

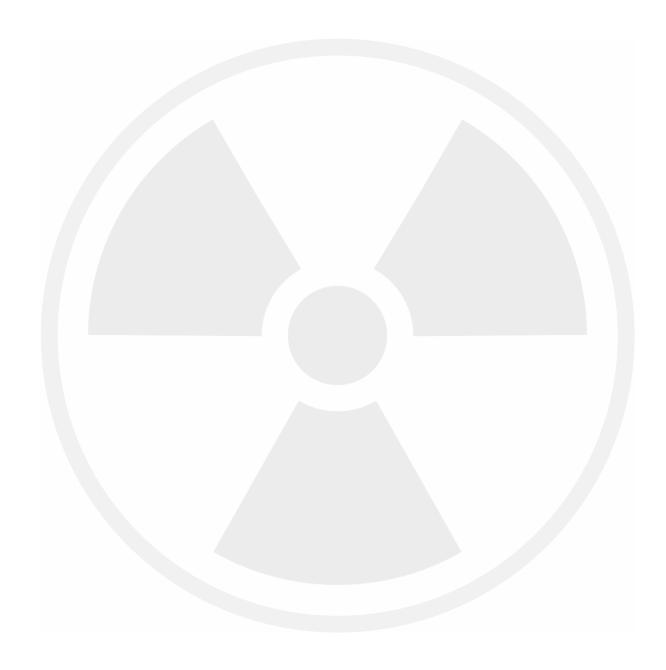
**Committee on Radioactive Waste Management** 

## NINETEENTH ANNUAL REPORT

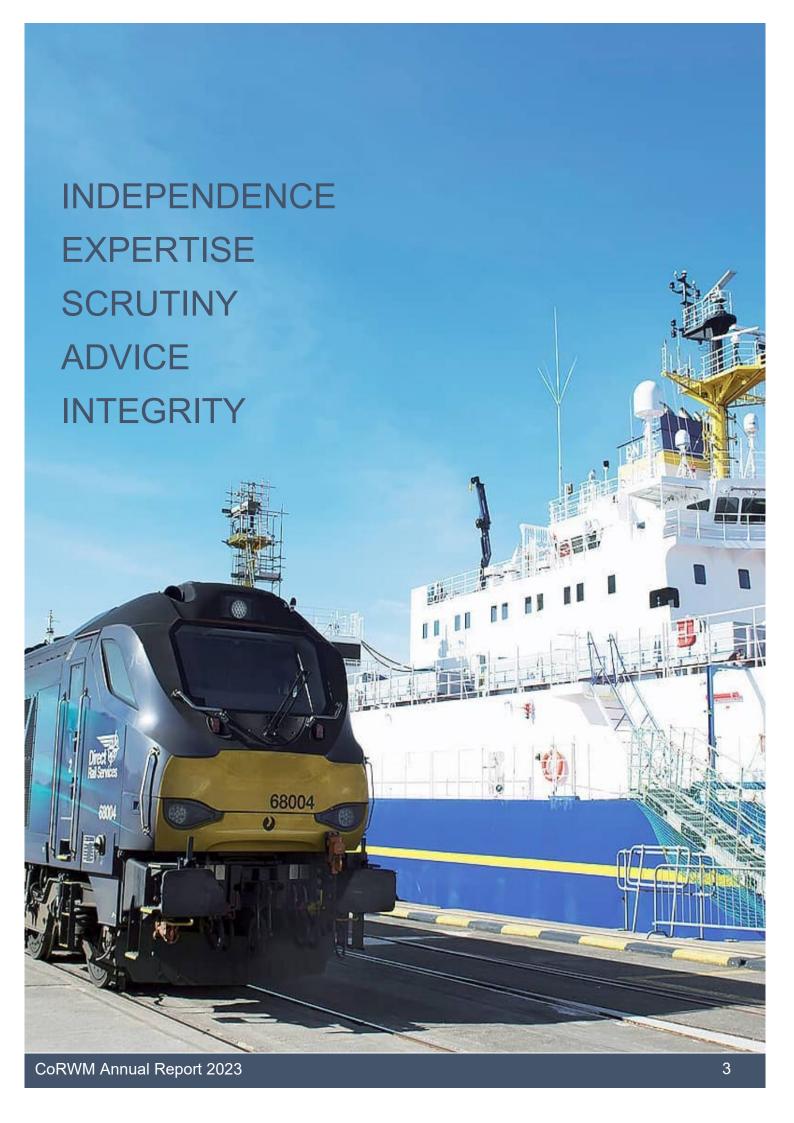
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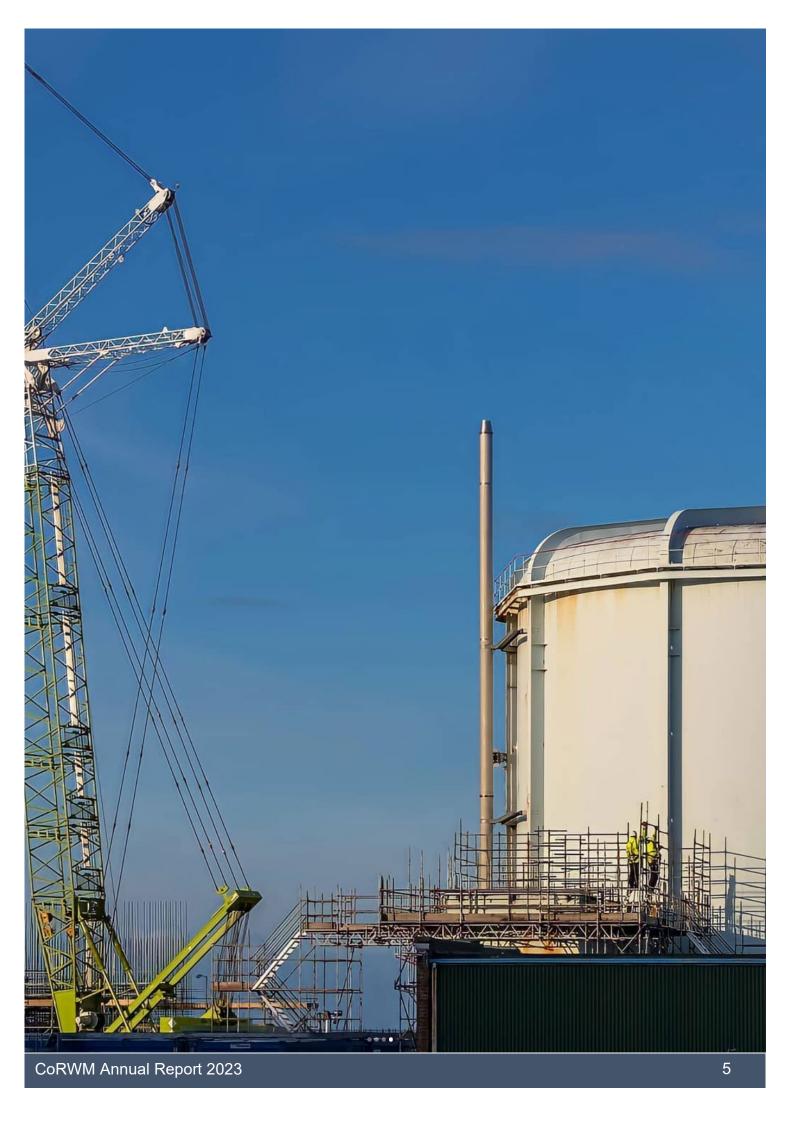
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# Chair's Statement



Sir Nigel Thrift Chair of the Committee

It is an exceptional honour to be the Chair of CoRWM.

Since its inception in 2003, the Committee has worked long and hard to provide dispassionate and accurate technical and scientific advice to the UK government and the devolved administrations, and to numerous interested communities. Our aim is to demystify nuclear waste so that rational decisions can be made about how to manage and dispose of it in a safe and timely manner.

Practically every nation with a nuclear industry realises that a committee like CoRWM is a necessary part of the nuclear landscape, needed to provide independent advice both to government and the community and reassurance where that is appropriate.

The Committee is not just a source of sound advice, however. It is also a bellwether for public opinion since it cannot be swayed by ideology or faction or vested interests. It always attempts to tell it like it is.

It is clear that CoRWM has been able to influence both radioactive waste policy and practice. This is a heavy responsibility but one which the Committee willingly takes up.

How radioactive waste is managed and disposed of is of critical importance for

the UK since not only does it involve complex issues, but these issues will continue to trouble future generations.

This year has been a particularly busy one. The advent of the new Energy Security Strategy heralded a greater government commitment to nuclear energy and with that step, a number of consequences for nuclear waste, including not only greater volumes of waste but also the possible new waste streams arising from small and advanced nuclear reactors.

