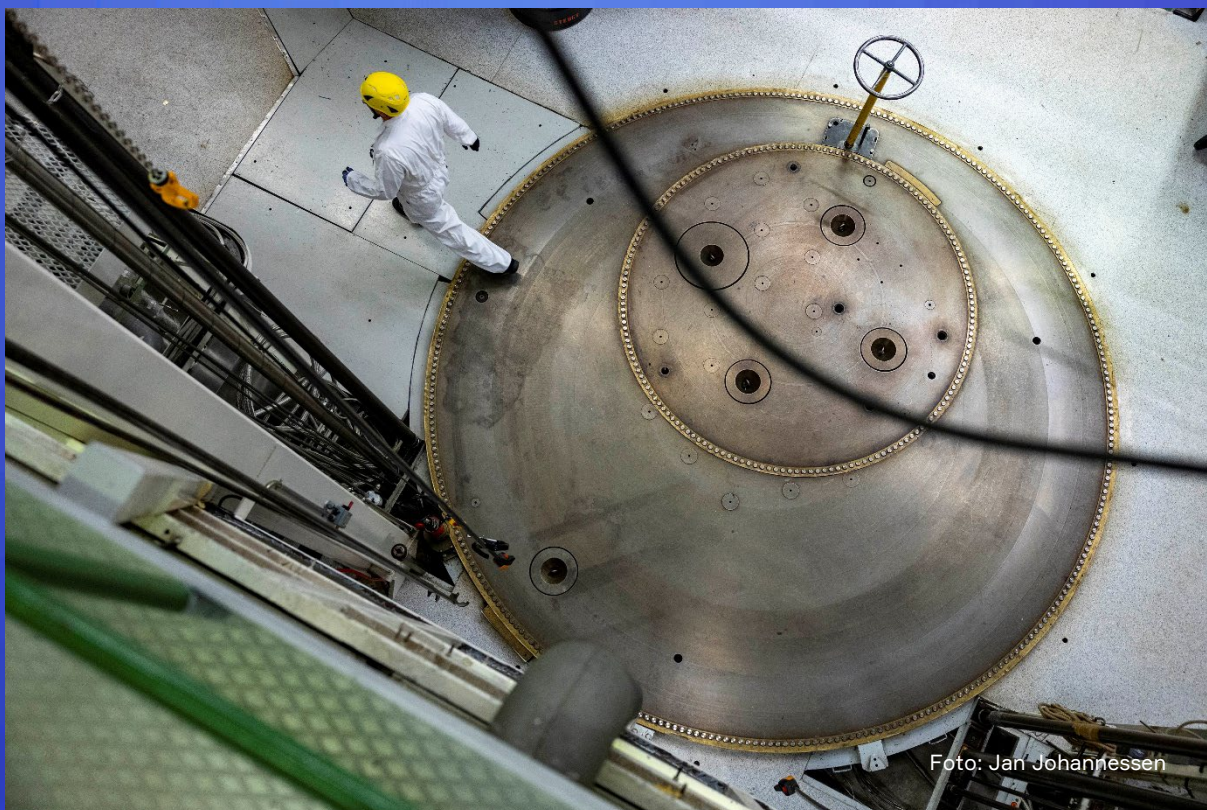


# The Kingdom of Norway

## Report to the 10<sup>th</sup> Review Meeting of the Convention on Nuclear Safety



1 September 2025

## Acronyms, Abbreviations, and Definitions

Term	Meaning, Definition
AI	Artificial Intelligence
ALARA	As Low As Reasonably Achievable
CNS	Convention on Nuclear Safety
CP	Contracting Party
DSA	Norwegian Radiation and Nuclear Safety Authority (Regulatory body)
ENSREG	European Nuclear Safety Regulators Group
EPR	Emergency Preparedness and Response
EPResc	Emergency Preparedness and Response Standards Committee
GLC	General Licence Conditions
HBWR	Halden Boiling Water Reactor
HOD	Ministry of Health and Care Services
ICRP	International Commission on Radiological Protection
IFE	Institute for Energy Technology (Licence holder)
IRRS	Integrated Regulatory Review Service
JEEP	Joint Establishment Experimental Pile
NE	The Nuclear Energy Activities Act
NF	Nuclear Facility
NI	Nuclear Installation
NND	Norwegian Nuclear Decommissioning (Licence holder)
NR	National Report
NORA	Norwegian zero effect Reactor Assembly
NSGC	Nuclear Security Guidance Committee
NUSSC	Nuclear Safety Standards Committee
PC	The Pollution Control Act
RASSC	Radiation Safety Standards Committee
RM	Review Meeting
RP	The Radiation Protection Act
RR	Research Reactor
SARCoN	Systematic Assessment of the Competence Needs of the staff of a Regulatory Body
SNFS	Spent Nuclear Fuel Storage
SSAC	State System for Accountancy and Control
TRANSSC	Transport Safety Standards Committee
TSO	Technical Support Organisation
WASSC	Waste Safety Standards Committee
WENRA	Western European Nuclear Regulators Association



## Table of Contents

Introduction.....	1
Relevant Nuclear Facilities .....	2
Summary.....	3
PART A: GENERAL PROVISIONS.....	7
Article 6: Existing Nuclear Installations .....	8
PART B: LEGISLATION AND REGULATION .....	9
Article 7: Legislative and Regulatory Framework .....	10
7.0 Introduction.....	10
7.1 Establishing and Maintaining a Legislative and Regulatory Framework.....	10
7.2 Provisions of the Legislative and Regulatory Framework.....	12
Article 8: Regulatory Body.....	18
8.1 Establishment of the Regulatory Body .....	18
8.2 Status of the Regulatory Body.....	24
Article 9: Responsibility of the Licence Holder.....	26
PART C: GENERAL SAFETY CONSIDERATIONS.....	28
Article 10: Priority to Safety.....	29
Article 11: Financial and Human Resources .....	32
Article 12: Human factors .....	33
Article 13: Quality assurance.....	34
Article 14: Assessment and verification of safety .....	35
Article 15: Radiation Protection .....	36
Article 16: Emergency Preparedness.....	39
16.1 Emergency Plans.....	39
16.2 Information of the Public and Neighbouring States.....	39
16.3 Emergency Preparedness for Contracting Parties Without Nuclear Installations .....	39
PART D: SAFETY OF INSTALLATIONS.....	43
Article 17: Siting .....	44
Article 18: Design and construction.....	45
Article 19: Operation .....	46
References.....	47

## Introduction

### About This Report

This National Report fulfils Norway's obligations under Article 5 of the Convention on Nuclear Safety. It was prepared by the Norwegian Radiation and Nuclear Safety Authority.

Norway has no nuclear installation according to the definition of the convention; therefore, we are only obliged to report on Article 16.3. However, Norway have chosen voluntarily to report also on Articles 7, 8, 9, 10, 15 and 16, and is therefore a Category 3 country according to INFCIRC/571/Rev.9, Annex III.

### Nuclear Programme in Norway

Norway has no nuclear programme in the context of the CNS, i.e., no nuclear installations. The term "nuclear facilities" is for practical purposes used in this report and hence refers to research reactors and storage, handling and treatment facilities for nuclear materials. The list of nuclear facilities provided in the Table 1.

There is a growing interest in nuclear energy in Norway and a public debate as to whether nuclear energy should be part of the Norwegian energy mix going forward.

On 21 June 2024, the Norwegian government appointed a Norwegian public commission to assess different aspects of introducing nuclear energy in the Norwegian energy mix. The commission consists of 11 national and international experts. The purpose of the Commission is requested to do a broad investigation into all relevant aspects related to a potential future establishment of commercial nuclear energy in Norway. The secretariat for the commission is hosted by the Ministry of Energy and will provide their report by 1 April 2026. The commission has solicited input from the public by 30 June 2025. DSA contributes to the commission secretariat.

On 2 November 2023 the company Norsk kjernekraft AS sent a notification of an investigation programme for a nuclear power plant in Taftøy Næringspark, Aure and Heim municipalities in Northwestern Norway. The proposal is to investigate the establishment of a nuclear power plant, based on SMR technologies with a total maximum effect of 12,5TWh. The notification was put on public hearing in April 2024. On 8 April 2025 the Ministry of Energy tasked the Norwegian Radiation Protection Agency (DSA), the Norwegian Directorate of Civil Defence (DSB) and the Norwegian Water Resources and Energy Directorate (NVE) to provide a recommendation for requirements for a strategic environmental impact assessment of the proposed nuclear power plant. The three agencies will provide their recommendation to the ministries by 3 September 2025, and there is no decision on the further process or any formal decision by the government or the parliament to introduce nuclear energy in Norway.



## Relevant Nuclear Facilities

Norway has no NIs subject to the CNS but chose to report voluntarily beyond our obligations in the Convention (Category 3 Contracting Party).

Table 1 provides details for the nuclear sites in Norway and the nuclear facilities at each site.

**Table 1: Relevant Nuclear Facilities**

Location	Licence Holder	Type	Title	Status
Kjeller site	IFE	RR	JEEPI	Operation 1951-1967, partially dismantled
		RR	NORA	Operation 1961-1968, partially dismantled
		RR	JEEPII	Operation 1966 -2019, permanent shutdown
		SNFS	Different types of storages	Operation
Halden site	NND	RR	HBWR	Operation 1959-2018, permanent shutdown
		SNFS	Different types of storages	Operation

## Summary

Norway is a Category 3 Contracting Party. As such, it has reported on 7, 8, 9, 10, 15 and 16 Articles of the CNS. As noted in this report, Norway fulfils all these Articles.

