problem".**(44)

This lack of consensus has been increasingly evident since successive governments have decided to ignore CoRWM1's recommendations and pursue new build, despite all the associated problems that plague the project being strong indicators that the government is backing the wrong policy.

We believe that the current government's attempts to site a long-term repository are premature, particularly in light of CoRWM1's framing of the need for interim storage in terms of the possibility of **"delays or failure of a repository program."**(45) Right now, the MRWS process in Cumbria has failed, and we feel that Government should use this opportunity to review its MRWS policy in broader terms, and should give serious consideration to the negative impact of nuclear new build policy on it.

Since the 1980's, there have been continued calls for nuclear new build to be de-coupled from nuclear waste management.(46)The rhetoric of openness and transparency is often heard from government officials and civil servants when keen to be seen as engaging on issues about nuclear waste. Indeed, they are seen as prerequisite for a voluntarist approach to work.

We reiterate our position as relayed directly to the Minister, Baroness Verma, at the DECC NGO FORUM in October 2013, which is that **there can be no support from civil society for, or serious engagement with, any government process to site a GDF whilst nuclear new build is actively pursued by government.**

The siting process

CoRWM1 recommended that suitable geology is properly established before a host community is sought. There are many uncertainties that need to be explored and some of which have a significant impact on the siting criteria. For example, the inclusion of gas/no gas in the siting criteria(47) for a GDF, means that a community by definition cannot have all the information that it needs about the potential impacts to be able to decide to participate.(48) These problems are in evidence in the MRWS final report, where despite significant uncertainty, the siting process is steaming ahead without enough volunteers, enough information, enough research or enough time.

It was reported to us by an attendee at a recent Office for Nuclear Regulation (ONR) meeting that Mark Higson, on behalf of the Office for Nuclear Development (OND), admitted that they should be taking more notice of CoRWM1's recommendations. We feel, however, given the contents of the consultation document, that it is unlikely government will take any more notice of CoRWM1 now than they did back in 2006. Indeed, it is noted in CoRWM1's 'Recommendations to Government' report that throughout the Public and Stakeholder Engagement (PSE) programme there was a scepticism as to whether or not the government would act on CoRWM's recommendations.(49)

The government's unwritten policy seems to be one of spending public money to find a way forward on radioactive waste then ignoring the findings if they do not accord with the desires of the nuclear establishment. We note that CoRWM1 was, and continues to be, a significant expenditure of public money, and we can only guess at how much money is wasted at Sellafield, as successive governments fail to grasp the radioactive nettle.

Question 1

We reject the proposal in question 1 because it limits the rights of any potential 'volunteer' community. The suggestion in this question, taken with the other government proposed amendments, is that community support is only tested once possibly before the end of the suggested focusing phase i.e. before boreholes are sunk. The current step-wise process allows the testing of community support continuously throughout the process which is very important, because if done properly the siting process would take decades.

Communities are dynamic over these timescales, due to births, deaths, immigration and emmigration and so continual testing of support at distinct decision-points are essential if legitimacy of the process is to be achieved. Testing of support needs to be multi-faceted as many of these tests for example referenda, can be subject to manipulation. The community in question should have a say in which tests are used, and how they are conducted, as they know their community better than anyone else. Here we mean community in its widest sense and not in the 'decision-making body' sense.

We also believe that the governments attempts at siting a GDF are premature and are in fact decades too early. The NDA believe that it will be at least twenty years before they can even access some of the legacy waste (50). This means that some of the legacy waste couldn't even be packaged for a long time.

Voluntarism and the Right of Withdrawal

We note that in para 1.37 the government has retained its 'right to explore other approaches'.(51) We feel that it is in the public interest for us to make clear that this could be seen as a cleverly worded threat to impose the government's desired waste management 'solution' on an unwilling community. We do not recognise this right, and believe this threat should be removed.

The retention of this threat begs some important questions:

- How does government define failure of voluntarism?
- How does the government define failure of partnership?
- How long does government intend to pursue these routes before deciding that they have failed?
- Who gets to decide the success or failure of these policies?
- How legitimate would any government assessment be?
- Are these matters exclusive to government or do they need validation of wider interests because of the nature of the issues?

We also have reservations about how the concept has worked in practice. For example, so far the MRWS experience has been that **only one community has come forward**. It's not insignificant either that this community is a 'nuclear community'. We question the legitimacy of a process that only attracts one volunteer, and feel that this is a strong indicator that from the start, the MRWS process lacked legitimacy. Metley (2013) identifies that the issue of only one community expressing an interest creates a problem because it introduces additional risk into the siting process which leads to "pressures that could result in design decisions that might compromise the long-term safety of the repository".(52)

Given that DECC wrote to all local authorities to invite them to find out more with no commitment, the lack of interest should certainly cause government to question both their policy and their approach. We share the NFLA's concern regarding progression to stage 4 in Cumbria, that the momentum would have been so great that it would have become impossible to exercise the right to withdraw.

We also have concerns about the right of withdrawal. A situation where there is only one 'volunteer' creates undue pressure as there is 'nowhere else to go' if that community does not wish to proceed.

This pressure is already evident in this consultation document with the proposal that the upper tier of government in Cumbria, the County Council that had refused to go on to stage 4, is relegated to a 'consultative' partnership in any future process. This strongly indicates:

- a) a desire to return to Cumbria, and
- b) a desire to ensure that any part of a community that is willing can exclude wider interests from any decision to participate.

County Councils across the land hold a statutory responsibility for waste management/disposal strategies - why should this be any different for nuclear waste? We call for the whole of Cumbria to be excluded from any future process based on their recent decision not to proceed any further with the MRWS siting process.

Whilst we agree with Cumbria County Council, that a Right of Withdrawal should be enshrined in statute, we are very much aware that the people charged with the 'decision' may be under huge, social, political and even cultural pressure to go ahead. Such an intense process is bound to create social and cultural norms that may become hard to challenge.