At the same time, the UK Government and the devolved administrations of Wales and Northern Ireland are proposing near surface disposal as a means of managing some kinds of intermediate level waste. This by no means abrogates the need for a geological disposal facility (GDF) but it does allow for a swifter solution to the disposal of a segment of the inventory.

Developments like these mean that the work of the Committee has, if anything, become even more relevant.

Not surprisingly then, Committee members have worked long and hard to advise the UK Government and the devolved administrations on the development and implementation of radioactive waste policy and to both advise the Nuclear Decommissioning Authority (NDA) and Nuclear Waste Services (NWS)<sup>1</sup> and scrutinise their

work as they take forward decommissioning, treatment, storage and disposal of waste.

Members have provided independent advice on various problematic issues, been prominent in a number of different public forums, and taken the initiative in addressing new or newly salient issues where that seemed appropriate and our remit allows.

For example, we have continued to provide scrutiny and advice to the UK Government, the Welsh Government and Nuclear Waste Services (NWS) on activities related to the GDF siting process, including apposite ways of working with communities.

Equally, we have provided scrutiny and advice to the UK Government and the NDA on the storage of radioactive waste, spent fuel and nuclear materials that may be destined for disposal in a GDF, as well as topics such as GDF costs and the implications of an inshore GDF.

We have advised the Scottish
Government and the Welsh Government
on the disposition and management of
radioactive waste.

Finally, as part of our remit, we have engaged in various outreach activities, including advice to communities, public talks, television, radio and podcast appearances.

responsible for delivering the Geological Disposal Facility (GDF) Programme, as well as the NDA's Integrated Waste Management Programme (IWMP).

<sup>&</sup>lt;sup>1</sup> NWS is part of the Nuclear Decommissioning Authority (NDA) group and has brought together the expertise of site operator LLW Repository Limited (LLWR), which manages the low level waste site in Cumbria and associated operations, Radioactive Waste Management Limited (RWM), which is

CoRWM has a schedule of open plenary meetings in London, Edinburgh and Cardiff featuring speakers talking on a wide range of different topics concerning radioactive waste.

To chair a committee like CoRWM means incurring debts of many kinds. In particular, I want to acknowledge the exceptionally wise counsel of CoRWM's two Deputy Chairs, Professor Penny Harvey and Derek Lacey. Equally, I want to thank all of the other Committee members for their energy, enthusiasm, and dedication which has reached over and above the call of duty over and over again.

One member of the Committee left over the course of the year. Professor Gerry Thomas decided to really retire and therefore put aside all of her commitments. We will miss her incisive comments on all aspects of nuclear medicine and especially her robust commitment to objectivity, as well as her chairing of the Wales subgroup.

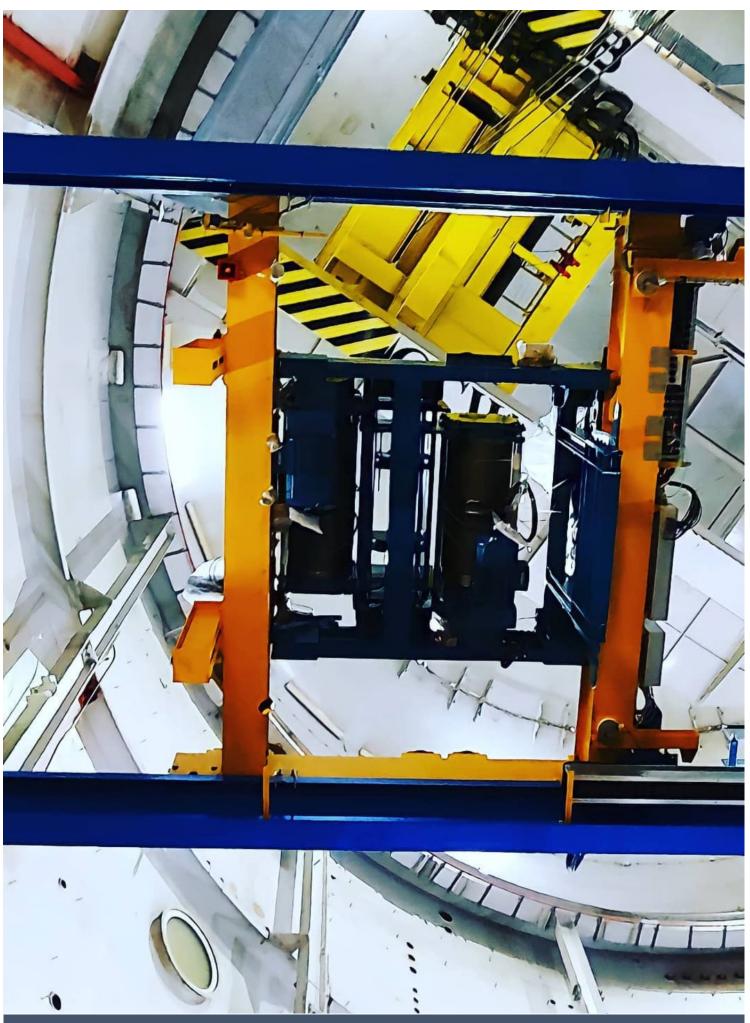
I also want to thank the CoRWM Secretariat for their hard work. The Secretariat is the backbone of the Committee and it has to work well if the Committee is to function properly.

Let me conclude this introduction by restating my firm conviction that the

Committee's work is of genuine national importance for building and maintaining public trust in a clear and coherent strategy for managing radioactive waste, a strategy built on the foundations of impartial scientific and technical advice.



Sir Nigel Thrift Chair, Committee on Radioactive Waste Management



# **Executive Summary**

This Annual Report covers the full range of CoRWM activities in 2022-2023 and the associated documents that have resulted from them.

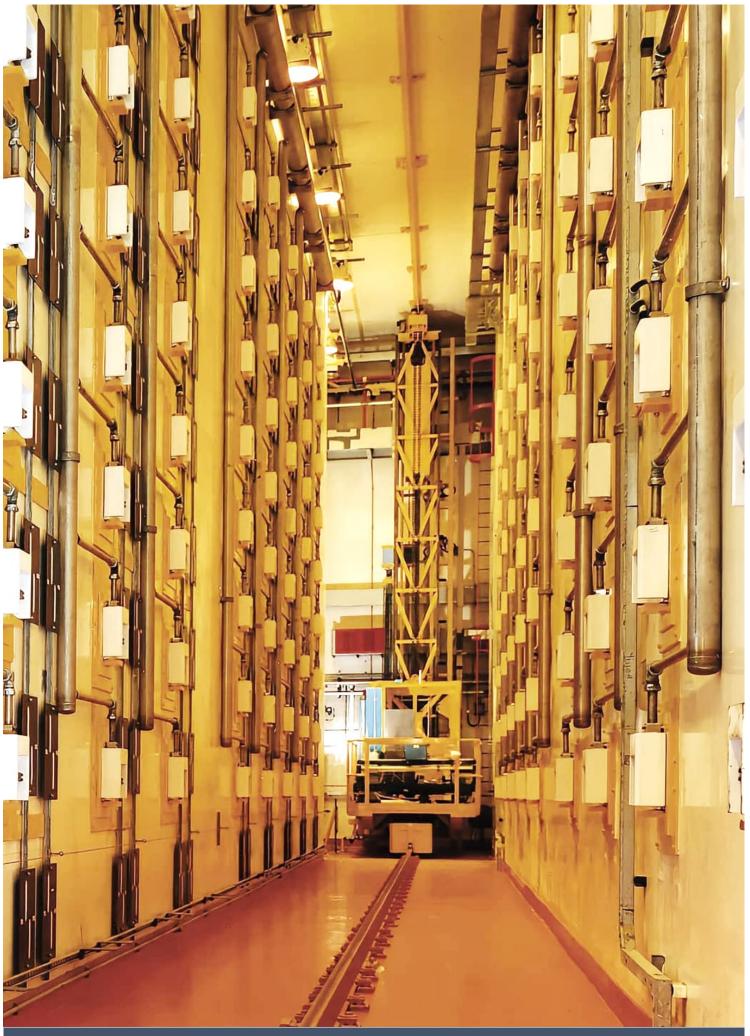
Through numerous Committee meetings and events, we have interacted continuously with our sponsors, the regulators, and the general public.

In all, we contributed 406 working days giving out advice to the UK Government and the devolved administrations and scrutinising the activities of the Nuclear Decommissioning Authority (NDA) and Nuclear Wastes Services (NWS).

