



Office for
Nuclear Regulation

Chief Nuclear Inspector's annual report on Great Britain's nuclear industry

October 2026

Appendices



Appendix A – Directorate Summaries

This appendix presents dutyholder-specific evidence of industry performance during 2025/26, organised by our directorates: Sellafield, Decommissioning, Fuel, and Waste (SDFW) and Transport, Operating Facilities Directorate (OFD), and New Reactors Directorate (NRD). It draws on our regulatory findings from inspections, assessments, permissioning, enforcement activity and engagement with dutyholders. It provides a summary of how individual dutyholders have maintained required standards, delivered improvements or risk reduction, and responded to shortfalls requiring regulatory attention or formal enforcement.

The detail presented in this appendix informs the wider assessment of evidence set out in the main report. This ensures that dutyholder-specific findings are considered within the broader assessment of sector performance, regulatory outcomes, emerging themes and areas requiring continued attention.

A.1 Sellafield, Decommissioning, Fuel, and Waste, and Transport

A.1.1 SDFW 2025/26 Regulatory Priorities

SDFW ensures dutyholders comply with their legal obligations while setting conditions to expedite high-hazard risk reduction, accelerate decommissioning, protect nuclear liabilities, and enable growth in the civil nuclear fuel sector. The regulatory priorities for the reporting period were to:

- Promote improvement in sites in enhanced and significantly enhanced regulatory attention (Sellafield, Springfields and Dounreay);
- Enable safe and secure high-hazard risk reduction activities at Sellafield, including the legacy ponds and silos, remediation, special nuclear material and analytical capability;
- Enable safe and secure interim and long-term storage of waste and spent fuel across the SDFW dutyholders; and
- Enable safe and secure accelerated decommissioning across the SDFW dutyholders.

A.1.2 Sellafield Ltd

Progress on retrievals of waste from Sellafield's legacy ponds and silos has continued. This has been affected by technical challenges, asset reliability, and ageing infrastructure, requiring Sellafield Ltd to consider, and in some cases progress at pace, innovative approaches to sustain hazard and risk reduction.

The special nuclear materials (SNM) area continued to address regulatory issues associated with improvements to some of its ageing SNM facilities. One significant regulatory issue (a Level 1 issue, our highest) relates to safe and secure storage of the ex-Dounreay material transported to Sellafield. While this issue has been in place since July 2017, a number of recommended actions have been addressed, with a facility that is fundamental to reducing the risks likely to come on-line during 2027/28.

Sellafield Ltd continues to make satisfactory progress in establishing arrangements for acute risk SNM packages from the Mixed Oxide Demonstration Facility (MDF). The ongoing construction of the Sellafield Product and Residue Store Retreatment Plant (SRP) remains fundamental to the future SNM programme.

Other noteworthy progress at Sellafield Ltd during the year has included:

- Commencement of active commissioning and active demonstration of the Glovebox Size Reduction Active Demonstrator. This is an innovative

approach to reducing risk from manual decommissioning of alpha-contaminated gloveboxes;

- Preparation for transfer of plutonium bearing liquors into the High Level Waste Plants (HLWP), which will provide a reduction in hazard and risk, and facilitate post-operational clean out of reprocessing facilities;
- Enabling activities were completed for the Magnox Swarf Storage Silo (MSSS) to support retrievals from all compartments, which will facilitate mitigation of the leak and provide progressive hazard and risk reduction;
- Processing and conditioning of plutonium residues cans for safe storage pending future disposal at a Geological Disposal Facility (GDF); and
- Developing and piloting a risk case approach to support safe and efficient decommissioning activities within remediation.

NSHS performance remained variable during the reporting period, with conventional safety shortfalls requiring continued regulatory oversight. We served an improvement notice in relation to the Control of Lead at Work Regulations 2002, following the release of lead oxide from flexible shielding sheets. Sellafield Ltd complied with this notice, and with a previous notice served in January 2025 under regulation 5(1) of the Management of Health and Safety at Work Regulations 1999, following an incident on the Sellafield site railway network.

In April 2025 at Sellafield Encapsulated Product Store 1, two crane cables weighing approximately 125kg each dropped from height narrowly missing personnel. We carried out an investigation that resulted in us serving an improvement notice to Sellafield Ltd and an enforcement letter to the contractor Wellman Booth in May 2026.

Sellafield's cyber security arrangements remained a key area of focus during the year, the priorities being cyber security resourcing and the resilience of critical digital systems. Physical security also remained, and will continue to be a regulatory priority, reflecting the evolving threat landscape and the importance of enhanced site-wide arrangements to support future plutonium immobilisation safely and securely.

Overall, Sellafield's safeguards performance remains satisfactory. Sellafield Ltd continues to support International Atomic Energy Agency (IAEA) international safeguards interventions. These interventions are essential to provide assurance to the international community that the UK is meeting its international nuclear safeguards obligations, agreed with the IAEA under the Voluntary Offer Agreement, and demonstrating the UK's open and transparent approach.

Sellafield Ltd has maintained close collaboration with and the IAEA in preparing for future safeguards implementation at the SRP. This includes supporting the planning and installation of safeguards equipment necessary for the IAEA to meet its

verification objectives. We will continue to support Sellafield Ltd in their implementation of safeguards to influence compliance.

A.1.3 Nuclear Restoration Services Ltd

Nuclear Restoration Services (NRS) currently consists of 15 licensed sites. These are Bradwell A, Berkeley, Chapelcross, Dounreay, Dungeness A, Harwell, Hinkley Point A, Hunterston A, Hunterston B, which transferred from EDF to NRS on 1 April 2026, Oldbury, Sizewell A, Trawsfynydd, Winfrith and Wylfa.

Safety and security, including cyber security and information assurance (CSI&A), performance across NRS's sites has been satisfactory, with all sites in routine regulatory attention apart from Dounreay, which is in enhanced attention.

Safe decommissioning at pace remains a high-level priority, with major demolition and decommissioning projects continuing across the NRS estate. The principal nuclear hazard reduction activity remains the retrieval and packaging of intermediate level waste into modern storage facilities, pending long-term disposal routes becoming available. During the year, NRS successfully demonstrated its safety and security readiness to receive Hunterston B from EDF, and relicensing was completed on 1 April 2026. This will be followed by Hinkley Point B in late 2026.

Notable progress on decommissioning projects at NRS included:

- Hinkley Point A placed the first concrete box of intermediate level waste in its interim storage facility. This is an important step in managing historic wet radioactive wastes at NRS;
- Oldbury utilised a novel electrical de-cabling method to bulk cut cables running from the reactor to the turbine hall, which was conducted over two weekends as opposed to two years' worth of work, using previous approaches;
- Trawsfynydd has continued preparations for height reduction of the reactor buildings, which is a critical enabler for early dismantling of NRS's reactor fleet;
- Winfrith progressed its project to remotely cut up and remove Dragon reactor components using innovative laser cutting technology, and progressed decommissioning of the Steam Generating Heavy Water Reactor (SGHWR), after having overcome some of the previous challenges;
- NRS has engaged with us and Home Office police forces to progress work to reduce security risks at Harwell and Winfrith beyond 2025/26; and
- Harwell continued programmes to retrieve waste from the tube stores and remove legacy wastes.

