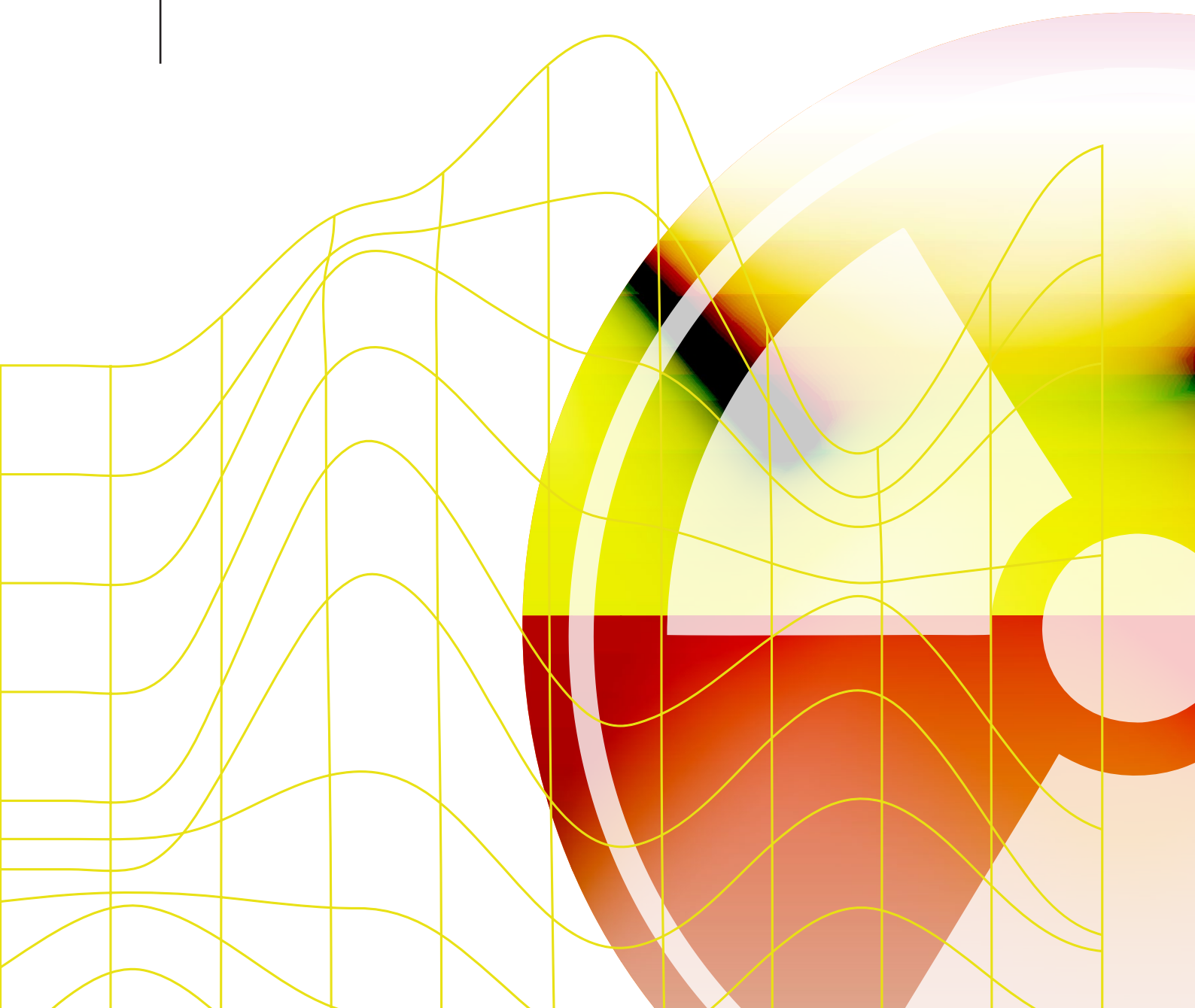




The Norwegian Ministries

Strategy

National Strategy for Radiation Protection and Nuclear Safety



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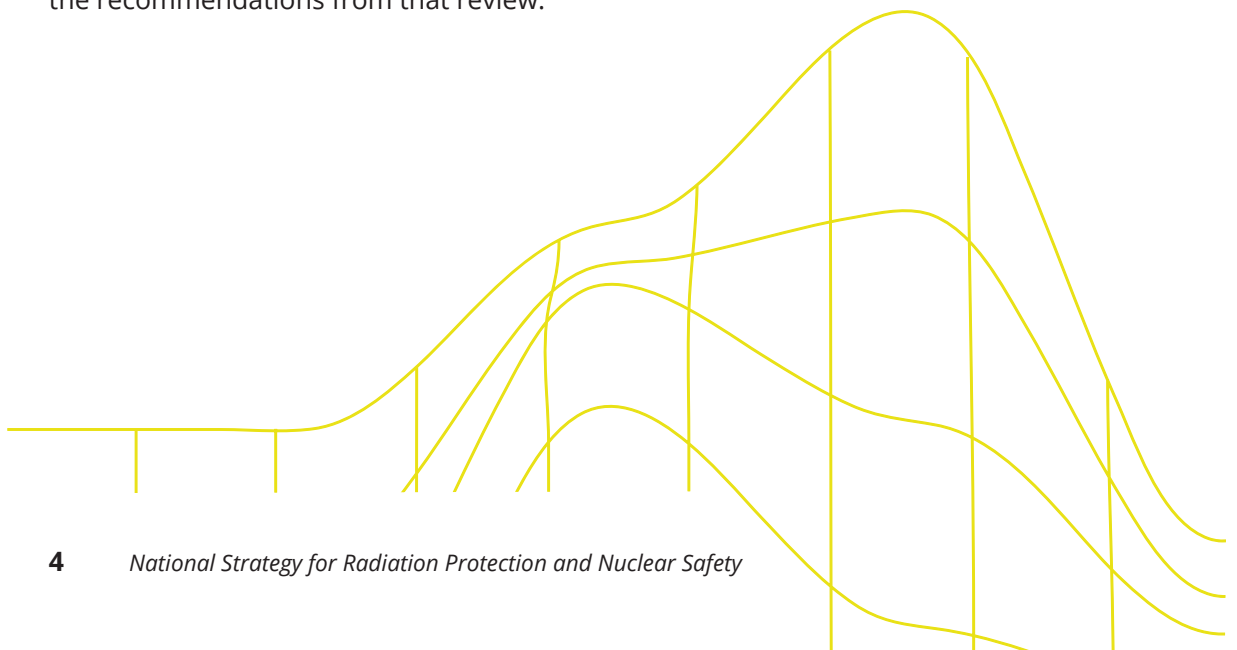
FOREWORD

Radiation protection and nuclear safety are fundamental to safeguarding life, health, and the environment – both in everyday situations and during crises. In a time of increasing international tensions and emerging security challenges, it is more important than ever that Norway adopts a comprehensive and coordinated approach to radiation protection and nuclear safety.

This strategy has been developed in collaboration between the Ministry of Health and Care Services, the Ministry of Foreign Affairs, the Ministry of Climate and Environment, and the Norwegian Directorate for Radiation Protection and Nuclear Safety. It consolidates efforts across sectors and authorities and serves as an overarching framework for existing regulations, action plans, and strategies.

The objective is to ensure a high level of radiation protection and nuclear safety—for the benefit of the population, the environment, and future generations. The strategy facilitates meeting both national needs and international obligations with strength, clarity, and coordination.

It is essential that our governance in this area aligns with international standards. The International Atomic Energy Agency (IAEA) conducted a comprehensive review of Norway's radiation protection and nuclear safety in 2019 (Integrated Regulatory Review Service – IRRS). This strategy responds to the recommendations from that review.





Radiation protection is an integral part of health security in Norway. Exposure to ionizing radiation can have serious health consequences, both acute and long-term. The strategy emphasizes the importance of protecting the population from harmful radiation, ensuring safe medical use of radiation, and strengthening preparedness for nuclear accidents and radiological incidents.

The strategy also reaffirms Norway's commitment to ensuring that radioactive waste is managed safely, securely, and responsibly. With an expected increase in the volume of radioactive waste in the coming years, it is crucial to ensure that its handling does not cause harm to people or the environment.

We hope the strategy will contribute to increased awareness, better collaboration and strengthened preparedness, while also inspiring further development and collaboration in this important area.