Our advice and counsel were sought on many different issues, far too many to list in detail here. However, the highlights included:

- advice, support and scrutiny of NDA and NWS on a range of issues, including: community engagement; the storage of radioactive waste, the potential of near surface disposal for less hazardous intermediate level waste; GDF costs; an inshore GDF; materials not currently designated as waste; the safety case for a GDF; constructing a single radioactive waste strategy for the whole inventory with appropriate measures of progress, and the first annual assessment of progress towards a GDF;
- advice and support to the Scottish and Welsh Governments on a range of different issues;
- work with the Environment Agency, Office for Nuclear Regulation, Planning Inspectorate and Marine Management Organisation on a series of issues;
- fresh lines of work on the efficacy of an underground research laboratory for a GDF, the disposition of uranium, and the appropriate balance between geology, engineering and cost in identifying a suitable location for a GDF;
- preparation of three new position papers for publication in 2023-24 on the use of robotics in a GDF, management of uranics, and the strength of the case for an underground rock laboratory in developing the safety case for a GDF.
- study trips to Onkalo to review the almost completed Finnish GDF, to Harwell (including to the former Magnox facilities) and to Sellafield.

The work programme for 2023-24 shows another year of concentrated activity ahead.



# 1 Introduction

1.1 This is the nineteenth Annual Report of the Committee on Radioactive Waste Management (CoRWM). It describes the Committee's work in the financial year from April 2022 to March 2023 and outlines CoRWM's current views on the status of UK Government and devolved administrations' plans and arrangements for the long-term management of radioactive wastes.

#### Scope of CoRWM's Work

- 1.2 CoRWM's sponsors are the Department for Energy Security and Net Zero (of the UK Government), the Scottish Government, the Welsh Government, and the Department of Agriculture, Environment and Rural Affairs (DAERA) in Northern Ireland. The Committee's work programme for 2022/23 was agreed with its sponsors and carried out within CoRWM's agreed budget (Annex A).
- 1.3 The purpose of the Committee is to give independent advice, based upon its remit and utilising the skills and expertise of its members, and to provide informed scrutiny of the available evidence to UK Government and devolved administration Ministers on the management of radioactive waste, arising from civil and where relevant defence nuclear programmes, including storage and disposal.
- 1.4 CoRWM's specific objectives are to provide independent scrutiny and evidence-based advice:
  - a. To Ministers of the UK Government and devolved administrations on NDA and NWS proposals, plans and programmes to deliver geological disposal, together with robust interim storage, for the UK's higher activity radioactive waste, including materials not yet declared as waste
  - On other radioactive waste management issues as requested by sponsor Ministers, including advice requested by the Scottish Government in relation to its policy for the management of radioactive wastes.
- 1.5 In addition, the Committee is also charged with community and public engagement concerning the issues within its remit.
- 1.6 The Committee was set up as a non-departmental public body (NDPB) so that it could retain the confidence of Ministers and the public that its advice on radioactive waste is truly independent and always evidence-based. This

- status continues to be vital for its credibility. CoRWM's full terms of reference can be found on its website<sup>2</sup>.
- 1.7 In fulfilling its remit to provide this independent and evidence-based advice, CoRWM is expected to maintain an overview of issues relevant to the delivery of UK Government and devolved administrations' 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.
- 1.8 During its work in the past year, CoRWM has primarily engaged with officials within the Department for Energy Security and Net Zero, the Scottish Government, the Welsh Government, the NDA and NWS. (NWS is the developer for geological disposal facility infrastructure.) The Committee has also engaged with officials in DAERA in Northern Ireland and the nuclear safety, security, and environmental regulators.

#### CoRWM Membership

- 1.9 Membership of the Committee consists of a Chair and 11 members.
- 1.10 One member has vacated the Committee this year.
- 1.11 The appointment process has been triggered for new members to replace both the outgoing member, Professor Thomas, and Professor Hyatt from the previous year.

<sup>&</sup>lt;sup>2</sup> Available on CoRWM webpage:

https://www.gov.uk/government/organisations/committee-on-radioactive-waste-management/about/terms-of-reference

#### CoRWM's Outreach Activities

- 1.12 The Committee remains committed to holding plenary meetings in public. CoRWM held four such meetings in May, September, November and March of the Financial Year 2022-23, with presentations open to members of the public given by Dave McCarthy (British Geological Survey), Benoit Jacquet and Claire Mays (Bure) and Stefan Mayer (IAEA). The minutes of these meetings are available at the link below<sup>3</sup>.
- 1.13 During the year, members have presented at a large number of events run by other organisations, including NWS, the International Atomic Energy Agency (IAEA), the British Geological Survey and the Organisation for Economic Development's Nuclear Energy Agency, as well as the Parliamentary Science and Technology Committee and the BEIS Scientific Expert Group. CoRWM considers it important for the Committee to engage fully with a wide range of stakeholders to gain an understanding of their views and concerns on radioactive waste management in the UK and to inform them of CoRWM's conclusions on a range of issues.
- 1.14 Committee members have also made several television appearances and participated in numerous radio programmes and podcasts.
- 1.15 All of the 1,500 plus open documents which comprise CoRWM's long history are now available on the National Archives website, named by document number. Also available on the website is a searchable Excel spreadsheet to make it easier to see what content is available and to find documents of interest.

https://www.gov.uk/government/publications/corwm-meeting-minutes-24-november-2020 https://www.gov.uk/government/publications/corwm-meeting-minutes-15-september-2020

CoRWM Annual Report 2023

<sup>&</sup>lt;sup>3</sup> Available on CoRWM webpage:

#### Summary of Year

- 1.16 In the financial year 2022-23, CoRWM has provided advice and undertaken scrutiny in the following areas:
  - advice to the UK Government and NWS on GDF siting issues arising from the Implementing Geological Disposal Policy, including Working with Communities, developer-led communications, public and stakeholder engagement, the role of social science, and the regulatory framework;
  - scrutiny of NDA's and NWS's activities relating to the management of higher activity waste (HAW) and materials not yet designated as waste, as well as the likely contribution of new nuclear, including small modular reactors (SMRs) and advanced modular reactors (AMRs), to the inventory for disposal, and preparation of an annual review of NWS's progress in delivering a GDF;
  - advice to the UK Government and NWS 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 and the role of an underground rock laboratory;
  - advice to the Welsh Government on the implementation of Welsh policy on geological disposal, and scrutiny of the Welsh Government approach to the management of HAW; and
  - advice to the Scottish Government on its HAW Strategy.
- 1.17 Progress on each of these areas is reported in later sections.

# 2 Delivery of 2022 to2023 Work Programme

# 2.1 Communications and Working with Communities

Scrutiny of and advice to BEIS<sup>4</sup> (now Department for Energy Security and Net Zero), Scottish Government, Welsh Government, NDA and NWS on communication strategy and activities related to the implementation of Working with Communities policy, and related GDF engagement documents.

Task: To scrutinise and advise on the integrated communication strategy of BEIS, NDA and NWS/GDF

Subgroup 1 (SG1) maintained regular contact with the UK Government, NDA and NWS over the past year. We have followed public communications concerning the waste inventory and the relevant waste disposal facilities at a time of considerable organisational change within NWS. We remain attentive to how the waste inventory is discussed in relation to both the GDF and potential near surface disposal (NSD) facilities, and in relation to discussions of fusion, SMRs and AMRs. We note that the recent appointment of Martin Walkingshaw as Chief Operating Officer, with oversight of the Low Level Waste Repository, the GDF and the restructuring of the Communications team, offers possibilities for further integration of strategy and communications across these core areas of NWS. We also note the risk that the focus on the many challenges of GDF delivery could potentially be weakened by these changes.

SG1 members participated in a presentation to the BEIS Scientific Expert Group and joined a visit to the Magnox site at Harwell.

Members of SG1 have contributed to CoRWM responses to strategy consultations and continue to stress the importance of ensuring the visibility of both civil society and the GDF programme in discussion of nuclear futures. We note that the tenor of national debate on new nuclear does not yet connect to building national awareness of the need for a GDF.

Task: To scrutinise implementation of the Working with Communities policies in England and Wales.

A major objective for SG1 this year has been to set out the case for greater investment in social science expertise to support the commitment of the GDF programme. To this end we have engaged extensively with NWS senior management, with the siting and communications teams, and with the NWS Research Support

<sup>&</sup>lt;sup>4</sup> A machinery of government change took place in February 2023 under which the Department for Energy Security and Net Zero takes responsibility for energy policy.

Office (RSO). We have written and circulated a document that outlines key areas of social scientific expertise with strong connections to NWS's needs and priorities, and the range of methods that could be deployed to build understanding of the complex dynamics of the social worlds that the GDF programme is set to transform. A further engagement event with NWS senior management and three leading social scientists is planned for the autumn 2023.

