



Committee on Radioactive Waste Management

TWELFTH ANNUAL REPORT 2015-16

June 2016

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Chair's Foreword

This past year has again been a busy time for the Committee. In June 2015 the Committee lost one of its Members as a result of the resignation of Professor Rebecca Lunn. I would like to take this opportunity to thank Rebecca for the considerable contribution she made during her time on the Committee.

In the past year the Committee's work has again been dominated by the scrutiny of the Government's and RWM's activities arising from the White Paper "Implementing Geological Disposal". This report shows that the Committee not only scrutinised the activities of DECC and RWM officials, but it also gave timely advice. The Committee is satisfied that the work being undertaken on the key workstreams relating to geological screening, communities, land use planning, communications and the regulatory framework is progressing satisfactorily, however, the successful completion of this work will require a continued high-level management focus.

The Committee has continued to scrutinise the development of the Welsh Government's Radioactive Waste Management Policy and it has provided timely advice when appropriate. The Committee has maintained a dialogue with Scottish Government officials but there have been no major developments this year.

I believe the Committee has delivered the key targets as set out in its 2015-16 Work Programme.

On a personal note, I would like to acknowledge the dedication and commitment shown by the Members of CoRWM during this past year. The Government's drive to deliver the White Paper requirements has meant that Members have had to cover a wide range of topics and work to tight timescales to respond to requests from Government and RWM.

In May of this year four very experienced and much valued Members of the Committee, Professor Francis Livens, Professor Brian Clark, Professor Simon Harley and Mr. John Rennilson, retired from the Committee after nearly 10 years of exemplary public service. Their contribution to the work of CoRWM, and more importantly to the governance of radioactive waste management in the United Kingdom has been immense. I am particularly grateful for the support they have given to me over the years and I shall miss not only the expertise they brought to the Committee but also their wit and good humour.

Laurence G Williams

Professor Laurence G Williams FREng
Chair of the Committee on Radioactive Waste Management

Executive Summary

i) The work carried out by the Committee over this past year has been based upon the programme outlined in the 2015-18 Work Programme (CoRWM doc 3198). This report sets out the progress made by CoRWM in the delivery of the objectives set out in the programme. The Committee's work has mainly focused on scrutinising the activities of the Department of Energy and Climate Change (DECC) and Radioactive Waste Management Limited (RWM) relating to the "Implementing Geological Disposal" (IGD) White Paper workstreams, however, work was also carried out on the Welsh Government's IGD activities, the Scottish radioactive waste management programme, interim storage of radioactive waste, and RWM's generic Disposal System Safety Case (gDSSC). As a result of developments within RWM the Committee also looked at RWM's Business Model and organisational development.

ii) As described below, the Committee is generally satisfied with the progress that is being made by DECC and RWM on the 5 IGD workstreams but there is room for improvement to ensure that both DECC and RWM will be in a strong position to engage with interested parties when they are invited to participate in the IGD process in 2017.

Implementing Geological Disposal Workstreams

National Geological Screening

iii) CoRWM has continued to provide advice to RWM on its development of the National Geological Screening (NGS) Guidance, observed relevant meetings in which the NGS guidance has been presented or discussed, and responded to the RWM consultation on the NGS guidance document. CoRWM was concerned that there was significant potential for the NGS Guidance document to be misunderstood by the public. CoRWM suggested that the guidance should specify the production of screening maps as part of the screening outputs, that these maps be used for the screening out of specific areas, and that these be published within the short publically-accessible regional documents. CoRWM also made a formal response to RWM's consultation on its NGS Screening Guidance.

iv) Overall, we believe the quality and comprehensiveness of the guidance adequately reflects the state of knowledge on geological factors, but more importantly emphasises that this knowledge is by no means comprehensive. There is still a risk that the public will expect a large proportion of the area studies to be 'ruled out', and there will be a continuing need to address this perception.

Working with Communities

v) Defining the term ‘community’, including how it might evolve over time and who might represent it, along with the related issues of the “Test of Public Support” and the framework for managing community investment have been some of the most significant challenges to be addressed following publication of the July 2014 White Paper "Implementing Geological Disposal". CoRWM appreciates that there are many ways to define a community and recognises that resolution of this matter will not be easy. However, a clear definition that can attract wide support is vital for success in attracting and retaining communities to engage in the process and to volunteer to host a GDF. For the “Test of Public Support” it is important that considerable thought be given to the extent of the area within which the “Test” is to be conducted.

vi) How community investment might be managed, and funds disbursed, are issues where there is substantial existing experience from other UK major infrastructure projects. CoRWM believes that so long as there is proper financial oversight then it should be possible to put in place suitable arrangements reflecting local circumstances.

vii) CoRWM considers that the DECC officials and the Community Representation Working Group have made considerable progress over the past year. CoRWM also appreciates that whilst the meetings were closed, the minutes have appeared on the website promptly and give considerable insight into the key points discussed such that interested stakeholders can keep up-to-date with what is happening.

National Land Use Planning

viii) A Geological Disposal Facility (GDF) in England will be a nationally significant infrastructure project (NSIP). CoRWM has been monitoring the Government’s development of a National Policy Statement (NPS) for Geological Disposal. CoRWM has provided advice to DECC on the content of the NPS including the need to take account of the implications of voluntarism, noting the way the NPS might be used during the siting process. Overall, CoRWM believes that good progress is being made in development of the NPS.

Developer Led Communications and Engagement

ix) CoRWM notes that whilst DECC has overall policy responsibility for the efficacy of GDF communications and stakeholder strategies, RWM is responsible for developing an overall communications strategy including “education and awareness-raising”. CoRWM has provided general and informal advice to DECC on how RWM’s work on communication and stakeholder engagement has progressed and, when requested, has suggested how improvements might be made. CoRWM believes that

the strategy must ensure that scientists and senior management within RWM focus on effective communications and engagement as essential ingredients in the delivery of a successful GDF Siting process.

x) CoRWM notes with approval that DECC is now placing far greater emphasis on communication strategies to take the GDF siting process forward and that radioactive waste disposal appears to be a major priority for DECC Communications. Overall CoRWM believes that adequate progress is being made in this area and DECC and RWM are on track to have an appropriate Communication and Stakeholder Engagement Strategy in place for the launch of the IGD siting process in 2017.

GDF Regulatory Framework

xi) In its Eleventh Annual Report CoRWM recommended that the Government should ensure that the details of the licensing of the GDF should be agreed and published before the end of the initial action period in the White Paper (end of 2016). CoRWM is pleased with the progress that is being made on developing the licensing framework for the GDF. CoRWM believes that it is vitally important that the Government ensures that there is a clear nuclear safety and environmental regulatory framework for the GDF before communities are invited to participate in the process, in order to give the public confidence that the GDF will be properly regulated.

Welsh Government Activities

xii) In March 2015 Welsh Government sought CoRWM's comments on some of the responses to its consultation document *Review of Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste* in so far as these referred directly to the work of CoRWM. CoRWM completed its response to this request in April 2015 and provided Welsh Government with comments on factual issues raised in the consultation.

xiii) CoRWM responded to the Welsh Government consultation on *Geological Disposal of Higher Activity Radioactive Waste: Community Engagement and Implementation Processes*. CoRWM welcomes the Welsh policy and supports the view that possible volunteer communities should be treated equally regardless of whether they were in England, Wales or Northern Ireland (CoRWM doc 3235). CoRWM advised that any arrangements for implementation and community engagement should be prepared on the basis that a Welsh community is as likely to volunteer as an English one.

Scottish Government Activities

xiv) The Scottish Government in May 2015 issued a consultation draft of a Strategy to implement the January 2011 Policy on Higher Activity Radioactive Waste. Whilst CoRWM welcomed much that was in the consultation draft, it expressed some concerns and hopes these will be addressed in the approved Implementation Strategy. However, whilst the Scottish Government will review its policy on radioactive waste management in 2021, the Committee remains concerned that the majority of intermediate level waste at Dounreay, estimated at 60% by volume and 99% of the radioactivity, is unlikely to be suitable for near surface disposal.

xv) CoRWM believes that following publication of the Implementation Strategy, RWM should address the design and safety case necessary for a near surface disposal facility in Scotland.

Interim Storage, Radioactive Waste, Spent Fuel and Nuclear Materials

xvi) Owing to higher priorities and limited resources, CoRWM did not undertake much work in this area during 2015-16. CoRWM expects to scrutinise developments in NDA's Interim Storage, Radioactive Waste, Spent Fuel and Nuclear Materials activities in 2016/17.

GDF Safety Case Development

xvii) CoRWM believes that it is essential for RWM to have illustrative GDF designs specific to hard rock, clay and salt, with descriptions of the associated safety characteristics, as one of the main vehicles for communication with interested parties. It is CoRWM's view that such designs would add context to the results of the geological screening work and allow RWM to approach an interested party with all of the safety-related available information on the relevant rock-type of that area.

xviii) CoRWM met with RWM and DECC on a number of occasions throughout the year to discuss RWM's response to CoRWM's safety case recommendation in its 2014-15 Annual report. Agreement was reached that RWM would produce three separate documents summarising the safety cases - one each for potential hard rock, clay, and salt repositories. These documents would not be actual safety cases for each rock type but will be 'non-technical public facing' documents illustrating the design and safety characteristics of a GDF in each of the suitable host rock types.

xix) CoRWM recognises that whilst progress has been made in this area there is still some way to go to develop rock-specific GDF designs and define the associated safety characteristics. CoRWM will continue to scrutinise RWM's activities in this area in 2016-17.

RWM Transition

xx) Although not part of its original Work Programme for 2015-2016, CoRWM decided to examine the revision of RWM's Business Model. The Committee is concerned that RWM's Business Model as presented at a meeting in November 2015 does not reflect the core function of RWM. CoRWM believes RWM's primary function is to deliver a GDF. The proposed Business Model, which focused on "Siting", "Stakeholder Engagement" and "Radioactive Waste Management" gave no indication that RWM was transitioning into an organisation capable of delivering a GDF.

Openness and Transparency

xxi) CoRWM is concerned that its document archive is no longer readily available to the public because of the move of CoRWM's website into the Government's general .gov.uk domain. This, coupled with RWM website's move to the same Government platform, makes it difficult, if not impossible, to find publications. CoRWM believes this is in direct conflict with the principle of openness and transparency which is vitally important for the success of the IGD policy.

Conclusions and Recommendations

xxii) In 2015-16 CoRWM scrutinised the work of RWM, DECC and the Welsh and Scottish Governments in the area of radioactive waste management and also provided both formal and informal advice. In most areas good progress is being made but there are areas where improvement is required.

xxiii) Although there has been dialogue with RWM about GDF safety case development, CoRWM remains concerned that RWM does not appreciate the value of producing illustrative designs and descriptions of the associated safety characteristics for all three geological settings on an equal basis and hence makes the following recommendation which builds upon Recommendation 2 in its 2014-15 Annual Report:

Recommendation 1: RWM should produce illustrative designs for each of the three rock types, with descriptions of the associated safety characteristics.

xxiv) CoRWM remains concerned about the focus and pace of the RWM transition to a GDF delivery organisation and hence makes the following recommendation:

Recommendation 2: DECC should initiate an independent external review of the RWM Business Model to assess its fitness for purpose in

relation to the need for the UK to have an effective GDF delivery organisation.

xxv) CoRWM believes that open access to archived documents is vitally important for the success of the implementing geological disposal policy and makes the following recommendation:

Recommendation 3: DECC should consider how to facilitate public access to CoRWM's and RWM's archive documents.

CoRWM TWELFTH ANNUAL REPORT 2015-16

1 Introduction

1.1 This is the Twelfth Annual Report of the Committee on Radioactive Waste Management (CoRWM). It describes the Committee's work in the financial year from April 2015 to March 2016 and outlines CoRWM's current views on the status of UK plans and arrangements for the long-term management of higher activity radioactive wastes.

