

Bradwell Local Community Liaison Council (LCLC) (Meeting No. 76)

Agenda

Wednesday, 27th March 2023

Via ZOOM Meeting to commence at 19:00

Introduction	Brian Main
Apologies for absence	Brian Main
Approval of the previous minutes – Meeting 27 th Sep 2023	Brian Main
Matters arising from the previous minutes.	Brian Main
Bradwell Site Director's Report	Ian Cuthbert
Nuclear Decommissioning Authority Update	Pip Hatt
Environment Agency Site Inspector's Report	Peter Reynolds
AOB	Brian Main
Questions from Bradwell Action Network	

Please be reminded following a request from the Chairman, any requested amendments to the previous minutes should be submitted to the LCLC Secretariat in writing prior to the meeting:
bradwell.communications@magnoxsites.com.

BRADWELL SITE LCLC

Draft minutes of the 75th Local Community Liaison Council (LCLC) meeting

held via Zoom

10.00 am Wednesday 27 September 2023

ATTENDANCE

LCLC Executive

Brian Main	-	LCLC Chairman
Cllr John White	-	Deputy Chairman

LCLC Members

Sohail Ashraf	-	Bradwell Site Director
Cllr Terry Burns	-	Essex County Council
Cllr Tony Fittock	-	Althorne Parish Council
James Heavingham	-	ONR
Cllr John Lambert	-	Latchingdon Parish Council
Simon Napper	-	Nuclear Decommissioning Authority
Cllr Matthew Neall	-	Maldon District Council
Cllr Steph Nissen	-	Colchester Borough Council
Cllr John Noble	-	Bradwell Parish Council
Cllr Sophie Weaver	-	West Mersea Town Council

Members of the Public

Andrew Blowers		
Ian Clarke		
Matthew Meldrum		
Cathryn Pritchard	-	Magnox (Secretariat)
Janine Claber	-	Virtual event host

I Introduction

3278 The Chair welcomed everyone to the meeting.

II Apologies for Absence

3279 None received.

III Approval of the Previous Minutes

3280 The minutes were approved as a true record of the meeting on 29 March 2023.

IV Matters Arising from the Previous Minutes

3281 There were no matters arising.

V Bradwell Site Director's Report

3282 Sohail Ashraf stated that there had been no safety or environment-related events at Bradwell; the positive reporting culture had been enhanced with task observations and safety conversations in the field, which had brought engagement and collaboration.

- Current campaigns included psychological safety, which aimed to make people feel free to talk about any issues at all in order to create an inclusive working environment. The first session had been held some months ago and was now being rolled out to the whole workforce. Feedback was good.

Within Magnox there had been a number of hand injury events across all the sites. Sizewell and Bradwell did not fall into those criteria and there had been much learning from other sites which reinforced the need for work safety assessments.

The 'target zero' theme had been this month's theme, focussing on lifting operations, with a good set of arrangements at Sizewell and Bradwell.

- The fifth annual inspection campaign had started on 4 September. Approximately 200 routine activities were to be undertaken and the frequency of inspections had been reviewed, particularly for asbestos, which lead us towards five-yearly inspections. Some enhancements would be made to the security management systems, eg software upgrades and physical enhancements.
- ILW waste packages: an application had been submitted to vary the planning conditions for the ILW store, which supports Dungeness A, Sizewell A and Bradwell, to increase the importation date by six years, to 31 December 2029. There was no change in the total package numbers. Transfers of packages to and from site would be planned as best as could be done to minimise transportation during peak hours.
- Socio-economic applications: funding remained at just over £1m across the 12 Magnox sites. £303,000 multi-year funding was already committed and £691,000 had been committed as of the beginning of this month. The 'good neighbour' allocation had £285,000 remaining, including £72,000 to the 'good neighbour' allocation and £43,000 left.

Four funding requests had been received from Bradwell, totalling £92,000. A maximum of £2,000 per application was allowed, with an allocation of £6,000 per site. Those present were reminded to encourage the 'good neighbour' scheme and applications to NDA.