The subgroup chair presented at the annual conference of the NWS Research Support Office (RSO), has advised on their calls for Ph.D. bursaries in the social sciences and has worked with the in-house team in the drafting and delivery of these research opportunities.

SG1 held quarterly meetings with the Communications and Stakeholder relations team in NWS in which we discussed the siting programme, local engagement activities, communications and media engagement both locally and nationally, and the importance of international comparison, and cross-sector comparisons. We have also discussed the social media strategy, an area that we will continue to monitor closely as the Communications teams are re-structured.

The subgroup chair meets monthly with the Head of Siting Operations and the Principal Community Engagement Manager at NWS. We have followed the work of the Community Partnerships in Allerdale, South Copeland and Mid Copeland.

The Theddlethorpe Community Partnership was formed in June 2022. The key work of the Partnerships over the past year has been to recruit a wider membership that reflects the composition of the local communities. Community Partnerships are fundamental to the siting process, and there is much work to be done to connect the Partnerships to the wider population.

The Partnerships are managing the Community Investment Funding but further strategic investment to support the siting process is needed beyond using the funds to build the initial points of engagement with the siting programme. One difficulty is the disconnect within communities, and between local authorities and the residents of specific search areas. The creation of the new Cumberland unitary authority in West Cumbria has also reconfigured the three Cumbrian Community Partnerships.

Progress is being made to build wider representation across the demographic profile of each search area. Allerdale Community Partnership has actively worked to recruit younger members through forging alliances with local institutions and NGOs. We welcome the recent initiative to support the use of local premises, and mobile units, by the local community engagement teams, and suggest that these informal, community-based locales are key sites for engaging people who might not otherwise attend the more formal NWS events. We noted the concerns expressed in Mid- and South-Copeland around the marine geophysical studies (seismic surveys) conducted in the summer of 2022. We are following closely the communication of the process to support transparency and promote understanding.

The subgroup chair made two visits to East Lincolnshire attending exhibition events in several villages just outside the boundary of the current search area. Her reflections were shared with the NWS Siting and Community Engagement team, and with the Communications team. She continues to be impressed by the energy, commitment

and skill of the local engagement teams who are painstakingly building trust on the ground by spending time with local residents. Progress is slow as individuals want to ensure that their views are heard and their concerns addressed, but the quality of engagement is very high, and not easily captured by engagement metrics.

Task: To act as a source of independent information to communities in the geological siting process if approached, and to ensure that the work of the Committee (including key position papers) is visible and accessible to communities.

We have made efforts to ensure that Working Groups and Community Partnerships are aware of CoRWM's work, the wide range of expertise of committee members, and the rich archive of documentation on the website. However, we note that CoRWM has limited direct access to the work of the Community Partnerships, as members are not necessarily involved directly in the Community Engagement events. The CoRWM website is linked to the Community Partnership websites. Community Partnership members are informed of CoRWM Open Plenaries, which we have been able to host as hybrid on-line/in-person events over the past year. CoRWM members have commented on various dimensions of the siting process in the national media.

Task: To report to the main CoRWM Committee to enable the development of advice to Ministers, NDA and NWS.

Subgroup 1 continues to lead on this task with close co-ordination with other subgroups to ensure a consistent approach is taken by the Committee. Quarterly meetings with the Deputy Director responsible for radioactive waste policy in the Department for Energy Security and Net Zero to discuss specific issues as they arise have strengthened the lines of communication between CoRWM and the UK Government.

Professor Claire Corkhill gave evidence to the Parliamentary Science and Technology Committee's investigations into 'Delivering Nuclear Power' on behalf of CoRWM.

#### 2.2 Site Evaluation

Overall Task: Scrutiny of and advice to BEIS (now Department for Energy Security and Net Zero) and NWS on the GDF siting process, including technical evaluation criteria & plans for site investigation and characterisation.

2A Scrutiny of and advice to NWS on technical site evaluation

Subgroup 2 has held a series of quarterly meetings through 2022 and 2023 with NWS. A regular schedule of dates has also been agreed throughout 2023/4 for update meetings with NWS in relation to the site evaluation process and Community Partnership developments with specific focus topics raised by CoRWM during this period, as deemed appropriate.

2B Scrutiny and provision of advice to NWS on activities relating to the continued development of a GDF safety case.

The subgroup has continued its monitoring of NWS activities including the R&D project on borehole sealing methodology which has been part of the watching brief by the subgroup.

2C Scrutiny and provision of advice to NWS on GDF siting activities, including selection criteria, methods of investigation, and the timescale for carrying out site selection in different rock types.

The subgroup has been involved in various meetings and discussions in relation to the siting activities for the GDF, in particular the progress with Community Partnerships over 2022 and 2023 in Cumbria (now Cumberland) and Lincolnshire.

A series of areas of focus for discussion and advice in the last year have been in relation to the following:

- The role of an underground research laboratory (URL) as part of the technical evaluation for an operational GDF;
- review and update CoRWM's position on retrievability of parts of the radioactive waste inventory for disposal, including new build programme wastes and radioactive materials that may become waste in the future;
- standardisation of packaging for the GDF inventory;
- Alternatives review, considering any potential developments or technologies for disposal;
- Specific review of deep borehole disposal proposals and technical papers (a position paper to be prepared as an update to previous CoRWM work) and
- continuing to follow NDA's exploration of near surface disposal for specific intermediate level waste.

Summary internal information notes and reviews have been prepared as part of the evaluation of these main topics. Subgroup 2 continue to review progress in relation to these topics and will consider position papers on these topics as this work matures.

Subgroup 2 completed a GDF Costs Estimate Position Paper which was issued during 2022. The paper provides a high-level overview of modern underground construction techniques and how these would translate to the construction costs and operational performance of a GDF, as well as an additional review of the potential tunnel lengths which could be practicably constructed for the access to an inshore GDF.

Subgroup 2 has also continued to review in detail the aspects of inventory which directly relate to the existing and future radioactive wastes to be disposed of within any GDF, exploration programmes for site evaluation and transportation of radioactive waste materials.

Subgroup 2 completed and issued the inshore position paper, setting out CoRWM's understanding of the concept of an inshore GDF (i.e. one accessed from onshore but located beneath the sea-bed). This sets out CoRWM's key recommendations for the UK Government, NDA and NWS.

2D Provision of Subgroup 2 related advice to working group stakeholders as required.

Subgroup 2 remains available to engage with Community Partnerships and will continue to follow the developments in the year ahead from a technical delivery perspective.

2E Preparation of a paper reviewing CoRWM's position on retrievability.

Subgroup 2 has progressed a review and the technical work for a position paper considering and updating CoRWM's position in relation to retrievability of radioactive waste from a GDF.

# 2.3 GDF Process, Policy Implementation, Planning and Regulation

Overall Task: Scrutiny of and advice to BEIS (now Department for Energy Security and Net Zero) and NWS on activities related to GDF licensing and the implementation of the Geological Disposal programme.

#### Policy Issues

During the year Subgroup 3 (SG3) members provided scrutiny and comment to the UK government on relevant sections of the Energy Bill. They supported the introduction of a clause which will clarify that a GDF built under the seabed would be regulated by the Office for Nuclear Regulation (ONR).

Members also discussed the current decommissioning regulatory framework in relation to planned changes in the Energy Bill. Of specific interest were proposed changes to enable more cost-effective decommissioning of (parts of) nuclear licenced sites with regulatory responsibilities being handed over to the HSE and the relevant environmental regulator from ONR *after* de-licensing. Proposals to implement the exclusion from Nuclear Third-Party Liability for V/LLW disposal sites were also discussed. Members understood that LLWR and the Dounreay low level waste vaults will not be eligible for the exemption due to higher concentrations of activity in disposals there.

#### Engagement with Regulators

A meeting with the Environment Agency (EA) was held on 31 October 2022 at which members outlined the basic elements of the CoRWM Position papers on Inshore GDF (CoRWM doc.3824) and on Costs of a GDF (CoRWM doc.3703) which had recently been published. Discussions then moved on to consider a number of topics including developing thinking in relation to: re-organisation of NWS and its effect on interactions with EA; the Energy Security Bill; near surface disposal of intermediate level waste; and the role of an Underground Rock / Research Laboratory (URL) in a GDF.

A similar meeting was held with representatives of the ONR on 7th November 2022.

SG3 subsequently met with representatives from the Marine Management Organisation (MMO) on February 9th to discuss licensing and permitting for an inshore GDF - including investigation works; and transport of higher activity waste by sea to a GDF.