Jan Christian Vestre,
Minister of Health
and Care Services

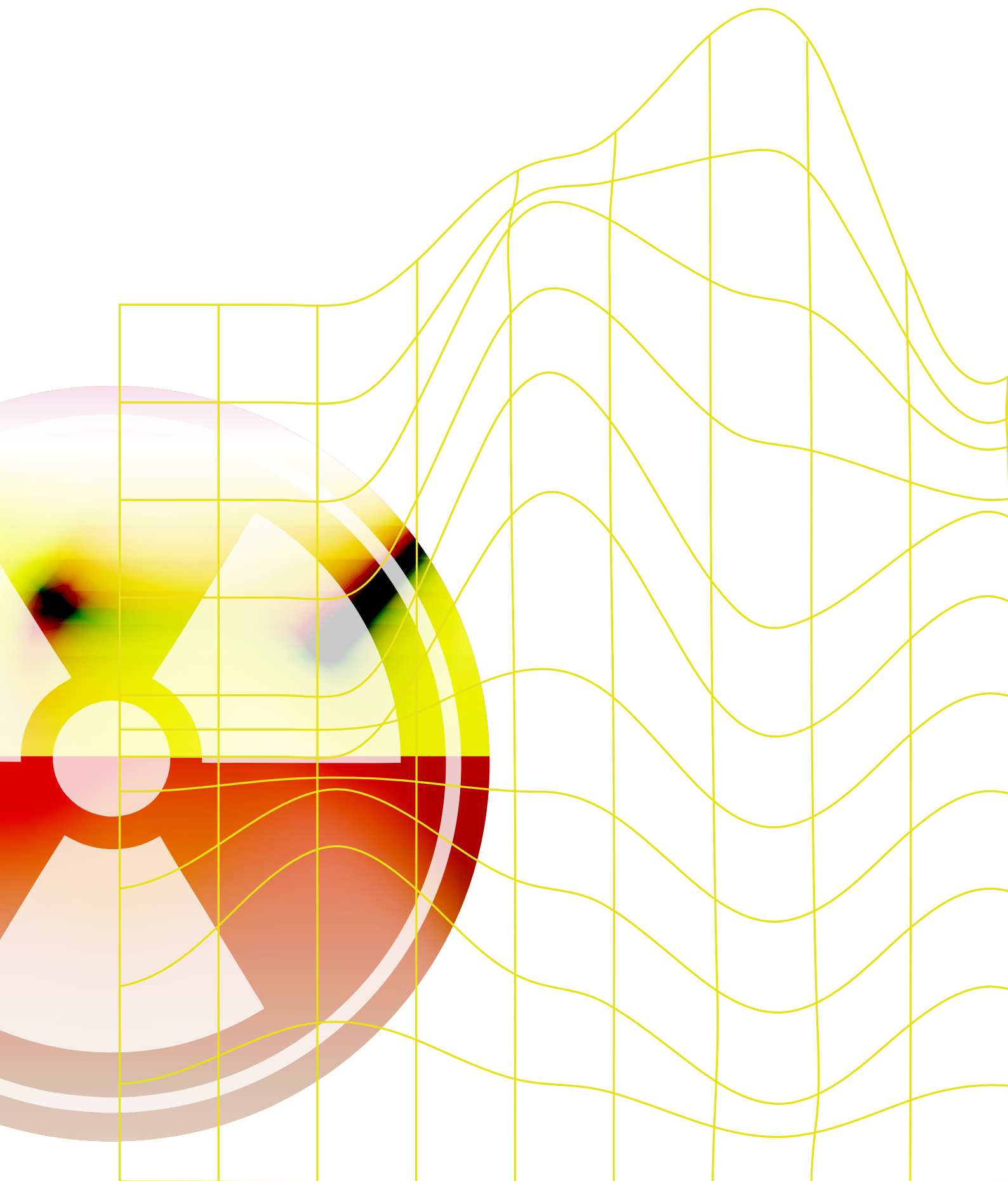


Espen Barth Eide,
Minister of
Foreign Affairs

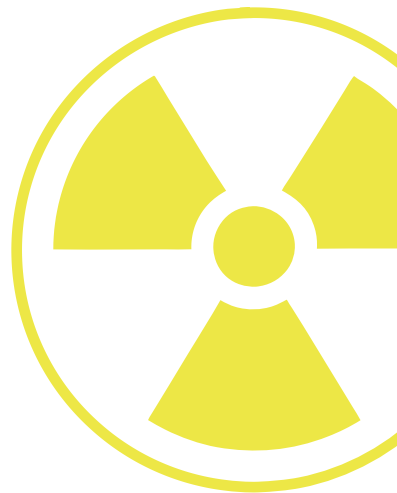


Andreas Bjelland Eriksen,
Minister of Climate
and Environment

Photo: Ministry of Health and Care Services • Cecilie Stuedal • NTB Communication/Office of the Prime Minister



National Strategy for Radiation Protection and Nuclear Safety



At a general level, this document outlines Norway's obligations regarding radiation protection and nuclear safety, and serves as a framework over other specific strategies, action plans and documents that contain measures to achieve the goal of national implementation of international obligations within the fields of radiation protection and nuclear safety.