The consultation document suggests that the right of withdrawal should end when boreholes to investigate the geology are sunk. This would deprive any potential community of the information that it would need in order to go ahead or withdraw. The need to conduct further research investigation is, in itself, an indicator that uncertainty exists. It is essential that the data from such (borehole) investigations is available for a community **and** the wider community in order to inform any decision to go ahead at this stage, and that a legal right to withdraw persists beyond this.

The need for a technically suitable site makes it essential that the right of withdrawal is available to a community until the end of the siting process (i.e. until construction is due to begin) as is currently the case. The huge amount of work and time vested in the process already means that it would actually be very difficult for a community to withdraw. As discussed above, it would be undesirable and undemocratic to make it any harder.

We believe that a step-wise staged process is still the right way to proceed and that, so far, this is one aspect of the process that has demonstrably worked. Clearly, the direction of the Cumbrian decision, was not the one desired by the nuclear establishment, but nevertheless, the lack of support was demonstrated.

Questions 2 & 3

Democracy?

The proposals in this siting review represent a move towards more less participatory forms with some tiers of government and wider interests in a community being relegated to 'consultative' roles. Consultation is not participation. Without proper engagement of the public via truly participatory practices, any government policy on radioactive waste will fail to achieve legitimacy with the public and will remain, as is currently the case, un-implementable.

This was also the case in 1999 after the failure of the NIREX process, and is still the case as currently demonstrated by Cumbria's decision not to proceed.

We note from DECC's analysis of the call for evidence that 13% of responses (ARUP, St Bees Parish Council, Oxford Institute for Sustainable Development, Nuclear Waste Advisory Associates, Gosforth & Ponsonby Parish Councils, Cumbria Association of Local Councils, Underskiddaw Parish Council, Millom Without and Whicham Parish Councils, Cumbria County Council, Shepway District Council, Nuclear Institute, Nuclear Legacy Advisory Forum, Sellafield Workers Campaign, Blackwater against New Nuclear Group (BANNG), SKB International AB, Holme St Cutbert Parish Council, St Johns Castlerigg Parish Council) - a broad constituency from across the anti- and pro-nuclear spectrum supported the theme that the Decision Making Body (DMB) should be other than the district council and that only 3% of respondents all pro-nuclear organisations with a vested interest in going forward in Cumbria (Imperial College London, Nuclear Institute, Prospect representative to West Cumbria, National Trust, Copeland Borough Council) supported the theme of the district council being the DMB.(53)

This raises important questions around the legitimacy of DECC's assertion in the consultation document that the district council is the appropriate level of DMB because they have full-time staff and elected representatives. This rather implies that district councillors have a democratic mandate to 'represent' communities on issues relating to the permanent disposal of radioactive waste. As pointed out earlier in this document, we do not see any elected representative as having a democratic mandate in this regard. The suggestion that having full-time staff also qualifies them to be the DMB is clearly ludicrous.

When the Hinkley decision was examined here, West Somerset District Council (WSDC) had to employ an extra staff member to deal with the extra workload created by the application. There were clearly concerns that this was insufficient but pleas from the local authorities for extra money to scrutinise the application fell on deaf ears. So it does not follow that the existence of paid staff gives an authority competence. Furthermore, the post at WSDC was funded indirectly by EDF Energy, creating concerns among the public about due process.

There is an underlying assumption here that is important to challenge, which is that any facility is going to lie within one administrative boundary. This is clearly unlikely to be the case. Given the size of the required rock volume, it is questionable that the entire facility would be within one administrative boundary, let alone the accompanying facilities. There is also an assumption that the risks of the project are all borne by the 'host' community which is also dubious, as these could easily impact more on a wider community than the host, depending on site specific factors and eventual 'leak' pathways. Also inter-generational risks do not seem to have the appropriate weighting in the siting process. Much of the focus of the MRWS Partnership in Cumbria has been on the impacts for current generation in terms of economic impacts such as jobs and tourism, etc.

We reject the changes proposed to the constituency of the Steering Group. The proposal that the steering group is formed by different layers of government, (which would now include the OND as well as the borough council, but not authorities such as parish, town and county), and exclude wider interests is unacceptable. The proposal that there is a consultative partnership and that the steering group controls the constituency of the consultative partnership via appointments, is also unacceptable.

One of the aspects of the partnership that was evaluated as successful by the independent evaluators of the MRWS process, was the fact that the membership of the partnership was seen "to accord with the principle of wise democratic processes" which are defined by the International Association of Public Participation as "*those which utilize a community's or society's diversity to deepen shared understanding and produce outcomes of long-term benefit to the whole community or society*"(54)

Bodies such as central government and the developer in the previous process were kept to observer roles because of the potential for them to unduly influence the process. The inclusion of them on the proposed steering group, a) denies the primacy of many of the previous types of body who would under current proposals be relegated to a consultative body if they were lucky, and b) membership of government and the NDA as developer, who both have vested interests in the implementation of a GDF, would certainly reduce diversity in the so-called partnership and would introduce short-term political interests into the process, therefore removing legitimacy and undermining trust - the very opposite of what a siting process based on voluntarism should be seeking to achieve.

The failure of government to learn the lessons of history is astounding. It seems that it is intent to repeat the mistake of the Windscale Inquiry (Parker 1978) where "resounding endorsement of re-processing was evidently at odds with much of the substantive evidence given in a public consultation exercise that began the 'deep-seated' and **in our view still justified public mistrust of radioactive waste policy.**"(55)

We are very concerned that the changes proposed in this consultation are, in large part, to create a way of bypassing the concerns raised by Cumbria County Council, in order that the process can return to Cumbria: to the two borough councils who want a GDF near Sellafield and to legitimate the epic catastrophe that is the government's new build policy.

The DECC's bland reassurances that this is not the case is unlikely to be born out, given the fact that commentators on this issue in the long-term predicted that this process would return to Cumbria again, and observers such as ourselves continue to hold that view.