Summary of applications: Bradwell Bay United (£1,300 for football kit); Fellowship Afloat charitable trust (safety equipment); Maldon District Council £80,000 of support over two years to manage and administer the Rural Enterprise Prosperity Fund; year 2 investment

to Maldon District Council for the YouFest festival. Funding objectives remained aimed at mitigating the socio-economic impact of decommissioning, helping build sustainable communities and being a good neighbour.

The NDA socio-economic strategy will have a refresh, looking at challenges and opportunities in the local economies, and the priorities in the communities around the NDA estates. The NDA will engage with stakeholders over the coming months to understand better what local priorities should be.

- Volunteering: Magnox and NDA had enrolled Neighbourly at three sites, where personnel from Magnox could help and volunteer to support local communities via an online portal. In the future, local communities would be able to input their needs to this portal so Magnox can see where they can help.

3283 Questions were invited and Tony Fittock asked how Bradwell would view this week's progress in terms of the general engagement from parishes and towns around the district. Sohail said that the relationship with the LCLC community was very good: transparent and honest. He said that the help of the community was needed to help promote the socio-economic efforts; hence the request to help advertise them more widely. Money was not infinite, but Sohail wanted to use every last penny in the local community. Tony opined that a relatively narrow number of people attended the forums, people not attending would not be aware of the help available so there was more work the community could do to encourage engagement. Sohail asked that people let NDA know if there were different ways they could help with the communication of what was available.

Brian Main confirmed that it was those who did not attend the meetings who needed to be reached. He said that since the nuclear hazard on the site was more than 99% removed, a lot of the more distant or smaller councils had stopped sending representatives because they were more interested in the hazard to their neighbourhoods due to the nuclear threat, rather than coming and talking about what was happening on the site. He would like to pursue the idea of contacting people actively but was not sure that more people would attend.

Sohail emphasised that the minutes of meetings were sent to all groups, so the information was widely available, even if people did not attend. He agreed that we were now in a different phase, moving towards the original strategy of a remotely-managed site. He thought we had good engagement but that it was probably proportional to where we were in the life cycle in comparison with other sites.

Brian pointed out that it reflected back on Magnox trying to spend the money and said that the area in general needed to want to attend the meetings. Tony felt that the benefits of engagement needed to be refreshed, as opposed to sending out highly technical minutes and other documents, which may not be read. In addition, the representatives of councils change and the matter could be forgotten. Brian stated that the secretariat had made efforts to contact those groups who did not send representatives to the meetings. He felt we should consider how to extend our publicity and appeal.

3284 Ian Clarke asked about item 3264 of the March meeting, where he had undertaken to gather photographs of similar sea defences around the estuary that had collapsed, had expressed concern about the vulnerability of those at Bradwell and asked whether a shoreline management plan was in place.

Sohail stated that the Environmental Agency had produced a sea wall condition report in October 2020 and this was produced on a five-yearly basis and he confirmed that Magnox did track this issue and undertook any activities recommended. He thanked Ian for the photographs.

VI **Nuclear Decommissioning Authority Update**

3285 Simon Napper reported as follows:

- There had been more changes to Government: the new Secretary of State at the Department for Energy Security and Net Zero was Claire Coutinho and we still had the Minister for Nuclear and Networks, Andrew Bowie.
- Ros Rivaz had completed her term as Chair of the NDA and an interim Chair, Chris Train OBE, had been appointed by Government whilst a new permanent Chair was sought. Mr Train would be meeting the Chairs and Vice-Chairs of the SSGs in mid-October.
- There would be a virtual stakeholder summit on 21 November this year and an in-person one in Cumbria in 2024.
- On 11-14 September an annual NIA meeting was held in Parliament to explain to MPs what goes on in the nuclear industry and decommissioning, and we sponsored a skills fair. There would be future competition for young people coming into the industry as our and the Government's plans progress; hence our sponsorship. The NIA also organised an event in Cardiff on 26 September, to talk about the role of nuclear, going forward.
- The annual report and accounts were published last week and printed copies were available on request or on line. The document covers the taking on of Dounreay and the programme for decommissioning the advanced gas-cooled reactors previously operated by EDF. The first reactor at Hunterston had now been fully defueled and work was on-going to defuel Hinkley Point and Hinkley Point B. The report includes 47 strategic outcomes to complete our mission over the next 100 years and four had already been completed.

