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Consultation – summary of responses

Review of Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste: Consideration of Responses

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Introduction

i. Radioactive waste disposal is a devolved matter: the Welsh Government is therefore responsible for determining the policy for disposal of radioactive waste in Wales.

ii. The Welsh Government policy for the disposal of higher activity radioactive waste (HAW) since 2008 has been to neither support, nor appose the United Kingdom Government policy of geological disposal while continuing to play a full part in the Managing Radioactive Waste Safely Programme. It did however state that should a community within Wales wish to make an expression of interest to potentially host a geological disposal facility (GDF), it would at that point consider its position.

iii. Following a Call for Evidence in 2014[1], which set down a number of reasons why it may be necessary to revisit the policy, the Welsh Government took the decision to review its policy and the resulting Consultation Document *Review of Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste*[2] was published on 23 October 2014.

iv. The consultation closed on 22 January 2015. There were a total of 56 individual responses received from *inter alia* non governmental organisations, local authorities, regulators, nuclear industry and members of the public from both within and outside of Wales.

v. This consideration of responses identifies and analyses in chapter 2 the main themes emerging from the responses received. The full responses will also be published on the Welsh Government website (unless the respondent requested us not to do so) for transparency.

[1] www.wales.gov.uk/consultations/environmentandcountryside/disposing-of-higher-activity-radioactive-waste/?lang=en

[2] Welsh Government, Consultation: Review of Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste. October 2014 http://gov.wales/consultations/environmentandcountryside/disposal-higher-activity-radioactive-waste/?lang=en

Background

vi. For a number of reasons discussed in the Call for Evidence and again in the consultation document, and as a result of the analysis of the responses received to the earlier Call for Evidence, the Welsh Government decided that it should carry out a review of its policy on HAW disposal to ensure that it remains relevant and appropriate to the needs of Wales. These included the need for compliance with the Spent Fuel and Radioactive Waste Directive; the Welsh Government's position on new nuclear power stations on existing sites having altered since the policy was adopted; and the UK Government restarting its siting process for a GDF in England.

vii. The consultation was issued to seek the views of the people of Wales on: whether the Welsh Government should adopt a policy for the disposal of HAW (and spent fuel should it be declared as waste); whether the Welsh Government should adopt a policy of geological disposal; and, if not what alternative disposal route should it adopt. The full list of questions can be found in Annex 1.

viii. The Minister for Natural Resources launched the consultation on 23 October 2014 and the document was published on the Welsh Government consultation pages. Members of the public were asked to respond by submitting the response form, either by email or by post.

ix. A number of respondents have referred to the Committee on Radioactive Waste Management (CoRWM). CoRWM is the Welsh Government's independent advisor on radioactive waste management and disposal. The Welsh Government has therefore sought advice from CoRWM during the formulation of its policy. Responses to the consultation have interpreted CoRWM's earlier work in ways which did not match the Welsh Government's understanding. The Welsh Government has therefore sought CoRWM's comments on these responses which can be found at Annex 2.

Chapter 1

Analysis of responses received to the consultation

Summary

1. 1 The responses received to the Consultation have been published on the Welsh Government website[3]. A summary of the responses received to each question can be found in this Chapter.

1. 2 This document summarises the responses received and highlights the main themes which have come out of the call for evidence. The Welsh Government consideration of these responses can be found within Chapter 2.

1. 3 Of the 56 responses, 14 were received as part of a campaign based on the response submitted by Radiation Free Lakeland.

How have we analysed the responses?

1. 4 In some cases responders did not answer the questions in the consultation document, but commented on other related issues. In these cases we have included consideration of those points as part of the responses to Question 4: "Do you have any other comments on the Welsh Government policy for the disposal of higher activity radioactive waste and spent fuel declared as waste?" In this way all the views that have been received have been considered.

1. 5 Where the respondents have not specifically addressed the question but it is sufficiently clear from the rest of the response that a sensible assessment of the respondents' views can be understood, these have been included as answers to the question. For example if the respondent did not address question 1 explicitly but in the rest of the response argues that a specific disposal option is needed, we have interpreted the response as being in favour of the Welsh Government adopting a policy on disposal.

[3] http://gov.wales/consultations/environmentandcountryside/disposal-higher-activity-radioactive-waste/?lang=en

Question 1: The Welsh Government is reviewing its current policy on the disposal of higher activity radioactive waste and spent fuel declared as waste. In carrying out this review, the Welsh Government has three options:

- **should it seek to adopt a policy for disposal for HAW and spent fuel should it be declared as waste?**
- **should it retain its existing neutral position of neither supporting nor rejecting a disposal option?**
- **should it adopt a policy opposing a disposal option for HAW and spent fuel declared as waste?**

Of those respondents who answered the question, 68% felt that the Welsh Government should adopt a policy for the disposal of HAW.

1. 6 16 of the respondents explicitly answered the question posed.

1. 7 11 of the respondents felt that the Welsh Government should adopt a policy for disposal of HAW for a number of reasons which were included in the consultation document including:

    - The ethical obligation to safeguard the people of Wales, the environment and not to pass the burden on to future generations;
    - The responsibility to have consistent policies and take responsibility for dealing with the waste that new build powers stations would eventually create;
    - There is sufficient evidence to be confident that HAW can be disposed of safely and securely; and
    - Ongoing management and repackaging increases potential exposure risk for workers.

1. 8 One respondent felt that the existing neutral position should be retained as they believed that since Wales is not a Member State, we are not under an obligation to comply with the Radioactive Waste and Spent Fuel Directive.

1. 9 Four respondents felt that a policy opposing disposal of HAW should be adopted for the following reasons:

- They did not agree that it was possible to dispose of HAW and that current disposal options simply involved moving the waste from one location to another;
- If, as the Welsh Government consultation states, HAW is currently being securely managed and can be safely managed for the foreseeable future is it unnecessary to adopt a disposal policy; and
- HAW in Wales wes produced at Wylfa and Trawsfynedd, both of which were opened as a result of UK Government policies and therefore it should be the responsibility to the UK Government to deal with the resulting waste, not the Welsh Government.

1. 10 Where respondents have not obviously stated which option they support, we have not attempted to interpret preferred option. A large proportion of the respondents have, when discussing *disposal* options, used examples which are classified as *management* options. Due to this inconsistency and in order to attempt not to misrepresent the views of the respondents, we have only included responses which have explicitly stated a preferred option.

Question 2: Should the Welsh Government adopt a policy for geological disposal for the long term management of higher activity radioactive waste and spent fuel declared as waste?

Of those who responded to the question, 29% felt that the Welsh Government should adopt a policy of geological disposal for the management of HAW.

1. 11 23 of the responses received directly answered the question.

1. 12 14 of those who answered the question did not think that the Welsh Government should adopt a policy of geological disposal for the disposal of HAW. A number of reasons were given for this, largely within the following main themes:

- Belief that there is no way to ensure that nuclides can be successfully isolated from the biosphere for the necessary period and that this would provide an additional burden on future generations;
- Concern that this is an unproven technology with too many unanswered questions and computer modelling on which the safety case will be made is flawed;
- As a significant proportion of waste in Wales will not arise and need disposal until final site clearance or from new build for up to 140 years, and therefore it is unnecessary to build a facility;
- Belief that geological disposal is only being considered as a justification for building new power stations; and
- Concerns around safety as permanent emplacement will make it impossible to monitor radioactivity or intervene if there is a leak.