### Summary of Responses to Applicable Challenges and Suggestions

Norway has addressed the Challenges and Suggestions that remain open from previous RMs as follows:

**Challenge 1** from Joint 8<sup>th</sup> & 9<sup>th</sup> Review Meeting (Article 7): *Enhancing and maintaining competence relevant to safety during decommissioning, spent fuel storage and radioactive waste management*

- The regulatory body (DSA) has established a project for the application of the IAEA SARCoN methodology to the charting and assessment of competence and development plans. The majority of DSA's staff has participated in the process and their competence self-assessment is integrated in the yearly employee interviews between DSA staff and their managers.
- The regulatory body (DSA) has developed a Knowledge Management Strategy for the period 2024-2028. The main focus of the strategy is to ensure adequate competence and knowledge, which is especially important entering the phase of nuclear decommissioning. The strategy encompasses DSA's role as instigator for knowledge, education and training, making data available, dissemination of knowledge and application of existing knowledge. As part of the strategy, a model has been established for technical support functions. These functions will consist of a coordinated network of internal functions within DSA as well as external functions. DSA will be further developing and implementing this network over the next several years.
- The license holder for the Halden facility, Norwegian nuclear decommissioning (NND) is establishing a 'nuclear academy' as a central point within the organisation for: identifying competence needs for NND to be able to meet its responsibilities; planning and providing training to help meet those needs; and transferring knowledge on critical competences from current resources to the next generations.
- The Norwegian Nuclear Research Centre was established in 2023 as a partnership between the University of Oslo (UiO), the Norwegian University of Life Sciences (NMBU) and the research division of Institute for energy technology (IFE), to increase Norway's competence within the fields of radioecology, nuclear physics and nuclear chemistry. The new centre's work will include research on applications within the fields of medicine, energy, and preparedness, also involving a range of collaborators, including universities abroad and the nuclear industry in Norway.
- In 2023, the regulatory body was tasked by the Government with assessing the possible future structure of a technical support function in Norway. An evaluation was initiated focusing on DSA technical support capacity and its interactions with other organisations. The IAEA Technical Support Organisation Self-Capability Assessment (TOSCA) process was an input to this process.

The challenge continues to remain open.

**Challenge 2** from Joint 8<sup>th</sup> & 9<sup>th</sup> Review Meeting (Article 8): *Development of regulatory procedures and guidance for transition from operation to decommissioning and from one licensee to the other licensee.*

Norway in addressing the Challenge made the following progress:

- The regulatory body (DSA) has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme, outlining the milestones that will need to be achieved – to maintain the safety of existing facilities and prepare them for decommissioning, to establish and license new facilities needed for decommissioning and to carry out decommissioning – and the regulatory expectations that will need to be met for each milestone.
- The processes for the release (clearance) of materials from regulatory control is under development by Regulatory body.
- Regulatory guidelines for decommissioning, including requirements for final decommissioning plan, are under development by Regulatory body.
- DSA has also performed oral and written guidance on the transition in several meetings with the operators.

The challenge continues to remain open.

**Suggestion 1** from Joint 8<sup>th</sup> & 9<sup>th</sup> RM: *Maintaining and strengthening the independence of the regulatory body*

In 2023, the Ministry of Health and Care services performed an assessment of all their agencies and authorities with a view to strengthen the efficiency of the whole sector. In this review it was decided to maintain and strengthen DSA as an independent regulatory body.

## Summary of Other Significant Changes Since Previous Report

In addition to work summarized above to address the Challenges and Suggestions that remain open from previous RMs, Norway has undergone the following significant changes and/or made the following improvements:

### Article 7

- The regulatory body (DSA) has published regulatory guidance for implementation of the general licence conditions of the operation of nuclear facilities and activities in 2022.
- The regulatory body (DSA) has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme, outlining the milestones that will need to be achieved – to maintain the safety of existing facilities and prepare them for decommissioning, to establish and license new facilities needed for decommissioning and waste handling and to carry out decommissioning – and the regulatory expectations that will need to be met for each milestone. This guidance was published in 2023.
- In July 2024, the Ministry of Climate and the Environment published Norway's National Strategy for the Safe, Secure, and Environmentally Sound Management of Radioactive Waste. The strategy applies to all types of radioactive waste, including spent nuclear fuel.
- In July 2025, the Norwegian government published the first national strategy for Radiation Protection and Nuclear Safety. The strategy outlines Norway's commitment to the highest standards of safety in radiation protection and nuclear safety. With ten overarching goals, it serves as an umbrella framework for all relevant policies, strategies, and regulations in this field.

### Article 8

- Progress in establishing the Technical Support Organisation.
- The regulatory body's Knowledge Management Strategy for the period 2024-2028 is established.
- The regulatory body's internal reorganisation in 2024, putting more focus on the decommissioning of the Norwegian research reactors.

- The regulatory body has extended its Advisory Committee on Nuclear and Radiation Safety, comprising international experts and representatives from regulatory bodies from other countries.
- Following the recommendations of the IRRS mission in 2019 [1], continue improvements of the management system, including policies, strategies, processes and long-term inspection programme for facilities and activities, processes for the release (clearance) from regulatory control, etc. An IRRS follow-up mission is foreseen in November 2025.

Article 9

- The transfer of license for the Halden site from IFE to NND was decided by the Government from 1 of April 2025.

## Notable Achievements

Norway had the following notable achievements during the review period:

- The regulatory body has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme in 2023 (Article 7).
- In July 2024, the Ministry of Climate and the Environment published Norway’s National Strategy for the Safe, Secure, and Environmentally Sound Management of Radioactive Waste (Article 7).
- In July 2025, the Norwegian government published the first national strategy for Radiation Protection and Nuclear Safety (Article 7).

## Future Focus

Norway has identified the following issues as areas that demand future effort to resolve:

- Further development of human resources and competence of license holders and the regulatory body in the area of decommissioning of nuclear facilities (Article 7).
- Continued control of safe transition in the takeover of ownership and licence of the remaining two licensed sites (Kjeller and KLDRA Himdalen) from the existing licence holder of nuclear facilities to a new one. (Article 8).
- Continued development of regulatory guidelines for decommissioning and handling of waste (Article 8).
- Continued process on establishment of the Technical Support Organisation (Article 8).

## Major Common Issues

At the previous RM, several major common issues were identified. Table 2 indicates where they are addressed in this report.

**Table 2: Reporting on Major Common Issues**

Major Common Issue	Article, page
Managing extraordinary circumstances impacting the safe operation of nuclear installations	Not applicable
Strengthening national regulatory capabilities taking into account new and innovative technologies	Article 8, page 23
Fostering international collaboration	Article 8, page 22 Article 16, page 42
Foster international peer review missions and timely addressing of findings	Article 7, page 12



Possible impact of global climate changes on the safe operation of nuclear installations	Not applicable
Securing reliable supply chains	Article 9, page 26
Strategies for ageing management in support of the operation of nuclear installations	Not applicable
Strengthening emergency preparedness and response arrangements and fostering cross border collaboration	Article 16, page 42



## **PART A: GENERAL PROVISIONS**

Part A consists of Article 6 – Existing Nuclear Installations.



## **Article 6: Existing Nuclear Installations**

*Each Contracting Party shall take the appropriate steps to ensure that the safety of nuclear installations existing at the time the Convention enters into force for that Contracting Party is reviewed as soon as possible. When necessary, in the context of this Convention, the Contracting Party shall ensure that all reasonably practicable improvements are made as a matter of urgency to upgrade the safety of the nuclear installation. If such upgrading cannot be achieved, plans should be implemented to shut down the nuclear installation as soon as practically possible. The timing of the shut-down may take into account the whole energy context and possible alternatives as well as the social, environmental and economic impact.*

### **Summary Statement for Article**

Article 6 does not apply to Norway.



## **PART B: LEGISLATION AND REGULATION**

Part B consists of three Articles:

- Article 7 Legislative and Regulatory Framework
- Article 8 Regulatory Body
- Article 9 Responsibility of the Licence Holder

## Article 7: Legislative and Regulatory Framework

1. *Each Contracting Party shall establish and maintain a legislative and regulatory framework to govern the safety of nuclear installations.*
2. *The legislative and regulatory framework shall provide for:*
  - (i) *the establishment of applicable national safety requirements and regulations;*
  - (ii) *a system of licensing with regard to nuclear installations and the prohibition of the operation of a nuclear installation without a licence;*
  - (iii) *a system of regulatory inspection and assessment of nuclear installations to ascertain compliance with applicable regulations and the terms of licences;*
  - (iv) *the enforcement of applicable regulations and of the terms of licences, including suspension, modification and revocation.*

### Summary Statement for Article

As a Category 3 CP, it voluntarily reports on its fulfilment of the obligations of Article 7. Norway has established and maintains a legislative and regulatory framework to govern the safety of nuclear facilities.

## 7.0 Introduction

All nuclear activities are regulated by three legal instruments, the Nuclear Energy Activities Act of 12 May 1972, the Radiation Protection Act of 12 May 2000 and the Pollution Control Act of 13 March 1981.

## 7.1 Establishing and Maintaining a Legislative and Regulatory Framework

### ***The Nuclear Energy Activities Act***

The Nuclear Energy Activities Act of 12 May 1972 (last amended 17 June 2022) regulates the licensing system, general requirements for licences, inspection programme and the legal basis for the regulatory body. The Act also regulates confidentiality and penalties in case of non-compliance to The Act. The Act establishes the liability system according to the Paris Convention of 29 July 1960 as amended and related international legal instruments. A legal commentary on the different requirements in the legal act has recently been published on a publicly available website, Lovdata Pro.