The annual business plan would be issued before Christmas for consultation. This is a statutory requirement, even though its content is largely covered in other documents.

- The review of the socio-economic strategy is carried out every three years and checks that what we are trying to do in our communities does reflect their needs. The pandemic had an impact on needs and the way we do things changes too. Key stakeholders around the country had been visited and a formal consultation would start before Christmas; SSG members would be invited to take part in this.
- Dounreay: Spot (a robot dog) was being used to get inside an unused, closed-up building which contained radioactive material, to check what was in there and help us to decide how to dismantle it.
- Sellafield: work was progressing and work had begun to extract waste from the pile fuel cladding silo, which had not been built with extraction in mind. We were now able to extract waste from all the main vaults and ponds on the site.

3285 Questions were invited. Brian Main asked if these latest techniques will eventually become available around the country to treat other difficult storage situations. Simon replied that, where we learn how to do something for the first time, if it has application elsewhere, we will make sure it is used.

Sohail Ashraf stated that Spot had been going across the estate at Sizewell and a demonstration had been given at Bradwell of how to operate it.

3286 Ian Clarke asked about intentions for the graphite cores. Simon said they would be a major but later part of the decommissioning process. What will happen with the cores had not yet been finalised and would be a few decades away.

Ian asked if incineration was being considered on or off the site. Simon offered to find out as he did not know the technical details. **Action: Simon to find out plans regarding incineration, particularly for incineration of graphite.**

3287 Andrew Blowers asked what the national ILW disposal facility was for: taking some recharacterized waste out of the GDF and putting it into a shallow disposal facility, thereby

releasing some capacity in the GDF but also imposing a facility on another ?? [00:46:27] or was its purpose wider and taking ILW from existing sites where it was currently in store? This proposed facility would be of considerable interest if it had implications for Bradwell.

Simon stated that his had been consulted on and he had heard that there were over 300 substantive contributions to the consultation and the Government was currently working through those. Until the Government takes a view and puts forward a policy, we cannot answer the question.

Andrew felt that to go to a consultation with a half-formed project was irresponsible.

- 3288 Andrew also asked about the end state of Bradwell. One current designation, in the business plan 2021-24, was that “all land remediated and dedesignated will be achieved at Bradwell by 2092”, yet the business plan of a year later (2023-26) states that “all land in the end state and all planned physical work will be completed by the 2080s”. Are these two in conflict? What does it mean? What is meant by “end state”? Do the NDA and Magnox know? There seemed to be a lack of clarity as to what would be happening and a lack of serious activity at Bradwell. Was there going to be a proper plan for decommissioning of the site to the end state, which could be specified in terms of what would be done and when?

Simon stated that, talking in 2023 about something that would happen decades ahead, based on what we know now, we would expect the process to be finished and had given an indicative date. Whilst the 2092 date had seemed very specific, things change and, based on what we know now, the 2080s were where we expected to be. Our mission was to decommission safely and, if there were to be an unexpected occurrence, we would make it safe as soon as we were aware of it and our monitoring is designed to do pick up on things quickly.

Sohail added that, as the licensee, it was his responsibility and inspection and maintenance over the foreseeable years would reinforce that and a case would be made for any additional remedial work that may be identified. It was all about managing the risk, not walking away.

VII Magnox Corporate Update

- 3289 In the absence of Bill Hamilton, no report was available.