1. 13 9 respondents were of the opinion that the Welsh Government should adopt a policy of geological disposal for the reasons included in the consultation document.

Question 3: If the Welsh Government does not adopt a geological disposal policy should it adopt an alternative disposal route for higher activity radioactive waste and spent fuel declared as waste? If so what policy should it adopt?

Of those addressing the question, 64% indicated a preference for some form of near site, near surface long term management of HAW.

1. 14 22 respondents did not address this question. This group include those who did not provide a response from which their view on this question could be deduced. 6 respondents specifically stated that there should be no alternative disposal option.

1. 15 Of those who addressed this question directly, 22 suggest they favour a similar policy to that adopted by the Scottish Government (or near site, on or near surface) with the intention to retrieve waste/ ongoing waste management and repackaging. This includes the 14 respondents from the Radiation Free Lakeland campaign. However the consultation document provided rational as to why this can not be considered to meet the definition of disposal.

1. 16 One respondent recommended near surface emplacement without the intention to retrieve for part of the inventory.

1. 17 One respondent recommended ground-based reinforced concrete mausoleums to be build to contain the waste.

1. 18 One respondent felt that if no further waste was added to the inventory it would be possible to relax international restriction and dispose of waste in ways such as emplacement beneath the sea bed and gradual dispersion into the sea.

Q4 . Do you have any other comments on the Welsh Government policy for the disposal of higher activity radioactive waste and spent fuel declared as waste?

1. 19 A variety of issues were raised under this question by the respondents, however a few recurring themes emerged and these have been discussed in Chapter 2. The major theme was a call for the Welsh Government to reverse its support of any new nuclear power stations which will lead to the production of more HAW. A number raised concerns of safety regarding the Nuclear industry and radioactive waste.

1. 20 Some respondents, most of which appear to be responding as part of a campaign as they quote sections of the Radiation Free Lakeland response, were under the erroneous impression that the Welsh Government were proposing a facility in Cumbria and have made the link with comments made by Albert Owen MP.

Chapter 2

Welsh Government consideration of the main themes raised by responses received to the consultation

2. 1 This chapter contains the Welsh Government's consideration of the main themes raised in the responses it has received to the consultation on the management and disposal of higher activity radioactive waste issued on 23 October 2014 ("the consultation"). The Welsh Government has published the responses it has received together with Chapter 1, an analysis quantifying the responses to the questions asked in the consultation. This chapter discusses some of the main themes raised in the responses to the consultation.

2. 2 The Welsh Government is grateful to the individuals and organisations that responded to the consultation. In commenting on the main themes arising from the responses to the consultation the Welsh Government has carefully considered those views expressed and has also taken into account expert advice it has received.

2. 3 The Welsh Government has adopted a policy[4] for the geological disposal of higher activity radioactive waste (HAW) and spent fuel[5] . In deciding to adopt that policy the Welsh Government was helped by the responses it received to the consultation and the expert advice it has received.

The main themes raised in responses to the call for evidence

2. 4 This chapter contains the Welsh Government's consideration of the main themes raised in the responses it has received to the consultation. Many of the responses to the consultation raise similar issues to those raised in response to the call for evidence issued by the Welsh Government on 29 April 2014[6]. The Welsh Government has carefully considered these issues again. In many cases the Welsh Government has come to the same or similar conclusion and this is reflected in this analysis.

The main themes raised in responses to the call for evidence

[4] Welsh Government. *The Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste*. May 2015

[5] In the context of this document the term HAW is used to cover the types of radioactive waste which constitute HAW (high level waste, intermediate level waste and a small amount of low level waste), spent fuel, should it be declared as waste and other materials not currently declared as waste which may be declared as waste in the future, and includes HAW and spent fuel from new nuclear power stations.

[6] http://wales.gov.uk/consultations/environmentandcountryside/disposing-of-higher-activity-radioactive-waste/?lang=en

2. 5 *Radioactive waste cannot be disposed of.*

a. *Some responses considered that the term disposal cannot be used as HAW will remain harmful for very long periods.*

b. *Some responses considered that geological disposal cannot isolate radioactive waste from the surface environment.*

c. The terms storage and disposal are used in this document with specific meanings as defined in the SF&RW Directive[7]:

Article 3 (3): "disposal" means the emplacement of spent fuel or radioactive waste in a facility without the intention of retrieval;

Article 3 (14): "storage" means the holding of spent fuel or radioactive waste in a facility with the intention of retrieval.

d. Disposal therefore places no expectation for further intervention on future generations.

e. While provision may be made for ongoing monitoring and/or for recovery of the waste, at least for a period, the policy behind the UK Government's geological disposal programme, and others around the World, is that there should be no need to intervene once the waste is emplaced and certainly not after the facility is closed. The Welsh Government endorses this approach.

f. The regulators will require a safety case that is consistent with the intention not to intervene after the facility is closed. Any arrangements for monitoring and/or recovery of waste will be reviewed by the regulators to ensure that they do not unacceptably affect the safety case for any proposed GDF. The regulators will also require the safety case for any proposed GDF to demonstrate that the level of containment and isolation of the waste provides long-term protection against harmful levels of radioactivity reaching the surface environment.

g. *Some responses expressed concern about the long term safety of geological disposal. Some responses were also concerned about the use of computer modelling to validate geological disposal.*

h. The developer (RWM Ltd) will need to provide the regulators with a full and satisfactory safety case, backed up by evidence, before a GDF can be built. Computer modelling is a normal way to test a range of scenarios in complex industrial projects, including more extreme and less likely ones. The regulators will need to be satisfied with the rigour of this process before approval is given to a GDF being built.

[7] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011L0070&qid=1397211079180

i. *Some responses were concerned that earthquakes or the formation of gases would make geological disposal unsafe.*

j. Concerns about the effect of earthquakes were also raised in response to the call for evidence and the Welsh Government sought advice from CoRWM about this. CoRWM's advice at that time was:

> "Approval for a GDF under UK regulations would require demonstration of a robust safety case. The production of CO2 and methane within the waste would be considered as part of the design as would vulnerability to earth movements.
>
> In conclusion, CoRWM's position remains that "geological disposal remains the best available approach for the long-term management when … compared with the risks associated with other methods of management" (CoRWM Doc 700 Recommendation 1).

2. 6 *The only safe solution is not to create more radioactive waste*

a. *Some respondents considered that, as, in their view, no safe disposal option exists; the only safe course is not to create more radioactive waste. The Welsh Government should cease to support new nuclear power stations and in particular the new nuclear power station proposed for Wylfa Newydd.*

b. The Welsh Government does not share the view that there is no safe disposal option for HAW and spent fuel. CoRWM 1 carried out detailed and extensive considerations of the options for managing HAW and spent fuel in the future before advising Government that geological disposal was both a safe management option and also the best management option. The regulators (EA and ONR) have stated from a review of RWM's generic disposal system safety case that at this time they see no reason why an operational, environmental or transport safety case could not be made for a geological disposal facility (GDF). The Welsh Government has also noted that countries around the World that are taking forward programmes for the disposal of longer lived radioactive waste and spent fuel are doing so using geological disposal.