DECC's proposal that NGOs should be included on the Geological Disposal Implementation Board is problematic for a number of reasons:

Firstly, DECC claims that 'It may be that multiple channels for challenge are needed'. This rather implies that any NGO would be able to provide challenge elsewhere, but just where would that be? Not in any community considering hosting a repository it seems.

Secondly, it also assumes that the NGOs are already known and that it is just a case of inviting them. There are a very wide range of NGOs that this might potentially apply to, given that these proposals are still generic rather than site specific, and that the search is supposed to be a national one!

Thirdly, and most importantly, from the perspective of an NGO that does not support GDF, is the issue of the Terms of Reference. The Geological Disposal Implementation Board will undoubtedly have terms of reference that assume a shared objective in implementing a repository. These terms of reference may alienate from participation any NGOs who do not share this objective, an NGO should feel free to choose the terms of their own engagement, and particularly if it is their community that is considering putting themselves forward.

It is essential that dissenting voices are not excluded from the process if trust is to be built. This issue of the NGOs' inability to engage with the Terms of Reference was addressed in the independent evaluation of the MRWS process:

"NGOs have been asked to feed into a process which is based on premises they do not accept and seek to challenge... any future Partnership must make continued efforts to engage the NGOs."(56)

If the process is to be improved, we would expect to see this situation rectified.

The public in Sweden were able to access public money to independently scrutinise the work undertaken by, and research available from, the industry and its proponents. This was due to a perception that the governments of the Municipalities (equivalent to our local authorities) were seen to be 'pro' and therefore were seen as compromised in this arena.

Paragraph 2.67 of the siting review consultation states:

"By being labelled 'Decision Making Bodies' in the context of the siting process, councillors engaged in the siting process felt that they were forced into a adopting a neutral position on both a GDF and involvement in the siting process. This reduced the quality of local debate and stifled valid discussion"(57)

This statement about the quality of the debate is strongly contested by some of those involved with the process, and this was made clear in the DECC stakeholder engagement event on Wednesday 27th Nov.

In order to build trust, challenge needs to be part of the process if it is to achieve any legitimacy. Stop Hinkley calls for a fund to be made available to communities to seek out independent opinion on any and all proposals for disposal of nuclear waste, as was done in Sweden. We feel that this is congruent with the right of an **informed** citizenry to have **early involvement in environmental decision making**, as per the Aarhus Convention.(58)

We believe that these proposals constitute the wolf of 'decide, announce and defend' dressed in the sheep's clothing of 'voluntarism and participation'.

We reject the proposals in questions 2 & 3 on the grounds that they are a move back to centralised control aimed at excluding dissenting voices and airbrushing from the process legitimate concerns.

Question 4

Wisdom of siting process that seeks to co-locate waste in communities

Whilst we know that public acceptance is as important as the science to the siting of a repository, we wish to question the wisdom of locating a repository in an area that is not geographically remote. Surely if protecting the site from human intrusion in the far future is of concern, then locating it 'in' a community and leaving the infrastructure developed for emplacement as some kind of community 'benefit' is surely counter-intuitive?

Screening criteria

The NDA have attempted to airbrush out the history of previous failed attempts to site nuclear waste repositories. This includes the controversies over the technical requirements that have created subsequent controversies over the issues that lead to inclusion/exclusion of siting criteria.

For the public to be able to make informed choices about how to proceed, it is important that they have access to the history of previous processes as viewed from all 'sides' of the debate.

We know that previously identified, potentially suitable areas included places that are also geographically remote: for instance, MOD land at Standford in Norfolk. (59)

The MRWS process included an initial screening out of unsuitable areas. We question the criteria that were applied in Cumbria as it still identified wholly unsuitable areas as potentially suitable. Notwithstanding our concerns about the screening process, as has been implemented previously, we note that in the MRWS call for evidence a clear majority of respondents - 59%, from both sides of the debate (anti-/pro-nuclear) supported the theme of suitability screening, i.e. establishing the potential suitability of an area's geology before invitations to participate are extended.(60)

Significant work has already been conducted in terms of national screening as part of the NIREX process previously:

*"Site selection in Britain was proceeding well through the 1980's; **regions of suitable generic geology had been identified by the BGS.**" (emphasis added) (61)*

Controversy arose when the site selection process was changed from Basement Under Sedimentary Cover to Basement Adjacent to Sedimentary Cover in order to include Sellafield in the process, as seems to have been repeated in the failed process in Cumbria.(62)

This goes to the heart of the issue of the site selection criteria. The MRWS Partnership in Cumbria were divided over whether further geological work should be done before or after a decision to participate.(63)

6% of respondents to the call for evidence felt that:

"A specification should be produced which sets out the exact requirements a site will need to meet in order for it to be considered 'suitable' for a GDF. This should be produced first and then volunteer community areas can be tested against the specification. This avoids distrust that 'suitability' is defined after the fact to suit the volunteered area."(64)

We feel that, if the government insists on going down the GDF route, then a deliberative process to establish a suitable criteria that includes independent experts and the lay public is essential in order to achieve legitimacy. Regardless of expert disdain for public involvement in matters that they feel are best left to themselves, DECC seems to be proposing an approach which can be characterised as 'leave it up to **our** experts'.

Hydro-Geology first and foremost

We disagree with DECC's assertion that there is no such thing as the best geology. This is defined as **simple geology and low hydraulic heads**.(65) Hydro-geological barriers remain the foundation of the GDF concept and also the most important of the 'multi-barriers' as it is the only credible barrier over the lifetime of the repository. The geochemical environment is also important as a reducing environment rather than an oxidising one is also preferred. Even the most 'optimal' conditions represent a least worst option and not, as claimed by industry proponents, a best one. A GDF therefore places a **significant burden on the future**.