Pursuant to the Nuclear Energy Activities Act, four regulations have been issued:

- *Regulation of 2 November 1984 on the Physical Protection of Nuclear Material and Nuclear Facilities* (last amended 20 December 2018). This regulation establishes requirements for the physical protection of nuclear material and nuclear facilities. The regulation implements Nuclear Security Series 13 and the obligations of the Convention of the Physical Protection of Nuclear Material and Nuclear Facilities as amended 2005.
- *Regulation of 15 November 1985 on Exemption from the Nuclear Energy Activities Act for Small Amounts of Nuclear Material* (last amended 20 December 2018). This regulation exempts small amounts of nuclear material from Chapter III of the Act and thus from the liability system.
- *Regulation of 12 May 2000 on Possession, Transfer and Transportation of Nuclear Material and Dual-use Equipment* (last amended 20 December 2018). This regulation

regulates the control and accountancy of nuclear material as required in the Additional Protocol to the Safeguards Agreement between Norway and IAEA.

- *Regulation of 14 December 2001 on Compensation by Nuclear Accidents*. This regulates how Contracting Parties to the Vienna Convention of 21 May 1963, Contracting Parties to the Joint Protocol of 21 September 1988 and Hong Kong shall be considered in connection to Norwegian legislation on nuclear liability. It also regulates how nuclear accidents in a non-party state shall be considered in connection to the Norwegian legislation.

### **The Radiation Protection Act**

The Radiation Protection Act of 12 May 2000 (last amended 18 June 2021) constitutes the legal basis for regulating the use of ionising and non-ionising radiation, radiation protection requirements, medical use of radiation, and contingency planning. The Act also addresses radiopharmaceuticals. The Act itself establishes the framework, which is described in further detail in the *Regulation on Radiation Protection and Use of Radiation of 16 December 2016*.

Pursuant to the Radiation Protection Act, one regulation has been issued:

- *Regulation of 16 December 2016 on Radiation Protection and Use of Radiation* (last amended 20 December 2018). This defines radioactive material that is exempted from the Act, and specifies more detailed requirements, including specific requirements for different types of use of radiation.

### **The Pollution Control Act**

The Pollution Control Act of 13 March 1981 (last amended 6 June 2025) regulates the risk of pollution and is the basis for authorisation of discharges of radioactive substances and the management of radioactive waste and contamination. The application of The Act is stipulated in regulations of which the most relevant regulation to the CNS is *Regulation of 1 November 2010 on the Application of the Pollution Control Act on Radioactive Pollution and Radioactive Waste* (last amended 20 December 2018). Further description of this and other regulations under the Pollution Control Act is found in Norway's national report to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

### **The Planning and Buildings Act**

The Planning and Building Act of 27 June 2008 (last amended 25 June 2024), and the associated Impact Assessment Regulations of 21 June 2017 (last amended 18 December 2023), cover the conceptual design and siting process for nuclear installations and DSA is specifically identified as the competent authority.

### **The National Security Act**

The National Security Act of 24 January 2018 (last amended 20 December 2023) shall ensure protection of national security interest; prevent, deter and counter threat to security; and implement security measures with fundamental legal principles. The act includes protection of information regarding safety.

### **Royal Decree on Emergency Preparedness**

The Royal Decree on Emergency Preparedness of 23 August 2013 (last amended 20 December 2018) describes the organisation and mandate of the emergency preparedness and response system in Norway. This is further described under Article 16.

### **The Freedom of Information Act**

The Freedom of Information Act of 19 May 2006 (last amended 28 March 2025) facilitates an open and transparent public administration.

### **The Environmental Information Act**

The Act of 9 May 2003 No.31 Relating to the Right to Environmental Information and Public Participation in Decision-making Processes Relating to the Environment.

### ***The Public Administration Act***

The Public Administration Act of 10 February 1967 (last amended 20 December 2022) gives provisions for a formal decision-making process and ensures the right to appeal decisions made by the regulatory body.

### ***International Conventions and Legal Instruments Related to Nuclear Safety***

Norway has signed, ratified and implemented the following international conventions related to nuclear safety:

- Convention on Nuclear Safety
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)
- Norway has also made a political commitment to adhere to the Code of Conduct on the Safety of Research Reactors

### **International Peer Reviews**

The IAEA undertook an IRRS Mission to Norway in June 2019, and the recommendations and suggestions [1] from the IRRS team are being addressed by the relevant authorities. Some of these recommendations and suggestions, provided an important input to plans for the further development of the policies and strategies and the regulatory framework in the next few years, notably to address the situation in Norway changing from operation to decommissioning. An IRRS follow up mission will take place in November 2025.

## **7.2 Provisions of the Legislative and Regulatory Framework**

### **7.2 (i) National Safety Requirements and Regulations**

#### **Establishing and Revising Regulatory Requirements**

A need for regulatory revision may be identified due to new scientific knowledge or new international recommendations. DSA uses IAEA Safety Standards and other relevant international standards such as WENRA Safety Reference Levels as important guidelines when national laws and regulations are developed, reviewed, and updated. The Parliament amends national laws, changes in regulations must be approved by the Government or by the relevant ministry. DSA may propose necessary changes both to laws and regulations. Revision of regulations must follow the provisions laid down in the Public Administration Act. All laws or regulations must be sent to public hearing, according to the provisions of the Public Administration Act and other requirements included in the Acts mentioned above. The public hearing process involves publishing the proposed regulation, along with a justification of the changes made, and the positive and negative consequences, including economic and administrative consequences, that these changes might have.

The general regulatory requirements, specified in the Nuclear Energy Activities Act and the Pollution Control Act and associated regulations, are developed with the intent to be implemented in individual authorization or licence conditions, on a case-by-case basis, rather than in generic regulations or guidance. This facilitates detailed application of ALARA, Best Available Technique and a graded approach. Accordingly, also the procedures for such decisions are described in the Public Administration Act. An individual decision is “an administrative decision relating to the rights or duties of one or more specified persons” (Public Administration Act, section 2 b) and since they are legally binding there are

requirements on such decisions; they have to be mandated in a law or a regulation according to the law and they shall inter alia be well informed, grounded and can be appealed.

DSA may clarify and interpret laws and regulations in guidance documents as needed. Such general guidance for applicants is available, based on general requirements in the above-mentioned acts and regulations. In addition, DSA gives specific guidance on the implementation of laws and regulations in the documentation of individual decision letters.

In 2018 DSA published The General Licence Conditions (GLC). The intention is that these will be applicable to all the nuclear sites in Norway that are subject to licensing under the Nuclear Energy Activities Act. The GLCs are applied through the Nuclear Energy Activities Act and are based on international safety standards. The GLCs are intended to be comprehensive relating to the requirements placed on the operating organisation or applicant for a licence but are not prescriptive in terms of how these requirements should be met. The GLCs clarify the regulatory requirements related to nuclear facilities and activities and are intended to facilitate the operators' understanding of regulatory expectations. The GLCs are site-based, rather than installation-based, following international practice. The guidance document to the GLCs were published in 2022. Both the publications are publicly available on the DSA web page.

As of 1 April 2025, Norway has two licensees, and the regulatory body is considering the approach to guidance. As NND will take over all of the existing facilities in the long-term, guidance is now often given to IFE and NND in parallel.

## **7.2 (ii) System of Licensing**

Licence applications under the Nuclear Energy Activities Act shall be submitted to the Ministry of Health and Care Services. Upon request by the Ministry, DSA shall prepare and submit recommendations to the Government or the relevant ministry on all applications concerning licences under the Nuclear Energy Activities Act. Prior to processing a licence application, DSA and the applicant usually hold a start-up meeting, where the applicant presents the justification for and summary of the licence application. DSA describes how the application will be processed and meetings and inspections related to the application are planned.

To strengthen the review and assessment process, DSA uses technical support from independent external consultants. During a licensing process for an existing licensee or, the consultants may assist DSA in inspections to clarify identified safety issues. If relevant, DSA also uses information from other external contributors, such as IAEA missions, and evaluation or peer review reports in safety, security and safety culture areas. DSA reviews and assesses the application, and performs site visits and inspections, with use of external experts as needed. DSA's Advisory Committee on Nuclear and Radiation Safety also gives advice on issues related to licensing.

The application for a licence is sent on public hearing to relevant stakeholders, according to the Public Administration Act. DSA will also carry out public meetings to involve interested parties and stakeholders.

Based on the findings, observations and comments from the review and assessment process, feedback from external experts, input from stakeholders, and the DSA's Advisory Committee on Nuclear and Radiation Safety, DSA prepares a recommendation for a license to The Ministry of Health and Care Services. DSA also provides recommendations on licence conditions that need to be complied with or fulfilled. The powers of decision to grant a license rest with the Government.

## **7.2 (iii) System of Regulatory Inspection and Assessment**

### **Inspections**

Norwegian legislation provides DSA with the necessary legal basis for inspection activities covering all nuclear facilities in Norway. According to the Nuclear Energy Activities Act, the Radiation Protection Act and the Pollution Control Act, DSA shall be given free access to all

relevant information, to sites, facilities and activities. DSA may perform both announced and unannounced inspections.

DSA has developed an inspection strategy for the period 2022-2030. The strategy ensures implementation of IAEA-requirements for performing inspections. The strategy states that inspections shall be risk-based in accordance with a graded approach, both with regard to the frequency of inspections and to the facilities or activities to be inspected.

DSA has developed a long-term inspection programme for nuclear facilities, to confirm compliance with regulatory requirements and with any conditions specified in the authorization. In this programme, it is specified the types of regulatory inspection and stipulated the frequency of inspections and the areas and programmes to be inspected, in accordance with a graded approach. Based on the long-term plan, annual inspection plans are prepared for the nuclear facilities.

DSA has a process for inspections which includes inspection guidelines, procedures and templates. The inspection procedures describe the practical inspection activities, including the responsibilities of inspectors, staff and managers. The procedures also include templates for writing notice letters and inspection reports, and templates for opening/closure meetings. Within most inspection areas, checklists and question lists have been established. The checklists are adapted to each inspection.