VIII Environment Agency Site Inspector's Report

- 3290 James Heavingham reported as the new lead EA regulator for Bradwell. Compliance activities: a report had been circulated before the meeting. James summarised that monthly meetings were continuing with the Sizewell A environment management team, who manage the activities at Bradwell, as were meetings with the EA, the ONR and Magnox to discuss any emerging issues and projects. Events and incidents were also reviewed with regard to any impact on the environment – none had occurred since the last LCLC meeting.
- 3291 Work had started in June 2023 on a detailed review of the care and maintenance programme, which had reached its fifth anniversary. This would be a five-yearly health check which would consider the maintenance and plans undertaken plus the strategy and programme going forward. Areas of land quality would also be looked at, as would the qualifications of the Magnox personnel involved in the process. It would be a joint inspection with the NWAT (Nuclear Waste Assessment Team), who are specialists in high activity wastes.
- 3292 There had been no non-compliances nor enforcement action since the last meeting and there were no expected changes to the permit for the near future. Discharges had not changed and there were no concerns.
- 3293 Questions were invited and John White asked about the food and environment reports: his parish was within the 5-mile radiation limit and his local dairy farmer was still having studies on the milk and local fishermen had to send samples for examination. No report on these was received but John noted that, according to the EA report, radiation had gone up and he wondered how that could happen.

James replied that this could potentially be natural or a laboratory error or activities abroad.
Action: James to look at the data and speak to the specialists who compile the RIFE report.

- 3294 Ian Clarke asked about the outfall into the estuary: he understood that it was no longer in use but asked if it was still a licensed discharge route and, if so, why was the licence being maintained? If it was being maintained, had silting occurred and was the outfall still being flushed with biosize to prevent fouling?

James stated that the outfall was not being used and was no longer a permitted disposal discharge route. He had no further information on the flushing and physical condition of the outfall.

IX Any Other Business

- 3295 John White referred to questions submitted by Ian Clarke, some of which had been covered in the meeting and asked how the remaining ones would be picked up. The Chairman asked Ian whether he wished to pursue those now or ask the experts to look into them in order to respond later. Ian was happy for the answers to follow later; Brian asked the experts present to look into the questions and come back with answers for the next meeting.

- 3296 Andrew Blowers referred to the decommissioning plan and mistakes and said he had found the response vague and predictable. He felt we should have a more specific idea of how this was being done and suggested that a more detailed look at this should be requested, especially in the light of climate change. He presumed that a margin was included for various possibilities coming out of the climate change forecast which could affect this area, which was low-lying and had a high water table and therefore created potential danger for the site. He would like more detail on what Magnox had in mind, eg regarding the boilers and AGRs coming on stream.

Sohail Ashraf stated that Magnox had good evidence on the condition of the structures on the site and there would be on-going inspection and maintenance. Regarding the out-year forecast for final site clearance, that could change and evolve, including looking at the condition of the boilers – other sites had already removed theirs because they were outside structures and subject to different conditions to ours. We would refine the programme as the life cycle progressed and a pathfinder project was focussing currently on boilers across the NDA estate. Things were being developed in the background and would continue to evolve over time, with environmental conditions in the out-years being considered. Bradwell was currently one of the lowest-risk sites in the NDA estate but new strategies would be looked at if that would help reduce hazards in an efficient, cost-effective manner.

Brian Main asked if Bradwell being the first site to be put through this process had pushed it to the back of the queue. Sohail disagreed that it was at the back of the queue and said he would like to see how the Sizewell and Bradwell teams could use our site for further innovation.

X Date of Next Meeting

- 3297 The Chairman stated that the current meeting had originally been planned to be the AGM but, because of meetings being held virtually and therefore attendees being able to see how other attendees voted, it had been postponed whilst a solution was found to enable ballots to be hidden. It had been decided to hold a meeting where those eligible to vote would be present and others would not be.

Therefore this meeting would shortly be closed and those not entitled to vote asked to retire, then the vote for Chair and Vice-Chair could take place. However, the vote to be taken at an AGM was postponed and either a special meeting would be called or the AGM would be deferred to the next scheduled meeting to continue that discussion.

- 3298 Date and time of next meeting: a face-to-face meeting in Bradwell village hall had been requested, which would be accessible to local people but not to all. Brian noted that we seemed to be gravitating towards meetings being almost exclusively virtual and asked those present whether they felt we should, at some near time, have a face-to-face meeting and call it our AGM.

Sohail Ashraf suggested an alternative proposal, that one of the meetings be held out of hours (eg at 5.00 or 6.00 pm).

The Chairman noted that a face-to-face AGM was not desired and that an out-of-hours meeting was favoured. Therefore the next meeting would be the delayed AGM and would take place out of hours, details to be confirmed.