2. 7 *Use of the best geology*

a. *Some responses considered that the Managing Radioactive Waste Safely (MRWS) programme should only consider siting a GDF in areas with the best or most suitable geology and not rely on a mix of engineered and natural barriers.*

b. The Welsh Government has noted these views. However the Welsh Government has also considered the views expressed by CoRWM and the regulators that geological disposal in any context will involve a range

of barriers to the release of radioactivity back to the environment: the waste form, its packaging, engineered and geological barriers. A multiple barrier approach is accepted internationally, for example, in IAEA guidance[8]. It will be for the developer to convince the regulators that the mix of barriers proposed in the safety case for any GDF meets the required standard and can provide a safe degree of containment and isolation in the long term. That safety case will include consideration of the suitability of the geology of the proposed site as indicated by extensive testing, including borehole testing.

c. CoRWM's advice on this matter concludes:

"CoRWM has repeatedly emphasised that geology has to be considered in the context of, and as one element contributing to, the safety case. This will inevitably involve consideration of both geology and engineering factors and, if it is not possible to make a safety case in a particular geological setting (i.e. the geology is not 'good' enough), this will become apparent."

d. *Some responses considered that the Welsh Government should leave the Managing Radioactive Waste Safely programme until the programme limits itself to considering only the best geology.*

e. The Welsh Government does not consider that it is in the best interests of the people of Wales for it to leave the Managing Radioactive Waste Safely programme and thereby prevent it from ensuring that the interests of the people of Wales are taken into account in the programme. Leaving the programme would also be inconsistent with the Welsh Government adopting a policy for geological disposal as the best long term management route for HAW and spent fuel.

2. 8 *Radioactive waste should be managed on the surface*

a. Some responses considered that the Welsh Government should adopt a policy of ongoing surface or near surface management of HAW (similar to that of the Scottish Government policy of ongoing surface or near surface management[9].

b. The Welsh Government notes that CoRWM 1's recommendation that geological disposal is the best long term management option for HAW and spent fuel has been confirmed by CoRWM 2[10]. Geological disposal has also been adopted worldwide by nations taking forward the disposal of HAW or spent fuel.

[8] http://www-pub.iaea.org/books/IAEABooks/8535/Geological-Disposal-Facilities-for-Radioactive-Waste-Specific-Safety-Guide

[9] Scottish Government *Scotland's Higher Activity Radioactive Waste Policy* 2011 http://www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Waste-1/16293/higheractivitywastepolicy/hawpolicy2011

[10] Statement on Geological Disposal: The Committee on Radioactive Waste Management's (CoRWM's) recommendations on the benefits of geological waste disposal. Published 25 July 2013 *https://www.gov.uk/government/publications/statement-on-geological-disposal*

c. Safe and secure interim storage was recognised by CoRWM as being an essential part of managing HAW in advance of any disposal programme. HAW is currently being stored safely and securely on the surface (e.g. in the ILW store at Trawsfynydd nuclear power station). However, ongoing storage is not a disposal option and does not remove the need for intervention by future generations. It is of course for each administration in the UK to decide what policy best suits the needs of the people it serves. After reviewing the evidence available to it the Welsh Government considers that, for Wales, a permanent disposal option better meets the need to protect future generations and deliver intergenerational equity by taking action now and thereby not leaving responsibility for decisions and on waste disposal to future generations.

d. *Some responses considered that as waste was being safely and securely stored, currently and for the foreseeable future, there was no need to adopt a policy for disposal.*

e. While HAW and spent fuel is currently being safely and securely stored and can be so for the foreseeable future, HAW and spent fuel will remain potentially harmful for hundreds of thousands of years. This is beyond any period for which it is possible to predict institutional control, and beyond any period for which it is possible to predict risks arising from natural disasters such as flood or climate change. The Welsh Government considers that these risks, and those potentially arising in the distant future from e.g. societal breakdown, war or terrorism can be more effectively mitigated by geological disposal rather than ongoing management on the surface.

f. The Welsh Government has seen no evidence to suggest that ongoing surface management of HAW will provide a safer long term answer to these issues than geological disposal of HAW.

g. *Some responses considered that surface storage should be near site to minimise the transport of radioactive waste.*

h. The Welsh Government agrees that the transport of radioactive waste should be minimised. Nevertheless some transport may be necessary to allow waste to be processed into safer and more stable forms for interim storage or to allow disposal. These activities and the transport required therefore deliver an overall benefit. There are established procedures for transporting radioactive wastes and other radioactive materials and the Welsh Government notes that that the safe transport of radioactive materials has taken place worldwide for over 60 years. The requirements for the safe transport of radioactive materials are governed by international standards and European Directives and which are implemented in UK legislation. The transport of radioactive waste in the UK is regulated by the Office for Nuclear Regulation (ONR).

2. 9 *Geological disposal should not go forward at this time.*

a. *Some responses said that as the majority of waste from nuclear power stations in Wales will not be generated until the existing power stations are finally dismantled the Welsh Government should not take a decision now. Other responses considered that taking decisions now would prevent future generations deciding themselves how to deal with the problem of radioactive waste. Some responses also thought that taking decisions now would pre-empt the possible future development of new technologies to manage or dispose of radioactive waste.*

b. The Welsh Government considers that postponing a decision on whether to adopt a disposal option may not meet the requirements of the Spent Fuel and Radioactive Waste (SF&RW)[11] Directive (which requires Member States to submit the first report on the implementation of their national programme in August 2015). Moreover, such an approach avoids taking responsibility now for the waste created by current and past generations which have benefited from the electricity generated and the economic opportunities of existing nuclear power stations. The importance of intergenerational equity is discussed in the Welsh Government policy document on the management and disposal of higher activity radioactive waste and is a central theme of the SF&RW Directive.

c. Adopting a policy for geological disposal now does not preclude future generations adopting new technologies if their benefits at that time compliment or outweigh geological disposal. Although new methods for managing HAW and spent fuel may be developed in the future the Welsh Government has seen no evidence to suggest that any potential future management options for HAW and spent fuel will avoid the need for the geological disposal of at least part of the inventory.

d. *Some responses said that the Welsh Government should support calls for a moratorium on the development of geological disposal until such time as the large number of unanswered technical issues associated with geological disposal have been answered.*

e. The Welsh Government acknowledges that a large number of issues (ca 900) have been raised in connection with geological disposal. The Welsh Government notes that the developer, RWM Ltd[12], is taking forward resolution of these issues. The Welsh Government considers that a moratorium on geological disposal would serve no useful purpose and would merely delay the delivery of a solution to the future management of HAW and spent fuel thus leaving decisions and burdens to future generations.

[11] http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1403100988892&uri=CELEX:32011L0070

[12] Radioactive Waste Management Limited (RWM, the developer). RWM is a wholly owned subsidiary company of the NDA, responsible for implementing a safe, sustainable, publicly acceptable geological disposal programme.

f. The Welsh Government notes that it is currently expected that discussions with potential volunteer host communities are likely to take a decade or more before final decisions about siting a GDF are required. Final decisions will also only be taken after detailed site investigations, including boreholes, have been made, after a public test of support and a detailed planning application has been made. This will give an extensive period during which generic issues can be addressed by the developer.

g. Many of the issues which have been raised are site specific and can only be addressed during investigation of an individual site or sites. The Welsh Government is confident that the regulators will not allow the development of a GDF unless the concerns raised, both generic and site specific, have been satisfactorily resolved prior to development.