Thanks to NRS's collaborative response to our engagements it was possible to implement proportionate oversight of the application of Licence Conditions (LCs) and implement NRS key decommissioning milestones (see Annex 2 case study). We will continue to support NRS in progressing on these milestones.

Due to good progress in nuclear hazard risk reduction having been achieved at NRS sites in the previous reporting periods, we recognised that the safety risk profile on these sites has been gradually shifting from nuclear to conventional health and safety. Therefore, we will continue to refocus our regulatory attention proportionately to the risks on the sites.

A.1.3.1 Dounreay

As outlined in Section 3.7, NRS Dounreay remained in enhanced regulatory attention for safety during the year. Progress has been made in addressing the key drivers for this: asset condition (site utilities and building integrity), conventional health and safety (including COMAH and DSEAR requirements), and the impact of organisational change on safety culture.

The interim end state for Dounreay (when all operational buildings are demolished and waste is placed in interim stores) has been agreed to extend beyond 2070, to recognise the decommissioning challenge posed by the site. NRS Dounreay has secured a substantial increase in funding to deliver their revised lifetime plan, including support for safe decommissioning of the site. We are working with Dounreay to ensure key enabling assets (for example, buildings, utilities and electrical systems) remain fit for the extended site life, with several improvement projects underway.

Dounreay's organisation continues to undergo change, including the recent NRS-wide Mutually Agreed Voluntary Exit programme and restructuring to focus on delivery, particularly the shaft and silo programme. Safety and security commitments have been maintained, and we continue to monitor the impact of organisational changes on regulatory outcomes and decommissioning progress.

The planned transfer of the Vulcan Naval Reactor Test Establishment from Ministry of Defence to the Nuclear Decommissioning Authority and NRS, creating a single site with Dounreay, will be a key focus for future regulation. This will require robust arrangements and evidence of effective leadership, management, and organisational change control.

Following a significant lifting incident, an improvement notice was issued in April 2025. This has now been complied with after Dounreay strengthened its risk assessment processes, including better identification of high-risk handling activities. However, as concerns remain regarding overall health and safety performance, this has contributed to the site remaining in enhanced regulatory attention for safety.

Security performance remains satisfactory, with appropriate executive support, and cyber security and information assurance are adequate. Due to its remote location,

the Civil Nuclear Constabulary continues to use varied approaches to recruit and retain sufficient personnel.

A.1.4 Springfields Fuels Ltd

Springfield Fuels Ltd (SFL) produces fuels and oxide fuel powders for UK and international customers. With the planned future closure of some AGR stations, SFL is looking at opportunities for new business, which is likely to involve new build and further recruitment. We will support SFL across all relevant purposes to ensure it is able to manage any construction work, while developing capability and culture in a proportionate way. SFL remains in enhanced regulatory attention for cyber security, with further details provided in Section 3.6.

A.1.5 Urenco UK Ltd

The site-wide transformation programme has continued, and we remain supportive of Urenco UK Ltd's (UUK) ambition to harmonise ways of working. There is a significant programme of expansion proposed, and our focus remains on enabling UUK to improve its capacity and capability to safely manage these projects. We are closely monitoring UUK's upgrades of existing ageing enrichment facilities, with a particular focus on proportionate and timely safety improvements.

We concluded an investigation into an incident that occurred at the Tails Management Facility (TMF) in February 2024, when a metal container was dropped from a forklift truck. The investigation resulted in a decision to bring prosecutions against a tenant and permanent contractor. We continued to investigate a separate incident, which resulted in an injury to a worker's hand.

A fire safety inspection in February 2024 identified that operations at the A3 plant were not being conducted in accordance with an adequate safety case. UUK voluntarily brought forward a planned outage and ceased operations. Following significant safety improvements, we permissioned the return to service of the plant and it has now returned to normal operations.

To reflect the increasing level of risk and hazard, and the need for improvements in risk management, we have influenced UUK to develop a site-wide safety improvement programme. UUK has responded positively to this enabling, outcome-focused approach to regulation and we will closely monitor its implementation and effectiveness.

UUK has continued to perform adequately in relation to protective security, with any incidents being minor in nature and rectified promptly. This was evidenced during a Leadership and Management for Security inspection of the site's new arrangements.

The IAEA safeguards activities have achieved their objectives, and the unique Carousel safeguards training facility is now operational.

UUK has demonstrated that implementation of arrangements for nuclear material accountancy and control met our expectations. There is a noticeable trend in

inventory differences, and we will continue to monitor the implementation of new procedures for identifying and quantifying material hold-up.

A.1.6 New fuels programmes

For the High Assay Low Enriched Uranium (HALEU) programme, we are reviewing our regulatory guidance to ensure it remains effective for advanced and higher-enriched fuel facilities. We are beginning a programme of international engagement to ensure the UK's regulatory approach to advanced fuels facilities is world leading and supports the UK's position as a leader in HALEU supply.

Engagements are underway with Urenco on HALEU enrichment, with advice on key topic areas for the new facility. Further engagements are planned, with assessment of the early submissions for construction expected to begin this year. Further engagements on transport (package approvals and security arrangements) are also at an early stage.

We are also engaging with potential new licensees for fuel facilities. These are currently progressing through our early engagement and pre-application advice processes in advance of any new licence applications being received.

We are engaging with the Ministry of Defence as it works up options for its nuclear fuels programme for new reactor fuels for defence purposes.

A.1.7 Radioactive materials transport

Our Transport Competent Authority regulates the safe transport of civil radioactive material throughout GB by road and rail, and acts on behalf of other UK Competent Authorities, performing certain functions (such as package design approvals) on their behalf. The scope of our work includes the nuclear industry and a range of other sectors including medical, construction, manufacturing, and research.

Through our work on a broad range of domestic and international transport activities during the reporting period, we noted the following observations in the transport industry.

- A wide variety of package designs and shipments that we inspected complied with the regulations, and where shortfalls were identified, these were corrected prior to issuing regulatory approval. Where modifications to existing designs were proposed, the dutyholders engaged with us and responded to regulatory advice in their designs.
- Where we observed failings - for example in including provision of professional radiological safety and dangerous goods safety advice, or the adequacy of radiation risk assessments, or when we took enforcement action - the dutyholders took the required actions to achieve compliance with the law.

- Where non-compliances or shortfalls were identified in relation to the Ionising Radiations Regulations 2017, the organisations involved were able to implement the required improvements before consent was issued.

The industry, with regulatory engagement by us, has enabled the safe transport of, for example:

- Irradiated fuel from Hinkley Point B to Sellafield, enabling complete removal of fuel from the site leading to a lower risk profile;
- Vitrified residues from Sellafield to the Isar federal storage facility in Germany;
- A concrete lined drum from the Winfrith site, lowering the nuclear security risk profile of the site;
- Radioactive material used in the medical sector for patient treatment; and
- Radioactive material used in industrial applications such as radiography and sterilisation.

During the year, our Transport Security team continued to work with domestic and international stakeholders. Based on the sample inspected, they gained assurance that appropriate security measures were in place for strategically important transport movements and to support wider global threat reduction objectives. Inspection activity for Class A and Class B carriers continued, with a focus on areas of greatest risk and on novel or innovative approaches implemented by dutyholders. This did not identify significant issues in transport operations and inspection findings provided assurance that sampled carriers maintained appropriate security standards.