Scope of CoRWM's work

1.2 CoRWM's sponsors are the Department of Energy and Climate Change (DECC) for the UK Government, the Scottish Government, the Welsh Government and the Department of the Environment in Northern Ireland. The Committee's work programme for 2015-18 (CoRWM doc. 3198) was agreed with its sponsors and was carried out within CoRWM's agreed budget (Annex A).

1.3 CoRWM's remit is given in its Terms of Reference (Annex C). These state that: "The role of the reconstituted Committee on Radioactive Waste Management (CoRWM) will be to provide independent scrutiny and advice to UK Government and devolved administration Ministers on the long-term management, including storage and disposal, of radioactive waste. CoRWM's primary task is to provide independent scrutiny on the Government's and Nuclear Decommissioning Authority's proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK's higher activity wastes."

1.4 During its work in the past year, CoRWM has primarily engaged with officials within DECC and with Radioactive Waste Management Limited (RWM), which is now a wholly owned subsidiary of NDA. RWM is the developer for a geological disposal facility (or facilities, should more than one be needed). The Committee has also engaged with officials in the Welsh Government, the Scottish Government and the Northern Ireland Executive and with the nuclear safety and environmental regulators.

Summary of Year

1.5 In the financial year 2015-16, CoRWM has provided advice and undertaken scrutiny in the following areas:

- advice to DECC and RWM on the GDF siting issues arising from the "Implementing Geological Disposal" White Paper, including national geological

screening, Community Representation Working Group, National Policy Statement, communication, public and stakeholder engagement and the regulatory framework;

- scrutiny of both DECC's and RWM's activities relating to the management of HAW;
- advice to DECC and RWM on the role of the safety case in the GDF siting process, especially in relation to the need for high-level descriptions of GDF designs and safety cases for the three geological settings namely: hard rock, clay and salt;
- advice to the Welsh Government on its adoption of the "Implementing Geological Disposal" proposal, and scrutiny of the Welsh Government approach to the management of HAW;
- advice to the Scottish Government on its policy and its development of a strategy for implementing the Policy for managing higher activity radioactive waste; and scrutiny of the Scottish Government's approach; and
- advice to DECC and NDA on the transition of RWM into an effective implementer of geological disposal.

1.6 Some members of CoRWM visited the French underground Rock Characterisation Facility in Bure to gain an understanding, not only of the French GDF programme but also to understand better the issues surrounding geological disposal in clay.

1.7 Progress on each of these is reported in later chapters.

CoRWM's Outreach Activities

1.8 CoRWM undertakes outreach activities to enable the public and the wider nuclear community to understand the work of the Committee. It also enables the Committee to engage with the public and other stakeholders to gain an understanding of their views and concerns on radioactive waste management in the UK.

1.9 CoRWM held five open plenary meetings throughout the year at which members of the public were free to attend and observe the Committee in action. (CoRWM docs: 3229, 3231, 3241, 3274, 3281). At these meetings, there was opportunity for those observing to ask questions and to talk informally to Committee members during refreshment breaks.

1.10 CoRWM is concerned that its document archive is no longer readily available to the public because of the move of CoRWM's website into the Government's general .gov.uk domain. This, coupled with RWM website's move to the same

Government platform makes it difficult, if not impossible, to find publications. CoRWM believes this is in direct conflict with the principle of openness and transparency which is vitally important for the success of the IGD implementing Geological Disposal policy.

CoRWM's Assessment of Performance

1.11 Members of the Committee were assessed on their individual performance in November 2014 in line with good practice for public appointments. All Members met the required performance levels.

2 Delivery of 2015-16 Work Programme

GDF Siting Policy

National Geological Screening

2.1 The Implementing Geological Disposal White Paper states (para 5.11) that "The Committee on Radioactive Waste Management (CoRWM) will play a scrutiny role throughout this work, providing oversight of the process to develop this (i.e., geological screening) guidance through open public and stakeholder engagement." In this role, CoRWM has continued to provide advice to RWM on its development of the National Geological Screening (NGS) Guidance, observed relevant meetings in which the NGS guidance has been presented or discussed, and responded to the RWM consultation on the NGS guidance document. The following section of this report summarises these activities and the advice given to RWM and DECC on National Geological Screening (NGS).

CoRWM Comments to DECC in advance of the Independent Review Panel Consideration of draft NGS guidance

2.2 In May 2015 CoRWM provided comments to DECC on the Geological Screening Guidance document that was to be reviewed by the Independent Review Panel. These comments focused on:

- the meaning of 'screening' in the NGS context;
- clarity in the definition of the form of outputs from application of the Guidance;
- clarity on terminology;
- simplification of the consideration of 'Natural Processes', and consistency and clarity on timescales.

The meaning of 'Screening' in the NGS Context

2.3 CoRWM expressed its concern that there was significant potential for the NGS Guidance document to be misunderstood by the public. CoRWM suggested that the guidance should specify the production of screening maps as part of the screening outputs, that these maps be used for the screening out of specific areas, and that these be published within the short publically-accessible regional documents.

2.4 CoRWM considered that such maps would meet the expectations of many members of the public for geological screening.

2.5 CoRWM also recommended that all the remaining safety-related geological attributes, other than those used to derive the screening maps, should be described in an accompanying narrative with links to regional datasets/maps where appropriate.

Clarity in the definition of the form of outputs from application of the Guidance

2.6 CoRWM suggested that the terminology for sections such as "Proposals for screening" be changed and made clearer, as most of the aspects described or discussed would not be used for 'screening' in the NGS Guidance but instead would form part of the supporting information. CoRWM further suggested that the outputs could usefully be separated into:

- a short document with regional screening outputs and maps; and,
- supporting geological information to form the basis for discussions.

Clarity on terminology

2.7 CoRWM sought consistency in the use of terms and clarity in their definition. The key terms highlighted included 'aspect', 'characteristic', 'factor' and 'requirement'.

Simplification of the consideration of 'Natural Processes'

2.8 CoRWM noted that consideration of 'Natural Processes' in terms of screening relies on the BGS Commissioned Report "Potential Natural Changes and Implications for a UK GDF", reference 18 in the NGS Guidance draft. That Report concluded "*For the majority of processes covered in this review, the possible effects on a GDF are likely to be minimal in all of the geological environments considered over the next one million years*", and "*There are a number of processes that may have an effect on a UK GDF, depending on location, but the likelihood of significant*

consequences is low.” CoRWM suggested that it would be simpler and more direct to quote reference 18 and remove natural processes from the screening process.

Clarity on timescales, and embedding of these within a safety context

2.9 CoRWM noted that Reference 18 also provided a time-frame of interest of “a million years’ whereas the draft NGS Guidance document used only ‘thousands of years’ (Box 1 - isolation). This conflict should be resolved and a consistent time scale should be adopted to not only cover the issues of isolation and GDF stability but also, and more fundamentally, embed screening firmly within the safety case.

CoRWM Observation of the Independent Review Panel (IRP) / RWM Meeting in Public

2.10 CoRWM observed a meeting in public of the Independent Review Panel (IRP) and RWM at the conclusion of the IRP’s work. The objectives of this meeting were to clarify the IRP’s comments to RWM and to confirm a way forward for geological screening. The meeting was held in London on 23rd June 2015.

2.11 The meeting began with a short presentation from RWM, followed by 90 minutes discussion with the IRP and then 30 minutes public questions. RWM emphasised that screening would be based around five topics- rock type, rock structure, groundwater, natural processes and resources. In the subsequent discussion with the IRP, RWM emphasised the overriding importance of safety and made it clear that geological considerations form just one contributor to the GDF safety case.

2.12 RWM also confirmed that the intention was for BGS to produce maps and data and RWM to produce the narrative. These together will provide users with tiered information with a high level narrative supported by maps describing the geology, what it means for the safety of geological disposal and more detailed information for those who want to explore the basis of the screening information in more detail. RWM considered the narrative to be more important than the maps.

2.13 RWM reported that it understood the significant uncertainties that exist, appreciated the need to convey geological uncertainty and recognised the challenge of doing so. RWM emphasised its recognition of the need to identify clearly what was interpretation or judgment in the outputs of National Geological Screening.

2.14 CoRWM Members attended four of the public meetings held to elicit views on the National Geological Screening Guidance - “Providing Information on Geology”. These informal meetings were designed to raise awareness of the issues and seek inputs from a wide range of parties. Inputs from participants would not be considered

as a formal input to the public consultation and any comments would need to be submitted to RWM to be formally considered.

2.15 CoRWM's detailed comments on these meetings (14th October in Bristol; 20th October in Carlisle; 21st October in Leeds and 5th November in Manchester) can be found in the minutes of the CoRWM Open Plenary meeting held on 22nd October 2015 (CoRWM doc 3241).

2.16 Of the meetings observed, all except that in Carlisle were constructed as follows:

- a 45 min presentation on the consultation document with some background technical information on a wide range of related topics, including:
 - surface geology;
 - geological models and interpretation;
 - volumes of waste;
 - illustrations of what deep disposal means, the depths involved with comparison to the depth of the London Underground;
 - the search for a suitable site, and emphasising that this requires a willing host community;
 - a description of safety, with the point made that there is no 'best' geology, and the safety case will be used to show the suitability of the geology;
 - a description of the involved bodies and roles; and
 - what the consultation document was about, the approach, and how the geological assessment was being done through 13 areas classified by BGS;
- demonstrations of geological features of porosity and permeability;
- 3D model video of geology of England and Wales; and
- small group discussions to formulate answers to the 3 consultation document questions, with 1 hour available to report back.

2.17 The Bristol, Leeds and Manchester meetings lasted about 4 hours. The numbers of non-RWM attendees were 19 at Bristol and fewer at Leeds and Manchester. The Carlisle meeting involved more non-RWM participants (31), necessitating five groups for the small group discussions. In this shorter meeting (2 hours) the amount of time left for group discussion was only 20 minutes, which CoRWM felt was far too short to be effective.

2.18 Common questions arising from the discussions at these meetings were:

- Why is the process labelled as 'screening' when it appears not to involve screening in or out in the conventional sense?

- What are the mechanisms for communities obtaining independent information in a form they understand?
- What has happened to the information collected from previous screening exercises, and why is it not to be included in the current exercise?

2.19 The number of peripheral questions and discussions suggested a lack of public understanding of the purpose of the meetings, which was a consultation on the guidance RWM would be aiming to give BGS in producing outputs rather than an engagement on the siting process itself. There was also some confusion between the objectives of the screening exercise and the geological information which would be required at siting. CoRWM believed that prior reading of the Consultation Document by meeting attendees would have allowed a tighter focus on discussion of the questions as opposed to the consultation document itself.

2.20 Based on its observation of these meetings, CoRWM considers that the overview presentation by RWM was excellent but not effectively supported by the subsequent demonstrations. This was in part due to an over-reliance on technical jargon, the complexity of the subject, and a lack of tailoring of material to the specific regions and audiences. CoRWM believes that the issue of public understanding of the purpose of the meetings, and assurance that the main questions would be addressed in discussion, may have been resolved if there had been a facilitator.

2.21 Further CoRWM observations on the RWM presentations and their impacts, outlined below were reported to and discussed with DECC and RWM officials.

- Interesting and complex geology was presented but it was not conveyed that this would actually be 'bad' (or 'poor') geology for a GDF site. The visually attractive images of complexly folded rocks did not correspond with the message of appropriate geology for GDF.
- There was a demonstration of three types of rocks. However, the visually effective demonstration of permeability and porosity, which the public took to be the most important message, was not relevant to rock characteristics required for all GDF concepts. Such demonstrations needed to be made relevant to the appropriate rock types for a GDF.
- The 3D model fly-over of the country was not tailored to the audience attending at each meeting. There was a lack of clarity on the technical geological terms used. Misrepresentation of the diameters of boreholes left the public with an incorrect impression of their scale.
- It was not made clear how the 3D model would be used in geological screening. CoRWM considers that it would have been more appropriate and effective to demonstrate an example output, and obtain feedback from the public as to whether it was appropriate. There was no link back to useful geology from the model, and no safety case context for the whole process.