Norway's intentions

Norway is committed to maintaining a high level of radiation protection and nuclear safety in order to safeguard human health and the environment against the negative effects of radiation.

Any activities involving radiation risk shall be justified. This means that the advantages must outweigh the disadvantages caused by the radiation. The use of radiation shall be optimised. Exposure to ionising radiation shall be kept as low as practically possible, taking into account technological knowledge, social and economic conditions, and within established exposure limits that must not be exceeded.

An important guiding principle for Norway's management of radiation is to apply a risk-based approach that focuses on Norwegian conditions and the degree of risk. The higher the risk, the stricter the requirements that apply.

This will be done by implementing Norway's obligations under relevant international conventions into Norwegian legislation and management, following the IAEA's safety standards, and having an effective, independent radiation and nuclear safety authority.

Norway will take an active role in international efforts to strengthen the global regime for radiation protection and nuclear safety.

In situations that are not easily controllable, a risk-based approach will also be applied. Examples of this include emergencies, cases where organisations/enterprises have previously not complied with regulations, or when dealing with high levels of natural radiation.

1

An effective, independent authority for regulation of radiation protection and nuclear safety in Norway

Strategic objective

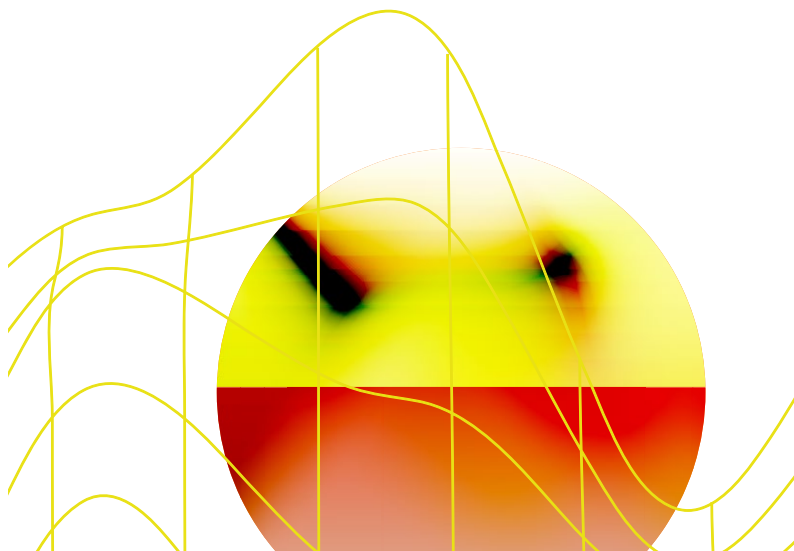
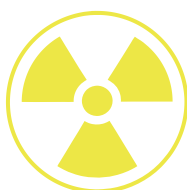
Norway will maintain a regulatory and administrative regime with an executive authority that provides independent advice and makes independent, objective decisions in accordance with applicable regulations, free from undue external influence or anything else that could compromise the authority's integrity.

DSA's independence is key to ensuring radiation protection and nuclear safety, based on international obligations. DSA shall apply a risk-based approach in the exercise of its administrative authority.

DSA shall have sufficient financial and human resources to maintain and develop its expertise and administrative functions in overseeing organisations/enterprises and activities related to radiation.

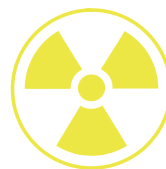
The management of radiation protection and nuclear safety in Norway is regulated through the Act on Radiation Protection and Use of Radiation, the Nuclear Energy Act, and the Pollution Control Act, in addition to other relevant legislation such as the Planning and Building Act and the Internal Control Regulations.

The management of radiation risk intersects with a number of other societal activities and regulations, and good coordination with other relevant authorities must be ensured through collaboration agreements or joint strategies.