A.2 Operating Facilities Directorate

A.2.1 OFD 2025/26 Regulatory Priorities

OFD ensures dutyholders maintain safe operations across the fleet of operating reactors and defence-related nuclear facilities and, where our legal vires permit, secure operations, whilst supporting strategic outcomes through proportionate regulatory oversight. The regulatory priorities for the year were:

- By the end of the financial year determine whether OFD's enhanced and significantly enhanced regulatory attention dutyholders (Devonport Royal Dockyard Ltd. (DRDL), EDF – cyber security, and EDF Hartlepool) demonstrate sufficient readiness to return to routine regulatory attention.
- Oversee the continued safe and secure operation of the UK's operating reactor fleet, including Advanced Gas-cooled Reactors (AGRs) following EDF's lifetime extension decision. This was to be done through targeted and proportionate assessment of key safety cases and protective security arrangements, combined with focused inspection activity.
- Provide advice and guidance to influence the timely and high-quality delivery of the dutyholder's periodic safety review outcomes for the AWE Plc Burghfield assembly/disassembly facility, in line with its strategic operating requirements, and subsequently commence regulatory assessment of those outcomes.

OFD also continues to balance holding industry to account for committed improvements whilst enabling the delivery of longer-term priorities. Examples include:

- Enabling safe and secure transition of AGRs, including Hunterston B's transfer to NRS and withdrawal of the Civil Nuclear Constabulary following approval of revised proportionate security arrangements and completion of defuelling.
- Holding AWE Plc to account for required improvements in explosive safety, specifically an improvement notice requiring the dutyholder to better plan, oversee and control related activities. This close oversight enabled safe production of material, a strategically important outcome for the UK.

A.2.2 AWE Plc

AWE Plc remains in routine regulatory attention for safety for both its Aldermaston and Burghfield sites. It demonstrates effective safety outcomes and is broadly compliant with the nuclear site licence conditions. It continues to make progress in addressing the small number of regulatory issues across the sites.

We continue to work closely with the Defence Nuclear Safety Regulator (DNSR) and the Environment Agency across both sites through joint inspections and engagement, providing proportionate multi-agency regulatory oversight while supporting AWE Plc to deliver its mission.

Safety performance at the Aldermaston site continues to improve after returning to routine regulatory attention in March 2025. We maintain regulatory oversight to ensure that these improvements are sustained and to monitor improvement activities relating to current and future organisational capability.

Aldermaston has a demanding programme of infrastructure delivery alongside continued operations. We maintain an enabling approach to support the dutyholder's legal compliance during this period of development and operational activity.

We have concluded our investigation into a construction work-related fatality that occurred in July 2023. A prosecution has been brought against Balfour Beatty Group Ltd.

In August 2025, we confirmed to AWE Plc, based on evidence sampled during targeted interventions, that appropriate and proportionate steps had been taken to demonstrate compliance with the improvement notice served in October 2024, which focused on explosive safety improvements at Aldermaston.

We have continued our enabling approach at the Burghfield site, and we are assessing the dutyholder's periodic safety review for the current assembly and disassembly facility. This supports compliance with the law and the continued operation of a strategically significant capability.

The Project MENSA programme continues to make good progress, with the facility construction completed and the programme now transitioning to the process commissioning stage.

In the next reporting period, we will continue to target our attention on specific themed areas, including control of work, supply chain, intelligent customer capability, and NSHS. AWE Plc recognises where further improvement is required and has established improvement programmes in these areas, supported by mature internal oversight.

A.2.3 BAE Systems Marine Ltd

BAE System Marine Ltd (BAESML) remains in routine regulatory attention for safety. It is generally compliant with nuclear site licence conditions and continues to progress the small number of open regulatory issues. Events during the reporting period identified shortfalls in the implementation of the nuclear safety case that required regulatory intervention.

These included three events reported in early 2026, which consisted of a number of non-compliances with operating rules. We issued an enforcement letter to secure sustained improvement. BAESML has recognised the areas requiring further improvement. It has a mature internal regulator, which has provided challenge and advice concerning the implementation of safety case requirements through operating instructions. A joint inspection with DNSR identified shortfalls in the production and use of operating instructions. We will continue to monitor progress in these areas.

Following a significant fire in October 2024, we served an enforcement notice requiring improvements to emergency arrangements to protect workers. During the reporting period, BAESML complied with the notice within the required timescale. We continue to work closely with DNSR through joint inspections and engagement, using a flexible permissioning approach to enable BAESML to comply with the law while supporting delivery of its future submarine build programme.

A.2.4 Devonport Royal Dockyard Ltd

Our regulatory activities during the reporting period provide evidence that DRDL is sustaining effective nuclear safety outcomes based on the areas sampled. Targeted engagement across leadership, governance, internal assurance, and site-wide safety performance has given us confidence that arrangements in these areas are operating effectively. Robust internal oversight and challenge are evident, supporting our judgement that improvements against our highest-level regulatory issues are effective and sustained. This has enabled those issues to be closed.

Our regulatory intelligence indicates that DRDL has strengthened its capability to identify and respond to emerging risks, with organisational learning and self-assessment increasingly driving continuous improvement. This is reflected in a more proactive approach to risk management and reduced reliance on regulatory oversight.

In parallel, site-wide safety and housekeeping standards have remained stable and aligned with regulatory expectations. This reinforces our view of the overall maturity of DRDL's safety performance.

Taken together, this evidence demonstrates that DRDL is performing effectively and sustainably, providing the basis for our judgement that the site meets the characteristics of routine regulatory attention as set out in Section 3.1.

A.2.5 EDF

During the year, we maintained regulatory oversight of EDF's reactor fleet, including security arrangements and AGR transition. Operating reactors have remained a high regulatory priority, with the main developments set out below.

A.2.5.1 Corporate centre

The performance and regulatory attention relating to cyber security is covered within Section 3.4. For other aspects of safety and security, inspection outcomes at EDF's corporate centre indicated that arrangements and their implementation met our expectations. One exception was in relation to arrangements for counterfeit, fraudulent and suspect items, which we are ensuring the dutyholder progresses.

EDF made good progress in closing two long-standing regulatory issues concerned with Licence Conditions (LC) 17 (management systems) and LC 36 (organisational capability) shortfalls. We are monitoring the dutyholder's progress against other regulatory issues.

EDF's corporate centre has continued to engage openly with us. We have raised regulatory issues to secure improvements in the management system and continue to oversee progress in related arrangements. This includes embedded contractors, multi-baseline working and management of change.

Overall, we consider that EDF's corporate centre is responding appropriately to current challenges and continues to effectively support both operating stations and defuelling sites. Safety and security performance remains generally adequate, with shortfalls being managed through routine regulatory processes.

A.2.5.2 Heysham 1 and Hartlepool

Hartlepool has been placed under significantly enhanced regulatory attention for safety. For further details please refer to Section 3.5. Heysham 1 is generally compliant with LCs and remains subject to routine regulatory attention.

In December 2024, EDF announced its intention to extend operation of Heysham 1 and Hartlepool to 2027. During the reporting period, graphite inspection results at both stations continued to increase confidence in the ability to operate safely to their declared end dates. In September 2025 EDF announced a further extension of operation to 2028. We require the dutyholder to maintain robust safety justifications and appropriate security arrangements to underpin continued operation. Work undertaken to improve boiler feed diversity at both stations has reduced risk in this area.