All experts involved with the CoRWM1 process were agreed that **eventually the repositories' contents will leak into their environment** at the point when their 'engineered' barriers fail. The geochemical barrier will be all that remains. The uncertainty here, essentially lies not in **if this will happen** but rather in **how long this will take**. Some estimates claim that the engineered barriers could fail after just a few hundred years after closure.(66) For example, the Swedish have recently had to revise downwards their estimates of how long corrosion of copper canisters can take from thousands of years to just hundreds.(67)

Such revisions point to a) the essentially unpredictable behaviour of materials and the environment over time, and b) the over-optimism that engineers tend to have in their engineering solutions. The need for the utmost concern and care to find the best geology for the job is essential for the GDF concept to have any chance of creating a safety case and achieving any legitimacy with the public. As pointed out previously, CoRWM1 also advised that, on the whole, the uncertainty that remained around GDF as a solution is significant enough that **it might never be acceptable to the public**, which is part of the basis for their recommendation for a robust storage program.

Hydro-Geology and voluntarism are of equal importance for any proposal to have legitimacy with the public. However, because of the costs associated with geological exploration, it is important that this aspect takes precedence, not in the sense that it is more important than voluntarism but in the sense that it happens first. It is important that when and if a community expresses an interest, there is a good chance that further hydro-geological examination will be productive.

The proposal in question 4 is rejected.

Question 5

Designation as a Nationally Significant Infrastructure Project (NSIP) under a National Policy Statement (NPS)

Here in Somerset, it is interesting to note that, when it came to engagement with the planning process, both tiers of regional and local authorities were grouped together. When it came to this process, their submissions were joint. If the government chooses to designate a GDF under a NPS and deal with it under the same planning process, exclusion of the County Council, who have a statutory responsibility for waste, would be problematic.

The voluntarist principle that government claims for its MRWS siting process is completely at odds with the designation of facilities under the NSIP/NPS process. We are one of the few communities to have been through this process and the Hinkley project was the largest and most controversial to date.

The new Nationally Significant Infrastructure Projects planning process is designed to limit public engagement on the Development Consent Order (DCO) application, both in terms of time to scrutinise and the level of participation in the examination. It is intended to remove uncertainty for developers.

We in Stop Hinkley feel that such an approach should be strongly resisted as it is at the unacceptable cost of the rights of any future host community. The use of 'in principle' decisions to foreclose dialogue on matters such as nuclear facilities is in breach of our legal rights under Aarhus to have a voice on these very matters.(58)

This situation has arisen because the government's 'justification' decision has foreclosed legitimate debate on health matters.(68) Radiation exposure models continue to be highly contested.(69) Although radiation has significantly more impact on females than males and on children over adults, female voices remain under-represented in politics and society at large. This was pointed out to DECC via a paper submitted to the NGO Forum in February 2013.

As a community that hosts nuclear facilities and their attendant highly radioactive wastes, we live with the as yet unquantified, long-term consequences of all gaseous and liquid radioactive discharges associated with the nuclear activities. We have a clear interest and **right to participate** in decisions made about radioactive waste yet, despite this, the introduction of the Infrastructure Planning Commission (IPC)/(NSIP) process, and its institutional bias in the form of 'presumption to consent', denied us a voice, let alone participation, with regard to our legitimate concerns.

We have **site-specific** concerns about the future impacts of long-term storage of high burn-up fuel for which no technical solutions currently exist to transport the waste yet, let alone achieve 'final' disposal of it:

- Highly active waste will generate so much heat that it will need to be cooled on site for a minimum of one hundred years before it can be moved.
- There are many unsolved issues relating to the packaging and transport of high burn-up fuel which also give rise to serious concerns.(70)
- The Secretary of State (SoS) has given consent for this to happen in our community with NO dialogue for us on the issues of radioactive waste as part of the planning process.

It has to be acknowledged that the presence of high burn-up spent fuel from a 60-year program of fission could become permanent, in the event of failure to implement a GDF. We refer you to our submission to the IPC where our concerns about radioactive waste at a site-specific level were considered irrelevant.(71)

Given the combined effects of the lack of clear policy on robust interim facilities, the refusal to decouple new build from plans for legacy waste and the uncertainty surrounding a safety case for a proposed GDF, failure looks increasingly likely.

Despite our pointing out to the then IPC (Infrastructure Planning Commission) that there were aspects of the planning application to be considered by them because they related to concerns raised about radwaste that were **site-specific**, and therefore they had been advised by the government's NPS EN-6 Appraisal of Sustainability (AoS) that they lie with the IPC. We were constantly told they were 'not in our remit' by the IPC panel Chair, Andrew Phillipson.(72) Indeed the planning inspector's report clearly states that he did not consider such matters as they were 'issues for the regulators'.

Extract from the Development Consent Order for Hinkley Point C (HPC):

*"There is **understandable** public concern about arrangements for the management and disposal of spent nuclear fuel rods and other radioactive waste. However, it is not within our remit to consider that matter, which will be dealt with by the Office for Nuclear Regulation in considering the application for a site licence" (emphasis added) (73)*

This assessment was flawed as the NPSs are based on the assumption that a facility to take the waste will exist nearly two hundred years from now. The issue of whether a facility will exist is not a just matter for so-called 'expert regulators' because it is not merely a technical issue but is also a societal issue. Failure to implement a repository is a such a distinct possibility that it led to CoRWM's heavily-caveated recommendations.(43)

The ONR have held no formal public consultation about the issue of radioactive waste arising from Hinkley Point C.

The Environment Agency (EA) did 'consult' about the discharge permits. We spoke with them about how our concerns (about discharges and waste management) could be raised with them but were informed that the two processes (discharge permits and HPC DCO) were not going to dovetail. The whole National Infrastructure Planning process is a farce - it is unfair, biased and has no legitimacy with the public. This will become apparent over the course of time as more communities experience the biased process and become aware of it.

It is becoming evident, from the few projects that have been through the new planning regime, that from a technical perspective, errors due to acceleration of the planning system are creeping in. There are over 46 'corrections' to the Hinkley DCO, (74) and the correction process took longer than the actual examination itself,(75) which raises questions as to the efficacy of the process. Errors can, if left undetected, contribute to cost and time over-runs as well as the obvious potential for these to lead to safety concerns.

Some of the best lawyers in the country are already expressing concerns about the new planning process as the period for Judicial Review has been halved from 12 weeks to just 6 weeks in which to challenge a decision.