2.22 CoRWM is pleased to note that several of these concerns were acted upon, as demonstrated by the successful public dialogue events later conducted by DECC. Nevertheless, it is useful to highlight some of the issues as this may be beneficial when future public and stakeholder events will be held as part of the GDF siting process:

- if resources allow, a competent independent facilitator would be beneficial;
- if meetings are to elicit the views of the public do not overburden them with complex technical information;
- if discussion groups are held allow sufficient time for discussion;
- do not pack the meeting with people from the host organisation; and
- choose venues with care to extend the range of members of the public who attend these meetings.

CoRWM Response to the National Geological Screening Guidance Consultation

2.23 CoRWM responded to the NGS Guidance Consultation. Its draft response was prepared by the Screening Sub-group and presented for discussion by the full CoRWM committee at its October plenary meeting. The response directly addressed the three specific questions posed in the consultation. Extracts from the response (CoRWM Doc 3238) are given below.

Question 1 Approach to National Geological Screening

- CoRWM considered that overall approach is largely appropriate, but that a number of potential issues will require consideration in production of the outputs from the guidance.
- CoRWM cautioned that expectations of screening among the wider public have been raised, and it is very likely that the inherently coarse outputs of 'screening' will not meet these expectations.
- CoRWM emphasised that the key objective of providing geological information relevant to long-term safety is emphasised; the safety context should be highlighted.
- CoRWM suggested that, given the objective of providing geological information, the inclusion of positive attributes and their description in the output narratives will result in the dissemination of a wider range of geological information to informed communities.
- CoRWM reiterated its advice of 24th November 2014 to RWM that the process would be improved by the production and publication of an example output at an early stage: effectively a 'dry-run', 'dummy-run' or 'trial-run' on an area or region that would not otherwise be included in the

NGS outputs. This will be of benefit in enabling the public to gain a better understanding of what to expect.

- CoRWM reiterated the need to communicate geological uncertainty: whether in data, interpretation or modelling of geological information. Visual examples of the significance of both data and model or conceptual uncertainties could helpfully communicate their impacts and hence why 'screening' is about the provision of information rather than about setting 'in' and 'out' criteria.

Question 2 Sources of information

- CoRWM agreed these are appropriate and relevant for national scale information but noted there is a need to explain the consequent limitations of the screening outputs.

Question 3 Form of the outputs and additional outputs

- CoRWM agreed that the proposed outputs are in general appropriate given the detail and quality of information available. CoRWM commented that the outputs are not all of equivalent status in terms of screening, nor in terms of their practical relevance to safety. CoRWM advised that it would be good practice to explain and emphasise the hierarchy in attributes through the structure and design of the narratives.
- CoRWM, noted that RWM has stated that some attributes would be used for screening out areas whereas others described and listed in the Guidance would *not* be used for screening out areas. CoRWM suggested that it would be beneficial for narratives for each output region to include separate chapters on attributes, along the lines of '*Geological Attributes Used for Screening Out Areas*' and '*Geological Attributes Related to the Safety of a GDF*'.
- CoRWM suggested that it would be very helpful to present data uncertainty visually on maps and create alternative interpretations (multiple maps or representations embedded, for example, in narratives) of the same data based on the differing views of subject matter experts (i.e. an elicitation exercise). Communicating uncertainty remains a major problem to address in the eventual outputs, in whatever form they emerge.

CoRWM Comments on the RWM Consultation on National Geological Screening Guidance

2.24 As part of its scrutiny activities CoRWM reviewed RWM's Consultation on its National Geological Screening Guidance and its subsequent impact on the Guidance that was issued to the BGS. The Committee provided comments to RWM on the development of the draft guidance in 2014-15 and in 2015-16 the Committee's work focused on assessing how RWM analysed the feedback to the NGS consultation, the

relevance and clarity of the RWM replies to the issues raised by the consultation feedback, and the appropriateness of those replies in terms of their translation into changes in the final NGS paper.

2.25 The Committee noted that most of the identified actions arising from the Consultation led to only minor changes in the final published document, resulting in somewhat greater clarity but with little material impact on balance or direction. CoRWM believes that the RWM suite of replies is measured and appropriate for most of the consultation responses. The translation of the replies into action that produced changes to the final guidance is considered to be appropriate in most respects, but the issues arising with respect to themes 1.2, 1.5, 1.6 and 2.2 should be noted and monitored as the NGS process develops.

2.26 In relation to the broad statements by RWM as to the degree of support for the NGS guidance, CoRWM found no evidence to justify the statement that 70% of respondents supported the proposed approach, or that 65% supported the proposed sources of information, or indeed that 64% supported the proposed form of outputs.

2.27 Having reviewed RWM's NGS guidance for the work to be carried out by BGS, CoRWM believes that the final revised Guidance incorporates a number of minor but important changes from the consultation draft. Collectively these have resulted in the final Guidance being more internally consistent, explanatory and complete than the consultation draft.

2.28 The final NGS Guidance document is technically sound and robust in providing guidance on the basis of a set of high-level geological attributes that are defensible, appropriate for National and regional use based on existing information, and in keeping with safety principles. Hence, the Guidance is successful in doing what it sets out to do. The Guidance provides a useful template for the production of coherent and consistent outputs that will be informative for professionals and persons with some geological knowledge and, if communicated effectively and with appropriate engagement strategies, may be potentially useful and enlightening to interested communities and groups. The significant unknown is how the Guidance will translate into outputs that will inform and stimulate a wider range of people, organisations and community groups than are currently interested in geological disposal.

2.29 Notwithstanding the above, there does remain the significant issue that whilst the Guidance is essentially about providing geological information, in doing so there will be some form of implicit screening (e.g. if no appropriate rock types exist in a region) and yet the screening, in or out, of areas or regions is avoided. As the screening issue is bound to recur, especially once outputs are generated by BGS

and RWM, there needs to be a strategy in place for dealing with that before the outputs are published.

Working with Communities

2.30 Defining the term 'community', including how it might evolve over time and who might represent it, along with the related issues of the "Test of Public Support" and the framework for managing community investment have been some of the most significant challenges to be addressed following publication of the July 2014 White Paper "Implementing Geological Disposal". To tackle these, DECC established the Community Representation Working Group (CRWG) made up of individuals with wide experience.

2.31 Two CoRWM members were invited to observe the six meetings of CRWG during the year as well as having regular informal meetings with DECC officials between meetings. One member also attended Public Dialogue events in Manchester which were described by DECC as "Open Policy Making in Action". As well as wide ranging discussions at CRWG meetings, DECC held one to one meetings with individual WG members and established a small subgroup late in the process to discuss potential ideas on identifying communities.

2.32 Initially much of the background work, which included a literature review and a call for evidence, was undertaken by Local Partnerships on behalf of DECC. At the end of 2015 DECC officials took over the role of Local Partnerships. To give a final push to completing the work in early 2016 DECC obtained additional resources. The February and March 2016 meetings gave a final opportunity for CRWG members to discuss the various approaches to answering key questions and to receive feedback from the Public Dialogue events and to enable DECC to prepare a consolidated report for Ministers.

2.33 Manchester and Swindon were selected as venues for the Public Dialogue events which involved 27 randomly selected participants at each venue for two days on two separate weekends. The events were funded by Sciencewise and were evaluated by an Independent Oversight Group (IOG). The use of facilitators, 3KQ, undoubtedly ensured that everyone had an opportunity to understand the issues and contribute fully to the discussions.

2.34 The aim of the Public Dialogue events was to obtain views from members of the public who had no prior knowledge of nuclear waste issues. Day 1 involved informing participants about the history of radioactive waste management and current Government policy whilst Day 2 was spent, after short presentations on community representation, public support and community investment, in interactive discussion groups to elicit the views of participants on these topics. From the

evaluation forms submitted and the individual views of the independent evaluator, members of IOG along with DECC and RWM officials everyone judged the events informative and successful as measured against a wide range of criteria. What was particularly encouraging was the extent of constructive engagement by the members of the public. Indeed it is the view of the CoRWM observer that, since 2003 when CoRWM was established, the Manchester weekends would probably rank as the most constructive and successful he has been associated with in the over fifty he has run, attended or observed.

2.35 Whilst reports on the meetings and from the IOG members are yet to be published, CoRWM believes that a number of general points can be made which should not be forgotten when PSE events are being planned for the GDF siting process in the future.

- careful preparation of presentations to be made will more than repay the time taken in their production;
- DECC needs to take account of the views expressed at the Public Dialogue events, and indeed any views expressed during consultation. There is already evidence that this is happening through CRWG. Some views, particularly in relation to trust in Government or the lack of it, will inevitably be difficult to handle;
- complex technical information can be presented, with care and thought, to a public who have no knowledge of nuclear waste issues in such a way that is not only understandable but can also lead to constructive inputs on contentious issues such as definition of community and community representation; and
- whilst such events are not cheap to run, given payments to participants, facilitator and staff time, it is considered by CoRWM that the end product justifies the investment.

2.36 CoRWM appreciates that there are many ways to define a community and recognises that resolution on this matter will not be easy. However definitions that can attract wide support are vital for the success in attracting and retaining communities to engage in the process and to volunteer to host a GDF. For the “Test of Public Support” it is important that considerable thought be given to the extent of the area within which the “Test” is to be conducted. Many unitary and district authorities cover large spatial areas. If it were to be recommended that all those living in such areas were to be allowed to participate in the “Test”, many might actually live at a considerable distance from where the most direct impacts of a GDF might occur, yet be given an equal say in the outcome as to whether the proposal should go forward. Electoral ward, parish or community council boundaries may offer a better reflection of the area most affected.

2.37 The physical extent of a host or affected community will be narrowed down

during the site selection process as RWM focuses in on a site for the surface and underground facilities. CoRWM believes that it will be vitally important that the initiator of initial contact with RWM as the developer is not defined prescriptively. CoRWM also recognises that it may not be possible to have a single way of defining community and that the definition of the community is likely to evolve over time.

2.38 How community investment might be managed, and over what area projects might be eligible, are issues where there is substantial existing experience. So long as there is proper financial oversight then it should be possible to put in place suitable arrangements reflecting local circumstances.

2.39 CoRWM considers that DECC officials and the Working Group members have together used the last 18 months to good effect. It has also appreciated that whilst the meetings were closed, the minutes have appeared on the website promptly and give considerable insight into the key points discussed such that interested stakeholders can keep up-to-date with what is happening.

2.40 In the likely event that DECC consult in 2016-17 on the proposed way forward on these issues, CoRWM would expect to respond to the consultation.

National Land Use Planning

2.41 The Infrastructure Planning (Radioactive Waste Geological Disposal Facilities) Order 2015 designated geological disposal in England as a “nationally significant infrastructure project” (NSIP). Over the last 12 months, Government has been working to prepare a National Policy Statement (NPS) for Geological Disposal and accompanying Appraisal of Sustainability (incorporating Strategic Environmental Assessment) and Habitats Regulation Assessment. CoRWM notes that DECC intends to hold a public consultation on the NPS in 2016. CoRWM has provided advice to DECC on the content of the NPS. The siting process for a GDF is unlike that for other infrastructure projects and CoRWM has advised on the need to take account of the implications of voluntarism for the content of the NPS and the way the NPS might be used during the siting process.