XI Close of Meeting for Non-voting Members

- 3299 The Chairman closed the formal meeting and asked the voting members to remain whilst the others left. He thanked them for their contributions. Voting members remaining were:

Brian Main	John Lambert
John White	Matthew Neall
Tony Fittock	John Noble

- 3300 The Chairman suggested that the two candidates introduce themselves and proposed that he stand down and for John White to chair the first vote and, depending on the result of the vote, the new Chair would then chair the second vote. Voting would take place via an on-screen poll.

Tony Fittock encouraged greater engagement across the Dengie Peninsula to try to get greater awareness of what Magnox do and ensure proper scrutiny of any future proposals so that the parishes fully understand the positions being moved from and into. He favoured meetings taking place out of hours.

Brian Main summarised his career and experience in Bradwell, and noted that his interest in the LCLC stemmed from living only a mile from the site.

XII Election of Chair and Vice-Chair

- 3301 The electronic poll was launched and the two candidates for the role of Chair voted for. Six votes were received; the result was that Brian Main was elected.
- 3302 There being only one candidate for Vice-Chair, John White was confirmed in the role.



NDA Update for Bradwell SSG

March 2024



Contents

1.0 NDA Stakeholder Update March 2024



NDA Stakeholder Update

Please find below a brief update on main points of interest since the last meeting.

- As part of our ongoing commitment to create meaningful engagement with our stakeholders, we held our **Regional Stakeholder Roadshow** at Bangor University in north west Wales on 12 March 2024. The roadshow focused on innovation and followed the successful format of events in Cumbria and Glasgow which took place in partnership with universities in the regions.
- More than 160 delegates joined our virtual stakeholder summit '**Creating meaningful conversations**' in December 2023 and feedback was positive. The event covered the progress we are making in delivering our mission, and our wider contributions on sustainability, social value, and skills.
- Our next in person **Stakeholder Conference** will be held later this year. We are still looking to fix both the venue and the date and will keep you informed of our progress.
- The Department for Energy Security and Net Zero has now published its **Civil Nuclear Roadmap to 2050** alongside consultations on its **Approach to siting new nuclear power stations beyond 2025** and **Alternative routes to market for new nuclear projects**. The roadmap includes information and commitments relevant to our mission.
- The Chancellor backed plans for nuclear energy progress in the 2024 Spring Budget. He announced the **government had agreed to purchase land owned by Hitachi** at the Wylfa site in Ynys Môn and the Oldbury site in South Gloucestershire. This land – which does not form part of the sites being decommissioned by the NDA group - will be used to support the possible siting of a new power station or a series of Small Modular Reactors (SMRs).
- Following its consultation in 2023, the **Government's new UK policy** on the sustainable and effective management of radioactive substances and nuclear decommissioning will be published shortly.
- Our latest NDA 2023 **Mission Progress Report** (MPR) was published in November. It shows how we're progressing delivery of the NDA mission and what's still left to do, providing a baseline against which future progress can be tracked. It should be seen in context with the other NDA documents we issue, and it forms part of our commitment to openness and transparency.



- Parliamentary Members of the **Public Accounts Committee**, along with the National Audit Office, visited Sellafield in October. We welcomed the opportunity to open our doors to the body responsible for holding government to account for value for money, allowing us to demonstrate the progress we are making and share some of the challenges we face.
- At the end of last year, the Scottish Parliament Standards Committee gave approval to the establishment of a **Cross Party Group** on Nuclear Decommissioning. The first meeting will be on March 27th in the Scottish Parliament.
- Our updated **Social Impact and Communities Strategy** is being finalised as a result of a recent consultation exercise. The strategy is updated every three years and updated where necessary. The last one was published as the pandemic took hold and much has changed since then.
- We hosted more than 600 candidates at an NDA group graduate recruitment event this month and the second year of our **NDA group graduate programme** has opened, with the number of opportunities doubling to 120 across a diverse range of professional disciplines. The programme complements our support to the industry to build a long-term and sustainable pipeline of skills.
- Nuclear Waste Services (NWS) has begun aerial surveys and studies to evaluate potential sites suitable to host a **Geological Disposal Facility** (GDF), to permanently dispose of the UK's higher activity waste. Three communities are in the siting process, following one down-selection decision taken last year. A fourth community has joined the process in January – South Holderness.
- NWS worked with the Nuclear Industry Association to take members of the All Parliamentary Party Group on Nuclear Energy to visit the **Finnish Geological Disposal Facility** (GDF) ONKALO, currently under construction. This helped bring this vital project to life and shined a light on the progress we are making in this country.
- Her Royal Highness **The Princess Royal** visited Nuclear Transport Solutions' home port in Barrow-in-Furness to explore one of Pacific Nuclear Transport Limited's (PNTL) specialist nuclear vessels, and a Direct Rail Services (DRS) locomotive.