"I think it's pretty tough on those who want to object in a complicated case to get their tackle in order within six weeks." (76)

We further consider that such a designation would lead to a rather circular argument from planning inspectors. One of the reasons the IPC Panel gave for our concerns about radioactive waste being 'irrelevant' was the fact that the government believes that a GDF will exist at some point in the future and that they have an NPS that states this. Designating a GDF under an NPS may lead to people's concerns being rejected on the basis that... the government believes there will be a GDF...

The proposed change would clearly alienate potential host communities from engaging. The IPC/NIP was put in place amidst strenuous objection, not something the public voted for but something ushered in by one government unable to come up with any better way to achieve consensus in society and retained by a subsequent one unable to do any better.

WE STRONGLY URGE ALL COMMUNITIES TO REJECT ANY PROPOSAL FOR A GDF TO BE DEALT WITH UNDER THE NIP REGIME.

We reject the proposal in question 5.

Question 6

Inventory

The inclusion of the inventory under what DECC claim to be a review of the *siting aspect only* of the MRWS White Paper is inappropriate. In the MRWS White Paper, the inventory is a completely separate part and not lumped together with siting. This attempt to include the inventory here circumvents due process. Any attempt to consult about illegitimate, piecemeal revisions to the inventory is unacceptable and a waste of public money not appropriate in a time of 'austerity'.

We share the concerns expressed by Dr Lowry at the DECC stakeholder meeting on November 27th in London, about the government's possible intention to go back on the policy of foreign Plutonium repatriation. We are further concerned about the government's ill-concealed desire to use MOX (mixed oxide) fuel in civil reactors, both in the UK and abroad, such as in the proposed reactors at Hinkley.(77) The implication of this is that there will be an amount of Plutonium 'waste' that cannot be separated and incorporated into the MOX fuel which will therefore require disposal in a UK GDF.

This is an unacceptable addition to the UK inventory and we reject any proposals for further processing of foreign Plutonium in the UK. We feel that the policy should continue to be eventual repatriation of foreign Plutonium. This proposed amendment to the inventory is evidence of a piecemeal approach to policy, and seems to be conditioned by a continuing desire to reprocess spent fuel. This desire is evident in other government policy documents such as the government's nuclear strategy which desires to make MOX fuel for UK plants.

Co-location of new build and legacy wastes

We do not support the concept of co-location, particularly not as it is currently communicated by government: as *fait accompli*. We are concerned that the government is giving out mixed messages. The MRWS policy message is that a community would have some discretion over the inventory whilst the coalition government's message is that all of the waste is going in the same place, so that they can claim the obstacles to new build have magically disappeared. We quote CoRWM1:

“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 waste are quite different from those relating to ... unavoidable wastes... [A] new build programme... would require a quite separate process to test and validate proposals for the management of wastes arising”.(78)

To propose creating more wastes (especially even hotter and more dangerous wastes) on the back of the weak justification that 'we already made some' is neither rational nor logical. We maintain the position that new build should be de-coupled from legacy waste management for the reasons outlined previously in the section on trust.

Geological disposal concepts discussed by CoRWM1 and on which government policy rests did not include the inventory from a 16GW new build program of high burn-up fuel as discussed by DECC in the consultation, which creates numerous problems for GDF policy. These issues include, but are not limited to, the size of the repository footprint, the creation of issues about repository closure and knock-on effects to other associated Features, Events and Processes (FEPs)³ such as atmospheric corrosion of existing waste packages whilst the GDF awaits closure.(79)

We further believe that the DECC are misleading the public by not discussing here the fact that they would actually like to see a 75GW programme.(80)

Proposals to include MOX and unspecified Ministry of Defence wastes in the inventory are also unacceptable. Whilst it could be argued that it is reasonable for government to create an inventory of the wastes it already has, it is not reasonable for the nuclear establishment to try and find a host community for an as yet, hypothetical inventory - the implication in terms of costs to public health and to the public purse are significant. The size and content of the inventory in a repository are a matter for the community in question to decide.

We reject the government's proposal in question 6. We urge the government to review the wider MRWS policy in its entirety as so many of the proposals within this document are in danger of bringing the siting process so far away from congruence with the MRWS policy as to be unrecognisable.

3 FEPs are issues that are used to model different GDF scenarios and to design research plans.

Questions 7 & 8

Socio-economic & Community benefits

We do not endorse the government's approach to community benefits.

The government seems unable to make the distinction that is made in the literature on this subject between different types of benefit. **Community benefit** is not for increased risk but merely for taking part. It is usually financial, aimed at making sure that the community can participate adequately in the process as well as ensuring enhanced well-being 'beyond the lifetime of the facility' - a highly unlikely proposition in this case!(81)

Social benefit measures are supposed to be compensatory house prices, health impacts of operation, etc. Many of the social benefits should be implemented once decision to participate is taken, i.e. construction has begun. However, questions may arise when an impact on the housing market will begin. Some benefits should only begin once emplacement begins(82) and can include:

- employment,
- infrastructure improvements,
- property value protection,
- integrated development projects and miscellaneous facilities,
- Discounts (includes health and environmental monitoring and free energy) - these are particularly pertinent where a project is claimed to be of national importance,
- Expert support packages designed to aid communities in commissioning reviews by independent experts to demonstrate transparency.(83)

However, it has been argued that:

"offering financial compensation risks undermining the requirement to optimise the radiological protection (i.e. to use the best available techniques to minimise radiation exposures in the future)" (84)

It is important that a balance is struck, and that DECC understands the distinctions made in the literature on this subject. This consultation document fails to demonstrate such understanding.

The clear conflict of interests, in our view indicates that DECC is not the appropriate body for taking forward the community/social benefits/compensation aspect of the siting process.