2

Harmonised international framework



Strategic objective

Norway will maintain, update and strengthen the regulations for radiation protection and nuclear safety by actively participating in international collaboration. Norway will regularly review the regulations based on, among other things, knowledge gained from changes in the international framework. In addition, Norway will review both the Nuclear Energy Act and the Act on Radiation Protection and Use of Radiation in order to update them in accordance with the international standards established by the IAEA. A corresponding review of the Royal Decree on Nuclear Accident Preparedness is also underway.

This general strategy does not address issues related to potential nuclear power establishment in Norway. Norway has established a public committee to conduct a comprehensive review and assessment of various aspects of a potential future establishment of nuclear power in Norway. The committee shall submit its Official Norwegian Report (NOU) by April 2026.

Norway will be an active participant and play a leading role in the international collaboration by sharing knowledge and experience, promoting knowledge development and strengthening the radiation protection and nuclear safety framework. Norway will base its approach on international best practices and fulfil its obligations pursuant to relevant international conventions.

Norway will also contribute to the development of international standards and guidelines organised by the UN's International Atomic Energy Agency (IAEA), the OECD's Nuclear Energy Agency (NEA), and the International Commission on Radiological Protection (ICRP).

Norway will develop and apply a knowledge-based management approach founded on international best practices, adapted to global developments, whether related to climate change, armed conflict, or other events.

Norway will welcome administrative reviews involving international experts, for example from the IAEA, as part of efforts to develop Norway's management of radiation protection and nuclear safety.

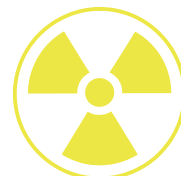


Relevant strategies, plans and programmes

White Paper 8 (2023–2024) 'The Nansen Programme for Ukraine' describes Norway's engagement in Ukraine, including issues related to state-building, promotion of democracy and support for civil society. Through the Nansen programme, Norway will strengthen its well-established collaboration with Ukraine on nuclear safety. The general goals of nuclear safety efforts in Ukraine are to reduce the risk of nuclear accidents and radioactive contamination, reduce the risk of radioactive material falling into the wrong hands, and strengthen regional nuclear preparedness.

In June 2024, the Norwegian Government presented White Paper 30 (2023–2024) 'International cooperation on nuclear safety and security in a changed Europe'. The report outlines Norway's international nuclear safety cooperation, describes the results achieved, and outlines the path forward for the collaboration, including support through the Nansen Programme for nuclear safety measures in Ukraine.

As a follow-up to the report, the Nuclear Action Plan is now being revised. The Nuclear Action Plan provides guidelines for the cooperation and concretises the objectives outlined in the report. The revised Nuclear Action Plan applies for the period 2025–2030, in accordance with the Nansen Programme for Ukraine.



3 Organisations/ enterprises are primarily responsible for safety

Strategic objective

Norway will, in accordance with applicable regulations, clearly assign primary responsibility for safety to the responsible organisation/enterprise. As the administrative authority, DSA is authorised to require the responsible party to demonstrate that it manages safety in accordance with regulations and complies with all established requirements stipulated in or pursuant to the regulations.

The primary responsibility for safety lies with the party responsible for an activity or operation that poses a radiation risk, and they must comply with all relevant regulatory requirements. This responsibility is set out in the Act on Radiation Protection and Use of Radiation, the Nuclear Energy Act and the Pollution Control Act.

Regarding natural radiation, the authorities can provide advice, guidance and impose requirements for measures on organisations/enterprises where exposure occurs. DSA stipulates requirements, provides guidance and supervises compliance with the requirements.

Relevant strategies, plans and programmes

Strategy for the Reduction of Radon Exposure in Norway, Strategy for the Safe, Secure and Environmentally Sound Management of Radioactive Waste in Norway.

4

Life cycle approach

Strategic objective

Norway will adopt a life cycle perspective in the management of activities that pose a radiation risk. This means that solutions for decommissioning, clean-up and waste management must be included at an early stage in the assessment of the activity in order to reduce future risks, and that plans and solutions must be in place before the activity begins.

The Norwegian regulations shall cover the entire life cycle of activities that pose a radiation risk, from planning to final decommissioning, clean-up and termination of regulatory control.

Radioactive waste shall be managed in a safe, secure and responsible manner in accordance with the 'Strategy for the Safe, Secure and Environmentally Sound Management of Radioactive Waste in Norway'. Radioactive waste shall be managed in such a way that it does not harm people or the environment, either within or beyond Norway's borders. Radioactive waste shall be managed without placing undue burdens on future generations. Important principles in Norwegian pollution regulations, such as the precautionary principle and the polluter pays principle, also apply to radioactive pollution/contamination and waste. Radioactive waste, and especially spent nuclear fuel, requires long-term solutions and shall, as a general rule, be managed at the national level.