We are continuing our investigation at Hartlepool following an incident in 2025. An operative inadvertently opened a valve on an operational steam boiler, resulting in an unintentional release of high-pressure steam with the potential for serious harm. The station complied with the improvement notice we issued. We issued a further notice in relation to another incident that had the potential to harm workers. This was related to hydraulic oil under pressure, which the station complied with.

A.2.5.3 Heysham 2 and Torness

Both Heysham 2 and Torness are sustaining effective safety and security outcomes and are accordingly subject to routine regulatory attention. However, we continue to monitor the progression of graphite brick keyway root cracking at both stations. The key consideration with this cracking is the movement of control rods under all credible scenarios. A further focus area is the potential generation of debris from seal ring groove wall cracking and the associated impact on fuel movement.

EDF has progressed strengthening the water ingress safety cases at both stations. Water ingress faults remain the highest-risk plant fault category at Heysham 2 and Torness, with a frequent large leak assessed as a dominant fault. EDF is progressing installation of an automatic leak termination system to reduce the associated risk.

At Torness, following the enforcement letter issued in May 2023 in relation to life fire safety, progress in addressing compliance shortfalls has not progressed at the pace required. We issued a further enforcement letter, held a holding-to-account meeting, and escalated the associated regulatory issue to secure sufficient oversight and progress.

A.2.5.4 Hinkley Point B

Hinkley Point B has successfully completed defuelling of both reactors. We undertook inspections to inform our judgement that the station is fuel free. This allowed approval of a security plan without an armed response element, ensuring arrangements remained proportionate to the reduced nuclear security risk. The site has exited the COMAH regime and is no longer classified as a lower-tier COMAH site.

Responsibility for regulatory oversight has now transferred to our SDFW directorate. The site is expected to be re-licensed to NRS in the next reporting period.

A.2.5.5 Sizewell B

Regulatory interventions and interactions provide confidence that Sizewell B is generally compliant with nuclear site licence conditions and demonstrating safe and secure outcomes. Accordingly, it remains subject to routine regulatory attention. However, we judged the dutyholder's 2025 periodic safety review to be inadequate, and we are overseeing how EDF is addressing the shortfalls identified and their timely resolution.

EDF continues to work with UK government to establish arrangements to support long-term operation of Sizewell B beyond its original design life, from 2035 to at least 2055. We have previously engaged with EDF on the feasibility of life extension and concluded that there are no issues of significance that would preclude long-term operation.

A.2.5.6 Dungeness B

During the reporting period Dungeness B has shown improvement across some key metrics and performance indicators and is firmly within the routine regulatory attention category. This includes more effective use of key risk management tools for conventional health and safety, a reduction in the number of active regulatory issues, and no requirement for formal enforcement action during the period.

The plant continues to experience defuelling reliability challenges associated with its design, which the station is managing appropriately through conservative decision-making.

In January 2026, we notified XPO Transport Solutions UK Ltd that it will be prosecuted for a health and safety offence following an incident at Dungeness B Power Station. This relates to an accident involving a vending machine at the nuclear site in Kent in March 2024, which left an XPO employee with serious leg injuries and requiring hospital treatment. The prosecution relates to an alleged breach of the Health and Safety at Work etc. Act 1974 Section 2(1).

A.3 New Reactors Directorate

A.3.1 NRD 2025/26 Regulatory Priorities

NRD is responsible for regulating all civil new nuclear activity and for advising government on policy, technical and regulatory matters relating to new nuclear. It works internationally to improve collaboration in pursuit of harmonised, streamlined and efficient new nuclear programmes, and to support emerging and re-emerging nuclear nations. NRD's regulatory priorities for the year were to:

- Regulate Hinkley Point C (HPC) and Sizewell C (SZC) effectively and efficiently; with the right balance of expertise, to deliver worker, public and wider stakeholder assurance.
- Progress Step 3 of the Generic Design Assessment (GDA) of the Rolls-Royce Ltd small modular reactor (SMR), jointly with the Environment Agency, ensuring the assessment is proportionate and demonstrably risk-informed.
- Complete Step 2 of the GDA of the GE-Hitachi (GEH) BWRX-300 SMR and of the Holtec SMR-300 technology, jointly with the Environment Agency, ensuring the assessment is proportionate and demonstrably risk-informed.
- Commence Step 1 of the Westinghouse AP300 GDA, jointly with the Environment Agency, ensuring the assessment is proportionate and demonstrably risk-informed.
- Progress early engagement with reactor vendors/developers, jointly with the Environment Agency, on an open access basis until all opportunities to resource/support have been exhausted.

- Support Great British Energy – Nuclear (GBE-N) through advice, guidance and secondements.
- Support the Department for Energy Security and Net Zero (DESNZ) and other government departments through advice and guidance and maintain connectivity to inform horizon scanning and resource planning.

A.3.2 NNB GenCo - Hinkley Point C

Construction of GB's first twin-unit European Pressurised Reactor continues to progress near Bridgwater in Somerset, with major installation, civil construction and commissioning milestones achieved during the reporting period. The scale and complexity of the project continue to require close regulatory attention, particularly in relation to equipment delivery, installation and commissioning, organisational capability, safety case development, construction safety and learning from other projects. Regulatory activity has also included follow-up of relevant concerns raised through whistleblowing reports and responses to public queries.

During the reporting period, all primary circuit equipment for Unit 1 was installed and welded into place, the Polar Crane was commissioned, and civil construction neared completion on Unit 1 and was well advanced on Unit 2. We used flexible permissioning, drawing on learning from Unit 1, to expedite permission for the introduction of the first emergency diesel generator into Unit 1 and the Reactor Pressure Vessel into Unit 2.

We issued enforcement notices to the Bylor joint venture members (Bouygues Travaux Publics SAS and Laing O'Rourke Delivery Limited) and to the MEH Alliance for compliance shortfalls in fire safety arrangements under the Regulatory Reform (Fire Safety) Order 2005. We have observed significant improvements and will continue to monitor whether these are sustained.

Trial dates have been set for two prosecutions at HPC. The first prosecution trial date has been set for October 2027, which relates to an incident that occurred in August 2022 where a worker sustained serious injuries when a wall of rebar mesh fell on him. The second prosecution trial has been set for January 2028, which relates to an incident on 13 November 2022 when a site supervisor died in a construction incident. Both trials will be held at Bristol Crown Court.

In the next reporting period, we will continue to focus on safe and secure project delivery, particularly worker safety in construction, quality and supply chain arrangements, commissioning readiness and organisational capability. HPC continues to make visible progress, but these areas remain central to managing the delivery risks associated with the scale and complexity of the project.

A.3.3 Sizewell C Ltd

Following the grant of a site licence, financial close took place in November 2025, providing the organisational arrangements and confidence needed to move the project forward.

Early construction activities have been progressing at pace. The necessary on-site and off-site infrastructure is being put in place to enable major construction activities to proceed. Our first key permissioning point is anticipated to be pouring of First Nuclear Safety Concrete scheduled for late 2027.