Developer Led Communications and Engagement

Setting the context

2.42 Throughout the year the work of the sub group has been focused on scrutinising both the general communications strategies of RWM and DECC, and their specific strategies for communication and stakeholder engagement to help take forward the GDF implementation process. This work covered the informal NGS Guidance consultations and the public dialogue events of the Community Representation Working Group (CRWG).

2.43 It should be noted that whilst DECC has overall policy responsibility for the efficacy of GDF communications and stakeholder strategies, RWM is responsible for developing an overall communications strategy including “education and awareness-raising” and the development of NGS Guidance which, as discussed above, included a series of informal consultation events designed to inform the proposed formal consultation.

2.44 Given this arrangement much of CoRWM’s scrutiny has been providing general and informal advice to DECC on how the processes of communication and stakeholder and public engagement appears to be working and, when requested, suggesting how improvements might be made. As well as observing a number of events, including a DECC-NGO meeting, the CoRWM sub group obtained information and exchanged views with DECC and RWM at seven informal meetings throughout the year.

Communications.

2.45 During the past year DECC and RWM have focused on the development of a communications strategy to take forward the GDF siting process. The approach has been to not only explore the role that RWM should play when communities are invited to express an interest in 2017, but also to look at what would be the most effective ways to inform those who live in localities which might be potentially interested in engaging in the process. CoRWM also believes that any strategy must include the need to convince scientists and senior management within RWM that effective communications and engagement are essential ingredients in the delivery of a successful GDF Siting process.

2.46 The communications strategy being developed by RWM was linked to DECC overall policy objectives. CoRWM observed that DECC officials and RWM staff officials were meeting “almost daily” to coordinate their efforts to deliver the desired communications strategy. CoRWM welcomed the increased involvement of the DECC communications team and the greater priority it was giving to radioactive waste management.

2.47 In terms of awareness-raising, CoRWM noted that RWM was exploring new methods of “getting the message” out to interested parties and the wider public. CoRWM believes that communications and engagement must be a central feature of RWM’s overall GDF delivery policy and must be driven by its senior management. The proposal to develop a web based “knowledge hub” was of particular interest but would require Cabinet Office approval given Government controls on such activities. The hub would provide a range of information to cover detailed technical information on a GDF, information that would be accessible and understandable to “the man in

the street” and sections on specific initiatives being taken such as NGS, CRWG, NPS etc. The aim would be to make this “layered” hub interactive, enjoyable and creative.

2.48 Since then a number of developments have occurred. Consultants (MHP) have been appointed on a short term contract to support RWM in the development of its overall communications strategy. Subject to Government approval of RWM’s proposed communications campaign, RWM also plans to secure the services of a longer-term strategic communications partner later in 2016.

2.49 CoRWM notes with approval that DECC is now placing far greater emphasis on communication strategies to take the GDF Siting process forward. Radioactive waste disposal now appears to be a major priority for DECC Communications and more staff within the Nuclear Group are making a positive contribution to the process as witnessed in the successful public dialogue events.

RWM Public Events on NGS Guidance

2.50 CoRWM’s detailed comments on these meetings can be found in the minutes of the CoRWM Open Plenary meeting held on 22nd October (CoRWM doc 3241) and in paragraphs 2.14 through 2.22 on NGS in this report.

GDF Regulatory Framework

2.51 CoRWM recommended in its Eleventh Annual Report that the Government should ensure that the details of the licensing of the GDF should be agreed and published before the end of the initial action period in the White Paper (end of 2016).

2.52 In February 2016, the GDF Regulation sub-group met with the Environment Agency (EA) and the Office for Nuclear Regulation (ONR). CoRWM is pleased to report that progress on the licensing of the GDF is being made and ONR has developed a high level policy paper covering licensing for design, construction, commissioning, operation and closure of a GDF. Further, ONR is working with DECC on the statutory instrument changes required for licensing under the Nuclear Installations Act 1965 and, by March 2017, plans to have developed draft guidance on the policy and approach for a GDF. Other than the meeting in February 2016, CoRWM has not had oversight of subsequent progress.

2.53 CoRWM understands that an overview of the regulatory process for geological disposal will be produced by Dec 2016. CoRWM has set aside time in the 2016/17 work plan to review these documents and also any other supporting resource material generated to facilitate the next stage of the siting process.

2.54 CoRWM believes that it is vitally important that the Government ensures that there is a clear nuclear safety, security and environmental regulatory framework for the GDF before communities are invited to participate in the process in order to give the public confidence that the GDF will be properly regulated. In CoRWM's view, it is essential that the issue of licensing, including how the site is eventually delicensed, is resolved as soon as possible, ideally before communities are invited to participate in the process.

Welsh Government Activities

Welsh Government Geological Disposal Policy

2.55 In March 2015 Welsh Government sought CoRWM's comments on some of the responses to its consultation document *Review of Welsh Government Policy on the Management and Disposal of Higher Activity Radioactive Waste* in so far as these referred directly to the work of CoRWM. CoRWM completed its response to this request in April 2015 and provided Welsh Government with comments on factual issues raised in the consultation. Following on from this consultation Welsh Government published its revised policy in May 2015.

Welsh Government Siting Policy

2.56 At the same time, the Welsh Government commenced a public consultation on *Geological Disposal of Higher Activity Radioactive Waste: Community Engagement and Implementation Processes*. CoRWM's response to this consultation welcomed the Welsh policy and supported the view that possible volunteer communities should be treated equally regardless of whether they were in England, Wales or Northern Ireland (CoRWM doc 3235). CoRWM advised that any arrangements for implementation and community engagement should be prepared on the basis that a Welsh community is as likely to volunteer as an English one. At Welsh Government's request, CoRWM subsequently provided comments on Welsh Government's draft consideration of responses to the consultation.

2.57 CoRWM met with Welsh Government in October 2015 to discuss its response to the consultation in the light of the draft Community Engagement Implementation Policy (CoRWM doc 3260). The policy statement *Geological Disposal of Higher Activity Radioactive Waste: Community Engagement and Siting Processes* was published in December 2015. CoRWM intends to scrutinise the implementation of this policy with a view to assessing how Welsh views and interests are taken into account through the work of RWM and Natural Resources Wales. A member of CoRWM observed a Board meeting of Natural Resources Wales in which the

organisation's role in relation to regulation of radioactive substances including radioactive waste was discussed.

Welsh Affairs Committee

2.58 In January 2016, the House of Commons Welsh Affairs Committee commenced an inquiry into *The Future of Nuclear Power in Wales*. CoRWM made a written submission to this inquiry (CoRWM doc 3270) emphasising the need to take account of radioactive waste management and noting the recent developments in Welsh Government policy in this respect.

Scottish Government Activities

Radioactive Waste Implementation Strategy

2.59 The Scottish Government in May 2015 issued a consultation draft of a Strategy to implement the January 2011 Policy on Higher Activity Radioactive Waste. The consultation period lasted until early August and CoRWM submitted its comments in CoRWM document 3220.

2.60 A Project Board comprising representatives from Scottish Government, the Scottish Environment Protection Agency (SEPA), ONR, NDA, all site operators, Site Stakeholder Groups (SSGs), Scottish Councils Committee on Radioactive Substances (SCCORS) and the Nuclear Free Local Authorities (NFLA) met on 14 September to discuss the responses to the draft Implementation Strategy (IS), a draft consultation response analysis report, a summary of possible changes to the IS in response to the consultation, a risk register for the IS and a draft research statement.

2.61 Subsequently, the 24 consultation responses were published on the Scottish Government website but neither the final IS nor an analysis of the consultation responses has been issued.

2.62 Whilst CoRWM welcomed much that was in the consultation draft, there are a number of issues which it is to be hoped will be addressed in the approved IS. These concerns included:

- the excessive length of phase 1 which extends beyond the next one and possibly two policy reviews in 2021 and 2031;
- the absence of mention of local people as stakeholders within the IS which is solely targeted on producers and owners of waste;
- the criteria for and timing of the identification of one or more near surface disposal sites;

- no reference to licensing the design, construction, commissioning and operation of a near surface disposal facility;
- the need to define whether the existing LoC are fit for purpose in the Scottish context; and
- the need to maintain skills and the supply chain in a diminishing industry environment.

2.63 Whilst accepting that the matter can be addressed at the 2021 policy review, the Committee remains concerned that the majority of intermediate level waste at Dounreay, estimated at 60% by volume and 99% of the radioactivity, is unlikely to be suitable for near surface disposal.

2.64 CoRWM anticipates that following publication of the IS, RWM will be asked to support development of the design and safety case necessary for a near surface disposal facility in Scotland as well as the Scottish Government beginning to consider criteria for determining the location for such a facility(s).

Management of HAW in Scotland

2.65 As in previous years, a Member of CoRWM has observed the twice yearly Scottish Nuclear Sites meetings. These are considered to offer valuable opportunities for a wide range of stakeholders - Scottish Government, site operators, NDA, MoD, SEPA, ONR, SCCORS and SSGs- to exchange information about progress on decommissioning, site remediation, employment levels as well as receiving advance information on what changes might be in the offing.

Interim Storage, Radioactive Waste, Spent Fuel and Nuclear Materials

2.66 Owing to higher priorities and limited resources, CoRWM did not undertake much work in this area during 2015-16. CoRWM expects to scrutinise developments in NDA's Interim Storage, Radioactive Waste, Spent Fuel and Nuclear Materials activities in 2016/17.

Interim Storage

2.67 The CoRWM 2014-15 Annual Report covered visits to Sellafield, Dounreay, Wylfa and Berkeley, which gave a broad cross-section of HAW interim storage issues across the NDA Estate. While the NDA Strategy (CoRWM doc 3264) does contain several areas of innovation in waste treatment and storage policy, the publication of the Strategy in March 2016 moves any CoRWM scrutiny of its effects into 2016-17.

Spent Fuel – Magnox

2.68 The main discussion in 2014-15 was the contingency planning for 'tolerable end states' whereby the amount of unprocessed Magnox fuel would be minimised, and contingency plans generated for dealing with any unprocessed fuel. There were some small changes of emphasis in the Draft NDA strategy, and (as for interim storage) it was thought that 2016-17 would be a more fruitful time to re-examine the area.

Spent Fuel – Oxide

2.69 NDA plans to store the AGR fuel not destined for reprocessing in the Thorp Receipt and Storage Pond remain unchanged. However, in February, EDF Energy announced life extensions¹ of five years for Heysham 1 and Hartlepool (closure in 2024), and seven years for Heysham 2 and Torness (closure in 2030). This extra 24 reactor-years would be expected to add around 280teHM of fuel to the unprocessed stock to be stored. CoRWM will schedule a meeting with NDA in 2016-17 to examine their responses to this additional fuel.

LWR Spent Fuels

2.70 CoRWM had originally intended to examine LWR fuel storage and the plans for non-reprocessed non-AGR fuel from NDA's inventory, but it has become more efficient to carry out this scrutiny alongside the Oxide and Magnox work in 2016-17.

Plutonium

2.71 The 2014-15 CoRWM Annual Report envisaged that, as agreed with NDA, a further examination of the fate of the UK's plutonium stocks would await the finalisation of NDA's recommendations to Government, expected in 2015-16. In the event the recommendation has not been finalised, and it has been thought most effective for CoRWM to delay further work until a recommended route is promulgated.

Uranium

2.72 As reported in the 2014-15 CoRWM Annual Report, an Integrated Project Team set up by the NDA and managed by RWM is due to report in March 2016. This work will need to be appraised before a CoRWM review would become

¹ http://media.edfenergy.com/r/1030/edf_group_results_2015_highlights_for_edf_energy_in_uk

appropriate, so 2016 17 becomes a more feasible period for CoRWM activities in this area.

GDF Safety Case Development

2.73 In this past year CoRWM focused on a number of issues related to RWM's GDF safety case work including its "generic safety case" approach, safety case terminology and the contents of a safety case.