Relevant strategies, plans and programmes

White Paper 8 (2020–2021) 'Safe Decommissioning of Norwegian Nuclear Facilities and Disposal of Nuclear Waste' describes the government's strategy for decommissioning Norway's nuclear installations and managing the resulting radioactive waste. This is Norway's decommissioning strategy.

In 2024, the government presented the 'Strategy for the Safe, Secure and Environmentally Sound Management of Radioactive Waste in Norway'. The strategy describes how radioactive waste, including spent fuel, shall be managed in Norway.

Norway will review the regulations relevant to the life cycle approach, including the Act on Radiation Protection and Use of Radiation and the Nuclear Energy Act and ensure that they are in accordance with the IAEA's governing documents, including the life cycle perspective.

5

Nuclear preparedness in relation to adverse events and accidents

Strategic objective

Norway aims to minimise the likelihood of radiation and nuclear incidents that may pose risks to human health and the environment, and to ensure effective preparedness to manage and reduce the consequences of such incidents should they occur.

Through the Crisis Committee for Nuclear and Radiological Preparedness and anchored in the Royal Decree of August 2013, Norway has established organisation and areas of responsibility for nuclear preparedness in order to ensure that prompt and effective decisions are made in the acute phase of nuclear incidents, and to facilitate effective coordination of preparedness and management across different sectors. White Paper 5 (2023–2024) 'A Resilient Health Emergency Preparedness' points out that experiences from exercises, pandemic management, changes in central health administration, and developments in the international security-political situation give grounds to review current nuclear preparedness in order to ensure that it is organised and functions appropriately. Therefore, the Royal Decree will be reviewed again in 2025.

Norwegian nuclear preparedness is nationwide, cross-sectoral and civil-military, and encompasses both accidents and incidents resulting from deliberate actions in peacetime, during security crises, and in armed conflicts, and has been developed based on six defining scenarios.

In the event of an incident, Norway will follow its international notification obligations, as nuclear incidents will often have cross-border effects and may, if necessary, request assistance from the international community.



- ▶ All organisations/enterprises that carry out activities involving radiation in Norway are obligated under the regulations to have preparedness and crisis management arrangements in place to protect employees, the public and the environment.

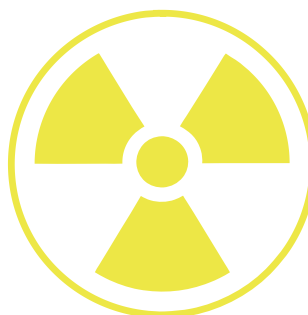
Norway will employ a learning approach to prevent and develop its preparedness. In accordance with its obligations, Norway will also be an active supporter of other countries in preventing and providing assistance regarding incidents abroad. Norway carries out national surveillance so that any incident in Norway or abroad will be quickly detected, enabling a rapid assessment of the need to implement measures in order to reduce the consequences of an incident.

Relevant strategies, plans and programmes

Maintain and further develop the Norwegian notification system and programme for national and international notification in accordance with the Convention on Early Notification of a Nuclear Accident and Norway's bilateral notification agreements.

The Civil Preparedness System and the Preparedness System for the Armed Forces constitute the Norwegian Emergency Preparedness System.

Nuclear preparedness, through the Crisis Committee for Nuclear and Radiological Preparedness (Royal Decree – Mandate for and composition of the Crisis Committee for Nuclear and Radiological Preparedness with advisors, as well as the mandate for the County Governor), ensures that there are distinct areas of responsibility so that prompt and effective decisions are made in an emergency situation, and facilitates effective coordination of preparedness and response in relevant sectors through a coordinated plan.



6

Medical use of radiation

Strategic objective

Medical use of radiation, whether for diagnostic purposes or in radiotherapy for the treatment of cancer, is developing rapidly. Norway will use new technology and equipment as it becomes available, based on an assessment of the justification for the method, where the benefits must outweigh the risks and costs of implementation. Through the use of such technology, Norway will strive to improve health and quality of life for all patients undergoing medical treatment, with a focus on the quality and safety of radiation use.

Existing or new methods for medical diagnostics and treatment must take into account radiation protection for patients and personnel, and be supported by educational programmes for healthcare professionals, including requirements regarding formal qualifications for and formal recognition of medical physicists, as well as information on radiation risks for patients and their relatives.