Members were given a very clear overview of the role and responsibilities of the MMO; of Marine Plans and the need to balance competing demands of different energy sectors and other development proposals; and how in relation to an Inshore GDF the MMO would fold its own assessments and consultations under the Development Consent Order (DCO) process.

#### Engagement with the NDA and NWS

Members also contributed to the CoRWM Annual Review of the GDF process. In preparation for the year ahead SG3 members have been in discussion with NWS about its priorities for information exchange and dialogue between SG3 and the NWS. SG3 members shared an extensive list of issues where further engagement would be of value. As a result, in addition to regular updates, and maintaining an eye on legal and policy issues with potential to affect the overall GDF programme, SG3 and NWS have committed to a series of meetings throughout 2023, on a number of topics of interest to CoRWM including:

- The place / need for a URL as part of the GDF safety case and licensing process
- Near surface disposal of ILW

  potential / inventory / approach to design, safety case, licensing and permitting
- Legal, regulatory and planning permitting aspects of radioactive waste transport
- Risk management

In addition, moving forward, an SG3 representative will in future be invited to attend NWS's Regulatory Stakeholder Group meetings which include all the key regulators and where an update on relevant activity is provided.

#### Summary

Regulation is an important component of several other work streams of CoRWM and vice-versa. Subgroup 3 members continue to work closely with individual members of other subgroups on various aspects of GDF development including, transport of radioactive waste, and the role of a URL.

Outputs this year have been contributing significantly to CoRWM Position Papers referred to elsewhere in this report as well as the following:

- Comment and advice to the UK Government on various aspects of the Energy Bill
- Framework for a three-year work plan
- A draft paper "Legal Issues Arising on the Path to a GDF"
- A draft paper on transport Issues in relation to a GDF

#### 2.4 Scottish Government Activities

Overall Task: Scrutiny of and advice to the Scottish Government (SG) on the management of radioactive waste in Scotland.

Subgroup 4 attended the 24th Scottish Nuclear Sites Stakeholder Meeting in August 2022, giving a CoRWM update and listening to stakeholder reports and concerns.

Scottish government have organised a series of stakeholder visits over the year to the Scottish nuclear sites.

Subgroup 4 met with the Scottish Government Radioactive Waste Management Policy team at the Scottish government offices, Edinburgh, in November to discuss work on the HAW policy review. An update on the review was sent to CoRWM for comment in early 2023. SG4 provided feedback on the review including outlining areas of current interest and expertise within CoRWM. Areas in which CoRWM may be able to provide further guidance and support include: community engagement and communication, the importance of Scotland's radioactive waste management strategy as part of a Just Transition (an area in which Scotland is recognised as a leader) and in 'new' technologies for waste disposal including deep-borehole. We further identified areas of overlap within the HAW policy review and in opportunities for cross home-nation collaborative research, information and knowledge sharing. The review includes a prioritised list and actions in the appendices which provides clarity on the timeline of activities.

#### 2.5 Welsh Government Activities

Overall Task: Monitor Welsh Government (WG) activities

A new Chair for Subgroup 5 was appointed in early 2023. The new Chair of Subgroup 5 met virtually with representative of the Welsh Government (WG) on 16 March 2023 for an initial update on current issues within Wales and to brief the Welsh Government on relevant work by CoRWM. Subgroup 5 has since provided updates to the Welsh Government on the progress of various CoRWM papers being produced by other subgroups.

It was agreed to produce a Briefing Paper for CoRWM members on the constitutional and legal position in relation to radioactive waste management in Wales and work on this has advanced.

It was also agreed to organise a visit by Subgroup 5 and 6 members and the CoRWM Chair to the site at Trawsfynydd during Autumn 2023 and arrangements are in hand.

#### 2.6 Storage of Waste, Spent Fuel and Nuclear Materials

Overall Task: Scrutiny of and advice to BEIS (now Department for Energy Security and Net Zero) and NDA on the management of radioactive waste, spent fuel and nuclear materials that may be destined for disposal

Task 1 Ongoing scrutiny of end of the Magnox reprocessing programme, and of storage and potential disposal of spent fuel, uranics and plutonium

Subgroup 6 engaged regularly with NDA on storage and potential disposal of spent fuel, uranics and plutonium should they be declared as waste. During the year progress has been made on a study on disposal of uranics. Information has been gathered on the inventory, on the options for reuse, management and disposal and on the safety case for disposal. Initial discussions have been held with NDA, NWS and Urenco. This work will continue during 2023/24 with a view to producing a report containing CoRWM advice.

Task 2 Monitoring and providing advice on NDA Integrated waste management developments including boundary, difficult wastes in Scotland and strategic direction

Subgroup 6 engaged regularly with NDA on integrated waste management (IWM).

CoRWM has maintained an interest in NDA's exploration of near surface disposal concepts for less hazardous intermediate level radioactive waste. CoRWM recognises the potential benefits that might be realised by adoption of this additional waste management option and that NDA has made progress in understanding the potential for development of at-surface and at-depth near surface disposal concepts. CoRWM understands that a policy change is necessary for this option and believes that stakeholder engagement is essential if the option is to be publicly acceptable.

Continuing task on implications for decommissioning, radioactive waste management, and radioactive waste disposal associated with fusion energy.

### 2.7 Position Papers and Reports

The position papers issued to date by CoRWM are set out in table 1 below.

Name	Content	Date Updated
Implications of inshore siting of a geological disposal facility (GDF)	A report by the Committee on the implications of an inshore location for the delivery of a GDF.	28 <sup>th</sup> October 2022
Geological disposal facility (GDF): high level cost review	A review and assessment of the potential construction and operational costs for a geological disposal facility.	28 <sup>th</sup> October 2022
Towards fusion energy: CoRWM response to BEIS consultation	CoRWM has set out its response to selected consultation questions in the Green Paper, Towards fusion energy, that are relevant to its remit.	11 <sup>th</sup> January 2022
Radioactive wastes from fusion energy:	CoRWM's preliminary position on the implications for decommissioning, radioactive waste management, and radioactive waste disposal associated with fusion energy.	6 <sup>th</sup> December 2021
Policy, legal and regulatory issues for a geological disposal facility (GDF) and associated radioactive waste management issues	CoRWM's position on policy, legal and regulatory issues for a GDF and associated radioactive waste management.	10 <sup>th</sup> May 2021
Accelerating implementation of a geological disposal facility in the United Kingdom	An exploration of feasible processes for accelerating implementation of a geological disposal facility (GDF) in the United Kingdom	29 <sup>th</sup> July 2020
Deep borehole disposal	CoRWM's position on the potential use of deep boreholes for the disposal of solid radioactive waste	8 <sup>th</sup> August 2019
Geological Disposal Facility site evaluation	CoRWM's response to Radioactive Waste Management's consultation on site evaluation	4 <sup>th</sup> June 2019
Euratom and the dimensions of interest to Scotland upon the UK's withdrawal from the EU	CoRWM advice on waste management issues likely to face the Scottish Government following exit from the Euratom Treaty	26 <sup>th</sup> February 2019

Name	Content	Date Updated
Why geological disposal?	CoRWM's position on why geological disposal is the best option for disposal of higher activity radioactive waste	25 <sup>th</sup> January 2019
Retrievability considerations for geological disposal	CoRWM's position on retrievability considerations for geological disposal of radioactive waste	25 <sup>th</sup> January 2019
Geological disposal of radioactive waste - safety requirements	CoRWM's position on safety concerns regarding a Geological Disposal Facility (GDF)	7 <sup>th</sup> November 2018
Transport considerations for radioactive materials	CoRWM's position on the safety, security and environmental protection aspects of the transport of radioactive materials	7 <sup>th</sup> November 2018
Selecting a geological disposal facility (GDF) site based on the best geology	CoRWM's position on selecting a site based on the 'best geology' for a geological disposal facility	7 <sup>th</sup> November 2018
Radioactive waste: support for disposal rather than indefinite storage	CoRWM position on the indefinite storage of radioactive waste	7 <sup>th</sup> November 2018
Statement on geological disposal	CoRWM's recommendations on geological waste disposal	25 <sup>th</sup> July 2013 First published during the 2010 to 2015 Conservative and Liberal Democrat coalition government