RWM Generic Safety Case Approach

2.74 CoRWM believes that it is essential for RWM to have illustrative designs specific to hard rock, clay and salt with descriptions of the associated safety characteristics as one of the main vehicles for communication with interested parties. It is CoRWM's view that such designs would add context to the results of the geological screening work and allow RWM to approach an interested party with all of the available safety-related information on the relevant rock-type. This would allow RWM to present the current understanding of how a safety case could be developed. CoRWM believes that the overall repository development (site selection, site characterisation, safety assessment, etc.) would be optimised and made more transparent if the illustrative design with safety characteristics for each rock-type then evolved into the site-specific safety case. In this light, CoRWM's 2014-2015 Annual Report contained the following recommendation:

"CoRWM recommends that RWM produces individual generic environmental safety cases for each of the three geological settings, hard rock, clay and salt."

2.75 CoRWM engaged with RWM throughout 2015-2016 in an attempt to resolve the issues raised by this recommendation. CoRWM reviewed RWM's Safety Case documents including its Safety Case Manual. A meeting was held in November 2015 to discuss the progress of RWM's development of their 2016 generic Disposal System Safety Case (gDSSC) and whether or not RWM intended to develop "rock specific" safety cases for the three proposed repository host-rock types in the UK, namely fractured hard rock, clay and salt. Additional topics covered in the discussions on 17 November 2015 included the intended audience for the 2016 gDSSC and the inclusion of quantitative and qualitative assessments of safety in the safety case. A resolution on CoRWM's recommendation was not reached at this meeting.

2.76 It was clear from this meeting that RWM's 2016 generic disposal system safety case (gDSSC) was not intended as a vehicle to communicate with potential host communities or other interested parties. RWM stated that the audience for their

2016 gDSSC was internal, to RWM, and external, to the regulator. This difference in intended audiences is probably the root of the differences between CoRWM and RWM on the content and format of RWM Safety Cases.

2.77 A follow on Three-Way Meeting between CoRWM, DECC, and RWM was held in February 2016 in an attempt to resolve the remaining differences between RWM and CoRWM on the structure and content of RWM's 2016 gDSSC. CoRWM explained the value of using information contained with the gDSSC to produce illustrative designs and descriptions of the safety characteristics for each rock type to support dialogue with potential host communities. Agreement was reached that RWM would produce three separate documents. These documents would not be actual safety cases for each rock type but in RWM's words, they will be 'non-technical public facing' safety case documents for higher strength, lower strength sedimentary and evaporate host rocks that contain explanations of the safety considerations relevant to a geological disposal facility design and construction in each of the suitable host rock types. CoRWM notes that RWM are planning further work to look at different approaches to the development of generic safety cases.

2.78 CoRWM questions the value of updating the 2010 gDSSC rather than re-targeting resources to support implementing geological disposal in the three rock types.

2.79 CoRWM believes it is not possible to have a safety case without a design that includes the waste inventory and engineered barriers. Hence CoRWM intends to continue the dialogue with RWM to reach a clear understanding of the relationship between the GDF designs for the three rock types, the appropriate engineered barriers and the safety and environmental performance. To ensure RWM's commitment to the production of illustrative designs and descriptions of the associated safety characteristics for each rock type on an equal basis, CoRWM makes the following recommendation which builds upon Recommendation 2 in its 2014-15 Annual Report:

Recommendation 1: RWM should produce illustrative designs for each of the three rock types with a description of the associated safety characteristics

Safety Case Terminology

2.80 The goal of this task was to produce, for CoRWM's use, a clear and consistent understanding of the terminology used for safety cases and the expected content of a safety case. To achieve this goal, the Safety Case subgroup met in December 2015 to discuss and clarify what a generic safety case was, how it should be used,

and the associated terminology. The discussion generally followed the guidelines and recommendations of the International Atomic Energy Agency on the definition and content of a safety case for geological disposal of radioactive waste.

RWM Transition

2.81 Although not part of the formal CoRWM Work Programme for 2015-16, the Committee did examine some aspects of RWM's transition plans during the course of other scrutiny activities. A meeting was held between the RWM Executive and CoRWM in November 2015 where the RWM Business Model and Organisational Development plans were discussed.

2.82 RWM presented its proposed Business Model (*shown below.*) at a meeting in November 2015. The Committee felt that the Business Model should represent the basis of the organisation's strategy and, in particular, highlight how the objectives would be delivered. In many respects the model would also form a basis for organisational design. The Committee expressed its concern with the business model because it did not reflect the core function of RWM that is to be an engineering project organisation capable of delivering i.e. designing, constructing, commissioning and operating a GDF. The proposed organisational model did not even mention a GDF and hence the Committee felt that it would be difficult for the public and other key stakeholders to ascertain exactly why RWM existed.

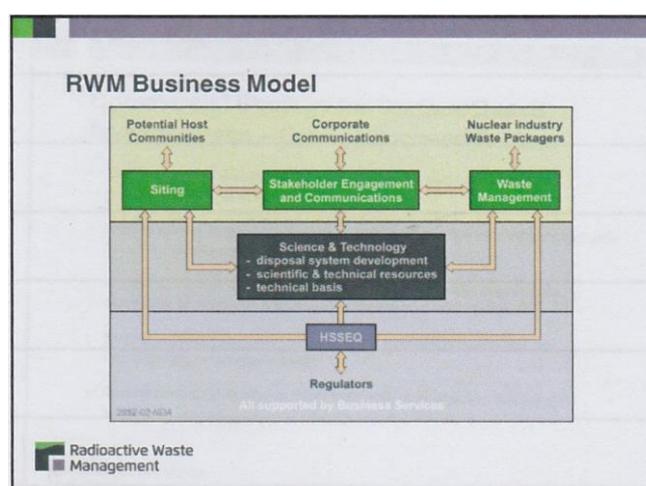


Figure 1 Proposed RWM Business Model (as of November 2015)

2.83 The background to the current situation with RWM is that, from 2011, the organisational structure reflected the need to undertake Stage 4 of the 2008 White Paper 'Siting Process', essentially desk based studies, and prepare for Stage 5, surface-based investigations. There was also a need to continue development as a prospective nuclear site licensee and maintain flexibility and efficiency, particularly the retention of core competencies.

2.84 In 2013, RWM, after reflection on the operation of the '2008 Siting Process' and further analysis of its own purpose and needs, and in preparation for SLC formation, introduced a Waste Management Director, a Stakeholder Engagement and Communications Director and a GDF Siting Director. Also a Chief Geologist was appointed along with increased geological capability.

2.85 During 2014, RWM's organisational structure was reviewed further after consideration of RWM's role as set out in the 2014 White Paper and its expanded role in higher activity waste management. There were also options to address this increased scope in terms of head count versus budget.

2.86 In February 2015, the RWM Board approved an increase in head count from 100 to 123. This encompassed a flexible implementation plan, including the immediate appointment of interim staff pending outcome of the Spending Review, and a further review of the Stakeholder Engagement and Communications function.

2.87 RWM has a programme for further organisational development and this has been shared with CoRWM. (*outline shown below in Figure 2*) It is noted that, according to this programme, a new organisation was to be in place by April 2016. This was to be after completion of the Spending Review and an internal review of resources, including staff, supply chain and the appointment of a strategic communications partner.

2.88 This organisational development was to have been an integral part of a Siting Process Implementation Plan, incorporating planning assumptions, CRWG discussions and developer views, and formulated on the outcome of a formal business planning process.

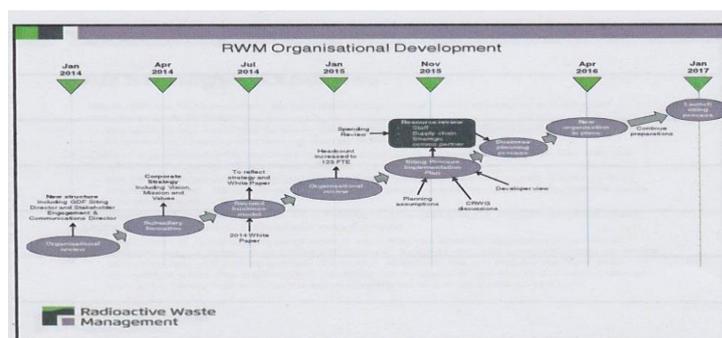


Figure 2 RWM Organisational Development Plan (as of November 2015)

2.89 CoRWM expects to commit significant resources to evaluating RWM's organisational development in its 2016-17 Work Plan. The Committee intends to continue to scrutinise RWM's organisational development plans and is particularly keen to understand the progress that has been made towards meeting the regulatory requirement to become a nuclear site licensee and, in particular, the outcomes from

any regulatory reviews that have occurred. Additionally, CoRWM would seek evidence that RWM has plans in place to show a clear route to becoming a GDF delivery organisation and is capable of holding a nuclear site licence and environmental permits.

2.90 CoRWM remains concerned about the focus and pace of the RWM transition programme that is necessary to enable RWM to become a GDF delivery organisation and hence makes the following recommendation:

Recommendation 2: DECC should initiate an independent external review of the RWM Business Model to assess its fitness for purpose in relation to the need for the UK to have an effective GDF delivery organisation.

CoRWM Outreach Activities

Member Activities

2.91 The Chair is a member of the Nuclear Innovation and Research Advisory Board (NIRAB). He attended a number of meetings of NIRAB during 2015-16 and contributed to the NIRAB Annual Report.

2.92 Simon Harley and Rebecca Lunn attended a Germany-UK joint meeting on developments in GDF siting programmes at the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) in Bonn, Germany on 27th & 28th April 2015. Simon presented on the role of CoRWM and key issues in GDF Siting in the UK context.

2.93 The Chair and Brian Clark attended the Advisory Bodies to Government (ABG) meeting in Berlin on 4th-5th May 2015.

2.94 John Rennilson attended the Scottish Nuclear Sites Group meeting on 14th May 2015, representing the views of CoRWM

2.95 Helen Peters represented CoRWM's interest at the NEA RWMC-Regulators' Forum Workshop in Helsinki, Finland on 9th-10th September 2015. There were a number of presentations and workshops related to gaining an understanding of the approach to GDF licensing overseas. A number of points were very relevant to the UK (CoRWM doc 3284).

2.96 Brian Clark gave a presentation on the "The Disposal of Nuclear Waste: Sixty Years Searching for a Solution!" at the meeting of The Cumbria Society, a group representing the major landowners in Cumbria.

2.97 Helen Peters and Gregg Butler attended the NDA National Stakeholder Event in Manchester on 13th-14th January 2016. Gregg and Helen addressed CoRWM related questions at the event.

2.98 John Rennilson presented on CoRWM's Work Programme and current activities, at the NuLeAF Steering Group meeting held 28th January 2016.

2.99 The Chair gave a talk on nuclear energy and radioactive waste management to a meeting of the University of the Third Age in Kent on 4th February 2016.

Visits

2.100 The need to prioritise resources on scrutiny of the work of RWM and DECC meant that the Committee was unable to make any official visits to UK nuclear sites in the year 2015-16. The Committee recognises the importance of visiting nuclear sites to meet those responsible for both the generation and interim storage of the higher activity radioactive wastes. It is also important for the Committee to be able to see the facilities that treat and store radioactive waste. As such the Committee plans to make available time and resources to undertake a number of visits to sites in England and Scotland in 2016-17.

2.101 On 12 February 2016 some Members of the Committee visited the French Underground Laboratory located at Bure. A brief summary of the visit is available in Annex E and the full report of the visit is CoRWM doc 3267.