Medical diagnostics using X-rays is one of the largest sources of radiation exposure in Norway when averaged across the Norwegian population. Diagnostic procedures using radiation are necessary to make a diagnosis, while exposure must be kept as low as reasonably possible (optimisation). Only necessary examinations should be carried out and the establishment of national referral criteria will help reduce unnecessary medical imaging.

Guidelines for the discharge of patients who have undergone nuclear medicine therapy with radioactive drugs, including relevant information, are important for reducing radiation risk while also ensuring patient care.

Relevant strategies, plans and programmes

There are plans to develop a national strategy for the medical use of radiation, which will review the regulations and Norway's international obligations, ensure necessary coordination and collaboration between health authorities, and provide strategic guidelines for the medical use of radiation in imaging, diagnosis and treatment/therapy. The strategy will follow international recommendations on the medical use of radiation and will help ensure that radiation protection aspects are addressed in national health policy strategies and reports, the healthcare system and clinical practice.

7

Existing radiation and radiation not subject to regulatory control

Strategic objective

Norway will further develop and introduce schemes for the management of radiation risk from sources that are not subject to regulatory control. Fallout from nuclear test explosions in the 1950s and 1960s, and the fall-out from the Chernobyl accident in 1986 and other activities have caused contamination that is still currently present in the environment in Norway.

Exposure may also arise from activities that were previously unregulated, or in cases where regulations were not followed or the activity was not regulated according to applicable standards. This leads to contamination situations that are often referred to as 'legacies'. In addition, radiation exposure originates from natural sources (for example, from uranium and thorium decay chains in bedrock) and from cosmic radiation in aviation. In some cases, natural radioactivity can be further enhanced by human activity, such as mineral processing and oil and gas extraction.

The international framework manages unregulated risks as so-called 'existing exposure situations'. In such situations, a risk already exists when a decision on possible measures must be made, and the risk will be reduced in accordance with a risk-based approach. The Pollution Control Act places the responsibility for clean-up and management on the responsible polluter. This is followed up through mapping and requirements for clean-up and the management of the waste. Previous mining activities and clean-up after illegal landfills are examples of this.



▶ Radon accounts for the highest radiation dose to the Norwegian population and increases the risk of lung cancer. In Norway, the consequences of radon exposure are reduced through advisory services, guidance and regulatory requirements. A national cross-sectoral radon strategy has been developed outlining how radon exposure and cancer cases shall be reduced.

Norway will further identify, monitor and regulate in an appropriate manner activities that may cause increased radiation exposure due to elevated concentrations of naturally occurring radioactivity, such as from NORM waste – radioactive waste containing naturally occurring radioactive material.

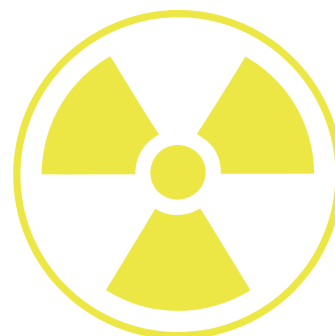
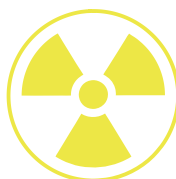
Norway will continue to monitor levels of radioactivity in consumables, such as food, feed, drinking water and building materials, and apply a needs-based approach to assess any necessary measures.

Relevant strategies, plans and programmes

In 2025, the government published a strategy to reduce radon exposure in Norway. It sets the framework for the national initiative to reduce radon exposure among the population.

DSA and the Norwegian Food Safety Authority carry out measurements of radioactivity in food in Norway.

DSA will continue and follow up on the mapping of historical sources of radioactive contamination.



8

Expertise, leadership and management for safety, and safety culture

Strategic objective

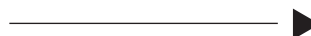
All use of radiation in Norway must be safe and secure, and this should always be the overriding priority for all use of radiation. There are requirements for safety assessments when using radiation that describe how this shall be carried out safely and securely, and that outline the risks and measures to prevent and reduce the consequences of any incidents.

Requirements are in place regarding the competence and training of workers performing tasks involving radiation risk, and it is important to establish, develop and maintain relevant expertise and competence in Norway. Norway has been behind several initiatives within the fields of education, research and support for DSA as the regulatory authority. Several formal educational programmes related to the necessary expertise have been initiated and need to be further developed.