SZC's ability to maximise the benefits of replicating the HPC design, while maintaining safety, security and safeguards standards, will be central to its performance as construction activity increases. Learning from HPC has also enabled a more focused and targeted approach to regulatory inspection and assessment. Annex 2 includes a case study on enabling design replication and delivery through proportionate regulation.

SZC is likely to set an important precedent for how future projects are funded, established and governed within the UK nuclear portfolio. Strong leadership understanding of the nuclear regulatory framework will therefore be important as the organisation moves further into delivery.

In the next reporting period, we will focus on safe and secure project delivery, targeted oversight of site-specific and non-replicated nuclear safety-significant aspects of the design, worker safety in construction, quality and supply chain arrangements, organisational capability, and interfaces between SZC and Sizewell B. As construction activity increases, the priority will be ensuring learning from HPC is translated into effective site-specific arrangements.

A.3.4 Rolls-Royce SMR GDA

Step 2 of the Rolls-Royce SMR GDA concluded that there are no fundamental safety, security, safeguards or environmental protection reasons why a Rolls-Royce SMR could not be built in GB. The Rolls-Royce SMR design uses mature and established technology deployed internationally. Innovation comes in the form of its modular approach to construction, which would see many components built in factory conditions and assembled on site.

Since August 2024, we have engaged with Rolls-Royce SMR Ltd on a Step 3 detailed examination of the available design and supporting evidence. A 29 month schedule was agreed with the reactor technology vendor, based on its own development plans and stakeholder requirements. During 2025, independent of GDA, Rolls-Royce SMR Ltd identified several significant changes to its reactor design intended to reduce cost and build schedule. To support the efficient use of GDA, we agreed to include the revised design within the scope of Step 3. This required us to agree to Rolls-Royce SMR Ltd's request to extend GDA Step 3 to the end of 2027, allowing it time to update the analysis and documentation to reflect the modified design.

In January 2026 Rolls-Royce SMR Ltd declared its revised 'Design Reference Point' that forms the basis for future GDA submissions and what the GDA conclusions will apply to. A revised schedule for the generation and provision of submissions to the regulators has been agreed. Rolls-Royce SMR Ltd has published version 3 of its generic Environment, Safety, Security, and Safeguards (E3S) Case, and this has

been complemented by supporting documents, which are increasingly consistent with the revised design.

Rolls-Royce SMR Ltd has produced credible plans to address 10 Regulatory Observations. If implemented effectively, these should support resolution of the identified concerns and strengthen the future design and safety case demonstration.

In this reporting period, the Rolls-Royce SMR design was selected by GBE-N as the first SMR to proceed to construction with government support. Additionally, in this reporting period it was announced that this would take the form of three units at the Wylfa site on Anglesey. This decision was independent of us and GDA, and Rolls-Royce SMR Ltd will not be the organisation applying for a nuclear site licence.

In the next reporting period, progress with the GDA will depend on the quality and timeliness of revised Step 3 submissions, and the resolution of Regulatory Observations. The first benefits of this GDA are now clearly to de-risk future deployment at the Wylfa site and to inform preparatory engagements with GBE-N ahead of a future nuclear site licence application.

A.3.5 BWRX-300 GDA

In December 2025, the GE Vernova Hitachi BWRX-300 reactor design successfully completed Step 2 of GDA. This assessment concluded that there are no fundamental safety, security, safeguards or environmental protection reasons why a BWRX-300 could not be built in GB.

GE Vernova Hitachi is the first reactor technology vendor to take advantage of the flexibility introduced into the GDA process, choosing to stop GDA at the end of Step 2 while they consider their options for taking the BWRX-300 forward in GB. Since the conclusion of Step 2, ONR has not been actively engaged on this technology.

GE Vernova Hitachi has provided credible plans to address the three Regulatory Observations raised during Step 2. If implemented and incorporated into the maturing design and safety case, these issues should not prevent future permission for construction.

The BWRX-300 assessment benefited from mature safety and security submissions, a frozen design for assessment, and active collaboration with international regulators, the U.S. Nuclear Regulatory Commission (NRC) and Canadian Nuclear Safety Commission (CNCS). This collaboration, established through a Memorandum of Cooperation ([MOC on ARs and SMRs with USA CAN and UK](#)), has shown how regulators working internationally on the same technology and timescales can improve efficiency, design consistency, and reduce burden on vendors and dutyholders. This supported an efficient Step 2 assessment and provides useful learning and a template for future regulatory collaboration on standardised reactor technologies proposed for multinational deployment.

Completion of Step 2 was a positive outcome and reflected the maturity of the submissions and the benefits of flexible, internationally aligned GDA. Further GB

regulatory work will depend on whether GE Vernova Hitachi, or a future dutyholder, identifies a viable deployment route for the BWRX-300 reactor technology.

A.3.6 SMR-300 GDA

In March 2026, the Holtec SMR-300 reactor design successfully completed Step 2 of GDA. This assessment concluded that there are no fundamental safety, security, safeguards or environmental protection reasons why a SMR-300 could not be built in GB.

Holtec supported an efficient and proportionate Step 2 assessment, which was delivered in 16 months, including a two-month acceleration at Holtec's request, with around 35% less regulatory resource than comparable previous GDAs and without compromising outcomes.

Holtec chose to stop GDA at the end of Step 2 and currently has no plans to proceed to Step 3. Holtec is instead focused on deploying its first SMR-300 twin unit facility in the United States. Holtec has produced credible plans to address the 14 Regulatory Observations raised during Step 2. If implemented effectively, these should support resolution of the identified concerns and strengthen any future design and safety case demonstration.

In September 2025 Holtec, in partnership with EDF and Tritax, announced plans to construct the SMR-300 at Cottam, in Nottinghamshire. Since the conclusion of GDA we have engaged with Holtec and its partners as they develop their plans for progressing the Cottam project. We anticipate continuing our assessment of the design on a site-specific basis.

In the next reporting period, our work is likely to focus on site-specific engagement if the Cottam proposal develops, supported by continued collaboration with the Environment Agency, Natural Resources Wales (NRW), and the US NRC. The SMR-300 assessment has demonstrated that GDA can be delivered efficiently and proportionately without compromising regulatory outcomes.

A.3.7 AP300 SMR GDA

Westinghouse requested deferral of the AP300 SMR GDA before assessment commenced, and timescales for entry into GDA have not yet been confirmed. As a result, the maturity of the design and supporting safety, security and safeguards case has not yet been tested through assessment.

Future regulatory effort remains dependent on Westinghouse confirming its readiness, scope and timescales for GDA.

A.3.8 Early Engagement and Advanced Nuclear Technologies

During the year, sustained interest in the early engagement framework continued from organisations seeking to deploy advanced nuclear technologies in GB. Multiple parties progressed through tier 1, 2 and 3 engagements, reflecting increasing

awareness of pathways to deployment and the importance of early regulatory consideration. The process remains available to organisations and continues to operate on a voluntary and flexible basis, enabling engagements to meet the needs of individual organisations.