Thank you for taking the time to read our update. If you have any questions, please feed-back through the Secretariat.





Nuclear
Decommissioning
Authority

Environment Agency Report Bradwell Local Community Liaison Council March 2024

This report covers our regulation of Nuclear Restoration Services Limited (NRS - formerly Magnox Limited) at Bradwell Site, over the period September 2023 to March 2024.

Radioactive substances regulation

We regulate radioactive waste disposals and discharges to the environment. We do this by placing limits and conditions in environmental permits, which helps us to ensure that radioactive waste discharges are minimized and that the environment is protected. We carry out regular checks of NRS's compliance with our regulatory requirements.

We also regulate and control other activities through our environmental permits, including surface water discharges to surrounding water bodies and emissions to air.

Radioactive substances compliance assessment reports (RASCARs) summarising our inspections, and any non-compliances found, are made available to the public on request.

Permitting

NRS holds a radioactive substances activity permit under the Environmental Permitting Regulations (EPR) at the Bradwell site (EPR/ZP3493SQ). No changes have been made to the permit since the last LCLC meeting.

Compliance activities

Bradwell site is managed by NRS staff based at Sizewell A. We hold monthly meetings with Sizewell A's environmental management team to discuss any updates to projects or emerging issues at Bradwell site. We also participate in routine quarterly tripartite (NRS, EA and ONR) review meetings.

We review NRS reports of operational events and incidents that have occurred on site and follow-up on these where appropriate. No significant matters of regulatory concern have been raised.

In this period, we have continued our review of the Care and Maintenance management arrangements in place at the Bradwell site. This is a detailed review that will continue throughout 2024 and into 2025. The objective of the regulatory review will be to assess the overall effectiveness of the Care and Maintenance Strategy at the Bradwell site.

In February 2024, we reviewed the site's Land Quality Management Plan and the groundwater and surface water monitoring programme. We found that NRS have a robust strategy in place for managing and monitoring areas of contaminated land during the care and maintenance period. There is a sufficient groundwater and surface water monitoring programme in place.

With regard to higher activity wastes (HAW) on site, staff from the EA's Nuclear Waste Assessment Team (NWAT) have been reviewing the wastes stored in the Interim Storage

Facility (ISF) to ensure that these wastes are managed appropriately and in accordance with our expectations as outlined within our [Joint Guidance in the Management of Higher Activity Wastes](#) and that they can be safely disposed of to a future Geological Disposal Facility (GDF). This work is still ongoing and a summary of our findings will be presented at the next LCLC meeting.

Enforcement

We have not identified any permit non-compliances or taken any enforcement action at Bradwell in the period since our last report to the Local Community Liaison Committee in September 2023.

Discharges from site

The site's environmental permit requires Magnox (NRS) to use best available techniques (BAT) to manage its operations and ensure their impacts on the public and wider environment are minimised. Disposal of wastes – as solids, liquid or gases can only be made via permitted routes or by transfer to permitted sites. A report of the liquid and gaseous discharges to the environment, and the results of the environmental monitoring programme must be submitted to us on a periodic basis. We assess these returns to review compliance with requirements of the permit and to review any trends and summarise our findings in a RASCAR.

The discharges from Bradwell site are reported annually, within three months of the end of the calendar year. We received the annual discharge returns for Bradwell site for the 2023 calendar year on time, in February 2024. We are satisfied the levels of reported discharges from site did not cause any regulatory concern and we did not identify any trends of concern.