There are also requirements for effective leadership and management for safety, and a strong safety culture in all organisations/enterprises. These include elements such as the management system, the clear assignment of safety responsibilities, and a strong safety culture within the organisation/enterprise encompassing values, attitudes and conduct that promote a high level of safety.

Norway has established an advisory committee to support DSA as the regulatory authority. Norway will continue to develop a Technical and Scientific Support Organisation (TSO) related to radiation protection and nuclear safety, which will benefit both the authorities and the operators.

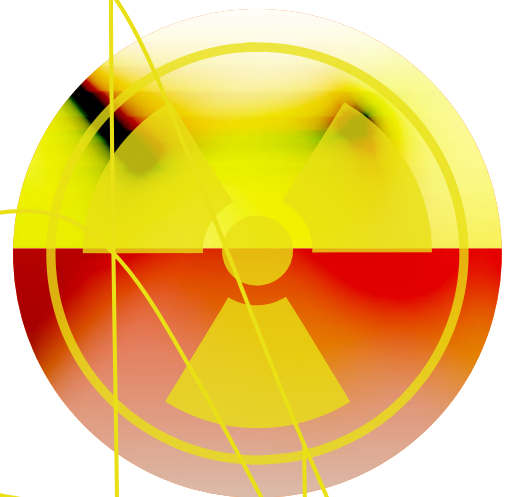
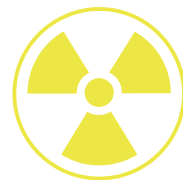
Norway will establish a long-term expertise initiative to ensure that authorities and operators have sufficient competence in the use and management of radiation. It is essential that all roles have sufficient expertise to perform their work in an efficient manner. Expertise should also be recognised where it is relevant in accordance with international obligations. Several educational programmes have been established to meet the growing demand for expertise. These programmes shall comply with international standards for radiation protection and nuclear safety.



Relevant strategies, plans and programmes

DSA is working on the establishment of a Technical and Scientific Support Organisation (TSO) in Norway.

DSA has assessed its own expertise and developed a knowledge strategy with an action plan for 2024–2028. The main focus areas of the strategy are DSA's role as a driving force behind new knowledge, education and training, the accessibility of data and dissemination of knowledge, and the utilisation of existing knowledge and data.



9

Transparency and communication

Strategic objective

In Norway, issues related to radiation protection and nuclear safety shall be managed in an open and transparent manner. Constitutionally, responsibility for radiation protection and nuclear safety is distributed across several ministries and their subordinate agencies. Each ministry is responsible for its own area and according to its own laws and regulations. Effective management of the radiation protection and nuclear safety sector requires a clear understanding of roles and organisation. For example, in areas such as nuclear preparedness, the general emergency preparedness principles apply: the principle of responsibility, the principle of equality, the principle of proximity and the principle of collaboration.

All affected parties and stakeholders shall have access to information on radiation protection and nuclear safety. In Norway, the general public shall have the opportunity to be informed about and involved in decisions that affect them, for example through the consultation process.

All information related to releases or the risk of radioactive releases shall be made public in accordance with the Nuclear Energy Act, and the right to access all relevant information, including information on radiation and environmental impact, shall be ensured through the Freedom of Information Act and the Environmental Information Act. DSA shall adhere to requirements for good administrative practice and comply with relevant IAEA standards.

10

The interface between safety, security and safeguards

Strategic objective

In Norway, measures related to safety, security and safeguards shall be designed and implemented in a coordinated manner to ensure the best possible protection of human health and the environment. Administrative arrangements shall be established to manage the interface between safety and security, as well as the safeguards of nuclear material. Norway shall also comply with its obligations related to the non-proliferation of nuclear material that could be used for non-peaceful purposes.

The three S's – Safety, Security and Safeguards – constitute the cornerstones of the global regime for radiation protection and nuclear safety. Safety and security are essential in ensuring that all use of radiation is conducted in a manner that protects human health and the environment from the harmful effects of radiation. Safety aims to prevent accidents and respond to them if they occur, whereas security aims to prevent, detect and respond to deliberate acts that could cause harm or pose a threat. Safeguards focus on materials and equipment that could be used for non-peaceful purposes, such as the production of nuclear weapons.

Norway is a party to the international Systems of Accounting for and Control of Nuclear Material, and is subject to regular checks conducted by international inspectors.

Relevant strategies, plans and programmes

Norway will review relevant regulations to ensure they are in accordance with the IAEA's guiding documents and Norway's international obligations.

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