2. 10 *Alternatives for managing HAW and spent fuel*

a. *Some responses considered that some wastes could be disposed of in near surface facilities. Some responses considered that other disposal options should be considered as well as geological disposal.*

b. The Welsh Government accepts that methods other than geological disposal could be suitable for some HAW, including near surface disposal or borehole disposal. The requirement would remain that the regulators would need to be satisfied by a safety case for any means of disposal for HAW and spent fuel. However the Welsh Government has seen no evidence that alternative methods of management or disposal for HAW and spent fuel will provide a solution for the whole inventory.

c. *Some responses called for the reprocessing of spent fuel.*

d. The Welsh Government is not responsible for the policy on the reprocessing of spent fuel. However, such reprocessing will still result in waste products which will need geological disposal.

2. 11 *New build waste will be more difficult to dispose of*

a. *Some correspondents stressed that waste from new nuclear power stations would be more radioactive and physically hotter than waste from existing nuclear power stations making it more difficult to manage and to dispose of.*

b. CoRWM's advice on this point is:

> "CoRWM does not think that the nature of the fuel will present a problem though, of course, increasing the size of the programme will increase the amount of spent fuel and waste. The spent fuel is likely to be similar in

character to that discharged from Sizewell B at the same time, i.e. increases in LWR burn-up have tended to be reflected across the whole fleet. CoRWM has previously commented that "there is considerable international experience of dry storage of PWR fuel to draw on, particularly in the USA, and there has been substantial R&D in a number of countries on geological disposal of PWR fuel"[13].

However, while CoRWM does not think there is an issue over the suitability of new build waste for safe storage and eventual disposal, it does acknowledge that there could be an issue over space and capacity for disposal. This issue will need to be resolved at the time when the inventory for a proposed GDF is being considered."

c. The UK Government's preference is to develop a single GDF for the whole inventory of HAW for disposal. Whether this will be possible is likely to depend on the availability of an appropriate volume of suitable geology at a potential site with a volunteer host community. Consideration of the geological capacity of any proposed site will be part of the safety case.

2. 12 *Welsh Government policy on new nuclear power stations*

a. *A significant number of responses opposed the Welsh Government policy of supporting new nuclear power stations on existing sites in Wales.*

b. The Welsh Government recognises that there are a wide range of views about nuclear power and about new nuclear power stations and this issue was also raised in the responses received to the original Welsh Government call for evidence. The Welsh Government acknowledged in the consultation paper that new nuclear power stations, including that proposed at Wylfa Newydd, will create HAW and spent fuel. One of the drivers for the review of the Welsh Government's policy for the future management of HAW and spent fuel is the need for consistency between its support for new nuclear power stations on existing sites in Wales and its policy for the management of the waste that they will produce. The Welsh Government is not therefore seeking, as some responses state, to separate these issues.

c. However, even if no new nuclear power stations are built there is already a substantial legacy of radioactive waste, built up over the last 60 years, which will need eventual disposal to protect the interests of future generations. Intergenerational equity requires the disposal of this waste in ways which will avoid the need for future generations to be involved in its management.

d. Support for new nuclear power stations also places a responsibility on the Welsh Government to adopt a policy allowing for the future management and disposal of the HAW and spent fuel that they will

[13] CoRWM Doc 2500, Interim Storage of Higher Activity Wastes and the Management of Spent Fuels, Plutonium and Uranium, paragraph 4.19.

produce in ways which will avoid the need for future generations to be involved in its management.

e. The Welsh Government has therefore adopted a policy for the geological disposal of HAW and spent fuel. The Welsh Government considers that geological disposal, properly regulated, will provide a safe disposal route for both new build and legacy wastes.

f. The Welsh Government's reasons for supporting new nuclear power stations are set out in its policy statement 'Energy Wales: A Low Carbon Transition[14]' which recognises the importance of a new nuclear power station at Wylfa in providing a constant, reliable low carbon energy source to complement the range of renewable energy developments in Wales. Its development would also offer significant long term benefits to the economy of Wales.

g. *Some responses encouraged the Welsh Government to adopt the same policy as Germany.*

h. The Welsh Government accepts that this is a reference to the German Government's decision to end the use of nuclear power. For the reasons given above the Welsh Government does not consider that this policy is appropriate for Wales. However, it is also worth noting that, although the German Government proposes to cease using nuclear power, it is taking forward geological disposal for the future management of its radioactive wastes.

2. 13 *Financial risks to the Welsh Government*

a. *Some responses considered that adopting geological disposal would risk the Welsh Government to financial burdens in the future.*

b. It is a UK Government policy, which the Welsh Government supports, that the cost of dismantling nuclear facilities and of disposing of the spent fuel and waste, including the decommissioning wastes, that they will produce should fall to the operator[15]. The cost of managing and disposing of legacy waste is funded by the UK Government via the Nuclear Decommissioning Authority (NDA) and Radioactive Waste Management Ltd (RWM). This includes the cost of the Managing Radioactive Waste Safely programme and any costs of engaging with potential volunteer communities whether they are in Wales or in England. Adopting a policy for geological disposal will not therefore expose the Welsh Government to a greater financial burden or the risk of a greater financial burden.

[14] Welsh Government *Energy Wales: a low carbon transition*, 2012 http://wales.gov.uk/topics/environmentcountryside/energy/energywales/?lang=en

[15] https://www.gov.uk/government/consultations/revised-funded-decommissioning-programme-guidance-for-new-nuclear-power-stations

c. *Some responses were concerned about the cost of managing radioactive waste hundreds of thousands of years.*

d. As indicated in paragraph 2.13 b the costs of the geological disposal programme will not fall to the Welsh Government. However, as regards the costs generally of managing HAW, ongoing surface storage does create a need to manage waste including repacking waste and potentially rebuilding stores in the longer term. With geological disposal, once the GDF is sealed, no further costs are expected.

e. *Some responses were concerned that the Welsh Government could incur financial liabilities as a result of an accident at a nuclear facility in Wales.*

f. The UK is a Contracting Party to the Paris Convention on Nuclear Third Party Liability 1960[16]. The Convention sets out the framework for dealing with compensation following a nuclear incident. The Convention is implemented in the UK by the Nuclear Installations Act 1965 which places strict and exclusive liability on the operator to meet the costs of nuclear damage. In addition the operator is required by law to have insurance in place to cover its liabilities. The UK Parliament has discretion to pay compensation above the operator's liability limits. In this case the costs would fall to the UK Government and not to the Welsh Government.

2. 14 *Imposing geological disposal*

a. *Some responses were concerned that geological disposal will be imposed in Wales.*

b. In adopting a policy for geological disposal the Welsh Government is clear that, in Wales, this can only be taken forward with a voluntarist approach following the willing participation in discussions with a community or communities which are enabled and have all the information necessary to allow their informed participation.

c. *Some responses, including those supporting the Radiation Free Lakeland campaign, were concerned that the Welsh Government wished to dispose of radioactive waste in the Lake District. Similar concerns were expressed about the Welsh Government seeking to disposal of radioactive waste on Anglesey.*

d. As stated above, the Welsh Government supports the voluntarist approach to siting a GDF whereby potential host communities willingly engage in discussions, without prior commitment, about hosting a

[16] Paris Convention on Third Party Liability in the Field of Nuclear Energy 1960 and subsequent amendments including the Brussels Supplementary Convention of 1963

GDF. The Welsh Government has neither identified nor considered any sites or areas, within Wales or outside Wales, for siting a GDF.