During CoRWM1's stakeholder engagement, safety was the overriding priority that stakeholders wanted to drive the process. Instead, what is driving the process is an institutional desire for nuclear new build.(85)

To quote from the Swedish experience:

"To focus on municipalities possessing infrastructure, competence and positive attitudes towards nuclear activities is not in accordance with long-term safety requirements and the importance of the bedrock for achieving safety."(86)

The return to Cumbria despite the findings of the NIREX inquiry makes this point perfectly. We repeat our call for Cumbria to be excluded from further consideration in any future process.

If the Swedish experience (with the lengths that they went to in order to have participatory democracy) was characterised as 'constrained deliberation'(87) then the proposals within this review of the siting process (with its pretence to uphold democratic principles such as openness, transparency and voluntarism whilst shifting back to 'decide announce defend') could be characterised as 'pretence of deliberation'.

We note CoRWM's advice to DECC was 'not to get drawn into defending any specific position as this would undermine the value of the consultation'. In our view this consultation is an attempt to cloak the government's centrally-planned, pre-determined policy objectives.(88)

At the DECC stakeholder meeting that we attended on the 27th November 2013, we were told by DECC representatives that DECC viewed the Appraisal of Sustainability part of the National policy statements as performing the function of an SEA in their proposed amendments. As outlined in previous sections to our response, we do not support the designation of a GDF in this way due to its removal of people's rights to participate in environmental decision-making. We note that the Scottish government undertook an SEA of their higher-activity wastes policy which was well-received by independent analysts such as the NFLA and that the Scottish Government had:

“listened to local authorities and taken on board many of the points raised by the NFLA and others during the consultation” (89)

We reject the proposal in question 8 - the details in DECC's proposal are still too vague to be adequately assessed. We feel that it is possible to screen out some areas according to socio-economic criteria such as national parks Areas of Outstanding National Beauty (AONBs), etc. but feel that the MRWS focused far too much on the socio-economic impacts on current generations and enticement for communities to participate, i.e. incentives.

There was not enough focus on these impacts upon future generations who will be the most impacted by a GDF. We note that the proposals in the consultation document suggest such benefits end with closure of the facility. We feel that this is unethical and that some form of compensation for the facilities presence should continue far into the future, i.e. for as long as there are the necessary institutions to do so. This would be, we feel, in the spirit of what is meant by 'enhanced well-being' for a host community.

Disinformation

The Orwellian news-speak employed by government and its agencies to discuss nuclear matters, both here and in the media, can only be described as Public Relations propaganda designed to give government the answer that they want. For example, the Secretary of State has deliberately misled the public over the issue of radioactive waste by constantly referring to the underground footprint of a repository.(90)

In addition, focus is concentrated on waste volumes when the real issue is about the radioactivity (and a new build programme would nearly triple the radioactivity), never mind the skimming over of currently unsolved technical issues around the packaging and transport of high burn-up fuels. These PR techniques are constantly utilised and picked up by the mainstream media, leading to a situation where the 'dis-interested' public are also grossly misinformed. There is, therefore, a great amount of work that needs to be done to rectify this if a GDF is to be deliberated by an 'informed public'. A failure to rectify this situation is likely to result in legal challenges and failed processes.

At a recent DECC NGO Forum, Baroness Verma claimed that she wanted the 'widest possible public engagement'. Any national awareness programme needs to include ALL perspectives of the debate. People in Cumbria should be able to communicate why they voted against the GDF from their own perspective, to ensure that what the public gets is not just a DECC-mediated 'version' of the story.

Public education/national awareness

Currently, the proposed provenance of all information relating to a GDF is proposed to come from government, who can neither be considered objective or impartial in the UK context given their role as facilitators of new build. The quality of the information within this consultation document is dubious, it is neither objective nor impartial. As NGOs pointed out previously, the call for evidence was flawed too.

The importance of objective, impartial information that includes ALL perspectives on the issue cannot be stated strongly enough. 29% of EU citizens are concerned about the way radioactive waste is handled in their own countries and only 10% trust information provided by the nuclear industry.(91)

NFLA note in their response to this siting review that "The West Cumbria Managing Radioactive Waste Safely Partnership carried out an opinion poll (Ipsos Mori) which found that a small majority of those asked were in favour of moving on to the next stage. But 19% of those asked had never heard of the proposals; and 61% had either just heard of it or knew 'just a little' about it."(92) This shows that there were clear problems with dissemination of information to the public.

In Somerset, we have had direct experience of the poor quality of information disseminated from government as it has related to new build. We also know from experience, that government and industry limit public access to so-called information-sharing events via a range of tactics which include, but are not limited to, a) not publicising widely enough the events; b) holding events in hard to reach venues away from town centres; c) holding such events at times when a lot of the working population cannot take part. If the same kind of approach was implemented in Cumbria this at least in part, offers some explanation for the results of the IPSOS MORI poll cited above. Stop Hinkley note that 'decision-making by the majority can, in fact, be undemocratic when the majority of citizens are uninformed about particular issues and about the likely consequences of the policies or laws that they are supporting'.(93)

We would like to see an independent commission set up that, amongst other things, addresses the issue of a national awareness campaign. We have very specific concerns about bias in literature and if our experience of the literature being disseminated in schools on behalf of the government is anything to go by then the government must not be trusted to undertake this task alone.

Closing

We believe that this siting review further damages the credibility of the MRWS strategy. It undermines public confidence, not just in MRWS but, coupled with the u-turns on manifesto pledges not to publicly-fund nuclear new build, it also undermines trust in government (which is already low), as reflected by low turn-out at elections.(94)

With regards to nuclear new build, NIMBYISM seems to be 'the bottom line' of local government. We noted with interest our own local authorities' position with regards to nuclear new build and radioactive waste. Current waste policy in Somerset is such that, in policy terms, the councils are opposed to any permanent nuclear waste dump here, yet they have unwittingly agreed to one in the form of Hinkley Point C, they assume that the waste will eventually live somewhere else.

Therein lies the nuclear paradox - the low support that nuclear power enjoys is always firmly based in it being in somebody else's backyard. The issue of the waste is no different. We do, however, have some sympathies for local governments who, when it comes to nuclear issues are steam-rollered by central government and industry interests. We think that despite voting in favour of new build at Hinkley Point, the local authorities here will not be in any hurry to volunteer for a dump under the MRWS process.