Joint engagement with the Environment Agency and NRW provided requesting parties with coordinated advice on design maturity, regulatory expectations and deployment considerations in the GB context. This included:

- Completion of structured technical and process workshops (tier 2) with TerraPower and X-energy, enabling detailed discussions on design maturity, regulatory expectations and deployment considerations in the GB context; and
- Completion of a [preliminary design review \(PDR; tier 3\) of Last Energy UK's PWR-20 design](#) in three topic areas: organisational plans and arrangements, environment and decommissioning, and safety analysis processes and maturity. We have provided initial views and identified that future evidence, needed to underpin safety claims, and the disposability of reactor components will be key areas of regulatory focus. We provided advice to inform subsequent engagement on nuclear site licensing activities, including site-specific design assessment.

We supported the completion of Phase B of DESNZ Advanced Modular Reactor Research, Development and Demonstration Programme. We provided regulatory advice to designers relating to fuel fabrication and high temperature gas reactor designs. Regulatory engagement on this project concluded in December 2025 and we remain ready to engage with vendors in future activities.

We continued to provide regulatory advice and play a significant role in international collaboration through DESNZ's Advanced Nuclear Policy & Delivery (ANPD) programme. This has included the provision of regulatory advice for the development and launch of the [Advanced Nuclear Framework](#), and our sustained engagement in the [Small Modular Reactor \(SMR\) Regulators' Forum](#), where we hold leadership positions and contribute to the development of common regulatory approaches and technical outputs.

Through the IAEA's [Nuclear Harmonisation and Standardisation Initiative \(NHSI\)](#), we contributed to the Regulatory Track and its working groups. This included the development of the [Cooperation Toolkit](#), which recognises key UK good practices, and the [Global Framework for Advanced Reactor Reviews \(GFARR\)](#). Early engagement continues to provide useful insight into a broad and growing market for advanced nuclear technologies. Future progress will depend on designers and developers providing stronger evidence of design maturity, organisational capability and deployment readiness, supported by domestic and international collaboration to improve the efficiency of future assessments.

A.3.9 Engagement with potential GDA requesting parties and nuclear site licence applicants

TerraPower's application to enter the Natrium design into GDA in 2026/27 was reviewed successfully, culminating in its acceptance into the process, and indicating continued vendor interest in progressing advanced reactor technologies through formal GB regulatory pathways.

Last Energy UK's proposed deployment at the Llynfi site progressed into licensing pre-application advice and initial site-specific assessment, focused on safety case strategy and programme readiness. This work was paused in November 2025 at the company's request while it prioritised delivery of its test reactor project in Texas under the US Department of Energy (DOE) Pilot Reactor programme.

The announcement of Wylfa as the site for three Rolls-Royce SMR units has created a clear pathway towards future nuclear site licence engagement with GBE-N, expected to begin in 2026.

In the next reporting period, effort should remain focused on proposals that demonstrate credible readiness for GDA or site licensing, including preparatory engagement with GBE-N, potential Natrium GDA activity and any site-specific advanced reactor proposals.

Appendix B – Cross-cutting areas and trends

This appendix presents cross-cutting activities and trends that provide insight into wider sector performance, capability, and resilience. Overall, the evidence shows a sector that maintained required standards across our statutory purposes, with constructive progress in innovation, emergency preparedness, supply chain oversight, safeguards, and future-facing regulatory engagement.

The evidence also points to areas where consistency and control need to improve. Incident reporting, RIDDOR performance, NSHS, supply chain quality management and safeguards capability, including resilience of specialist expertise, continue to require sustained attention.

B.1 Incidents and ministerial reporting

In line with international expectations, UK legislation requires dutyholders to formally report safety, security and safeguards incidents to us. The thresholds for reporting vary by topic area and require judgement by dutyholders. Therefore, our regulatory focus is not only on the number of reported incidents, but also on the quality, timeliness and consistency of reporting and the learning generated from events.

Our incident reporting process and related guidance are available on our website ([Notify ONR](#)).

Figure B.1 provides an overview of incidents reported to us by dutyholders against each regulatory purpose during the period from 1 April 2025 to 31 March 2026. We have separated radiological and NSHS (RIDDOR¹) incidents to present our five purposes across six topic areas: Nuclear Safety, Radiological Safety, Security, Safeguards, Transport and RIDDOR incidents. The main trends were broadly consistent with previous years, and these areas will continue to be monitored through routine regulatory oversight and targeted engagement where trends indicate the need for improvement.

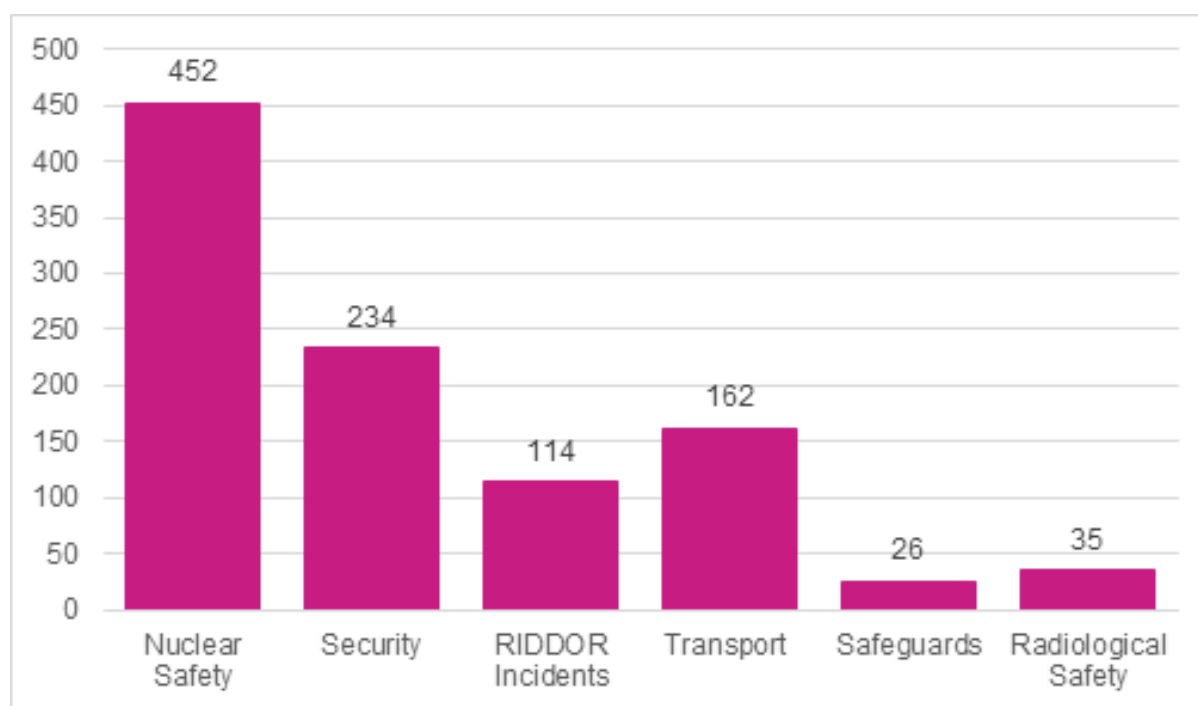


Figure B.1 - Table of incidents reported to ONR in the period 2025/26

¹ Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

During 2025/26, 1,030 incidents were reported to us, compared with 1,033 in 2024/25, indicating that overall incident reporting was broadly stable. This total includes incidents reported against our statutory purposes and seven additional reports under category AN01, which is used where a dutyholder assesses that an incident has attracted, or may attract, significant national media or public attention.