DSA performs several different types of inspections, which include planned and reactive inspections, both announced and unannounced. DSA may also open an inspection based on a reported on-going incident or non-conformities.

Under the Nuclear Energy Activities and Pollution Control Acts, DSA performs inspections on nuclear safety, nuclear security, safeguards, radioactive waste management, and emergency preparedness. The inspection plan is developed in line with the inspection strategy and programme and considering experience and assessment by DSA staff. When the inspection plan for facilities or activities is developed, the inspection topics are described on a high level. The details for each inspection are developed in the period before the inspection. The facilities associated with the highest safety risks are prioritized, and that might relate to age or the status of the facility, incidents at the facility or the planning of special operations or modifications. DSA continues to improve the process and procedures relating to inspections. The focus of inspections in recent years has been on the management system, spent fuel management, and the safety and security culture of the operator, including the work of its safety committee and aging management and maintenance.

### **Assessment**

The operation of nuclear facilities is authorized in a license. Prior to authorization, DSA performs review and assessment of relevant information submitted as part of the application process in accordance with a graded approach, to determine whether facilities or activities comply with regulatory requirements in accordance with legal documents.

In an application for a licence under the Nuclear Energy Activities Act an applicant must submit details of the site, purpose, nature and size of facility including their evaluation of the safety features of the installation. DSA has prepared guidelines for an application for a license specific for particular facilities and activities and related to the requirements associated with the Acts and their associated regulations. For nuclear facilities, the guidance on the application of the GLC's indicates the requirements to be fulfilled for an application and makes the link with international safety standards to be considered in the review and assessment process.

When a licence is granted, DSA will also issue an operational license and perform review and assessment of information to support regulatory oversight, e.g. inspections or enforcement processes etc.

## 7.2 (iv) Enforcement

The Radiation Protection Act, the Nuclear Energy Activities Act, and the Pollution Control Act provide enforcement powers to DSA. Through different sections of the legislation, these Acts empower DSA to amend or revoke an operating permit, shutdown a facility or stop an activity, require further information to be provided, or require a modification of a facility or activity to be performed. When these enforcement powers are used, DSA must do so in a manner that is consistent with the Public Administration Act. The decision shall be transmitted to the licensee in writing, identifying the legal basis for the non-compliance, and informing about the right to appeal. Any non-compliance of the three acts, regulations and decisions made in accordance with them, is a criminal offence.

According to the Nuclear Energy Activities Act, DSA has authority to enforce corrective actions for any non-compliance of the act or regulations and decisions given in accordance with the act, if necessary, with the assistance from the police. If deemed necessary by DSA, DSA can enforce any safety measures on its own.

If there is substantial health hazard, DSA can stop any activity or confiscate radioactive material and equipment with the assistance from the police.

If there is radioactive pollution or risk of radioactive pollution, DSA can require measures by the polluter to prevent further pollution and to clean up the pollution. If such measures are not executed by the licensee, or if there is risk associated with delaying clean-up measures, DSA may arrange for immediate implementation of measures and claim reimbursement from the polluter.

As of June 2025, DSA is carrying out a public hearing on proposals for amending the regulations on radioactive pollution and wastes to also include measures for administrative fines. The deadline for comments is 16 September 2025. Similar proposals for the introduction of administrative fines under the Nuclear Energy Activities Act and the Radiation Protection Act have been introduced and are being considered by the Ministry of Health and Care Services.

## Summary of Responses to Applicable Challenges and Suggestions

**Suggestion 1** from Joint 8<sup>th</sup> & 9<sup>th</sup> RM: *Maintaining and strengthening the independence of the regulatory body*

Norway in addressing the Suggestion made following activities:

In 2023, the Ministry of Health and Care services performed an assessment of all their agencies and authorities with a view to strengthen the efficiency of the whole sector. In this review it was decided to maintain and strengthen DSA as an independent regulatory body.

**Challenge 1** from Joint 8<sup>th</sup> & 9<sup>th</sup> Review Meeting: *Enhancing and maintaining competence relevant to safety during decommissioning, spent fuel storage and radioactive waste management*

Norway in addressing the Challenge made following progress:

- The regulatory body has established a project for the application of the IAEA SARCoN methodology to the charting and assessment of competence and their development plan. The majority of DSA's staff has participated in the process and their competence self-assessment is integrated in the yearly employee interviews between DSA staff and their managers.
- The regulatory body has developed a Knowledge Management Strategy for the period 2024-2028. The main focus of the strategy is to ensure adequate competence and knowledge, which is especially important entering the phase of nuclear decommissioning. The strategy encompasses DSA's role as instigator for knowledge,

education and training, making data available, dissemination of knowledge and application of existing knowledge. As part of the strategy, a model has been established for technical support functions. These functions will consist of a coordinated network of internal functions within DSA as well as external functions. DSA will be further developing and implementing this network over the next several years.

- The licensee for the Halden facility NND is establishing a ‘nuclear academy’ as a central point within the organisation for: identifying competence needs for NND to be able to meet its responsibilities; planning and providing training to help meet those needs; and transferring knowledge on critical competences from current resources to the next generations.
- The Norwegian Nuclear Research Centre was established in 2023 as a partnership between the University of Oslo (UiO), the Norwegian University of Life Sciences (NMBU) and the research division of IFE, to increase Norway's competence within the fields of radioecology, nuclear physics and nuclear chemistry. The new centre's work will include research on applications within the fields of medicine, energy, and preparedness, also involving a range of collaborators, including universities abroad and the nuclear industry in Norway.
- In 2023, the regulatory body was tasked by the Government with assessing the possible future structure of a technical support function in Norway. An evaluation was initiated focusing on DSA technical support capacity and its interactions with other organisations. The IAEA Technical Support Organisation Self-Capability Assessment (TOSCA) process was an input to this process.

The challenge continues to remain open.

## Summary of Other Significant Changes Since Previous Report

During the reporting period, Norway has undergone the following significant changes and/or made the following improvements.

- The regulatory body has published regulatory guidance for implementation of the general licence conditions of the operation of nuclear facilities and activities in 2022.
- The regulatory body has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme, outlining the milestones that will need to be achieved — to maintain the safety of existing facilities and prepare them for decommissioning, to establish and license new facilities needed for decommissioning and to carry out decommissioning — and the regulatory expectations that will need to be met for each milestone. This guidance was published in 2023.
- In July 2024, the Ministry of Climate and the Environment published Norway's National Strategy for the Safe, Secure, and Environmentally Sound Management of Radioactive Waste. The strategy applies to all types of radioactive waste, including spent nuclear fuel.
- In July 2025, the Norwegian government published the first National Strategy for Radiation Protection and Nuclear Safety. The strategy outlines Norway's commitment to the highest standards of safety in radiation protection and nuclear safety. With ten overarching goals, it serves as an umbrella framework for all relevant policies, strategies, and regulations in this field. An English translation of the strategy will soon be available on DSA's website.

## Notable Achievement(s)

- The regulatory body has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme in 2023.
- In July 2024, the Ministry of Climate and the Environment published Norway's National Strategy for the Safe, Secure, and Environmentally Sound Management of Radioactive Waste.



- In July 2025, the Government published the first National Strategy for Radiation Protection and Nuclear Safety.

### **Future Focus**

- Further development of human resources and competence of license holders and regulatory body in the area of decommissioning of nuclear facilities.

## Article 8: Regulatory Body

1. *Each Contracting Party shall establish or designate a regulatory body entrusted with the implementation of the legislative and regulatory framework referred to in Article 7, and provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.*
2. *Each Contracting Party shall take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy.*

### Summary Statement for Article

As a Category 3 CP, it voluntarily reports on its fulfilment of the obligations of Article 8. Norway has established a regulatory body entrusted with the implementation of the legislative and regulatory framework referred to in Article 7.

#### 8.1 Establishment of the Regulatory Body

The Nuclear Energy Activities Act states that DSA is the highest specialist agency as far as questions of nuclear safety and security are concerned. It functions as the institution making recommendations and giving advice to the ministry concerned. DSA shall prepare and submit recommendations to the Government or the relevant ministry on all applications concerning licences under the Nuclear Energy Activities Act and shall on its own initiative put into effect all such measures as it deems necessary for safety reasons. It is the duty of DSA to ensure that all rules and conditions pertaining to safety precautions are complied with and put into effect, as well as such orders that are given in pursuance of the Nuclear Energy Activities Act.

The Radiation Protection Act states that DSA is the dedicated authority to follow up compliance with provisions laid down in or pursuant to the Radiation Protection Act and can, for this purpose, make such individual decisions as are necessary. DSA shall be given free access to perform supervision and shall be provided with information to perform its functions under the provisions of the Radiation Protection Act. DSA shall be given access to undertake measurements and investigations. The Ministry of Climate and Environment has assigned DSA to act and fulfil its regulatory obligations for the control of facilities and activities under the Pollution Control Act. The regulations relevant to radioactivity under the Act and the delegation decision given on the 30 December 2010 gives DSA the legal authority necessary to enable it to fulfil its regulatory obligations for control of radioactive pollution and radioactive waste according to the Pollution Control Act.

#### Mandate, Mission and Tasks

DSA is organized as an agency under the Ministry of Health and Care Services. DSA is also an agency under the Ministry of Climate and Environment, with respect to radioactive releases to the environment and radioactive waste from nuclear and non-nuclear industries, and under the Ministry of Foreign Affairs, with respect to international nuclear safety and security, non-proliferation, disarmament and export control. DSA also has areas of responsibility for the Ministry of Defence concerning the regulation of nuclear-powered military vessels entering Norwegian waters and ports. DSA also provides assistance and advice to other ministries on matters related to radiation protection, radioactive waste management, and nuclear safety, security and safeguards.