**Table 1: CoRWM Position Papers and Reports** 

# 3 Forward Look

- 3.1 The Committee's focus for 2023-24 is now firmly on the delivery of geological disposal, and especially providing scrutiny and constructive feedback on NWS's roll-out of the GDF siting and engagement processes.
- 3.2 Particular note is being taken of the results from early-stage, non-invasive geological studies such as seismic surveys, as well as the important role of community engagement.
- 3.3 The Committee will also work with NDA to better understand how waste at the boundaries of intermediate and low-level activity classification can be managed so as to contribute to a more effective assignment of waste streams to appropriate disposal paths and programmes, including near surface disposal for specific intermediate level wastes.
- 3.4 The Committee will produce a further Annual Review of Progress on the GDF.
- 3.5 The Committee will keep abreast of, and advise on, the efficacy of relevant new technological developments such as robotics, horizontal borehole technology, and new mining methods applicable to the construction of a GDF, including for an inshore location. It will also consider the role of technological foresight more widely, given the length of time a GDF will take to be constructed and be in operation.
- 3.6 The Committee will continue to study the nature and disposition of materials not currently classified as waste, the nature of the wastes likely to arise from small and advanced modular reactors, and the nature and extent of wastes arising from fusion, as well as how new nuclear reactors can be designed to minimise the creation of radioactive waste.
- 3.7 More generally, the Committee will continue to provide advice to the UK Government and the Scottish and Welsh Governments on numerous aspects of radioactive waste policy and its implementation and liaise with DAERA in Northern Ireland.
- 3.8 The Committee will continue to remain current with respect to the UK nuclear industry. It has an extensive programme of site visits planned both in the UK (Sellafield, Trawsfynydd, Dounreay) and overseas (Bure) so as to observe and report on a range of different activities and approaches.
- 3.9 The Committee will publish three position papers covering the use of robotics in a GDF, the management of uranics and the role of an underground rock laboratory for the GDF.

# 4 Conclusions and Recommendations

- 4.1 The Committee continues to hold to its conclusion, as found in the 2006 assessment, that deep geological disposal is by far the best long-term solution for safely dealing with the inventory of higher activity radioactive waste. It cannot currently foresee a scenario in which a GDF would not be a key part of any solution. A GDF must form a vital part of the management of the radioactive waste legacy.
- 4.2 The Committee has amassed an enormous fund of expertise and experience on the whole range of radioactive waste management concerns over many years now. As a result, we believe that the Committee has played a pivotal role not only in the development of the GDF but of radioactive waste management policy and strategy more generally, not least because its advice is demonstrably independent and therefore provides the public with reassurance and inspires trust.
- 4.3 CoRWM is uniquely placed to give expert and independent advice and scrutiny on all parts of the radioactive waste management regime. In so doing, it provides an essential and objective counterbalance to the influence of organisations having a direct interest in particular outcomes. That is why the Committee's existence as a public body and its independent evidenced-based advice are so important.
- 4.4 2022-23 was a year full of positive activity and outcomes and there is every expectation that 2023-2024 will present similar demands and yield substantial results.
- 4.5 The Committee has shown an exceptionally strong level of energy and commitment providing advice and scrutiny on the management of radioactive waste, particularly given the reduced headcount and overall resources.
- 4.6 As already noted, it remains the intention of CoRWM to produce and publish position papers on a range of relevant topics over the coming year

- 4.7 The attention that the NDA is giving to considering alternative means of disposal for some portions of the waste inventory, plus the consultation on the UK Government and devolved administrations' policies for Managing radioactive substances and nuclear decommissioning and the Energy Security Strategy, provide further specific opportunities for engagement and advice.
- 4.8 Additionally, we continue to pursue strong connectivity between the main policy initiatives above and Scottish Government's review of its 2016 Higher Activity Waste Implementation Strategy.
- 4.9 The Committee has further strengthened its links and engagement with the various regulatory organisations, and these will continue.
- 4.10 CoRWM will continue to ensure ongoing face-to-face meetings.
- 4.11 We therefore look forward to another year of progress.

# 5 References

#### Annex A: CoRWM Expenditure 2022-2023

CoRWM's budget and actual expenditure for the year is set out in table 2, split into the main spending areas.

The budget for 2022/2023 was set at £295000. A shortfall in expenditure was due to delays in planned visits and the loss of two members.

Budget Items	Budget (£k)	Actual (£k)
Members' Fees <sup>1</sup>		179,746.00
Members' Expenses <sup>2</sup> Incidental Expenses <sup>3</sup> Recruitment and secretariat administration		6,796.44
Total		186,542.44

Table 2: CoRWM's Budget Out-Turn 2022/23

#### Notes:

- <sup>1</sup> Members' fees include Employer National Insurance Contributions.
- <sup>2</sup> Members' expenses include transport costs and incidental expenses when travelling to meetings, visits or other venues.
- <sup>3</sup> Meetings and visits include venue and members' accommodation costs for Plenary Meeting, visits and other meetings.

The standard fees are those paid at the rates specified in Members' terms of appointment. These state that:

- 1. the Chair can claim £450 a day for up to 78 days per year;
- 2. the Deputy Chair can claim £380 for up to 49 days per year; and
- 3. members can each claim £350 a day for up to 49 day in a year.

CoRWM is not required to report the fees that individual members received, but this information is published in the interests of transparency, with table 3 summarising the days worked by each of the CoRWM members in the year period.

Name	Days Worked	Status
Sir Nigel Thrift	57.5	Chair since July 2018
Penny Harvey	45.2	Member from Nov 2019, Deputy Chair
Derek Lacey	55.34	Member from Nov 2019, Deputy Chair
Stephen Tromans	25.4	Member since Nov 2018
Ray Kemp	50.5	Member from Nov 2019
Mark Kirkbride	43.6	Member from Nov 2019
Gerry Thomas	4.1	Member from Nov 2019. Stood down September 2022
Claire Corkhill	45.4	Member from Jan 2020
Clare Bond	21.4	Member from Jan 2022
Simon Webb	27.79	Member from Jan 2022
Catherine Mackenzie	30.03	Member from Jan 2022
Total	406.26	

**Table 3: Days Worked by CoRWM Members** 

#### Annex B: CoRWM Membership

Chair Sir Nigel Thrift



Sir Nigel Thrift was appointed Chair of the Committee on Radioactive Waste Management on 2<sup>nd</sup> July 2018.

Until 2017, Sir Nigel was the Executive Director of Schwarzman Scholars.

Sir Nigel previously served as Vice-Chancellor and President of the University of Warwick and as Pro-Vice-Chancellor for Research at the University of Oxford.

He is one of the world's leading human geographers and social scientists. He is a Fellow of the British Academy and a Visiting Professor at Oxford University and Tsinghua University. He is a Deputy Lord Lieutenant of the West Midlands.

Current term of office ends: **July 2026** 

Deputy Chair Penny Harvey



Penny Harvey is Professor of Social Anthropology at the University of Manchester.

Penny has an extensive history of research on the social transformations of large-scale infrastructure projects, with a particular focus on the relationship between local communities, government agencies and corporate bodies.

She is a Fellow of the Academy of Social Sciences (UK), and an elected member of the Norwegian Academy of Science and Letters.

Current term of office ends: **November 2027** 

#### Deputy Chair Derek Lacey



Derek is a mechanical engineer with nearly forty years' experience of public service related to nuclear technology.

He was a Director at the International Atomic Energy Agency from 2014 to 2019 and previously held senior roles as Deputy Chief Inspector in the Office for Nuclear Regulation (ONR) and Head of Nuclear and Radioactive Waste Management Policy at the UK Department for Energy and Climate Change.

Current term of office ends: **November 2027** 

Member Claire Corkhill



Claire Corkhill is currently a Reader and EPSRC Early Career Research Fellow at the University of Sheffield.

With an academic background in both geology and materials science, she has over 10 years of experience in researching nuclear waste material corrosion in geological environments. She has held research fellowships in both the UK and Japan and leads a team of 12 researchers focused on determining the long-term behaviour of radioactive materials.

Claire is an enthusiastic science communicator and has made numerous media appearances in relation to nuclear waste disposal and nuclear decommissioning.

Current term of office ends: January 2028

#### Member Clare Bond



Clare Bond is a Reader and Earth Scientist at the University of Aberdeen. She has academic, industry, policy and third sector experience spanning a 20+ year career.

Clare specialises in understanding biases and uncertainties in subsurface data interpretation; as well as rock deformation and fluid flow in the Earth's crust. She applies her research to a range of subsurface challenges including CO2 and nuclear waste storage.

Clare is interested in the communication of science and engineered subsurface solutions, and the engagement of the public.

Current term of office ends **January 2025** 

#### Member Ray Kemp



Ray Kemp has been a Member of the Advisory Committee on Carcinogenicity of Chemicals in Foods, Consumer Products and the Environment (COC) Public Interest Representative at the UK Department of Health and Social Care from 2013.

In the past, he has worked as an adviser to the Independent Advisory Panel (IAP) for the Australian National Radioactive Waste Management Facility Project.