We use a number of variables to identify and trend higher-significance incidents. During 2025/26, there were 69 higher-significance incidents, equating to approximately 7% of all incidents. The methodology now includes International Nuclear and Radiological Event Scale (INES) ratings alongside our inspectors' assessment of incident significance. It has also been refined to focus on incidents requiring the promptest notification and follow-up reporting, while removing previous double counting. During this period, 12 INES events were categorised as anomalies or above, broadly consistent with the previous period, when ten such events were recorded.

We report the most significant civil nuclear incidents to DESNZ, and we publish quarterly summary statements of these incidents. Three incident summaries were published during the period. Further details are available on our website ([Notify ONR](#)).

Nuclear safety

The number of nuclear safety incidents remained similar to the previous year. Category NS16, relating to degraded emergency response capability, accounted for 172 nuclear safety incidents during the period, an increase of 26% compared with 2024/25. This increase was largely attributable to reporting of breaches of minimum safe staffing levels². These breaches can degrade site emergency response capability, but do not in themselves indicate an increased risk of a nuclear event. We are working with dutyholders to ensure safety cases are reviewed promptly and that emergency arrangements remain adequate.

Radiological safety

There were 35 radiological safety incidents notified to us during the period. This aligns with recent years, with 30 incidents in 2023/24 and 40 incidents in 2024/25. Category RS07, which relates to the discovery of radiation or contamination outside controlled areas, accounted for the majority of radiological safety incidents reported, consistent with observations in recent years.

² Minimum safe staffing level (MSSL) is defined based on specific roles rather than functional capability, meaning that the absence of an individual post-holder is sometimes treated as a fundamental gap in emergency response, even where sufficient defence-in-depth exists to fulfil the function.

Safeguards

Fewer safeguards incidents were reported in 2025/26 compared with recent years. There were 36 incidents in 2024/25 and 31 in 2023/24. Category SG02, which corresponds to a suspected unexpected loss or gain of qualifying nuclear material, was the most common category, accounting for 20 of the 26 incidents reported during 2025/26. Reports were predominantly from universities, research establishments and similar organisations, with small gains of material identified.

Transport

Transport incident notifications increased by 18% compared with 2024/25, continuing a trend of increased reporting in recent years. This may reflect our engagement with transport stakeholders to highlight and encourage appropriate reporting. Category TS07 was the most commonly used transport incident category during the reporting period and typically reflects relatively minor non-compliances with aspects of transport regulations.

Security

The number of security incidents during the period was similar to the previous year, with 236 incidents compared with 240 in 2024/25. Category SC10i, which reflects minor non-compliances with the security plan, was the most prevalent security incident category, as expected.

Regulatory response to incidents

Our inspectors decide a proportionate regulatory response for all incident reports. Table B.1 shows our follow-up of all incidents reported between 1 April 2025 and 31 March 2026. The figures below show our final regulatory response, or the indicated response where follow-up remains ongoing, correct at the time of writing. Incident follow-up is ongoing for a small number of incidents reported towards the end of the period.

Table B.1 Regulatory response to incidents

ONR Regulatory Response	Number of Incidents	Proportion
Investigation or Preliminary Enquiries	16 (3)*	1.8%
Routine follow-up	345 (20)*	35.5%
No further action	631 (13)*	62.6%

* *Note:* represent indicated response

Our website provides details, where appropriate, of formal enforcement action relating to the period.

B.2 Reporting of injuries, Diseases and Dangerous Occurrences Regulations 2013

RIDDOR provides important insight into nuclear site health and safety performance across licensed sites. During 2025/26, 114 RIDDOR incidents were notified to us: 88 reportable injuries, 20 dangerous occurrences and six cases of occupational disease. This was slightly below the previous year but remained above the long-term average for the nuclear industry. As in previous years, injuries dominated the profile, accounting for around three-quarters of reports.

Table B.2: Comparative numbers of RIDDOR categories. HS01 – Injuries; HS02 – Disease; HS03 – Dangerous Occurrences

Category	RIDDOR Count	RIDDOR %
HS01	88	77%
HS02	6	5%
HS03	20	18%
Total	114	100%

Slips, trips and falls remained the most common injury type, accounting for around one-third of all RIDDOR reports. Manual handling and musculoskeletal injuries were also significant, representing just under one-fifth of incidents. Higher-consequence incidents were more often linked to failures in work execution and control, particularly during lifting, positioning, access and hazardous process interactions.

Dangerous occurrences accounted for 18% of reports. Although fewer in number, they continue to provide important learning on higher-potential hazards, including hazardous substance releases, lifting and load-handling failures, and weaknesses in isolation or control arrangements. Occupational disease reports remained low, with six cases reported, mainly hand-arm vibration syndrome, reinforcing the need for ongoing health controls and surveillance.

Reported incidents were not evenly distributed across the nuclear estate. Higher numbers were associated with large, complex sites undertaking construction, decommissioning or major maintenance. These figures are absolute counts and should be interpreted in the context of workforce size, contractor presence and work intensity, rather than as direct indicators of comparative safety performance.

Most reported injuries were acute, including sprains, strains and fractures. Proxy indicators suggest a small proportion had the potential for more serious consequences, particularly those involving falls, moving equipment or hazardous releases. These align with dominant hazard profiles seen across the nuclear sector and wider UK industry.

RIDDOR sets specific timescales for reporting incidents to the enforcing authority. During 2025/26, more than a fifth of injury reports were submitted late, with an

average delay of 50 days. Delays in RIDDOR reporting represent a non-compliance with statutory requirements and may hinder timely regulatory intervention and identification of emerging health and safety risks. We will continue to work with dutyholders and the Health and Safety Executive to improve the timeliness, consistency, and quality of submitted data.

Table B.3: Numbers of RIDDOR reported incidents by Site

List of Sites	Number of RIDDORs	% of RIDDOR by Site
Sellafield Site	24	21%
Hinkley Point C	18	16%
Devonshire Dock Complex (Barrow)	14	12%
HMNB Clyde – Faslane	11	10%
Devonport Royal Dockyard	7	6%
AWE Aldermaston	6	5%
Dounreay	5	4%
Hartlepool	4	4%
Torness	3	3%
Sizewell C	3	3%
Heysham 2	3	3%
Dungeness B	3	3%
Heysham 1	2	2%
Hunterston B	2	2%
Springfields Works	2	2%
Nuclear Fuel Production Plant Raynesway	2	2%
Rosyth Dockyard	2	2%
Hinkley Point B	1	1%
Inutec Ltd. (Winfrith)	1	1%
Hunterston A	1	1%
Total	114	100%

B.3 Nuclear site health and safety

Across the reporting period, NSHS performance continued to show variability. Reported accident and incident rates have improved since the 2023/24 peak but remain above the long-term average. Construction-related risk, fire safety, control of work, lifting operations and asset condition continue to require sustained regulatory attention.

We issued six improvement notices on NSHS issues during the reporting period, relating to shortcomings in tower crane maintenance, electrical safety management, pressure systems management, and the planning of heavy-object movements. We also continued to progress prosecutions related to serious incidents on licensed sites.

Our regulatory response remains targeted and risk-informed. NSHS inspectors are working with colleagues regulating Hartlepool, Sellafield and Dounreay to secure improvements in health and safety management systems. The aim is to support the sites return to routine regulatory attention where sustained improvement is demonstrated.