In addition to the national mandate for safety, security, and safeguards, radiation protection and radioactive pollution control, DSA also undertakes international tasks related to promoting radiation protection, nuclear security, nuclear safety, disarmament, and non-proliferation.

DSA is the chair, hosts the command centre and serves as the secretariat for the Norwegian Crisis Committee, which coordinates nuclear and radiological emergency preparedness and response. This is described in more detail under Article 16.

### **Authorities and Responsibilities**

DSA is the responsible national regulatory body for:

- use of radiation sources
- radiation protection
- nuclear safety and security
- safeguards
- radiological and nuclear emergency preparedness and response
- transport of radioactive material or waste
- radioactive pollution and waste
- natural radiation
- non-ionizing radiation.

The “Directive for the Norwegian Radiation Protection Authority”, adopted by the Ministry of Health and Care Services in 2017, describes DSA’s authority and responsibilities as a directorate for the Ministry of Health and Care Services, the Ministry of Climate and Environment, the Ministry of Foreign Affairs and the Ministry of Defence. The primary legal basis for DSA’s regulatory work is the Nuclear Energy Activities Act, the Radiation Protection Act, the Act on Pollution Control, and their underlying regulations.

There is an effective separation between the regulatory body and organisations concerned with promotion or utilization of nuclear energy. DSA serves the three ministries mentioned above. NND is organized as a state body under the Ministry of Trade and Fisheries. IFE is partly funded by the Ministry of Trade and Fisheries but is an independent Research Foundation. The relationship of governmental bodies and operators can be seen in Figure 1.

DSA prepares a work program for the following year following the annual letter of commitment from the Ministries where the budget and tasks are specified. During the year, DSA report on the progress after six months and at the end of the year. In addition, DSA and the Ministry of Health and Care Services, the Ministry of Climate and Environment, and the Ministry of Foreign affairs have agency management meetings, at least twice a year.

Concerning radiological and nuclear emergency preparedness in Norway, DSA is by Royal Decree given the responsibility to provide a secretariat for the national Crisis Committee. The Director General of DSA chairs the Committee, which has the mandate to handle in the acute phase of the crises and has the responsibility to implement swift measures to reduce the impact and protect the people, the environment and societal interests from the negative effects of radiation. It comprises representatives from a range of agencies and organisations with responsibilities for emergency preparedness and response, as described in more detail under Article 16.

The Government has also given DSA a key role in the implementation of international conventions and agreements to which Norway has ratified or signed. In addition, DSA is also involved in the implementation of governmental strategies. The governmental strategies shall respect the role and independence of the regulatory body as set out by the Nuclear Energy Activities Act.

DSA is also responsible for coordination and inspections related to the security of sensitive entities that fall within DSA’s areas of responsibility according to the Nuclear Energy Activities

Act. These facilities are regulated under the National Security Act and the underlying regulation. The National Security Act is administered by The Norwegian National Security Authority, which reports to the Minister of Defence and Minister of Justice and Public Security. From January 2023, DSA undertook the responsibility for inspections according to the National Security Act with sensitive nuclear entities. A Government Forum for the Protection of Nuclear Installations and Nuclear Fuel in Norway was established in 2016. The aim of the Government Forum is to secure cooperation between national authorities and agencies and to produce, summarize and disseminate knowledge about how best to secure nuclear facilities and nuclear fuel in Norway.

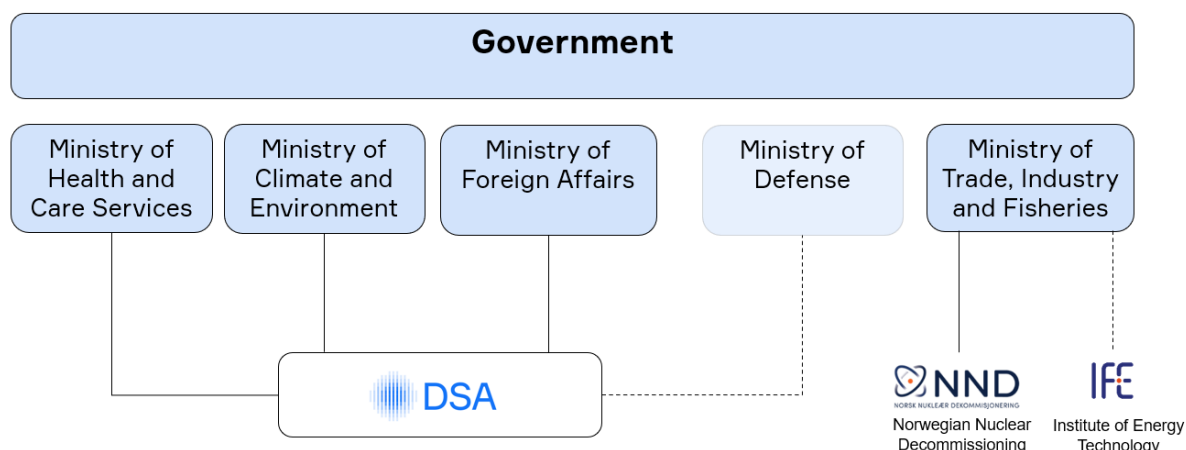


Figure 1: Relationship of governmental bodies and operators.

### Organisational Structure of the Regulatory Body

As of June 2025, DSA is organised in four departments responsible for topical subject areas, in addition an administrative department, a support unit for the director general, a communications unit and a legal unit forms DSAs organisational structure. The organisation chart of DSA can be seen in Figure 2.

The Department for Radiation Safety and Security is responsible for the supervision of security and safeguards of the nuclear facilities; military reactor powered vessels entering Norwegian waters or ports; transport of nuclear and radioactive materials; industrial use of radiation and radiation protection; medical applications and radiation protection. The department is organised in three sections: Section for nuclear security and safeguards, Section for source safety and security and Section for medical applications.

The Department for Radiation and Environmental Protection is responsible for the supervision of safety of the nuclear facilities; environmental and health related consequences of discharges of radioactive substances from nuclear, industrial and medical facilities and activities; natural radiation, and non-ionizing radiation. The department is organised in three sections: Section for nuclear safety and decommissioning, Section for radiation pollution control, and Section for Environmental Monitoring, Radon and UV.

The Department for Nuclear Preparedness is responsible for the Norwegian radiological and nuclear emergency preparedness and response (EPR), including the role of the secretariate for the Crisis Committee and coordination with different agencies. The work also includes, e.g., threat assessments, scenario descriptions and impact analyses. The department operates DSA's laboratories at the headquarter and is responsible for DSAs mobile measurement equipment and field survey instrumentation. The department is organised in three sections: Section for Operational EPR, Section for EPR Assessments, and Section for Radiation Measurements.

The Department for International Nuclear Safety and Security and Research and Development is responsible for work related to international nuclear safety and security, the tasks assigned by the Ministry of Foreign Affairs, and for knowledge development within DSA’s area of responsibility. The department is organised in three sections: Section for Research and Development, Section for International Nuclear Safety and Security, and Section for the High North.

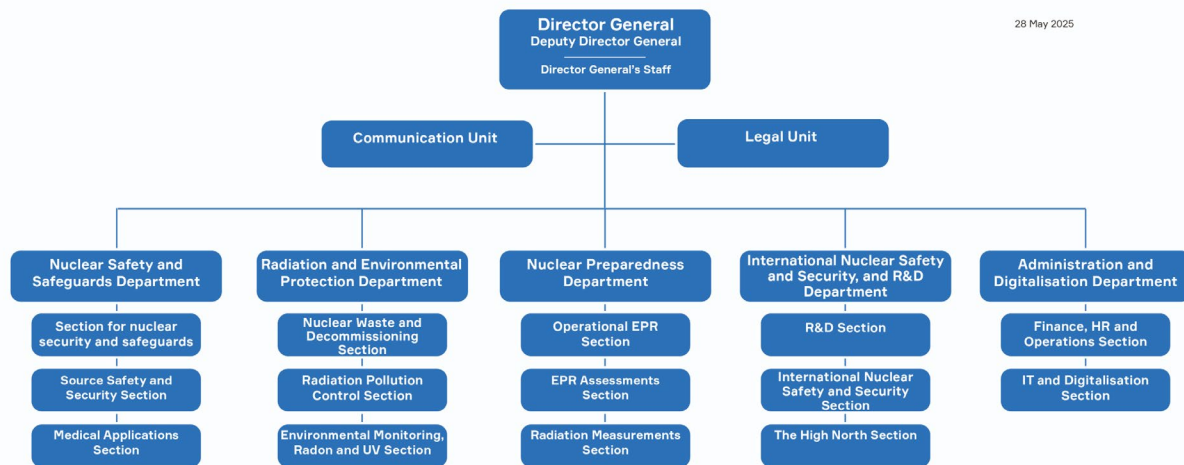


Figure 2: Organisation chart of DSA as of May 2025

### Development and Maintenance of Human Resources Over the Last Three Years

The Director General of DSA has the mandate to employ the staff needed to conduct the tasks given by the Government. At ministerial level human resource plans and policies are implemented as joint overarching plans and policies valid for Government and state bodies, including the subordinate bodies in different sectors. DSA plans its activities and allocation of resources in the annual Operation Plans, in accordance with DSA’s Strategic Action Plan.

DSA has experienced challenges in recruiting competent personnel with the necessary qualifications due to the limited scale of the nuclear program in Norway and to the relatively few candidates with relevant expertise. Due to this, DSA has recently recruited employees from other European countries with the necessary knowledge and experience. To ensure that the necessary infrastructures for spent nuclear fuel and radioactive waste management are in place before future decommissioning activities commence, DSA will continue to recruit staff both nationally and internationally.