He has also worked as a Member, then Chair, of the Radiation Health and Safety Advisory Council of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) between 2012 and 2015.

Current term of office ends: **November 2027** 

#### Member Mark Kirkbride



Mark Kirkbride has more than 30 years' experience of underground construction techniques, geotechnical and rock mechanics and project delivery.

He has been the Chief Executive Officer of West Cumbria Mining since 2014, having previously worked in a wide range of senior roles in the mining, engineering, construction and tunnelling industries.

Mark has relevant experience in the design, planning and construction of complex underground projects, together with extensive stakeholder engagement, community relations and large-scale geotechnical exploration programmes.

Mark is a Fellow of the Institute of Materials, Minerals and Mining, a Chartered Engineer and holds a degree in mining engineering and a research masters in geomechanics (underground machine rock cutting). He was formerly a member of the active British Tunnelling Society committee.

Current term of office ends: **November 2027** 

Member Stephen Tromans



Stephen Tromans KC is a barrister practising at 39 Essex Chambers, London.

He was Joint Head of Chambers from 2011-2015. He was worked as an academic at Cambridge (1981-1987) and as a solicitor (1987-1999). He became a barrister in 1999 and was appointed King's Counsel in 2009.

His area of specialism is environmental, energy natural resources and planning law. He has extensive experience of advising companies and government and representing them in court and at public inquiries. He has a particular focus on nuclear law and is the author of the leading text, "Nuclear Law". He is also the author of leading works on environmental impact assessment and contaminated land and has spoken and written widely on these topics.

He has been a member of the UK Environmental Law Association (UKELA) since its formation in 1986 and has been Chair and a Council member of UKELA. He is also a member of the International Nuclear Law Association (INLA) and a director of INLA UK. From 1994-2002 he was a Council Member of English Nature, the predecessor of Natural England and from 2010-2014 was the Chair of the Environmental Law Foundation (ELF).

Current term of office ends: **November 2026** 

Member
Catherine MacKenzie



Dr Catherine MacKenzie is a barrister and legal academic.

She is a member of the Faculty of Law of the University of Cambridge, Dean of Degrees of Green Templeton, University of Oxford, and Governing Master of the Bench of Inner Temple (Inn of Court).

Catherine has 25 years' experience in nuclear law, energy law and international environmental law, including experience with the United Nations, the World Bank and Asian Development Bank, in which she advised on major international energy and infrastructure projects.

Current term of office ends **January 2025** 

Member Simon Webb



Simon Webb CBE, FICE, specialises in major programmes and strategic change.

An Executive Director at Nichols Group, he has led their work on nuclear decommissioning and warships for the last 10 years, at sites in England, Scotland and Wales. Simon was a non-executive Director of the Major Projects Association from 2010 to 2021.

He is a member of the United Nations Economic Commission for Europe's Group of Experts on Risk Management in Regulatory Systems.

Previously Simon was a Director-General in the Department of Transport and the Ministry of Defence, responsible for major projects and security policy.

Current term of office ends: January 2025

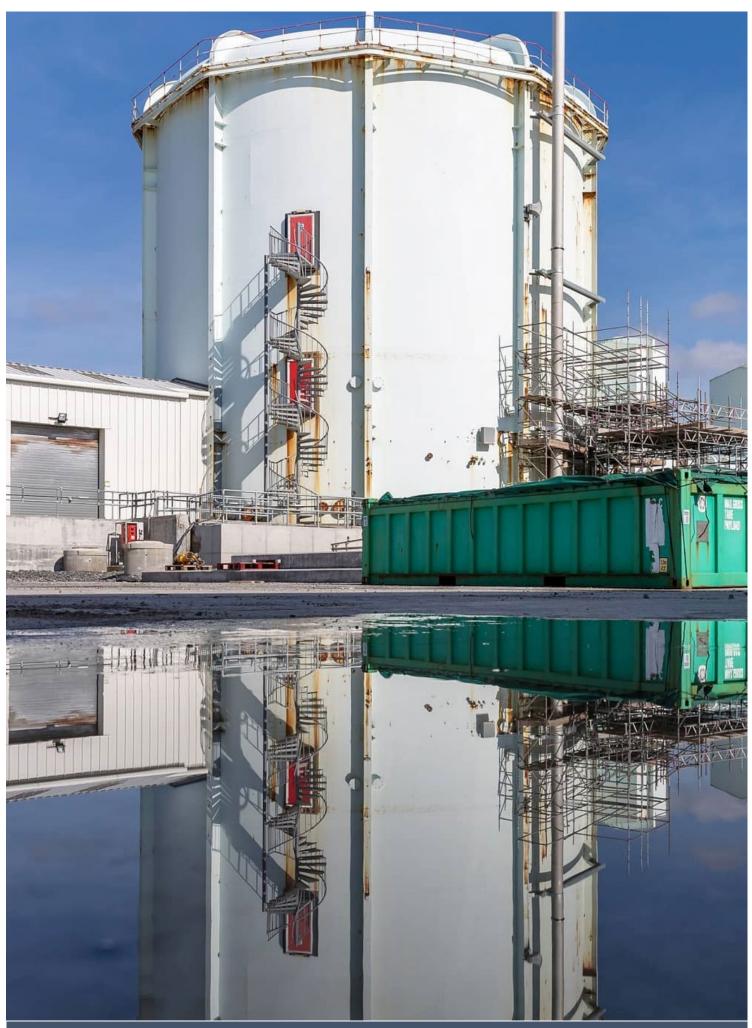
#### Member Geraldine Thomas



Geraldine Thomas is currently a Professor of Molecular Pathology at Imperial College and Director of Chernobyl Tissue Bank.

In the past, she has been a Clinical Director of the West London Genome Medicine Centre and Professor of Molecular Oncology at the South Wales Cancer Institute. She stood down from CoRWM in September 2022.

Current term of office ends: **Stood down, September 2022** 



#### Annex C: CoRWM Subgroups 2022-2023

#### **Subgroup 1: Working with Communities Implementation**

#### Primary tasks:

- 1. To scrutinise and advise on the integrated communication strategy of the UK Government, NDA and NWS
- 2. To scrutinise implementation of the Working with Communities policies in England and Wales.
- To act as a source of independent information to communities in the geological disposal facility siting process if approached, and to ensure that the work of the Committee (including key position papers) is visible and accessible to communities.
- 4. To report to the main CoRWM Committee to enable the development of advice to Ministers, NDA and NWS
- Scrutiny and provision of advice to NWS on public engagement and communication of the GDF safety case in collaboration with other CoRWM subgroups.

#### Membership:

Penny Harvey (Subgroup Chair)
Ray Kemp
Claire Corkhill
Clare Bond

#### **Subgroup 2: GDF Geology and Delivery**

#### Primary tasks:

- 1. Scrutiny of and advice to NWS on technical site evaluation factors.
- 2. Scrutiny and provision of advice to NWS on activities relating to the continued development of a GDF safety case.
- 3. Scrutiny and provision of advice to NWS on GDF siting activities, including selection criteria, methods of investigation, and the timescale for carrying out site selection in different rock types.
- 4. Provision of Subgroup 2 related advice to Community Partnership stakeholders as required.
- 5. Preparation of a paper reviewing CoRWM's position on retrievability of waste packages from a GDF.

#### Membership:

Mark Kirkbride (Subgroup Chair) Claire Corkhill Clare Bond

#### **Subgroup 3: Planning and Regulation**

#### Primary tasks:

- 1. Legal and regulatory issues involved in the development of an "Inshore" GDF beneath the seabed but accessed from land.
- 2. Legal and regulatory issues involved in near surface disposal of intermediate level radioactive waste, either in England and Wales, or in Scotland.
- 3. Legal, regulatory or policy issues arising from radioactive waste streams located in Scotland which would not be suitable for near surface disposal.
- 4. Legal issues relevant to the Working with Communities process as it develops.
- 5. Legal and regulatory issues involved in the development of fusion technology

#### Membership:

Ray Kemp (Subgroup Chair) Stephen Tromans KC Derek Lacey Mark Kirkbride

#### **Subgroup 4: Scottish Government Activities**

#### Primary tasks:

- 1. To scrutinise the Scottish Government's activities in relation to the management of higher activity radioactive waste (HAW) in Scotland.
- To report to the main CoRWM Committee to enable the development of advice to Ministers, NDA and NWS. Membership:

Clare Bond (Subgroup Chair)
Derek Lacey
Penny Harvey

#### **Subgroup 5: Welsh Government Activities**

#### Primary tasks:

- 1. To scrutinise the Welsh Government's activities in relation to the delivery of the Implementing Geological Disposal policy in Wales.
- 2. To report to the main CoRWM Committee to enable the development of advice to Ministers, NDA and NWS.