2. 15 *Lack of public debate about extending geological disposal to new build waste.*

a. *Some responses considered that concerns expressed by CoRWM1 about the ethical issues arising from the geological disposal of new build wastes had not been properly addressed by public consultation.*

b. CoRWM has confirmed that geological disposal appropriate for the long term management of HAW and spent fuel from new nuclear power stations. As regards public debate about these issues, the extension by the UK Government of geological disposal programme to waste from new nuclear power stations predates the Welsh Government's policy of supporting new nuclear power stations on existing sites in Wales and the review of Welsh Government policy on the management and disposal of HAW and spent fuel. However, in both the call for evidence and the public consultation on the future management and disposal of HAW and spent fuel, the Welsh Government has made clear that, should a community in Wales wish to seek discussions about potentially hosting a GDF, these discussions, at lease initially, would be on the basis of the whole inventory for disposal, including waste arising from a programme of new nuclear power stations.

c. Further, the Welsh Government notes that the review of the processes for siting a GDF currently being undertaken by DECC, including the consultation at the end of 2013, have all been clearly on the basis of including HAW and spent fuel from new nuclear power stations in the inventory for disposal.

2. 16 *Imbalance between waste in England and waste in Wales*

a. *Some responses pointed out the imbalance between HAW and spent fuel in England (mainly at Sellafield), and HAW currently in Wales.*

b. The Welsh Government recognises that there is far more HAW and spent fuel is currently stored or undergoing processing in England compared with the HAW currently stored in Wales. This is noted in Table 1 in Annex 1 to the Welsh Government policy document. More waste is expected to arise in England as a result of decommissioning nuclear power stations, both existing power stations and those currently planned, than in Wales. The Welsh Government also recognises that there is a qualitative element to this difference: there is no HLW or spent fuel currently stored in Wales, although it is expected that spent fuel will be stored at Wylfa Newydd.

c. In the consultation which ended in January 2015, and in the policy document and the consultation now issued on the processes for implementing geological disposal, the Welsh Government has been

clear that any discussions with potential volunteer host communities in Wales about hosting a GDF would, at least initially, be on the basis of the inventory for disposal, which would include HAW and spent fuel from England (and HAW from Northern Ireland). This assumption might change depending on the suitability of a particular site for receiving the whole inventory, or if more than one potential volunteer host community were taking part in discussions. The Welsh Government is clear that geological disposal can only be delivered in Wales on the basis of a willing partnership with a potential volunteer host community. The Welsh Government will want any community seeking discussions to have clear, early information about all the major issues involved, and this will include the inventory of waste proposed for disposal at any site. This will allow potential volunteer host communities to decide whether they wish to pursue discussions.

2. 17 *Welsh Government should be responsible for "Welsh" wastes*

a. *Some responses considered that the Welsh Government should be responsible for all the radioactive waste and spent fuel arising in Wales including those wastes already transported for management in England.*

b. The Welsh Government considers that this view misunderstands the position of the Welsh Government in the Managing Radioactive Waste Safely programme. The Welsh Government has devolved responsibility for policy relating to the disposal of radioactive waste in Wales. Responsibility for policy does not mean that waste arising from activities in Wales needs to be disposed of in Wales, for example, the Welsh Government supports the four country UK strategies for the management and disposal of low level radioactive waste (LLW). The only radioactive waste currently subject to disposal in Wales is low volume very low level radioactive waste (typically protective overalls, wipes etc with negligible amounts of radioactive contamination) which can be disposed of, under an environmental permit, to e.g. municipal landfill sites. All other LLW is currently sent to the UK Low Level Waste Repository near Drigg in Cumbria, or other, suitably permitted, treatment or disposal sites in England.

c. Similarly, HAW arising from activities in Wales (such as the intermediate level radioactive waste (ILW) currently stored at in the ILW store at Trawsfynydd) will eventually be sent for disposal to a UK facility. Depending on the success of discussions with a willing host community and regulatory approval of a safety case, this could be either in Wales, England or Northern Ireland, and a GDF would take waste from both Wales and England and the small amounts of ILW generated by activities in Northern Ireland.

d. *Some correspondents considered that the Welsh Government should be required to dispose of "Welsh" waste in Wales.*

e. As discussed above the Welsh Government is part of a programme for the delivery of geological disposal across Wales, England and Northern Ireland. The Welsh Government also supports a voluntarist approach to delivering geological disposal visa discussions with willing potential host communities. A requirement on the Welsh Government to deliver a GDF in Wales would be inconsistent with both these considerations.

Conclusion

2. 18 The Welsh Government has noted that the majority of responses did not support its preferred options in the consultation for the adoption of a disposal policy for HAW and spent fuel based on geological disposal. However the responses proposed no alternative viable disposal option for HAW and spent fuel. Long term surface or near surface storage, as proposed in many responses, is not a disposal option and the Welsh Government is not satisfied that this is appropriate for the needs of the people of Wales or will meet the requirements of the SF&RW Directive.

2. 19 The Welsh Government has also noted that a majority of responses encouraged it to reverse its policy of support for new nuclear power stations including the nuclear power station planned for Wylfa Newydd on Anglesey. The Welsh Government has previously stated its reasons for supporting new nuclear power stations on existing sites in Wales. The Welsh Government recognises that new nuclear power stations like Wylfa Newydd will create HAW and spent fuel for which a disposal route is necessary.

2. 20 The Welsh Government also notes that even if no new nuclear power stations are built there is already a substantial legacy of radioactive waste, built up over the last 60 years, which will need eventual disposal to protect the interests of future generations.

2. 21 Many responses also supported delaying a decision about geological disposal or urged a moratorium the development of geological disposal The Welsh Government does not consider that delaying decisions on the disposal of HAW and spent fuel meets the requirements of intergenerational equity. The Welsh Government considers that long term storage, with no provision for disposal, will place ongoing burdens on future generations to repackage waste and potentially to rebuild stores, which itself will create an enhanced risk.

2. 22 The Welsh Government recognises that it will take several generations to site, build operate and close a GDF. However, delaying a decision to start the process merely pushes that decision onto future generations. Adopting geological disposal does not preclude future generations from implementing alternative management arrangements for HAW and spent fuel, although it is likely that whatever new methods may arise in the future geological disposal will be needed as part of the process.

2. 23 For these reasons, having carefully considered the responses to the consultation, and other evidence available to it, the Welsh Government has issued a policy statement adopting a policy for the disposal of HAW and spent fuel, based on geological disposal, and dependent on communities being willing to enter discussions, without prior commitment, about potentially hosting a GDF.

Next Steps

Following the analysis of responses received to the consultation, the Welsh Government is announcing its policy decision of adopting a disposal policy and that that policy will be geological disposal. In order to provide the people of Wales with clarity about what this would mean in practice and the mechanisms involved, a further consultation on the processes has been launched simultaneously.

The consultation is published on the Welsh Government consultation pages[17] and will run for 13 weeks.

If you require further information or a copy of the consultation document, please contact;

Radioactivity and Pollution Prevention Branch
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

e-mail: RPPmailbox@wales.gsi.gov.uk

[17] www.wales.gov.uk/consultations/environmentandcountryside/disposing-of-higher-activity-radioactive-waste/?lang=en

ANNEX 1

Consultation Questions

Question 1. The Welsh Government is reviewing its current policy on the disposal of higher activity radioactive waste and spent fuel declared as waste. In carrying out this review, the Welsh Government has three option:

- should it seek to adopt a policy for disposal for HAW and spent fuel should it be declared as waste?
- should it retain its existing neutral position of neither supporting nor rejecting a disposal option?
- should it adopt a policy opposing a disposal option for HAW and spent fuel declared as waste?