To address, among other things, the recommendations and suggestions from the IRRS mission in 2019 and the decision to shut down the Norwegian research reactors in 2018 and 2019, DSA has undertaken reorganisation measures in 2021 and 2024 to improve the regulatory nuclear oversight in general. In 2025, the organization was adjusted to reflect the transfer from one to two license holders. DSA will continue with the recruitment of human resources and extend the use of external consultancy services to fulfil the Technical Support Organisation function to support implementation of regulatory functions.

DSA is currently revising the strategic recruitment and competency plan to address how to attract, develop and retain human resources in the organization. Turnover in the organisation is increasing, but lower than the average of Norwegian public employers.

### Measures to Develop and Maintain Competence

DSA develops and maintains competence and national regulatory practices through formal training programmes and on-the-job training, participation in relevant international processes, contribution to the implementation of Norway's international obligations, and evaluation of the implementation of international recommendations.

DSA's staff participates in the development of IAEA safety standards through participation in the IAEA's Safety Standards Committees (NUSSC, WASSC, RASSC, TRANSSEC, NSGC and EPRESC), and in consultancy meetings for the development of safety standards.

DSA participates in several international networks, fora and cooperation projects, to both share and receive information and international experience. This ranges from bilateral cooperation with partner countries, regional cooperation such as in the Nordic region, through OECD NEA and other global processes. The results on this information exchange are taken into account in the regulatory work and procedures of DSA.

DSA has established a project for the application of the IAEA SARCoN methodology to the charting and assessment of competence and their development plan. The majority of DSA's staff have participated in the process, and their competence self-assessments are integrated in the annual employee appraisals conducted between staff and their managers.

### **Developments with Respect to Financial Resources Over the Last Three Years**

DSA receives funding according to an annual budget that is decided by the parliament, based on proposals from the Ministry of Health and Care Services, the Ministry of Climate and Environment, the Ministry of Foreign Affairs and taking account of the overall priorities established in the national budget. These proposals are developed taking account of input from DSA on the risk-based priorities for its work programme over the next year. Following parliamentary agreement on the budget, the ministries allocate the budget and assign specific tasks within their areas of responsibility (for health, including nuclear safety, environment issues and international work) to DSA in the annual letter of commitment. In addition, resources are available from fees in connection with case handling and inspection fees under the Nuclear Energy Activities Act and the Pollution Control Act. The budget and associated tasks are then distributed locally within DSA starting in December each year, according to an established DSA process.

DSA's funding has increased over the last years to strengthen the regulatory oversight of present and future challenges in the decommissioning of nuclear research facilities and the implementation of a long-term strategy for the safe management and final disposal of radioactive waste and spent fuel. Going forward, it will remain important to keep funding levels under close review, given the potential challenges that the regulator will need to manage.

### **Statement of Adequacy of Resources**

The DSA's resources for regulatory oversight are considered adequate at the time of reporting. The cost of licensing and inspections under Nuclear Energy Activities Act is financed by licensing and inspection fees. Connected to the new phase in the lifetime of the facilities that Norway will need to address in the coming years, there is a process to evaluate the adequacy of resources going forward. The regulatory body may suggest increases in the licensing and inspection fees to the Ministry of Health and Care Services.

### **Management System of the Regulatory Body**

The DSA management system is being revised to be brought in line with the recommendations from IAEA GSR Part 2. The five core roles of a nuclear regulator (Authorization, Review and Assessment, Inspection, Enforcement, Regulations & Guides) are being addressed by specific working groups at DSA, who will ensure the appropriate processes and procedures are in place and are kept up to date at any given time.

### **Openness and Transparency of Regulatory Activities Including Actions Taken to Transparency and Communication with the Public**

Mechanisms and legal provisions are in place for DSA to inform and consult interested parties and the public about the possible radiation risks associated with facilities and activities, and about the processes and decisions of the regulatory body. The Freedom of Information Act is also an essential mechanism for ensuring the public access to information.

According to the Public Administration Act, the administrative agency must ensure that the case, e.g., application for a licence, is as well investigated as possible before a decision is

made. In order to secure a basis for its own recommendations and the basis for further processing and decision-making, DSA requests relevant stakeholders to come forward with views on the licence application. Stakeholders include state authorities, national organisations, municipalities councils and the general public.

The DSA website is an important tool for providing information to the public and other interested parties. DSA's Communication Strategy commits DSA to take an active role in communicating its regulatory practices with licensees, registrants and other stakeholders. The Communication Strategy states that DSA shall have regular contact with ministries, agencies, institutions and organisations linked to DSA's work, and that such contacts should be performed in a professional and service-minded manner. As part of DSA's Communication Strategy, reports and information of interest to the public are published on DSA's web pages, including documents relevant to the decision-making process, licensing and inspections. In addition, DSA publishes press releases and news, including information concerning incidents, accidents and abnormal events. Inspection reports are made public and also published on the webpage. Relevant information concerning public hearings in the licensing process of nuclear facilities is also published on the webpage.

DSA also actively uses social media platforms such as Facebook, X, LinkedIn, Twitter etc. in its communication with the public. In 2021, DSA started a podcast series to inform the public about different topics, e.g., emergency preparedness and response, radioactive pollution and radon. In addition, DSA considers the media to be an important communication channel. DSA maintains a proactive dialogue with the media and provides several national editorial offices with news.

All international peer review reports and Norway's national reports under the Convention for Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management are published on the DSA's website.

### **External Technical Support**

DSA often uses external support (e.g., consultancy services) to support development and implementation of regulatory functions related to nuclear safety and security (e.g., review and assessment of authorization applications, inspections of nuclear facilities and activities). These activities are administered through a set of framework contracts that has been established following an internal DSA process to identify the additional competences necessary to support its work.

DSA had been given the task of considering the possible future structure of a model for technical support functions in Norway. An evaluation was initiated focusing on DSA technical support capacity and its interactions with other organisations. The IAEA Technical Support Organisation Self-Capability Assessment (TOSCA) has been an important input to this process. The proposed model consists of three elements that will need to be further developed and strengthened in the coming years. The three elements are: 1) internal functions in DSA, 2) an external knowledge centre and scientific community consisting of several Norwegian collaborating partners, led by the Norwegian University of Life Sciences, and 3) framework agreements with international consultants.

### **Advisory Committee**

An independent expert Advisory Committee on Nuclear Safety and Radioactive Waste Management was established in 2018 to provide advice on international developments and to review relevant work undertaken by DSA. DSA re-established and extended its Advisory Committee on Radiation and Nuclear Safety in 2024, comprising international experts and representatives from regulatory bodies from other countries to, among other things, review and provide advice to DSA on matters related to DSA's areas of responsibility.

### **Strengthening National Regulatory Capabilities Taking into Account New and Innovative Technologies**

The government's digitalization strategy states that 80 percent of public sector organizations must have adopted artificial intelligence (AI) by 2025, and 100 percent by 2030, in order to

improve the efficiency and quality of services in the government sector. This means that the Regulatory body needs to take an active role when it comes to use of AI.

DSA has established a dedicated AI Council at its own organization, with members from all departments and management. The purpose is to ensure that DSA develops and uses artificial intelligence in an ethical, safe, and responsible manner, in line with legislation, national strategies, and principles. The council will provide strategic advice, assess fundamental questions, and prioritize actions for the safe implementation of AI. The council is led by an IT and Digitalization section manager and is intended to contribute to good governance and prioritization of our AI initiatives. The council had its first meeting in 2025 and is currently developing proposal for how DSA should work with AI.

Since 2024, DSA has undertaken a large digitalization effort in the management of applications under the Radiation Protection Act and the Pollution Control Act. These new digital tools are being introduced and will provide efficiency and quality gains throughout the organization.

## 8.2 Status of the Regulatory Body

### 8.2 (a) Independence within Government Structure

The Government of Norway through a directive issued in 2017 appointed DSA as the regulatory body for radiation protection and nuclear safety. This function is also reflected within the RP Act, and the NE Act as well as the PC Regulations. Oversight of DSA is shared between the Ministry of Health and Care Services (HOD), the Ministry of Climate and Environment (KLD) and the Ministry of Foreign Affairs, with the political and administrative oversight and responsibility mainly resting with HOD. Once a year the ministries issue a letter of commitment to DSA, describing the resources provided and laying down the expectations regarding regulatory tasks to perform during the year.

The Nuclear Energy Act states in § 10, that DSA is the highest specialist agency as far as questions of safety and security are concerned. This is an important provision because it has the implication that DSAs decisions on safety and security issues cannot be overruled by the ministry and, as such, is an important guarantee for the independence of DSA in its decision making. However, the Nuclear Energy Act § 57a states that the Ministry is the appeal body for legal decisions made by DSA. NEA § 57a should be interpreted considering international obligations and NEA § 10, that states that DSA is the highest specialist agency as far as questions of safety and security are concerned. The role of DSA as an independent regulatory body is defined in the new Policy and Strategy for Safety that has been established by the Government to the IRRS follow-up mission that will take place in December 2025. DSA is however of the opinion that the legal status of DSA should be strengthen further.

## Summary of Responses to Applicable Challenges and Suggestions

***Challenge 2*** from Joint 8<sup>th</sup> & 9<sup>th</sup> Review Meeting: *Development of regulatory procedures and guidance for transition from operation to decommissioning and from one licensee to the other licensee.*

Norway in addressing the Challenge made the following progress:

- The regulatory body has published regulatory guidance on planning the clean-up of the Norwegian nuclear programme, outlining the milestones that will need to be achieved — to maintain the safety of existing facilities and prepare them for decommissioning, to establish and license new facilities needed for decommissioning and to carry out decommissioning — and the regulatory expectations that will need to be met for each milestone.
- The processes for the release (clearance) of materials from regulatory control is under development by Regulatory body.
- The regulatory guidelines for decommissioning, including requirements for final decommissioning plan, are under development by Regulatory body.