Quarterly Reports

2.102 The Committee recently re-activated its quarterly reports and has produced 3 reports from Quarters 1 to Quarter 3 (CoRWM docs 3253, 3254 and 3255). The reports show the progress of the Committee against CoRWM Work Programme 2015-18 (CoRWM doc. 3198) and highlight achievements for each quarter.

e-bulletin and Website

2.103 CoRWM restarted its eBulletin with the first one sent out to all 6,800 email subscribers in February 2016. This bulletin was a reflective account of CoRWM's work in 2015, summarising key developments against the main work streams.

2.104 The website has been updated regularly with publications including;

- open meeting minutes from plenary meetings;
- the outstanding Quarterly Reports for the first three Quarters of 2015-16;
- the first eBulletin;
- CoRWM's views on draft Welsh government policy for GDF siting; and
- a report on the Committee's visit to the French Underground Rock Laboratory (URL) at Bure, France.

2.105 CoRWM's presence on Twitter has also increased, with over 200 followers.

3 Forward Look

3.1 CoRWM considers that 2016-17 will be a crucial year in the successful delivery of the Government's geological disposal policy especially in relation to preparing the way for going out to communities. The success of the programme will be dependent on the outcomes of work being carried out during this year. CoRWM's planned activities for 2016-17 as set out in its draft Work Programme for 2016-19 (CoRWM doc 3275) prioritise scrutiny in this area.

GDF Siting Policy

3.2 As noted above, CoRWM considers that 2016-17 will be a crucial period in the Government's programme to deliver its geological disposal policy as it concludes the work packages identified in the 2014 White Paper. CoRWM has therefore allocated some 225 days to scrutinise and provide advice on the work packages associated with the delivery of the GDF siting Policy and as such it constitutes 60% of CoRWM's available time.

National Geological Screening

3.3 The key RWM deliverables in the coming year will be geological maps and associated narratives for England and Wales. CoRWM plans to monitor this work closely.

Working with Communities

3.4 CoRWM understands that, following the work of CRWG, DECC is now drafting a strategic policy document for submission to the Minister on community representation, test of support and community investment. It is expected that, subject to Ministerial agreement, there will be a public consultation on this policy to which CoRWM will formally respond.

National Land Use Planning

3.5 The production of the NPS for the geological disposal of radioactive waste will be a major event in the coming year. CoRWM intends to scrutinise DECC's activities in this area and provide any necessary advice.

Developer Led Communications and Engagement

3.6 The development and implementation of communication and engagement strategy being developed by RWM with the support of MHP, could be a major factor in the success of community engagement. CoRWM intends to monitor closely developments in this area in the coming year.

GDF Regulatory Framework

3.7 Progress is being made in this area but DECC expect to define just what will be prescribed for licensing and possibly how delicensing will be dealt with. CoRWM will continue to engage with DECC and the Regulators in the coming year and provide advice on the adequacy and robustness of the GDF regulatory framework. CoRWM intends to scrutinise the draft statutory instrument to prescribe a GDF as a nuclear installation under the Nuclear Installations Act 1965.

Welsh Government Activities

3.8 The Welsh Government is actively engaged in the UK Government's activities to deliver geological disposal. CoRWM will continue to scrutinise the outcomes of the five IGD workstreams, especially those related to "working with communities" and "geological screening" and will advise the Welsh Government accordingly.

Scottish Government Activities

3.9 CoRWM's activities in Scotland are expected to increase in 2016-17 with the implementation of the Scottish Government's radioactive waste strategy and the increasing focus of RWM on the design and safety case necessary for near surface disposal in Scotland. CoRWM will monitor developments and provide the Scottish Government with any necessary advice that is requested.

Interim Storage, Radioactive Waste, Spent Fuel and Nuclear Materials

3.10 CoRWM expects a number of developments to take place in 2016-17 and will provide reactive scrutiny in this area.

3.11 There are several areas in which progress might be expected and therefore scrutiny would become appropriate, these include, inter alia:

- NDA's response to the increased in operational life of four AGR reactors and the consequent increase in spent fuel to be stored;
- the conclusions reached by the Integrated Project Team on uranic materials with NDA's plans for its long term storage, use or disposal;
- developments in DECC's response to NDA recommendations on the long term storage, use and/or disposal of the UK's plutonium inventory; and
- change to NDA's Radioactive Waste Management Strategy as published in their 2016 Strategy.

GDF Safety Case Development

3.12 In 2016-17 RWM will continue to develop its generic disposal system safety case, produce safety case related information relating to the three rock types, and continue to carry out its disposability assessment, or "letter of compliance" (LoC) role. CoRWM intends to continue the dialogue with RWM on the production of illustrative designs and associated safety characteristics for each of the rock types. CoRWM also intends to discuss with RWM the use of the gDSSC in relation to the LoC process and the identification of research needs to support geological disposal.

3.13 CoRWM intends to evaluate the applicability of the LoC process to the near surface disposal of Scottish waste.

RWM Transition

3.14 RWM's business model, organisation and resourcing are vital to the successful delivery of the UK's and Welsh Government's policy for the geological disposal of radioactive waste; and to the Scottish Government's near surface near site policy for radioactive waste management in Scotland. CoRWM believes this is an important priority area and intends to devote some 25 days of effort scrutinising RWM's plans to become an effective GDF delivery organisation. This will involve several meetings with key RWM staff and examination of the extensive documentation associated with the evolving organisational design requirements.

3.15 The first area to be examined will be the progress with RWM's latest organisational changes which have been implemented over the last year and which have been discussed with the Regulators. At this time, these changes are designed, primarily, to cater for RWM's need to complete the geological screening exercise and undertake site characterisation activities. It is proposed that CoRWM will form an initial view on the efficacy of these changes by November 2016 and also provide further advice on how the organisation should adapt to meet the requirements for

major project delivery over several decades.

4 Conclusions and Recommendations

4.1 In 2015-16 CoRWM scrutinised the work of RWM, DECC and the Welsh and Scottish Governments in the area of radioactive waste management and also provided both formal and informal advice. In most areas good progress is being made but there are areas where improvement is required.

4.2 Although there has been dialogue with RWM about GDF safety case development, CoRWM remains concerned that RWM does not appreciate the value of producing illustrative designs and descriptions of the associated safety characteristics for all three geological settings on an equal basis and hence makes the following recommendation which builds upon Recommendation 2 in its 2014-15 Annual Report:

Recommendation 1: RWM should produce illustrative designs for each of the three rock types with descriptions of the associated safety characteristics

4.3 CoRWM remains concerned about the focus and pace of the RWM transition to a GDF delivery organisation and hence makes the following recommendation:

Recommendation 2: DECC should initiate an independent external review of the RWM Business Model to assess its fitness for purpose in relation to the need for the UK to have an effective GDF delivery organisation.

4.4 CoRWM believes that access to archived documents is vitally important for the success of the implementing geological disposal policy and makes the following recommendation:

Recommendation 3: DECC should consider how to facilitate public access to CoRWM's and RWM's archive documents.

References

- CoRWM doc 3198 (2015) CoRWM Work Programme 2015-18
- CoRWM doc 3220 (2015) CoRWM Response to Scottish Government Consultation on Implementation Strategy on HAW
- CoRWM doc 3229 (2015) Minutes of Plenary Meeting, Cardiff
- CoRWM doc 3231 (2015) Minutes of Plenary Meeting, Edinburgh
- CoRWM doc 3235 (2015) CoRWM Response to Welsh Government Consultation Document: Geological Disposal of Higher Activity Radioactive Waste: Community Engagement and Implementation Processes
- CoRWM doc 3238 (2015) CoRWM Response to the National Geological Screening Guidance Consultation
- CoRWM doc 3241 (2016) Minutes of Open Plenary Meeting, October 2016
- CoRWM doc 3253 (2016) 2015-16 Quarterly One Report
- CoRWM doc 3254 (2016) 2015-16 Quarterly Two Report
- CoRWM doc 3255 (2016) 2015-16 Quarterly Three Report
- CoRWM doc 3260 (2016) CoRWM's Views on Draft Welsh Government Policy for GDF Siting Arrangements and Community Engagement (Open Version)
- CoRWM doc 3264 (2016) CoRWM Response to the NDA Draft Strategy Consultation
- CoRWM doc 3267 (2016) CoRWM Report on Visit to French Underground Rock Laboratory Bure, France
- CoRWM doc 3270 (2016) CoRWM Response to Welsh Affairs Committee Inquiry on the Future of Nuclear Power in Wales
- CoRWM doc 3274 (2016) Minutes of Plenary March 2016
- CoRWM doc 3275 (2016) CoRWM Work Programme 2016-19
- CoRWM doc 3281 (2016) Minutes of Plenary Meeting April 2016
- CoRWM doc 3284 (2016) Notes on RWCM Workshop, Helsinki

Annex A: CoRWM Expenditure 2015-16

Table 1 shows CoRWM's budget out-turn for the year, broken down by main spending areas. The budget was set at £293k pending the outcome of CoRWM's triennial review. Budget was reviewed at mid-year and reduced to 270K. As a result of the Ministerial decision to hold an open competition for all CoRWM Members in 2016, it was agreed to allow an overspend of £8.7k for the recruitment campaign.

Budget Items	Budget (£k)	Out-turn (£k)
Members' Fees ¹	193.90	192.37
Members' Expenses ²	37.30	35.00
Meetings and Visits ³	41.80	32.88
Website	0.00	0.00
Total	273.00	260.25

Table 1 CoRWM's Budget Out-Turn 2015/16

¹ Members' fees include Employer National Insurance Contributions.

² Members' expenses include transport costs and incidental expenses when travelling to meetings, visits or other venues.

³ Meetings and visits include venue and members' accommodation costs for Plenary Meeting, visits and other meetings.

CoRWM is not required to report the fees that individual members received, but it publishes this information in the interests of transparency. These are shown in Table 2.

The standard fees are those paid at the rates specified in Members terms of appointment. These state that the Chair can claim £450 a day for up to 78 days per year, the Deputy Chair can claim £380 for up to 52 days per year and Members can each claim £300 a day for up to 52 day in a year.

Name	Standard Fees (£k)
Laurence Williams (Chair)	26.60
Helen Peters	10.50
Paul Davis	15.60
Brian Clark	15.50
Simon Harley	14.70
Francis Livens	16.50
Stephen Newson	7.20
John Rennilson	12.10
Lynda Warren	15.60
Gregg Butler	10.70
Janet Wilson	8.90
Rebecca Lunn	4.70
Total	158.60

Table 2 Fees Paid to CoRWM Members

Annex B CoRWM Membership

Professor Laurence Williams FEng - Chair



Laurence is an Emeritus Professor of Nuclear Safety and Regulation. He is a Senior Research Fellow at Imperial College London; Visiting Senior Fellow at the National Nuclear Laboratory; Chair of the Defence Nuclear Safety Committee; Chair of the High Level Panel to Review the 2007-13 Euratom FP7 Nuclear Fission and Fusion Research programme; Member of the Nuclear Innovation and Research Board; UK Member of the High Scientific Council of the European Nuclear Society; Chair of the Nuclear Institute's Editorial Committee for Nuclear Future; Member of the European Bank for Reconstruction and Development's International Advisory Group on Chernobyl. Laurence has been a Visiting Professor at Kings College London. Prior to entering academia Laurence was the Chief Engineer and Director for Nuclear Safety, Security and Environment at the Nuclear Decommissioning Authority; Her Majesty's Chief Inspector of Nuclear Installations; Director for Nuclear Safety and a member of the Board of the Health and Safety Executive; Chairman of the IAEA Commission on Safety Standards, where he was responsible for overseeing the development of international standards in the areas of nuclear safety, radiation protection, radioactive waste management and the transport of nuclear materials. Laurence is an international authority on nuclear safety and security regulation. He is a Fellow of the Royal Academy of Engineering, a Fellow of the Institution of Mechanical Engineering and a Fellow of the Nuclear Institute.