Please give your reasons.

Question 2. Should the Welsh Government adopt a policy for geological disposal for the long term management of higher activity radioactive waste and spent fuel declared as waste?

Please give your reasons.

Question 3. If the Welsh Government does not adopt a geological disposal policy should it adopt an alternative disposal route for higher activity radioactive waste and spent fuel declared as waste? If so what policy should it adopt?

Please give your reasons.

Question 4. Do you have any other comments on the Welsh Government policy for the disposal of higher activity radioactive waste and spent fuel declared as waste?

ANNEX 2

CORWM REVIEW OF RESPONSES TO WELSH GOVERNMENT'S CONSULTATION ON THE DISPOSAL OF HIGHER ACTIVITY RADIOACTIVE WASTE

CoRWM is the Welsh Government's independent advisor on radioactive waste management and disposal. The Welsh Government has therefore sought advice from CoRWM during the formulation of its policy. Responses to the previous consultation have interpreted CoRWM's earlier work in ways which did not match the Welsh Government's understanding. The Welsh Government has therefore sought CoRWM's comments on these responses. CoRWM's comments are below.

INTRODUCTION

1. This paper is in response to a request from Welsh Government to review those responses to its *Consultation on the Disposal of Higher Activity Radioactive Waste* that specifically mention CoRWM.

2. Our summaries of the points made by respondents are shown in bold with our comments following in normal font.

NFLA WELSH FORUM RESPONSE

3. **NFLA start with comments on WG's comments on its response to the Call for Evidence which refer directly to WG's request to CoRWM. Taking each of these in turn:**

4. **WG Point 1 relates to CoRWM being asked to comment on the nature of the WIPP accident. NFLA spend some time explain in more detail the nature of their concerns which can be summarised by their opening sentence in this section: "The point NFLA emphasises … is around the uncertainties involved in making a safety case". In support of their argument, NFLA state that "CoRWM 1 itself pointed to '*the uncertainties surrounding the implementation of geological disposal*' and, therefore, the need for '*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*'".**

5. These sentences are both from Recommendation 2 of CoRWM Doc 700. CoRWM has never said that geological disposal should be pursued alone and has always advocated a continued robust programme of interim storage. The reason for this is the uncertainties over implementation of a geological disposal programme. This is not the same thing as uncertainties involved in making a safety case and NFLA cannot rely on CoRWM's recommendation in support of their concerns.

6. With respect to the WIPP accident, "NFLA notes that CoRWM was unable to provide the WG with a fully informed diagnosis for the leak at WIPP".

7. It is unfortunate NFLA chose to quote only part of CoRWM's response to this request for information as the full response, set out below, gives a more considered perspective on the significance of this accident:

> *"At the CoRWM meeting in Thurso held in July, a member of the Committee provided a short update on the public reports produced following the discovery of a release of radioactivity at the WIPP facility in New Mexico and the response from the media and others. CoRWM was given to understand that operational matters are currently believed to be the cause of the leak at WIPP. Inappropriate waste conditioning is the most likely culprit. The reason for the error is thought to be poor lines of management.* ***The incident is currently under review and CoRWM is unable to provide a fully informed diagnosis of the reasons for the leak but there is nothing to suggest any basic failure in the principle or design for geological disposal at WIPP****."* (emphasis added)

8. CoRWM notes that the US Department of Energy has recently (16 April 2015) published a comprehensive report into the WIPP release, which confirms that it arose from operational failures, primarily on the part of the waste producers (http://www.wipp.energy.gov/Special/AIB_WIPP%20Rad_Event%20Report_Phase%20II.pdf). The board concluded "the direct cause of this accident to be an exothermic reaction of incompatible materials in LANL waste drum 68660 that led to thermal runaway, which resulted in over-pressurization of the drum, breach of the drum, and release of a portion of the drum's contents (combustible gases, waste, and wheat-based absorbent) into the WIPP underground." It goes without saying that it would have been far beyond CoRWM's remit to conduct its own investigation into the WIPP event, so CoRWM's inability to provide WG with a 'fully informed diagnosis' simply reflects the fact that, at the time, even the US Department of Energy, which is ultimately responsible for WIPP, did not have such a diagnosis.

9. **CoRWM's comments on Yucca Mountain are also quoted: '*The proposed GDF at Yucca Mountain failed politically. No formal ruling on the safety case of Yucca Mountain has been made, therefore it cannot be said to have failed on safety grounds*'. NFLA agree with CoRWM that the decision was a political one but go on to say that the project was doomed from the start because the site was chosen for political rather than scientific reasons and thereby "illustrates the problems caused by relying on engineered barriers rather than geological barriers".**

10. CoRWM believes this is an over-simplification of the issues and does not reflect the process for implementing geological disposal in the UK. As CoRWM noted in the sentence following the one quoted, *'[a]pproval for a GDF under UK regulations would require demonstration of a robust safety case*'. The safety case would rely on both geological and engineered barriers. Furthermore, unlike either WIPP or Yucca Mountain, the UK Government site selection process is based on the principal of voluntarism with the community maintaining a Right of Withdrawal. CoRWM has also previously told Welsh Government that it "*has repeatedly emphasised that geology has to be considered in the context of, and as one element contributing to, the safety case. This will inevitably involve consideration of both geology and engineering factors and, if it is not possible to make a safety case in a particular geological setting (i.e. the geology is not 'good' enough), this will become apparent".*

11. **WG point 2 refers to WG's concerns that NFLA's comments on CoRWM's recommendations about the suitability of geological disposal as endorsed by CoRWM 2 do not coincide with WG's interpretation. CoRWM was asked to provide clarification.**

12. **NFLA state that it is not clear which part of their submission is being referred to but go on to say "CoRWM says it will write to NFLA but nothing has been received from them".**

13. CoRWM's response to Welsh Government was as follows: '*The NFLA appears to have misunderstood CoRWM's position and has misrepresented CoRWM. We have written to them to clarify the position. A copy of our email is attached at Annex 1*'. The email referred to was sent by Laura Butchins (CoRWM secretariat) on 11 June 2014. The email address to which it was sent is a recognised contact address for NFLA and is the one given on their own website. A copy is attached as an Annex to this document.

14. **More importantly, NFLA go on to make 2 comments emphasising their understanding of CoRWM's stance. The first is that "CoRWM**

recognised '*the uncertainties surrounding the implementation of geological disposal*'.

15. As noted above in paragraph 5, these are uncertainties over progress with implementation rather than with geological disposal per se so it would still appear that NFLA have misinterpreted the recommendation.

16. The second comment is that CoRWM's '*recommendations are directed to existing and committed waste arisings*' and that the '*creation of more waste*' raises quite different political and ethical issues.

17. CoRWM's original recommendations were informed by extensive public and stakeholder engagement carried out at a time when there was no prospect of new nuclear power stations being built. It could not, therefore, provide evidence of public and stakeholder views about waste from new build. It was not then, and is not now, part of CoRWM's role to have a view on nuclear new build. CoRWM has, however, stated that, in principle, new build waste could be accommodated alongside legacy waste but doing this would in practice depend very much on the specific nature of the facility and the associated safety case.