- DSA has also performed oral and written guidance on the transition in several meetings with the operators.

The challenge continues to remain open.

### **Summary of Other Significant Changes Since Previous Report**

- Progress in establishing the Technical Support Organisation.
- The regulatory body's Knowledge Management Strategy for the period 2024-2028 is established.
- The regulatory body's internal reorganisation in 2024, putting more focus on the decommissioning of the Norwegian research reactors.
- The regulatory body has extended its Advisory Committee on Nuclear and Radiation Safety, comprising international experts and representatives from regulatory bodies from other countries.
- Following the recommendations of the IRRS mission in 2019 [1], continue improvements of the management system, including policies, strategies, processes and long-term inspection programme for facilities and activities, processes for the release (clearance) from regulatory control, etc. An IRRS follow-up mission is foreseen in November 2025.

### **Future Focus**

- Continued control of safe transition in the takeover of ownership of the remaining two licensed sites (Kjeller and KLDRA Himdalen) from the existing licence holder of nuclear facilities to a new one.
- Continued development of regulatory guidelines for decommissioning and handling of waste.
- Continued process on establishment of the TSO.

## Article 9: Responsibility of the Licence Holder

*Each Contracting Party shall ensure that prime responsibility for the safety of a nuclear installation rests with the holder of the relevant licence and shall take the appropriate steps to ensure that each such licence holder meets its responsibility.*

### Summary Statement for Article

As a Category 3 CP, it voluntarily reports on its fulfilment of the obligations of Article 9. Norway has established a legal framework to ensure that prime responsibility for the safety of a nuclear facility rests with the licence holder and ensures that each licence holder meets its responsibility.

### 9 (a) Responsibility of the Licence Holder

The licence holder's prime responsibility for safety is clearly allocated in the RP, NE, and PC Acts and associated regulations, to persons or organisations responsible for the facilities and activities. This allocation of responsibility is further ensured and identified via the specific authorization processes according to provisions in the RP, NE, and PC Acts. This responsibility cannot be delegated, even if some activities are contracted out.

Further, the most important requirements for the licence holder are provided in the national legal and regulatory framework:

- To maintain a management system that integrates safety into all organisational processes.
- To ensure the availability of sufficient human and financial resources, with the necessary competence and training.
- To perform, and keep up to date, safety assessments, especially when changes are made, or new information emerges.
- To establish and maintain emergency arrangements to protect workers, the public, and the environment.
- To foster a strong safety culture, emphasizing safety over competing goals such as production.
- To ensure full compliance with national regulations and conditions of the licence throughout the duration of licence.

DSA is obliged to ensure that the licence conditions are always complied with by the licence holder, and that operation of facilities is sound and within operating regulations. DSA has established mechanisms for ensuring that the licence holder commits to their prime responsibility for safety. This is mainly achieved through verification of safety assessments of facilities and activities, inspection and enforcement. DSA has established requirements for the licence holder to regularly submit reports concerning the operation and safety of the nuclear facilities. This includes reports on the operation of the research reactors, radiation doses, and discharges of radioactivity to the environment. The aforementioned reports are reviewed and assessed by DSA using a graded approach to ensure that safety continues to be a priority for the licence holder.

A license holder's prime responsibility for safety is assured in supply chain management through robust supplier's selection process, supervision and control of suppliers on site, acceptance of deliverables. Regulatory body performs inspections on how license holder assures supply chain management and maintains prime responsibility on safety.

## 9 (b) Summary of Significant Changes Since Previous Report

In 2018, the Government decided to establish Norwegian Nuclear Decommissioning (NND) as a state agency under the Ministry of Trade, Industry, and Fisheries to take over responsibility for decommissioning the research reactors and other nuclear infrastructure and for management, storage and disposal of radioactive waste. When NND is granted a licence, it is expected they will be responsible for, among other things:

- Operating the disposal facility KLDRA Himdalen, the radioactive waste treatment facility at Kjeller, and the spent fuel stores at Kjeller and Halden.
- Decommissioning the research reactors and other related facilities at Kjeller and Halden.
- Developing additional storage and disposal facilities needed for spent fuel and other radioactive waste, including waste from non-nuclear waste producers.

In 2022, NND applied for licences to own and operate the three nuclear facilities at Halden, Kjeller and Himdalen. In 2023, NND was requested by the Ministry of Trade, Industry, and Fisheries to assess a stepwise transfer of the licences, recommending that the licence for Halden be given priority and be transferred first, followed by the licence for Himdalen. It was assumed that a stepwise transfer was more appropriate and could contribute to a faster transfer process for the first site. One reason that the transfer of all sites at once could be delayed was the Kjeller site ownership. It is planned that IFE will retain the non-nuclear part of the site for their other research activities, so the site will have to be divided before the transfer to NND. As the one existing licence covers the entire Kjeller site, the non-nuclear areas will have to be removed from the licence. This presents significant challenges and takes a long time. Based on assessment results it was decided to transfer facilities stepwise.

NND updated the licence applications and submitted two licence applications to DSA concerning the Halden and Himdalen sites in the February 2024.

DSA assessed the licence application for the Halden site and provided a recommendation to the government in December 2024, stating that the Halden licence could be transferred to NND. The licence was transferred in April 2025 and NND began to operate the Halden site.

The Himdalen licence application is under processing by DSA at the time of writing.

NND and IFE are tasked to assess the division of and the licence transfer for the Kjeller site, and report to the Government by October 2025. IFE's current licence for the Kjeller site expires by 2029. The transfer of the licence to NND is currently planned before that date.



## **PART C: GENERAL SAFETY CONSIDERATIONS**

Part C consists of seven Articles:

- Article 10 Priority to Safety
- Article 11 Financial and Human Resources
- Article 12 Human Factors
- Article 13 Quality Assurance
- Article 14 Assessment and Verification of Safety
- Article 15 Radiation Protection
- Article 16 Emergency Preparedness

## Article 10: Priority to Safety

*Each Contracting Party shall take the appropriate steps to ensure that all organisations engaged in activities directly related to nuclear installations shall establish policies that give due priority to nuclear safety.*

### Summary Statement for Article

As a Category 3 CP, it voluntarily reports on its fulfilment of the obligations Article 10.

### 10 (a) Main Requirements and Administrative Arrangements

The Nuclear Energy Act (§ 4) requires a licence from the King to construct, own, or operate a nuclear facility. According to § 8, No. 1 of the Act, a licence is granted on the terms necessary to safeguard safety and other public interests.

The safety assessment documentation and the description of the management system are main parts of the documentation required to support an application for authorization for operation of a nuclear facility. The Nuclear Energy Activities act requires the licence holder to submit a complete safety assessment documentation on the installation before the nuclear facility is put in operation.

The licence holder shall have control over any changes in the organisation structure or resources that could affect safety and shall always facilitate and encourage a healthy safety culture. Furthermore, § 12 stipulates that if a licensee intends to make a change to the facility's construction, operation, or management that deviates from what formed the basis for approval and which may affect safety, the licensee is obligated to submit the matter to the DSA for approval before implementing the change.

The licence holder shall submit planned resource and organisational changes for regulatory approval. Furthermore, the authorized party shall have and keep up to date a comprehensive strategy for training with objectives that recognize the importance of safety. In addition, the licence holder must establish and document a satisfactory health, environment, and safety level. This is achieved through systematic improvement efforts within the organisation.

It is the responsibility of the licence holder to ensure that safety is always maintained and to document this through detailed descriptions in the safety report showing how safety is upheld.

The Nuclear Energy Activities Act specifies that DSA shall make sure that the nuclear facilities' management and personnel have the necessary qualifications and clear responsibilities before the installation is granted an authorization to operate.

According to § 13, the operation of a nuclear facility is under continuous supervision by the DSA, which must ensure that the licensing conditions are met and that the facility requirements are always fulfilled. The DSA may issue the orders necessary to ensure compliance. If necessary, the DSA may require that the facility be shut down for a shorter or longer period.

To enhance the safety of nuclear facilities and the activities carried out, and to clarify requirements imposed by international standards, the DSA has developed general licence conditions, published in 2018 – *General Terms for Assessing Licence Applications under the Atomic Energy Act*. These conditions have since been made legally binding as general conditions for the nuclear licences for the Norwegian facilities at Kjeller, Halden and any new facility to be licensed in future.

The priority for safety is specified in the General licence conditions for nuclear facilities. The licence holder of a nuclear facility is required to establish a management system, including a written safety policy. Management of the licence holder shall establish objectives, strategies and plans for the organisation that are consistent with the organisation's basic safety policy. The management system is seen as a fundamental tool to ensure, continually improve and prioritize safety.

Among the licence conditions relevant for safety, licence holder shall at all times provide the necessary financial and human resources for the safe operation of the nuclear facilities.

Operating procedures shall be reviewed regularly by the licence holder and updated accordingly to predetermined processes. It is also a condition for the licence to keep the necessary documentation of operation, inspection and maintenance of all operations that could affect safety.

It is also stated in the licence conditions that the management of the licence shall encourage and work to foster and maintain a healthy safety culture. DSA has established a follow-up plan and provisions for regular reporting to ensure that Licence holder is continuously working on improving its safety culture.

## **10 (b)Implementation**

As described above, licence holder is responsible for the implementation of nuclear safety. DSA checks compliance of licence conditions through inspections and audits.