This is why nuclear power is not, and never has been, in the public interest. We say no to nuclear - the whole world is our backyard.

References

- 1 - A. Blowers (2013) Radioactive Waste Management and New Build – Problems and Policies, p 1, submitted to the 17th Oct 2013 DECC NGO Forum
- 2 - R. Balogh (2013) Briefing on current radwaste disposal & storage policy issues with special reference to the GDF proposals, submitted to the Decc NGO Forum 17th October 2013
- 3 - RWMAC (1999) cited in A. Blowers (1999) Radioactive Waste Briefing 04 - Prospects for Nuclear Waste Clean Up: Is Consensus Achievable?, p 9
- 4 - P. Wilkinson (2007)Radioactive Waste Briefing 16:Deep Geological Disposal is it the solution? p 4
- 5 - <http://www.mkg.se/en/the-swedes-are-undecided> accessed 3/12/13
- 6 - Wallace H., 2010 Rock Solid? - A scientific review of geological disposal of high-level radioactive waste, p 7
- 7 - Ibid., p 1
- 8 - Western R. (2007) Nuclear Free Local Authorities Radioactive Waste Briefing 15: Deep Geological Disposal: Known Unknowns, p 3.
- 9 - Ibid.
- 10 - Wallace H., 2010 Rock Solid? - A scientific review of geological disposal of high-level radioactive waste, p 42
- 11 - (2013) Nuclear Free Local Authorities Radioactive Waste Briefing 43: Review of the Siting Process for a Geological Disposal Facility – Advice note to NFLA Member Authorities in Responding to the Consultation, p 2
- 12 - (2013) Consultation - Review of the Siting process for a geological disposal facility, p 12
- 13 - Makerron G. & Berkhout F. (2009) Learning to listen: Institutional change and legitimation in UK radioactive waste policy, p 4
- 14 - Ibid.
- 15 - Ibid.
- 16 - Ibid., pp 4-5

- 17 - Ibid p 19
- 18 - Ibid.
- 19 - Collingridge C. (2013) Of Male Mice & Men: Gender Bias and Inequalities in Nuclear Policies, Legislation, Regulation and Research and the Lack of Women's Participation and Representation, available from <http://www.antiessays.com/free-essays/477491.html>, accessed 09/12/13
- 20 - MRWS (2013) The Final Report of the West Cumbria Managing Radioactive Waste Safely Partnership, p iii
- 21 - Wood Holmes (November 2013) West Cumbria MRWS Partnership Final Evaluation Final Report Doc ref: 4101
- 22 - Kojo M. & Richardson P. (2009) Argona Areans for Risk Governance The role of compensation in nuclear waste facility siting, p 40.
- 23 - Ibid.
- 24 - NIRS gender factheet <http://www.nirs.org/radiation/radhealth/radiationwomen.pdf>, accessed Dec 9th 2013
- 25 - <http://fawcettsociety.org.uk/index.asp?PageID=1285>, cited in Collingridge C. (2013) Of Male Mice & Men: Gender Bias and Inequalities in Nuclear Policies, etc, available from <http://www.antiessays.com/free-essays/477491.html>
- 26 - CoRWM (2013) Doc. 3135 Minutes of CoRWM meeting, Preston, 16 & 17 September, p 2
- 27 - <http://www.dailypost.co.uk/news/north-wales-news/administrative-error-led-anti-nuclear-group-6381972>, accessed 09/12/13
- 28 - (2013) Consultation - Review of the Siting process for a geological disposal facility, p 14
- 29 - <http://www.quintessa.org/latest-news/updates-the-neas-features-events-and-processes-fep-database.html>, accessed 08/12/13
- 30 - <http://stophinkley.org/WManDecom/051111%20NDAresponce.htm>
- 31 - Radioactive Waste Briefing 27: Scotland's Higher Activity Waste Policy – a brief assessment, p 2 para 3.1
- 32 - (2013) Consultation - Review of the Siting process for a geological disposal facility, p 9
- 33 - Wallace H., (2010) Rock Solid? - A scientific review of geological disposal of high-level radioactive waste p8
- 34 - (2006) CoRWM1 - Managing our radioactive waste safely final report, p 11
- 35 - Ibid.
- 36 - (2006) CoRWM1- Managing our radioactive waste safely final report, p 114; NFLA Radioactive Waste Briefing 43: Review of the Siting Process for a Geological Disposal Facility, p 3
- 37 - (2005) Radioactive Waste Briefing 12 - Briefing on the Committee on Radioactive Waste Management, (CoRWM) 2nd Consultation Document, p 4
- 38 - (1976) http://www.cnr.org/Flowers_plute.html, accessed 8/12/13
- 39 - NDA (2013) Nuclear Decommissioning Authority Annual Report & Accounts 2012/2013, p 4
- 40 - NFLA Radioactive Waste Briefing 19 - Overview of radioactive waste storage reviews, p 1
- 41 - Briefing on current radwaste disposal & storage policy issues with special reference to the GDF proposals for DECC/NGOs Forum, submitted to October 17th 2012 meeting
- 42 - House of Commons Committee of Public Accounts, (2013) Nuclear Decommissioning Authority: Managing Risk at Sellafield, p 3)
- 43 - (2006) CoRWM1 Managing our radioactive waste safely final report recommendation 2, p 111
- 44 - (1999) Radioactive Waste Briefing 04 - Prospects for Nuclear Waste Clean Up: Is Consensus Achievable?, p 8
- 45 - (2006) CoRWM1 Managing our radioactive waste safely final report, p11
- 46 - "A Cross-National Perspective on the Politics of Nuclear Waste." In The Politics of Nuclear Waste, ed. E.W. Colglazier. New York: Pergamon Press, pp 63-97
- 47 - R. Western (2009) Nuclear Waste Advisory Associates, ISSUES REGISTER, p 7