18. NFLA go on to refer to NWAA's submission to DECC's call for evidence in 2013 in which it was stated: 'The government ignored the requirement, implicit in the 'current state of knowledge' term, to recognise and convey publicly that disposal was and remains far from a proven technology'. It is noted immediately above that NWAA includes two former CoRWM 1 members.

19. CoRWM 1 made 15 recommendations all of which were unanimously agreed by all members. Considerable time was spent on drafting the recommendations and discussing their wording in public session. A reading of Recommendation 1 in full suggests that the reference to 'current state of knowledge' was not intended to convey a message about the technology of geological disposal but rather to recognise that other approaches might be developed in the next few years and these should be given consideration as appropriate. The full recommendation is:

> ***Recommendation 1:*** *Within the present state of knowledge, CoRWM considers geological disposal to be the best available approach to the long-term management of all the material categorised as waste in the CoRWM inventory when compared with the risks associated with other methods of management. The aim should be to progress to disposal as soon as*

practicable, consistent with developing and maintaining public and stakeholder confidence.

20. The fact that CoRWM 1 recommended that disposal should be progressed as soon as practicable suggests that the reference to 'present state of knowledge' was not made in relation to uncertainties about geological disposal. Instead it implies uncertainties about the likelihood of other management approaches becoming suitable. CoRWM has subsequently restated its support for geological disposal and the present committee remains convinced that it is presently the best option for management of HAW.

21. WG point 3 refers to the request for CoRWM to comment on best or acceptable geology and doubts on the use of engineering to present a viable safety case. NFLA note that whilst "CoRWM may have repeatedly emphasised that geology is just one element contributing to the safety case, for the public is it also a matter of trust. CoRWM itself might want to examine why that former leader of Cumbria Council remained "unconvinced … that engineered solutions can be tailored to fit the geology" despite its reassurances."

22. CoRWM is fully aware of the importance of establishing and maintaining public trust in the implementation process which is why it places so much emphasis on the need to convey to the public the significance of the safety case. The safety case will, of necessity, entail detailed consideration of the engineering needs for a particular geology but this does not imply that engineered solutions can be tailored to supplant the safety functions of the geology.

23. NFLA welcome the apparent recognition by a former CoRWM member "that the latest Government White Paper has moved some way towards the demands to give geology priority over voluntarism in the first instance".

24. CoRWM's reading of the White Paper does not support this interpretation; voluntarism remains at the core of the process; information about geology may inform consideration of volunteering but does not take priority. CoRWM confirms that it is fully committed to the voluntarism approach.

25. NFLA now turn to their response to the WG consultation. In response to Question 1, they give two main reasons for opposing deep disposal. The first is their concerns over the uncertainties inherent in having to rely on computer models to map leakage rates. The fear that a "GDF could create a leaking nuclear waste dump, representing a significant but unquantifiable burden for future generations rather than removing a

burden from them through disposal, as was argued by CoRWM in arriving at its disposal recommendations. It would be far better to leave them the option of managing the waste in the way they see fit.

26. CoRWM 1 devoted considerable time researching, consulting on and deliberating on issues relating to intergenerational equity. It is, of course, impossible to know what the future will be, or to know what future generations may wish we had done. After considering the alternatives, CoRWM decided that, for reasons explained in CoRWM doc 700, geological disposal of HAW would be a better option for future generations rather than leaving it for them to deal with. This has remained the view of CoRWM ever since.

27. NFLA refer to the fact that the MRWS process failed.

28. CoRWM's view is that the process has not failed. The fact that it was decided to end the process in Cumbria is testimony to the success of the voluntarism approach which is at the heart of MRWS.

29. NFLA's next reference to CoRWM is as follows: "CoRWM was aware of the uncertainties surrounding the implementation of geological disposal. It expressed the view that there needs to be a focus on the safe and secure management of wastes in robust interim stores, not just for the period awaiting the opening of a Geological Disposal Facility (GDF), but also because of a risk of delay or failure in the repository programme. The possibility that storage might be required for the long term or even indefinitely needs to be considered".

30. CoRWM does not disagree with this statement. Implementation of geological disposal is a long-term exercise and it is both prudent and essential to ensure that the waste is appropriately managed until such time as a facility is available.

31. NFLA say that "CoRWM was clear that deep 'disposal' of radioactive waste is far from a proven technology. It recommended an intensified programme of research and development into the long-term safety of geological disposal, but also a robust programme of interim storage".

32. Again this is a misinterpretation of CoRWM's reasons for its package of recommendations in which geological disposal was progressed alongside a programme of interim storage. It did recommend a programme of research (Recommendation 4) and continues to express views on the need for and the suitability of research into the long term management of radioactive waste, including geological disposal. This does not mean, however, that it believes that disposal is a far from proven technology.

33. NFLA's next statement is that "CoRWM also said it did not want its recommendations to be seen as a green light for new nuclear reactors" and goes on to quote the following.

> ***"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. Should a new build programme be introduced, in CoRWM's view it would require a quite separate process to test and validate proposals for the management of wastes arising"***

34. This is a quote from CoRWM Doc 700 page 15, paragraph 25 and was included in that report to emphasise the point that the extensive public and stakeholder dialogue had focussed on legacy build and not new build. Government have subsequently taken responsibility for consulting about new build. CoRWM's role relates to management of higher activity wastes, not to new build.

35. In response to Question 2, NFLA state: "It is clear from CoRWM's 2006 report that geological disposal is viewed by CoRWM as the "least worst" option". They go on to refer once again to CoRWM's Recommendation 2 on interim storage.

36. At no time did CoRWM describe geological disposal as the least worst option and Recommendation 2 does not in any way imply this. It remains CoRWM's view that geological disposal is "best available approach" and nothing has happened since 2006 to lead the committee to change its mind.

37. NFLA states that the "idea that geological disposal is the best available policy, but is still a far from ideal solution to the problem, [was] the reason why CoRWM said the creation of more waste raises new ethical issues".

38. This statement is unfounded.

39. CoRWM is pleased to read that *NFLA considers that "it may not be necessary to look again at most of CoRWM's long list of options".*

40. Section 4 is a summary of NFLA's arguments. NFLA repeat their accusation that MRWS failed because it ignored most of CoRWM's recommendations in particular the need for research.

41. CoRWM does not think that MRWS failed or that it ignored the need for research.

42. Finally, it is suggested by NFLA that WG "should implement CoRWM's recommendation that a quite separate discussion should be held on the political and ethical issues raised by creating new wastes by building new reactors".

43. The process of agreeing a policy for new nuclear power has involved several consultations and has been open to challenge. CoRWM's recommendation referred to the specific situation in which the research for the report was conducted at a time when legacy waste was the only issue but by the time the report was published, new build was starting to be seriously considered. It is not relevant to the present situation.

NFLA PRESS RELEASE

44. There are two references to CoRWM in this, both repeating comments made in the NFLA response.

45. CoRWM's comments are given in paragraphs 40 to 43 above.

Anon 1

46. CoRWM is referred to in paragraph 4.6.1 of this response which states: "CoRWM apparently succeeded in subtly nudging the Welsh Government away from consulting on a Welsh disposal option for Welsh HAW/SNF (Consultation para 3.14 and, Consultation Annex 3: numbered response 13). Isn't that intervention by CoRWM arguably outwith the advisory body's area of expertise? Namely, technical aspects of disposal and long term management of radioactive waste. Why shouldn't a devolved government be persuaded to consult the public in Wales on Welsh disposal of Welsh waste, as an option under review of policy on disposal any/elsewhere?"