Current term of office ends: **31 October 2016**

Professor Francis Livens – Deputy Chair



Francis is the Director of the Dalton Institute at the University of Manchester. He has held a radiochemistry position at the University of Manchester since 1991. He worked for over 25 years in environmental radioactivity and actinide chemistry,

starting his career with the Natural Environment Research Council, where he was involved in the response to the Chernobyl accident. At the University of Manchester, he has worked in many aspects of nuclear fuel cycle research, including effluent treatment, waste immobilisation and actinide chemistry. He was the founding director of the Centre for Radiochemistry Research, established in Manchester in 1999 and is now Director of the University's Dalton Nuclear Institute and Director of the EPSRC-funded, Next Generation Nuclear Doctoral Training Centre. He has acted as an advisor to the nuclear industry both in the UK and overseas.

Current term of office ends: **31 May 2016**

Professor Gregg Butler



Gregg is Co-Director of Integrated Decision Management Ltd, Head of Strategic Assessment for the Dalton Nuclear Institute at the University of Manchester. He has a BSc and PhD in metallurgy from Swansea University, and over 50 years' experience in the nuclear industry, having worked in most parts of the fuel cycle, in R&D, planning, commercial, plant operations, plant and site management and director roles. He was a member of the Radioactive Waste management Advisory Committee from 1994 to 2004. Current research interests include Generic Feasibility Assessment of nuclear systems, plutonium use, the sustainability of nuclear power and its regulation, and effectiveness of decision making methodologies in bringing robust conclusions to be reached taking account of economics, regulatory outcomes, and stakeholder views and values.

Current term of office ends: **25 November 2016**

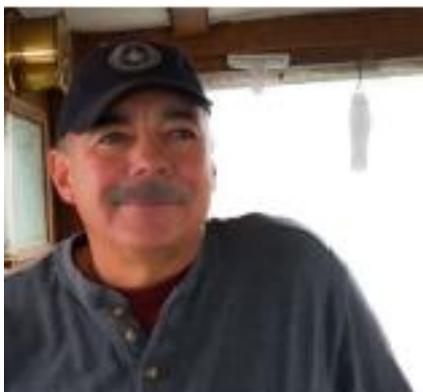
Professor Brian D Clark



Brian is Professor of Environmental Management and Planning at Aberdeen University. He was a Board Member of the Scottish Environment Protection Agency (SEPA) and Chairman of the North Region Board and the Planning & Finance Committee of SEPA from 2000 to 2008. He has served on CoRWM since 2003. With forty years' experience, he is a specialist in environmental impact assessment (EIA), strategic environmental assessment (SEA), urban and rural planning and public and stakeholder engagement (PSE). He was honoured in 1987 by being made a founder member of UNEP's Global 500 Award. He is a governor of the James Hutton Institute, a member of the Scottish Government Local Boundary Commission from 2007-2013 and a founder member of the Institute of Environmental Assessment (IEA), now the Institute of Environmental Management and Assessment (IEMA).

Current term of office ends: **31 May 2016**

Paul Davis



Paul Davis is the owner of EnviroLogic Inc., an environmental and water resources consulting company in Durango, Colorado, USA. He has over 30 years of experience in the geologic disposal of radioactive waste, starting with site characterization of the Waste Isolation Pilot Project (WIPP) for the United States Geological Survey. At Sandia National Laboratories, he participated in and led the development of performance assessment methodologies for geologic repositories in bedded salt, basalt, and volcanic tuff for the US Nuclear Regulatory Commission, specializing in

groundwater flow and transport modelling and the quantification and propagation of uncertainty. He also provided technical support for the development of safety standards for high-level waste disposal for the U.S. Environmental Protection Agency and led the WIPP team responsible for the integration of site characterization, research, performance assessment and regulatory compliance. He is currently collaborating with Los Alamos National Laboratories in the quantification of uncertainty in stable isotope analyses and with Moscow State University, Russia in the development of regional groundwater flow models.

Current term of office ends: **25 November 2016**

Professor Simon Harley



Simon is Professor of Lower Crustal Processes in the School of Geosciences at the University of Edinburgh. An international expert on the evolution of continental crust, his research integrates geological mapping with experimental and microanalytical studies of the stabilities of minerals and their behaviour at high temperatures and pressures. He has conducted geological mapping projects in diverse and complex basement areas in Australia, India, Norway, Greenland, Scotland and Antarctica. Professor Harley is a Fellow of the Royal Society of Edinburgh. In 2002 was awarded the Imperial Polar Medal in recognition of his contributions to Antarctic Earth Science, and in 2014 the Schlumberger Medal of the Mineralogical Society in recognition of his contributions to mineralogy and petrology related to the deep continental crust.

Current term of office ends: **31 May 2016**

Stephen Newson



Stephen is a Chartered Engineer and Fellow of the Institute of Materials, Minerals and Mining and is currently working as a Mining Consultant on a range of underground projects in the UK and overseas. He has over 40 years of mining experience including operational management, research and development, business planning and the design and construction of large underground excavations. He spent 16 years with British Coal, latterly responsible for the specification and approval of underground tunnel and coalface support systems on a national basis. During this time his was also a UK representative on the European Experts' Committee on tunnelling systems. He has worked for a number of major companies on new mine construction and expansion projects in Australia, Asia, North America and Africa. He has also, as a consultant, previously worked on underground design and planning projects related to the potential disposal of radioactive waste underground.

Current term of office ends: **25 November 2016**

Helen Peters



Helen is a Legal Director at Pinsent Masons LLP. She is a solicitor specialising in all aspects of UK, EU and international environmental law and policy with significant experience in nuclear regulation and waste management. Helen is recognised as a leading UK environmental lawyer by Chambers Legal Directory and Legal 500. She is a member of the WNA Licensing and Permitting Task Force. She is also an active member of the UK Environmental Law Association. Helen has been engaged in many of the leading nuclear transactions in the UK in recent years and advises owners, operators, contractors and public bodies on environmental and nuclear regulatory matters.

Current term of office ends: **25 November 2016**

John Rennilson



John is a Chartered Town Planner and a Chartered Surveyor with over 37 years' experience in local government. He served as County Planning Officer of North Yorkshire County Council (1984-1996) and as Director of Planning & Development for Highland Council (1996-2008). His career has involved balancing development needs and environmental issues. Public involvement has been at the heart of all development considerations from the local to the strategic level. He has had considerable experience of the energy industry, including development of the Selby Coalfield, coal-fired electricity generation at Drax and Eggborough, and decommissioning Dounreay, as well as renewable electricity generation and transmission issues across the Highlands.

Current term of office ends: **31 May 2016**

Professor Lynda Warren



Lynda is Emeritus Professor of Environmental Law at Aberystwyth University and Honorary Professor at Bangor University. She was a member of the Board of Natural Resources Wales and Defra's Science Advisory Council. She was a member of the Royal Commission on Environmental Pollution until its closure in March 2011. She has postgraduate degrees in marine biology and law and has pursued an academic

career first in biology and latterly in environmental law. She has over 100 academic publications, including a number on radioactive waste management law and policy. Lynda has over 15 years' experience of radioactive waste management policy. She has been a member of CoRWM since 2003 and, before that, was a member of the Radioactive Waste Management Advisory Committee (RWMAC), chairing its working group on Dounreay. She was on the Board of British Geological Survey until the Board was disbanded in April 2011 and is an associate of IDM, a consultancy engaged in environmental policy advisory work, mainly in the nuclear sector.

Current term of office ends: **25 November 2016**

Dr Janet Wilson



Janet is a Chartered Engineer, a Fellow of the Institution of Mechanical Engineers, a Liveryman of the Worshipful Company of Engineers and has a PhD associated with nuclear reactor safety.

She has had a long and varied career in the nuclear industry starting with reactor design, safety case and commissioning in the early '80s before spending 17 years in various senior regulatory roles for ONR both in the UK and internationally across all sectors both civil and defence. Janet was part of the team that established the Nuclear Decommissioning Authority which she joined in 2005 to develop their first Strategy. Janet became the NDA's Director of Nuclear Assurance and was a non-Executive Director of the Civil Nuclear Police Authority.

In 2011 Janet moved to the private sector as an expert Consultant in a variety of roles including working in South Africa driving forward the licensing of their ambitious new build programme. In 2012 she was appointed to the Government's Committee on Radioactive Waste Management. She joined Horizon Nuclear Power in October 2013 as Director of Licensing and Permissions

Current term of office ends: **25 November 2016**

Annex C CoRWM's Terms of Reference

Purpose

1. The purpose of the Committee on Radioactive Waste Management (CoRWM) is to provide independent advice, based on informed scrutiny of the available evidence, to UK Government and Devolved Administration Ministers (hereafter called 'sponsor Ministers') on the long-term management of radioactive waste, arising from civil and where relevant defence nuclear programmes, including storage and disposal.

2. CoRWM will provide strategic oversight of radioactive waste management in the UK, in such a way that does not duplicate the role already fulfilled by the statutory independent safety, security and environmental regulators.

Objectives

3. The primary objectives of CoRWM are to:

a) provide independent evidence based advice to sponsor Ministers on the Government's and Nuclear Decommissioning Authority's (NDA) and Radioactive Waste Management Ltd's (RWM) proposals, plans and programmes to deliver geological disposal (excluding Scotland), together with robust interim storage, for the UK's higher activity wastes as set out in the work programme agreed annually between CoRWM and sponsor Ministers; and

b) provide independent, evidence based advice on other radioactive waste management issues as requested by sponsor Ministers, including advice requested by Scottish Government in relation to its policy for higher activity radioactive waste.

In fulfilling its remit to provide independent and evidence based advice, CoRWM is expected to maintain an independent overview of issues relevant to the delivery of government's radioactive waste management programmes. It should bring to the attention of sponsor Ministers issues that it considers to be either: a) positive and worthy of note or b) concerns that, in the Committee's opinion need to be addressed.

Responsibilities

4. CoRWM will have a collective responsibility for:

- recognising the policy framework within which it will operate, including the roles and responsibilities of Government, the NDA, RWM and the various statutory independent regulators in relation to CoRWM's own advisory role;
- delivering its evidence-based advice to sponsor Ministers in accordance with agreed work programmes. It will be for sponsor Ministers, with appropriate reference to their respective Parliaments and Assemblies, to take decisions on the evidence based advice they receive and to give directions to the NDA/RWM

as necessary on any subsequent changes that they deem to be required in the delivery of radioactive waste management programmes;

- delivering the work programme within the agreed budget, although the Chair may request sponsor Ministers for an adjustment to this budget should this be considered necessary; and
- submitting an annual written report to sponsor Ministers, by 30 June of each year. The report will include CoRWM's progress with the agreed work programme, advice deriving from it and costs incurred. It will be made available in the libraries of the UK and Scottish Parliaments, the National Assembly for Wales and the Northern Ireland Assembly.

5. The Chair, supported by one or more CoRWM members when appropriate, will generally meet every two months with sponsor officials to report progress on the work programme and to discuss advice being provided at official level.

6. The Chair will meet sponsor Ministers on appointment, and then at least annually along with other members as appropriate. The Chair may also be required to present the position of CoRWM to Parliamentary or Assembly committees and representatives as appropriate.

Deliverables

7. CoRWM's deliverables will be set out each year in a proposed three-year rolling work programme.

8. The work programme will be submitted to sponsor Ministers by 31 March each year for discussion and agreement. Any in-year changes will be the subject of agreement by CoRWM and sponsor Ministers.

9. The work programme will include details of specific areas of work, reports which the Committee intends to produce, the proposed role of sub-groups and any other activities or events, including proposals for stakeholder engagement.

10. In delivering its annual work programme, and where there is a common interest, the Committee should liaise as appropriate with regulators and any other relevant bodies that advise Government and the regulators.