Liquid radioactive effluent discharges and most gaseous emissions are based on standard reporting values because the dose impact of these emissions is expected to be very low. The standard reporting values are based on historic discharges, measured over an appropriate period. In the case of the reactor buildings, emissions were measured from when defueling was completed in 2006, until 2010. NRS periodically monitor emissions and compare these results with standard reporting values. If the measured result is greater than a standard reporting value plus four standard deviations from the mean, NRS will reassess the standard reporting value used. Emissions from the reactors were most recently monitored in September 2022. No change to standard reporting values was required.

Discharges from mobile extraction units (MEU's), when used during inspection and maintenance work, are monitored when required and reported in total. There were no discharges from MEUs in 2023.

Discharges of active liquid effluent from the site have ceased. Rainwater drains to a single point on site (the Main Drains Pit) and is periodically discharged to the Blackwater Estuary. Activity concentrations measured in the main drains pit from February 2015 until January 2017 were averaged to derive initial standard reporting values for liquid discharges from

Bradwell site. Reporting values were re-assessed in early 2020 using data collected in 2019. This assessment resulted in a small increase to the standard reporting values but did not indicate any significant impact on the environment. None of the activity concentrations measured in 2023 were unexpectedly high or low.

Environmental impact

The Environment Agencies and Food Standards Agency carry out independent environmental monitoring around nuclear sites. These monitoring programmes support our regulatory function and provide reassurance that public radiation exposures are low and within legal limits. The results of this work are published annually and the latest report, “Radioactivity in Food and the Environment 2022” (RIFE 28), has been published on the GOV.UK website:

[RIFE 28 Summary, Radioactivity in food and the environment, 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/rife-28-summary-radioactivity-in-food-and-the-environment-2022)

The RIFE report presents an assessment of annual radiological dose to individuals (termed ‘the representative person’) in the local population who are most exposed to radiation from each nuclear licensed site. In 2022, the total annual dose to the representative person from all pathways and sources of radiation from Bradwell site was less than 5 microsieverts and was slightly down from the dose of 6 microsieverts recorded in 2021.

The report for 2022 shows that doses to the public, remained well below the legal limit of 1000 microsieverts for anthropogenic sources of radiation. The annual dose in 2022 is also below the dose constraint of 300 microsieverts to members of the public from discharges and direct radiation. The average annual radiation dose received in the UK from all sources of radiation is 2700 microsieverts. (Radioactivity from natural background is a more significant source of exposure than nuclear sites, to communities in all areas of the UK.)

Bradwell site's permit requires NRS to carry out a programme of environmental monitoring to monitor and assess the impact of discharges on the environment. NRS report on the results of this programme annually, within three months of the end of the calendar year. At the time of writing this report, the results of the environmental monitoring programme for the 2023 calendar year have not yet been received.

Further information

NRG(S) is responsible for the environmental regulation of radioactive waste disposals on or from nuclear licensed sites in southern England (and in south Wales, on behalf of Natural Resources Wales). We work closely with the local Environment Agency teams in **Essex Area** in relation to other Environment Agency roles and responsibilities.

Address Environment Agency, Nuclear Regulation Group, Red Kite House, Howbery Park, Wallingford, Oxfordshire, OX10 8BD

customer service line 03708 506 506

incident hotline 0800 80 70 60

floodline 03459 88 11 88

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Regulators' Email james.heavingham@environment-agency.gov.uk

A public register service is available on the GOV.UK website at:

<https://environment.data.gov.uk/public-register/view/index>

Alternatively you can request access to public documents directly by contacting the Customers and Engagement Team in the Wallingford office. Please email

WTenquiries@environment-agency.gov.uk

Further information on our role in regulating the use of radioactive substances and related activities on nuclear licensed sites can be found on the Environment Agency pages of the Gov.UK website at:

<https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>

Our enforcement and sanctions policy is publicly available on the GOV.UK website at

<https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>

Public Health England has placed guidance on ionising radiation dose comparisons on the GOV.UK at:

<https://www.gov.uk/government/publications/ionising-radiation-dose-comparisons>