There was also positive movement under COMAH. Hunterston B left COMAH in July 2025 and Sellafield transitioned from upper-tier to lower-tier status in December 2025, reflecting tangible reductions in risk. We also observed improvements in the maturity and quality of five-year safety report submissions.

B.4 Emergency preparedness and response

Emergency preparedness and response arrangements have remained adequate and continued to be tested through local authority-led exercises and wider engagement with the response community. Our oversight focused on ensuring that off-site emergency plans remain effective, proportionate, and aligned with REPIR 19.

Eight Level 2 exercises were assessed. These supported learning on public communications, reassurance monitoring, and integration with wider resilience arrangements. The first active participation test of a Radiation Monitoring Unit strengthened confidence in the UK's ability to respond to radiological incidents.

Recurring themes from exercises and engagement are being addressed through revisions to national emergency planning guidance. We also supported government work on proportionate emergency planning zones for modern reactor technologies, including small modular reactors and advanced modular reactors.

B.5 Safeguards performance

Safeguards performance remained satisfactory. The GB nuclear industry continued to provide nuclear material accountancy declarations under UK nuclear safeguards regulations, enabling the UK to meet its international reporting obligations to the IAEA on time and to the required standard.

IAEA safeguards activities at eligible facilities were facilitated effectively, and industry continued to respond positively to engagement on Additional Protocol and bilateral reporting requirements. This supported confidence in the UK safeguards regime and its international non-proliferation commitments.

Our focus is now on sustaining compliance, supporting the effective implementation of revised safeguards regulations, and strengthening resilience where safeguards knowledge and experience are concentrated in small numbers of specialists. We will continue to consider these capability risks in regulatory planning.

B.6 Vendor (supplier) inspections

Our vendor inspection programme continued to provide important assurance on supply chain management across the GB nuclear industry. The programme targets suppliers that provide high-risk nuclear safety-related products or services, or that support multiple licensees, and provides an indicator of licensee supply chain management performance.

We conducted 14 vendor inspections. 12 were rated Green and two were rated Amber, indicating that in most cases licensees were effectively cascading requirements through the supply chain and conducting appropriate oversight and assurance.

The most common issues related to quality management arrangements within licensees and suppliers, particularly quality planning, assurance and control. We took prompt and proportionate action where required to reduce the risk of supplied products and services affecting the safety and reliability of nuclear operations (see Annex 2 case study).

Future inspection activity will continue to consider common issues and learning across licensees and dutyholders. Effective quality management and continued vigilance over counterfeit, fraudulent and suspect items remain important safeguards against supply chain vulnerabilities.

We will continue to support the Great British Energy – Nuclear Supply Chain Collaboration Project. This was established to help the nuclear industry coordinate development and assurance activity where this affects common suppliers. This offers a constructive opportunity to engage with key stakeholders and support targeted efficiencies and proportionate risk reduction.

B.7 Future-facing areas of regulatory engagement

B.7.1 Innovation

Innovation activity strengthened, with the GB nuclear industry and supply chain increasingly seeking to adopt novel technologies and more effective ways of working to improve safety outcomes, efficiency, and long-term sustainability. Engagement with industry and other regulators covered emerging technologies, remote operations, artificial intelligence (AI), robotics, non-power applications, advanced non-destructive testing, wireless systems, high-performance materials, and alternative approaches to substantiation and assessment.

Our work with the Environment Agency helped consolidate a shared innovation vision and created practical routes for industry to test ideas with regulators. This included our innovation cafés, a Heads of Innovation forum and regulatory sandbox activity on machine learning. These activities supported earlier regulatory engagement, better alignment across civil and defence programmes, and more coordinated horizon scanning to reduce duplication and share learning.

The strongest examples of progress included robotics in decommissioning and the nuclear fuel back-end, remote operations, and AI-enabled trials in non-destructive testing interpretation and waste characterisation. These developments offer potential benefits in reducing worker exposure to hazards, improving consistency in complex environments, strengthening operational resilience and supporting more efficient delivery.

The overall direction appears positive, and industry is increasingly willing to explore new technologies and more agile ways of working. But the sector must continue to demonstrate that innovation is supported by clear ownership, sound evidence, appropriate controls, skills, governance and assurance, and accountability for safety, security and safeguards outcomes.

B.7.2 Maritime

Nuclear maritime activity is an emerging area of regulatory interest, driven by decarbonisation, technological development, industry interest and growing international engagement. Potential applications include nuclear-powered civilian vessels and floating nuclear power plants.

We have established a programme of nuclear maritime work within our Futures Directorate to ensure early engagement and effective horizon scanning. This includes working with government and regulatory partners to understand roles, responsibilities, and the applicability of existing legislation.

The current UK regulatory framework does not allocate full regulatory responsibility for nuclear maritime activities to a single organisation. Our current programme of work indicates that these activities can be regulated by us together with the Maritime and Coastguard Agency (MCA). We are therefore working with the MCA, DESNZ,

the Department for Transport and international partners to identify overlaps, potential gaps, and opportunities for coordinated approaches.

Our approach is to support early regulatory engagement, international harmonisation, and clear expectations. Any future nuclear maritime activity would need to meet the same high standards of safety, security, and safeguards that apply across the civil nuclear sector.

B.7.3 Nuclear Regulatory Taskforce

The [Nuclear Regulatory Taskforce](#) and the government's response ([Building Our Nuclear Nation](#)) set out a clear direction for reform of the nuclear regulatory structure: improving pace, coordination and proportionality while maintaining high standards of safety, security, and safeguards. For us and industry, the challenge is to translate these recommendations into practical changes in regulatory behaviours, decision-making, and delivery.

The government's response accepts key recommendations, which include:

- Introducing a lead regulator model, progressing closer alignment between ourselves and the Defence Nuclear Safety Regulator, and developing proposals for a Nuclear Regulatory Commission;
- Reducing unnecessary complexity, improving coordination across regulatory interfaces and providing clearer routes for resolving issues;
- Strengthening international alignment and cooperation. Including sharing regulatory learning and assessment approaches with overseas partners where this can reduce duplication and support more predictable delivery while maintaining UK regulatory standards; and
- Improving the transparency and predictability of regulatory costs, supporting better planning by industry while maintaining appropriate regulatory independence and recovery of efficient costs.

B.7.3.1 Implications for ONR

The Taskforce findings have directly informed the aims and objectives set out within our [ONR Strategy](#), particularly around being modern, agile and productive. Our focus will be on embedding proportionate, outcome-focused regulation in our day-to-day activities, strengthening early engagement with dutyholders/partner regulators, and reducing unnecessary duplication where this does not add safety, security, or safeguards benefit. Delivering this will require sustained cultural, capability and capacity change within our organisation and across the wider regulatory system.

B.7.3.2 Implications for industry

For industry, the reforms create an opportunity to improve delivery, but they do not reduce dutyholder accountability or regulatory standards. Dutyholders will need to

demonstrate stronger ownership of risk, better-quality submissions, clearer evidence for proportionate decisions and greater capability to manage complex programmes. The benefits of reform will only be realised if industry uses the opportunity to improve the quality, timeliness and clarity of its own decision-making and engagement with regulators.