- 48 - R. Western (2007) Radioactive Waste Briefing 15 - Deep Geological Disposal: known unknowns, p 3
- 49 - (2006) CoRWM1 Managing our radioactive waste safely final report, p 12
- 50 - NDA (2013) Nuclear Decommissioning Authority Annual Report & Accounts 2012/2013, p 4
- 51 - (2013) Consultation - Review of the Siting process for a geological disposal facility, p 15
- 52 - D. Metley (2013) Consent-Based Siting: What Have We Learned?, p 2
- 53 - DECC (2013) Call for Evidence Theme definition and strength, p 2
- 54 - Woodholmes (2012) Final_Evaluation_Report_of_the_West_Cumbria_MRWS_Partnership, p 27
- 55 - Mackerron G. & Berkhout F. (2009) Learning to listen: Institutional change and legitimation in UK radioactive waste policy, p 10
- 56 - Wood Holmes (November 2013) West Cumbria MRWS Partnership Final Evaluation Final Report, Doc ref: 4101, p 29
- 57 - (2013) Consultation - Review of the Siting process for a geological disposal facility, p 32
- 58 - (1998) Convention on access to information, public participation in decision-making and access to justice in environmental matters, p 3
<http://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf> accessed 8/12
- 59 - Smythe D. (2011) PIEDA initial list of 537 sites, p5
- 60 - DECC (2013) MRWS call for evidence theme definition and strength, p 1
- 61 - Haszeldine & Smythe (1997) Nirex geoscientist, p 1
- 62 - MRWS (2013) The Final Report of the West Cumbria Managing Radioactive Waste Safely Partnership, p 10
- 63 - MRWS (2013) The Final Report of the West Cumbria Managing Radioactive Waste Safely Partnership, p 1
- 64 - DECC (2013) Call for evidence - Theme definition and strength, p 3
- 65 - Accessed 8/12/13
<http://www.davidsmythe.org/nuclear/Summary%20evidence%20for%20the%20Cumbrian%20MPs%20ad%20hoc%20committee.pdf>
- 66 - Wallace H., (2010) Rock Solid? - A scientific review of geological disposal of high-level radioactive waste, p 23
- 67 - www.mkg.se/en/the-brochure-rust-is-always-a-risk-when-using-old-technology, accessed 8/12/13
- 68 - Greenpeace UK (2013) MRWS submission final report, p 4
- 69 - (2006) CoRWM1- Managing our radioactive waste safely final report, p 108
- 70 - Richards H. (2009) Spent Nuclear Fuel the poisoned chalice p11
- 71 - NFLA on behalf of Stop Hinkley (2012) NID consideration of proposed new nuclear reactor development at hinkley point somerset (ref en0010001) – official submission from uk and ireland nuclear free local authorities (nfla interest ref - 10013470) p 3
- 72 - Legitimate planning process? (2013) 4:50 in
http://www.youtube.com/watch?v=2t6cugR0yAU&list=PLkr5N0LIUfy4Jnb-bQ_co_ti4tfl6eQtG, accessed 11/12/13
- 73 - EN010001 IPC Panel Report to SoS, HPC Decision Letter, Annex A, p 259 para 32
- 74 - - http://www.legislation.gov.uk/ukxi/2013/2938/pdfs/ukxi_20132938_en.pdf accessed 8/12/13
- 75 - <http://www.bdb-law.co.uk/our-insights/blogs/planningact2008blog/2013/11/505-46-changes-made-to-hinkley-point-c-dco>, accessed 8/12/13
- 76 - BBC Radio 4 'Unreliable Evidence', 22:25 in <http://www.bbc.co.uk/programmes/b03brqlv>, accessed 8/12/13
- 77 - NDA (2011) Plutonium current position paper, p 6

- 78 - (2006) CoRWM1- Managing our radioactive waste safely final report, p 13
- 79 - <http://www.quintessa.org/latest-news/acsis-a-model-to-assess-the-potential-for-atmospheric-corrosion-of-stainless-steel-ilw-containers-during-storage-and-the-operational-phase-of-a-uk-geological-disposal-facility.html>, accessed 8/12/13
- 80 - CoRWM 2 (2013) 'CoRWM's Response to the GDF Siting Process Consultation submission DECC siting review', p 21
- 81 - M. Kojo & P. Richardson (2009) Argona Arenas for Risk Governance Contract Number: FP6-036413 Deliverable D16b The role of compensation in nuclear waste facility siting, A literature review and real life examples, p 13
- 82 - Ibid., p 14
- 83 - Ibid., p 21
- 84 - Wallace H., (2010) Rock Solid? - A scientific review of geological disposal of high-level radioactive waste, p 44
- 85 - P. Wilkinson (2007) Radioactive Waste Briefing 16: Deep Geological Disposal is it the solution?, p 4
- 86 - G. Sundquist (2004) Constrained Deliberation: Public Involvement in Swedish Nuclear Waste Management, p 31
- 87 - G. Sundquist (2004) Constrained Deliberation: Public Involvement in Swedish Nuclear Waste Management
- 88 - CoRWM (2013) Doc. 3135 Minutes of CoRWM meeting, Preston16 & 17 September, p 2
- 89 - NFLA (2011) Radioactive Waste Briefing 27 p 1
- 90 - <http://www.spinwatch.org/index.php/issues/climate/item/5542-ed-davey-s-nuclear-newspeak>, accessed 8/12/13
- 91 - 2002 eurobarometer cited in G Sundquist (2004) Constrained Deliberation:Public Involvement in Swedish Nuclear Waste Management p 3.
- 92 - <http://www.ipsosmori.com/Assets/Docs/Polls/Cumbria%20Managing%20Radioactive%20Waste%20Presentation%20220512.pdf>
- 93 - D. Stephens in Bioethics matters (2008) Deliberative Democracy, Public Policy and Effective Citizens Participation, p 3
- 94 - <http://www.theguardian.com/news/datablog/2012/nov/16/uk-election-turnouts-historic>, accessed 8/12/13