#### Membership:

Stephen Tromans KC (Subgroup Chair)

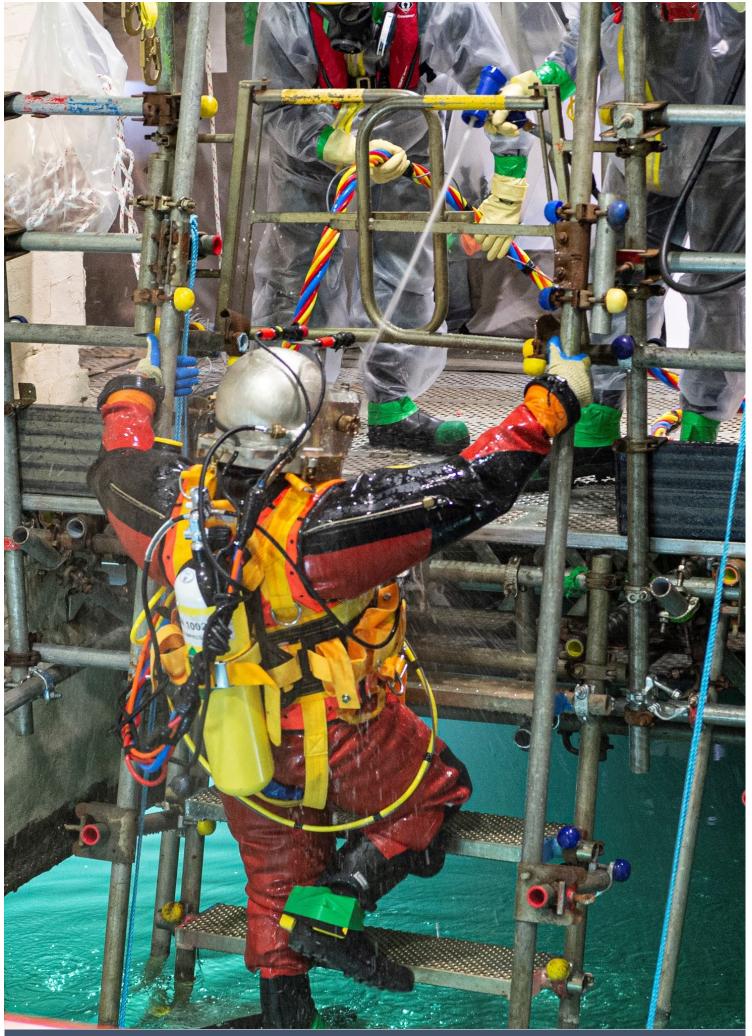
## Subgroup 6: Waste, Spent Fuel & Nuclear Materials Inventory Management

#### Primary tasks:

- Monitoring and providing advice on NDA integrated waste management developments including boundary, difficult wastes in Scotland and strategic direction.
- To scrutinise and advise the UK Government and NDA on the potential for near surface disposal of less hazardous intermediate level radioactive waste.
- 3. Ongoing scrutiny of the end of the Magnox reprocessing programme, and of storage and potential disposal of spent fuel, uranics and plutonium.
- 4. To advise on the implications of a UK programme of SMRs and AMRs for radioactive waste management.
- 5. To advise on the implications of a UK fusion programme for radioactive waste management.

#### Membership:

Derek Lacey (Subgroup Chair) Claire Corkhill Simon Webb



### Annex D: Meetings held during 2022-2023

Date	Meetings	Attending Capacity
12/04/2022	CoRWM Interim Plenary	CoRWM
14/04/2022	Subgroup 6 Meeting	Subgroup 6
05/05/2022	Chair and deputy chair meeting	NT, DL, PH
09/05/2022	Subgroup 3 Meeting	Subgroup 3
16/05/2022	CoRWM Closed Plenary May 2022	CoRWM
17/05/2022	Subgroup 6 meeting	CoRWM
18/05/2022	Subgroup 6 NDA Meeting	Subgroup 6 & NDA
19/05/2022	Meeting between CoRWM Chair and NWS CEO	CoRWM Chair & NWS CEO
24/05/2022	Subgroup 2 NWS Update	Subgroup 2 & NWS
01/06/2022	Meeting on Annual Report	CoRWM
06/06/2022	Subgroup 1 meeting	Subgroup 1
14/06/2022	CoRWM introduction to the GDF programme with NWS	CoRWM (new members)
15/06/2022	CoRWM Preparation for an Annual Review	CoRWM
17/06/2022	CoRWM Subgroup 1 and NWS Update	Subgroup 1 & NWS
21/06/2022	CoRWM NWS Workshop	CoRWM & NWS
30/06/2022	CoRWM NWS Workshop debrief	CoRWM
30/06/2022	CoRWM Special Open Plenary	CoRWM
13/07/2022	Subgroup 3 BEIS meeting	Subgroup 3
20/07/2022	Visit to Sellafield	CoRWM
28/07/2022	CoRWM Meeting with NDA	Subgroup 6 & NDA
01/08/2022	CoRWM Chair and NWS CEO	CoRWM Chair & NWS CEO
05/09/2022	CoRWM Subgroup 3 meeting with BEIS on the Energy Security Bill	Subgroup 3 & BEIS
05/09/2022	CoRWM Subgroup 1 and NWS Update	Subgroup 1 & NWS
12/09/2022	CoRWM Closed Plenary Sep 2022	CoRWM
31/10/2022	CoRWM pre-Subgroup 3 EA meeting	Subgroup 3
31/10/2022	CoRWM Subgroup 3 EA meeting	Subgroup 3 & EA
01/11/2022	CoRWM Subgroup 1 meeting	Subgroup 1
07/11/2022	CoRWM Subgroup 3 meeting	Subgroup 3
07/11/2022	CoRWM Subgroup 3 meeting with ONR	Subgroup 3 & ONR
08/11/2022	CoRWM Subgroup 2 and NWS meeting	Subgroup 2 & NWS

Date	Meetings	Attending Capacity
17/11/2022	CoRWM Subgroup 1 NWS meeting	Subgroup 1 & NWS
28/11/2022	CoRWM Closed Plenary Nov 2022	CoRWM
29/11/2022	CoRWM Open Plenary Nov 2022	CoRWM
29/11/2022	CoRWM Subgroup 4 meeting with Scottish Government	Subgroup 4 & Scottish Government
09/12/2022	CoRWM Subgroup 2 and NWS Update (& joint SG1/SG2 discussion on communication of seismic data)	Subgroup 1 & Subgroup 2
08/02/2023	CoRWM Subgroup 6, NDA and NWS meeting in Warrington	Subgroup 6, NDA & NWS
09/02/2023	CoRWM Subgroup 3 meeting with MMO	Subgroup 3 & MMO
22 & 23/02/2023	CoRWM NWS Visit to Magnox and two-day workshop in Harwell	CoRWM & NWS
20/03/2023	CoRWM Closed Plenary March 2023	CoRWM
21/03/2023	CoRWM Open Plenary March 2023	CoRWM

### Annex E: List of Acronyms

Acronym	Description
AMR	Advanced Modular Reactor
CEO	Chief Executive Officer
CoRWM	Committee on Radioactive Waste Management
DCO	Development Consent Order
DAERA	Department of Agriculture, Environment and Rural Affairs
DESNZ	Department for Energy Security and Net Zero (formally BEIS)
EA	Environment Agency (England's Environmental Regulator)
GDF	Geological Disposal Facility
HAW	Higher Activity Waste
IAEA	International Atomic Energy Agency
ILW	Intermediate Level Waste
IWM	Integrated Waste Management
IWMP	Integrated Waste Management Programme
LLWR	Low Level Waste Repository
MMO	Marine Management Organisation
NDA	Nuclear Decommissioning Authority
NDPB	Non-Departmental Public Body
NGO	Non-Governmental Organisation
NSD	Near Surface Disposal
NWS	Nuclear Waste Services
ONR	Office for Nuclear Regulation (the regulator of safety, security and safeguards at nuclear facilities and transport of radioactive materials)
R&D	Research and Development
RSO	Research Support Office
SMR	Small Modular Reactor
SG	Scottish Government
URL	Underground Research Laboratory
Uranics	A range of materials containing uranium arising from historic or current nuclear fuel cycle operations
V/LLW	Very/Low Level Waste
WG	Welsh Government

#### **Feedback**

We welcome feedback on the content, clarity and presentation of the CoRWM Annual Report 2023.

Please do not hesitate to contact us if you would like to provide feedback or if you would like further information about radioactive waste management issues.

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