11 With the agreement of CoRWM's sponsor Ministers, other parts of Government, the NDA/RWM and the regulators may request independent advice from CoRWM. Relevant Parliamentary / Assembly Committees may also propose work to sponsoring Ministers, for consideration in the work programme. Any additional work would need to be funded by the requesting party.

Membership

12. The Committee is jointly appointed by sponsor Ministers and appointments will be made following the Code of Practice for Ministerial Appointments to Public Office published by the Commissioner for Public Appointments.

13. Appointments will usually be for four years and sponsor Ministers retain the right to terminate appointments at any time in light of individual members' performance, changes in CoRWM's work requirements, or completion of the work required of CoRWM.

14. CoRWM shall consist of a Chair and up to eleven members, one of whom will be appointed by sponsor Ministers as Deputy Chair on the recommendation of the Chair. Members will not be mandated representatives of organisational or sectoral interests.

15. The skills and expertise which will need to be available to the Committee will vary depending on the programme of work. Sponsor Ministers may review the membership of the Committee, and the skills and expertise required.

16. CoRWM is set up by, and answerable to sponsor Ministers and is funded by the taxpayer. It must therefore comply with the Cabinet Office guide for Departments <https://www.gov.uk/government/publications/public-bodies-information-and-guidance>

17. These and other relevant procedural requirements will be set out in CoRWM's Code of Practice which members will agree to, prior to appointment.

Sub-groups

18. Members of CoRWM itself may not have all the skills and expertise necessary to advise Government. The Committee will need to decide how best to secure access to other appropriate sources of expert input during the course of its work. It will have the option of setting up expert sub-groups containing both CoRWM members and other appropriate co-opted persons. The engagement of consultants will be dependent on sufficient funds being available to CoRWM and the necessary business cases being approved by sponsors as appropriate and, if required, Cabinet Office.

19. A member of CoRWM will chair any sub-group of this nature and ensure its effective operation, as well as provide a clear line of responsibility and accountability to the main Committee. It will be for the main Committee to assess and decide upon the advice it receives from such sub-groups. CoRWM may also utilise other appropriate means of securing expert input, such as sponsored meetings and seminars. The Chair will ensure that sub-group work and all other activities are closely integrated.

Engagement and transparency

20. CoRWM shall undertake its work in an open and consultative manner in order to secure the confidence of stakeholders in the advice it provides. It will engage with

stakeholders and it will publish advice (and the underpinning evidence) in a way that is meaningful to the non-expert. It will comply, as will sponsoring departments, with *'The Government Chief Scientific Advisor's guidelines on the Use of Scientific and Engineering Advice in Policy Making²³'*, as well as other relevant Government advice and guidelines. Government will respond to all substantive advice. Published advice and reports will be made available in respective Parliaments and Assemblies, as will any Government response.

21. To secure stakeholder confidence in its activities and advice, CoRWM's work will be characterised by:

- a published reporting and transparency policy;
- relevant stakeholder engagement as required;
- clear communications including the use of plain language, publishing its advice (and the underpinning evidence) in a way that is meaningful to the non-expert;
- making information accessible through its website;
- encouraging people to ask questions or make their views known and considering their concerns;
- providing opportunities for people to challenge information, for example by making clear the sources of information and points of view on which the Committee's advice is based.

Review

22. CoRWM will be subject to Triennial Review in accordance with Cabinet Office requirements and under a timetable agreed between DECC and the Cabinet Office.

Annex D Meetings held during 2015-16

Date	Meeting	Attendance Capacity
01 April 2015	Geological Programme Board (GDPB) Meeting	Observer
15 April 2015	Meeting with RWM on Communications and Engagement Plan	Participant
16 April 2015	CoRWM & GDF Team - CRWG	Observer
24 April 2015	CoRWM Welsh Sub Group meeting	Participant
27/28 April 2015	German Nuclear Commission, Bonn, Germany	Participant
29 April 2015	Members Closed Meeting (Updates on RWM, Triennial Review)	Participant
29 April 2015	Meeting with EDF	Participant
30 April 2015	11th GDF User Group Meeting	Participant
05 May 2015	Geological Disposal Programme Board (GDPB) Meeting	Observer
4/5 May 2015	ABG Meeting, Berlin	Participant
13 May 2015	CoRWM Sponsors Meeting	Participant
14 May 2015	Scottish Nuclear Sites Group Meeting	Participant
26 May 2015	CoRWM - Annual Report	Participant
27 May 2015	Closed Meeting - Annual Report	Participant
26/27 May 2015	TAP Meeting	Observer
11 June 2015	CoRWM & GDF Team - CRWG	Observer
02 July 2015	Geological Disposal Programme Board (GDPB) Meeting	Observer
23 June 2015	IRP (Independent review panel Meeting)	Observer
23 June 2015	Closed Meeting - to approve Annual Report	Participant
24 June 2015	Plenary Meeting - Open (To approve annual Report)	Participant
07 July 2015	CoRWM & GDF Team - CRWG	Observer
08 July 2015	CoRWM Sponsors Meeting	Participant
21 July 2015	CoRWM Chair & RWM MD	Participant
23 July 2015	CoRWM & GDF Team - CRWG	Observer
04 August 2015	CoRWM Welsh Sub Group meeting	Participant
04 August 2015	CoRWM 2nd Triennial Review Meeting	Participant
24 August 2015	CoRWM Sponsors Meeting	Participant
8/9 September 2015	NEA RWMC Regulators' Forum Workshop	Participant
10 September 2015	Geological Disposal Programme Board (GDPB) Meeting	Observer
14 September 2015	HAW IS Project Board meeting	Participant

Date	Meeting	Attendance Capacity
15 September 2015	Request for advice in developing HAW research in Scotland	Participant
15 September 2015	Closed Meeting	Participant
16 September 2015	Plenary Meeting - Open	Participant
17 September 2015	CoRWM Chair & RWM MD	Participant
17 September 2015	PAR Review (GDF Programme)	Participant
24 September 2015	CoRWM & GDF Team - CRWG	Observer
24 September 2015	CoRWM Sponsors Meeting	Participant
05 October 2015	DECC & CoRWM on IRP	Participant
6/7 October 2015	TAP Meeting	Observer
15 October 2015	Meeting with Welsh government	Participant
21 October 2015	Closed Meeting	Participant
22 October 2015	Plenary Meeting	Participant
5 November 2015	Scottish Nuclear Sites Group Meeting	Participant
17 November 2015	Safety Case Meeting	Participant
18 November 2015	RWM & CoRWM meeting	Participant
04 December 2015	Geological Disposal Programme Board (GDPB) Meeting	Observer
08 December 2015	Closed Meeting (Advice on Safety Case)	Participant
09 December 2015	Closed Meeting (Finalise work plan to go to stakeholders)	Participant
10 December 2015	CoRWM Sponsors Meeting	Participant
13th January 2016	Communications/Stakeholder Event	Observer
13/14 January 2016	NDA Stakeholder Event	Participant
19 January 2016	Geological Disposal Programme Board (GDPB) Meeting	Observer
29 January 2016	Meeting with EA's Director	Participant
03 February 2016	Closed Meeting - to agree Work Plan	Participant
04 February 2016	CoRWM Chair & RWM MD	Participant
04 February 2016	CRWG Meeting	Observer
08 February 2016	Meeting with CEO ONR	Participant
10/11 February 2016	TAP Meeting	Observer
11 February 2016	Meeting with Minister - Andrea Leadsom	Participant
11/12 February 2016	Visit to Bure, France	Participant
17 February 2016	CoRWM & EA Meeting	Participant

Date	Meeting	Attendance Capacity
17 February 2016	CoRWM Sponsors Meeting	Participant
18 February 2016	3 way meeting with RWM/DECC	Participant
25 February 2016	NPS meeting with DECC	Participant
25 February 2016	CoRWM Welsh Sub Group meeting	Participant
01 March 2016	Geological Disposal Programme Board (GDPB) Meeting	Observer
09 March 2016	CRWG Meeting	Observer
16 March 2016	Closed Meeting	Participant
17 March 2016	Plenary Meeting	Participant

Annex E Visits to Nuclear Sites during 2015-16

International Visit to Bure, France

In February 2016, 5 members of CoRWM undertook a day visit to the French Underground Laboratory in Bure, France. This was a follow up to the Committees visit in April 2012.

On arrival, a presentation was given to the Committee covering the history of the development of the site, and the future plans for delivery of a Geological Disposal Facility (GDF)

The group got a tour of the technology centre, which inhabits exhibition story boards that shows progress made between 2005-2015, prototypes for waste packages and robotic machineries. Each of the seven different steel fibre-reinforced cementitious waste packages to be used at ANDRA for the LL-ILW was also on display.

There was also a tour of the Underground Rock Laboratory (URL), where members were able to see ongoing experiments into the natural behaviours of excavated cells designed for HLW packages, which is designed with and without stainless steel liner. Members also visited one of the biggest chambers to be built on the site, which was under construction and will be used as an assembly chamber for machinery.

Finally CoRWM members were shown the visitor's centre which has engaging exhibitions for school groups, and other visitors, about the surrounding landscape and the discovery of numerous fossils at the site.

Detailed report on the visit is given in CoRWM doc. 3267 and also published on the [CoRWM Website](#)

Annex F List of Acronyms

AGR	Advanced gas cooled reactor (A type of reactor with a graphite core, and Uranium oxide fuel in steel cladding with a graphite sleeve)
BGS	British Geological Survey
CoRWM	Committee on Radioactive Waste Management
CRWG	Community Representation Working Group
DECC	Department of Energy and Climate Change
EA	Environment Agency (England's Environmental Regulator)
GDF	Geological disposal facility
GDPB	Geological Disposal Programme Board
gDSSC	generic Disposal System Safety Case
HAW	Higher Activity Waste
HAWIS	HAW Implementation Strategy
IAEA	International Atomic Energy Agency (a United Nations agency)
IGD	Implementing Geological Disposal
ILW	Intermediate level waste
IOG	Independent Oversight Group
IRP	Independent Review Panel
LoC	Letter of Compliance (previously Letter of Comfort)
LWR	Light Water Reactor
MOD	Ministry of Defence
MRWS	Managing Radioactive Waste Safely (the UK programme for the management of higher activity wastes), now referred to as the GDF Programme
NDA	Nuclear Decommissioning Authority
NEA	Nuclear Energy Agency (part of the Organisation for Economic Cooperation and Development)
NERC	Natural Environment Research Council
NFLA	Nuclear Free Local Authorities
NGO	Non-Governmental Organisation
NGS	National Geological Screening
NIRAB	Nuclear Innovation and Research Advisory Board
NRW	Natural Resources Wales (Welsh Environmental Regulator)
NSIP	Nationally Significant Infrastructure Project
NuLeAF	Nuclear Legacy Advisory Forum
NWDRF	Nuclear Waste and Decommissioning Research Forum (a group convened by NDA)
NWF	Nuclear Waste Fund (in Sweden)
OECD	Organisation for Economic Co-operation and Development
ONR	Office for Nuclear Regulation (the regulator of safety, security and safeguards at nuclear facilities and transport of radioactive materials)
PSE	Public and stakeholder engagement
RATE	Radioactivity and the Environment (a NERC research programme)

R&D	Research and development
RWMD	Radioactive Waste Management Directorate (of NDA), from 1 April 2014 became RWM Limited.
RWM	Radioactive Waste Management Limited, a wholly owned subsidiary of the NDA charged with delivering Geological Disposal, created on 1 April 2014.
SCCORS	Scottish Councils Committee on Radioactive Substances
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SKB	Svensk Kärnbränslehantering AB (Swedish Nuclear Fuel and Waste Management Company)
SLC	Site licence company (a company that runs an NDA site, under contract to the NDA, and holds the nuclear site licence)
SF	Spent Fuel
SSGs	Site Stakeholder Groups
SSM	Swedish Radiation Safety Authority