47. Paragraph 3.14 of the Consultation Document correctly states the policy position with respect to WG's devolved responsibilities. CoRWM's comment

on this matter as stated in the last paragraph under numbered response 13 in Annex 3 is as follows:

> *'There appears to be some confusion in the responses over whether the Welsh Government is considering a Welsh disposal option (for Welsh waste) or whether it is seeking to establish Welsh policy in a UK context. CoRWM strongly advises Welsh Government to clarify this issue if it decides to proceed with a review of policy.'*

48. There is nothing in this statement to infer preference for either option or to imply CoRWM intervention in Welsh policy. The intention was, as stated, to suggest that WG should clarify what it meant by Welsh disposal.

CND CYMRU

49. In response to Question 4, CND Cymru state that they "would agree with CoRWM in its concern that any temporary solution for existing radioactive waste should not pave the way to build any new nuclear reactors in Wales". This comment is referenced to http://www.corwm.org.uk/content-1038.

50. This reference appears to be to a Press Release (copy attached) which is not relevant to the point made. Without knowing the context, CoRWM can only comment that it does not understand what is meant by "temporary solution" and does not recognise it as being part of a statement that it has made.

Anon – XZ

51. This response makes a comment about CoRWM that is similar to that included in the NFLA response. It is claimed that "[e]ven CoRWM recognises that geological disposal is an unproven technology and that robust interim storage arrangements are needed. Despite this, they support geological disposal".

52. Again, this is a misinterpretation of CoRWM's recommendation that geological disposal should be progressed alongside interim storage.

53. The response goes on to say that the respondent feels "that [WG] are taking the easy option, namely following the recommendation made by CoRWM and the UK Government in a slavish manner".

54. Of course, CoRWM's original recommendations have been taken forward and refined by Government and it is not correct to state that WG (or anyone else) is simply "slavishly" following CoRWM's recommendations.

Linda Rogers

55. This response contains a number of inaccuracies and misunderstandings about CoRWM's role. It is claimed that "CoRWM have simply, in this consultation, helped to move the goalposts on this question, with their notions of "barriers" etc.".

56. CoRWM wishes to make it clear that this was a Welsh Government consultation. CoRWM has a role in advising Welsh Government but did not write the consultation document and can take no credit for its proposals.

57. There are several references to barriers in the Consultation Document but none in Annex 3 on CoRWM advice. The respondent is presumably referring to paragraph 2.46 which discusses the views expressed by CoRWM and the regulators that geological disposal will involve a range of barriers.

58. This is part of international best practice and is, and always has been, a fundamental concept of geological disposal. It is not a notion made up by CoRWM.

59. CoRWM is also accused of "acting in a UK context and leading the Welsh Government into the scenario dictated to us by London, with an energy policy in the interests of London".

60. CoRWM advises all its sponsor departments separately or collectively as the circumstances dictate. It has no remit to make policy or to use its advisory role to promote the interests of one of its sponsors over the others.

61. Referring to paragraph 5.18 of the Consultation Document, the respondent suggests that the statistics on new build waste "indicate that those who argue with CoRWM on the ability to bury legacy waste with new waste may be correct".

62. CoRWM recognises that new build waste could add considerably to the inventory for ultimate disposal. It believes that, in principle, this new waste could be accommodated alongside legacy waste but doing this in practice will depend very much on the specific nature of the facility and the associated safety case.

Anon (BJ)

63. CoRWM is referred to in response to Question 4 on any other comments. The comment relates to CoRWM's suggestion that legacy and new build waste issues should be considered separately. The respondent thinks there "is a real danger that in finding a solution to the existing problem, which may be a "less than perfect but best that we can come up with" solution, will then become a green light for the expansion of new nuclear generation". He or she goes on to refer to CoRWM's supposed recommendation that there is a real public debate on the intergenerational question of creating new nuclear waste now for future generations to have to deal with.

64. In its 2006 report (CoRWM doc 700), CoRWM did note that the ethical and social issues around new build waste were not the same as for legacy waste but it did not specifically refer to intergenerational questions. CoRWM's present position is that this consultation is about the management of waste not about the desirability or otherwise of new build. The question of management of new build wastes has already been addressed at the political level.

Peter Varley

65. This response questions the statement in paragraph 2.21 of the Consultation Document that CoRWM's advice has been endorsed by learned societies.

66. In fact, the endorsement refers to geological disposal being the best available management option. However, the reference to the Royal Society's 2006 report on CoRWM's work is questionable. The report was prepared to assist CoRWM in its options analysis and contains a number of suggestions for improvement which were taken on board by CoRWM. It was not intended to express any opinion of the efficacy or otherwise of management options.

67. The second reference to CoRWM relates to CoRWM's advice on WIPP. Because CoRWM was unable to provide a fully informed diagnosis of the reasons for the leak, the respondent considers that it would be better to collect the evidence first and then make the decision.

68. CoRWM agrees; the implementation process for geological disposal will involve the collection of evidence from many different streams and any decision to proceed will be conditional on the acceptance of a safety case supported by the appropriate evidence. The WIPP incident, and CoRWM's advice relating to it, is not relevant to this issue.

PAWB

69. PAWB is concerned that WG relies heavily on CoRWM's advice and is being given poor advice. While noting that "CoRWM … undertook a significant amount of work before recommending, in its 2006 report, that … waste should be disposed of geologically … PAWB believes that this conclusion is flawed".

70. As PAWB notes, CoRWM endorsed its view in 2013 and is still adhering to it. The fact that PAWB is not persuaded on the merits of geological disposal is probably not something that CoRWM can address further.

71. It is stated in PAWB's response that "CoRWM members have been, and continue to be, prominently working in favour of the nuclear industry, or involved with nuclear industry regulatory bodies. Several CoRWM members are named.

72. CoRWM wishes to make it as clear as possible that it is an independent body and that this means that it is independent of government, industry etc. Knowledge and involvement of some sort in nuclear matters is necessary if the Committee is to have the skills, expertise and experience to consider issues. All members declare their interests at every meeting and any potential conflicts of interest are raised and considered. Members absent themselves from decisions where there could be a perception of potential bias. Most importantly, it should be noted that CoRWM's role is to advise on, and scrutinise, the process of HAW management. It is not CoRWM's role to promote geological disposal but to try to ensure that, if and when WG decide on a policy of geological disposal, the process of implementation is carried out in the best way possible.

Wayne Jones

73. This response is long and detailed and makes reference to a number of supporting documents. CoRWM is referred to twice.

74. The nature of the comments makes it difficult to respond.

75. In paragraph 11, it is stated that "Nuclear experts were not so convinced at the time of the last test drilling, as they seem to be now from looking at CoRWM's responses, without the advantage of a test drilling programme".

76. Without more context as to the drilling, the experts and the CoRWM responses being referred to, it is difficult to make a specific comment.

77. Similarly, paragraph 14 refers to the fact that CoRWM has not offered any advice to the builders of Pentre Ifan on what it is that will satisfy the EU directive.

78. CoRWM does not understand the point being made here.