### **Implementation by Regulatory Body**

Within the framework of licensing of a nuclear facility and within the framework of supervision of its operation, the DSA regularly checks the licence holders for compliance with the legal and regulatory requirements, which must ensure giving priority to the safety of the facilities. This includes provisions by the licence holders in order to fulfil their responsibility for the safe operation of the nuclear installations and to give priority to safety.

### **Implementation by Licence Holder**

The licence holders have committed themselves by written management commitments to give priority to the safety of the nuclear facilities over all other business objectives. To implement these commitments, both the respective management system has been introduced and measures for the safety-oriented behaviour of the personnel have continuously been further developed.

The licence holders established human resource management programmes, including training, to meet their safety responsibilities.

Licence holders established arrangements to control change management at licensed sites.

### **Implementation by Regulatory Body**

DSA prioritizes safety in its own line of work by ensuring that the review and assessment of facilities and activities is implemented using a graded approach. DSA allocates relevant human, technical, and financial resources commensurate with the risk and safety significance of the facilities and activities authorized. Furthermore, the authorization process is graded in proportion to the safety significance and risk.

DSA has established a process for addressing the recommendation made by the IRRS to develop a comprehensive human resource plan including a specific training programme. In addition, DSA is developing a strategy at the organisational level to support research and development activities on nuclear safety in Norway.



DSA regularly performs inspections to the nuclear facilities to ensure that safety is prioritized, and that the license holder is abiding by the license conditions and national regulations.

### **Summary of Significant Changes Since Previous Report**

Norway has no significant changes to highlight under Article 10 during the reporting period.



## **Article 11: Financial and Human Resources**

1. *Each Contracting Party shall take the appropriate steps to ensure that adequate financial resources are available to support the safety of each nuclear installation throughout its life.*
2. *Each Contracting Party shall take the appropriate steps to ensure that sufficient numbers of qualified staff with appropriate education, training and retraining are available for all safety-related activities in or for each nuclear installation, throughout its life.*

### **Summary Statement for Article**

Article 11 does not apply to Norway.



## **Article 12: Human factors**

*Each Contracting Party shall take the appropriate steps to ensure that the capabilities and limitations of human performance are taken into account throughout the life of a nuclear installation.*

### **Summary Statement for Article**

Article 12 does not apply to Norway.



## **Article 13: Quality assurance**

*Each Contracting Party shall take the appropriate steps to ensure that quality assurance programmes are established and implemented with a view to providing confidence that specified requirements for all activities important to nuclear safety are satisfied throughout the life of a nuclear installation.*

### **Summary Statement for Article**

Article 13 does not apply to Norway.

## **Article 14: Assessment and verification of safety**

*Each Contracting Party shall take the appropriate steps to ensure that:*

- (i) comprehensive and systematic safety assessments are carried out before the construction and commissioning of a nuclear installation and throughout its life. Such assessments shall be well documented, subsequently updated in the light of operating experience and significant new safety information, and reviewed under the authority of the regulatory body;*
- (ii) verification by analysis, surveillance, testing and inspection is carried out to ensure that the physical state and the operation of a nuclear installation continue to be in accordance with its design, applicable national safety requirements, and operational limits and conditions.*

### **Summary Statement for Article**

Article 14 does not apply to Norway.

## Article 15: Radiation Protection

*Each Contracting Party shall take the appropriate steps to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits.*

### Summary Statement for Article

Although Norway is a Category 3 CP, it voluntarily reports on its fulfilment of the obligations Article 15. Norway has established legal framework to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear facility shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits.

### 15 (a) Radiation Protection

In accordance with the Radiation Protection Act of 12 May 2020 and associated regulations, any user of ionising radiation is committed to measure the radiation doses to workers exposed to ionising radiation. There are provisions on radiation protection in the Radiation Protection Act and the Regulation on Radiation Protection and Use of Radiation of 16 December 2016. For instance, any manufacture, import, export, transport, transfer, possession, installation, use, handling, and disposal of radiation sources shall be prudent, so that there is no risk to those who carry on the activities, other persons, or the environment. Human activity that results in elevated natural ionizing radiation from the surroundings must also be justifiable. Emphasis shall be placed on whether the benefits of the activity exceed the risks that the radiation may entail, and whether the activity is designed so that acute health damage is avoided, and the risk of late damage is kept as low as can reasonably be achieved (ALARA principle). The GLCs also require the licence to implement and maintain an adequate radiological protection programme at the nuclear facility including a specific statement that is "as low as reasonably achievable"- principle.

The annual dose for each worker shall be kept as low as reasonably achievable and below the limits specified in the Regulation on Radiation Protection and Use of Radiation of 16 December 2016, which are consistent with those recommended by ICRP in their Publication No. 103, and in Publication No. 118 for the occupational limit for the lens of the eye. DSA, in coordination with other authorities, is aiming to harmonize its regulatory framework in the future with all requirements of IAEA GSR Part 3 for the protection and safety of workers in planned exposure situations, and as recommended by the IRRS mission to Norway in 2019. The Regulation on Radiation Protection and Use of Radiation of 16 December 2016 set the following dose limits among others for occupational exposure:

- a) The effective dose for exposed workers, apprentices, and students over the age of 18 shall not exceed 20 mSv per year. The Norwegian Radiation and Nuclear Safety Authority may grant dispensation for individuals, where in consideration of the nature of the work, it is not practically possible to establish an annual limit of 20 mSv. In such cases, a permit to practise a limit of 100 mSv over a consecutive five-year period may be granted, if the dose does not exceed 50 mSv in any single year.
- b) The equivalent dose to the lens of the eye for exposed workers, apprentices and students over the age of 18 years, to the lens of the eye, shall not exceed 20 mSv per year, or 100 mSv over a consecutive five-year period, provided that the dose does not exceed 50 mSv in any single year.
- c) The equivalent dose to the skin for exposed workers, apprentices and students shall not exceed 500 mSv per year. The dose limit applies to the mean value of measured

dose or calculated over any 1cm<sup>2</sup> skin area. Equivalent dose for extremities shall not exceed 500 mSv/year.

- d) Equivalent dose to the foetus for pregnant exposed workers, apprentices and students shall not exceed 1 mSv for the remainder of the pregnancy, i.e. after the pregnancy is known.

For apprentices and students between the age of 16 and 18 years who are using radiation sources as part of their education, the dose limits of respectively 5, 15 and 150 mSv per year shall apply instead of the doses stated under a-c above, according to the Regulation on Radiation Protection and Use of Radiation of 16 December 2016. The radiation dose limits for apprentices and students between the age of 16 and 18 years are more restrictive than the ones established in GSR-3, where an effective dose of 6 mSv in a year; and an equivalent dose to the lens of the eye of 20 mSv in a year are set for this group.

Pregnant and breastfeeding workers, apprentices and students shall not work with assignments, which might imply a significant risk for intake of radionuclides or contamination. The undertaking shall, if a worker might have exceeded the dose limits, immediately make an investigation and if possible, find the cause, and initiate measures to avoid repeats.

License holders utilise several different measuring methods for assessing the dose received by employees. Effective dose from external radiation is measured using personal dosimeters, and the dose to extremities is measured by finger dosimeters. Another personal dosimeter is used to assess the dose to skin. Eye lens dosimeters are not used any more after tests have shown that there were no discrepancies between the eye lens doses and whole-body doses.

License holders are, as nuclear operators, responsible for their own dose registration system. With the help of externals, the license holders measure individual whole-body dose, skin dose, finger dose, and internal dose. The dose measurements are reported regularly to DSA, and upon request the licence holder must be able to produce the results for DSA. According to the Regulation on Radiation Protection and Use of Radiation of 16 December 2016, the effective dose to the public and non-occupationally exposed workers shall not exceed 1 mSv/year for ionizing radiation. Equivalent dose to the lens of the eye shall not exceed 15 mSv/year. Equivalent dose to the skin shall not exceed 50 mSv/year, measured, or calculated over any skin area of 1 cm<sup>2</sup>. The undertaking shall plan the use of radiation and protective measures to ensure that exposure of the non-occupationally exposed workers and the public, shall not be exposed to an effective dose exceeding 0.25 mSv/year.

DSA may issue a permit under the Pollution Control Act for an activity which leads or may lead to radioactive pollution and may set conditions in the permit to prevent pollution from resulting in damage or nuisance to humans or the environment. Activity that leads to or may lead to the release of radioactive substances whose total or specific activity exceeds the limits set in the Regulation of 1 November 2010 on the Application of the Pollution Control Act on Radioactive Pollution and Radioactive Waste, shall always be considered to result in significant damage or nuisance and may not take place without a permit pursuant to the Pollution Control Act of 13 March 1981. As a part of the conditions associated with the License holders discharge authorisations, the effective dose to members of the public resulting from the release of radioactivity to the aquatic environment must be kept below 1 µSv/y. For discharges to the air, the total amount of releases shall not yield to an effective dose exceeding 100 µSv/y to the public, and not more than 10 µSv/y from iodine isotopes.

In accordance with the discharge permit for operation of the Halden and Kjeller sites, licence holder shall annually monitor radioactivity levels in the environment around the facilities it operates. The environmental samples analysed by license holders include rain, drinking water, grass, fish, sediments, sand, among others. License holders also have area dosimeters to measure the dose rate from background radiation.



## **Summary of Significant Changes Since Previous Report**

Norway has no significant changes to highlight under Article 15 during the reporting period.

## Article 16: Emergency Preparedness

- 1) *Each Contracting Party shall take the appropriate steps to ensure that there are on-site and off-site emergency plans that are routinely tested for nuclear installations and cover the activities to be carried out in the event of an emergency. For any new nuclear installation, such plans shall be prepared and tested before it commences operation above a low power level agreed by the regulatory body.*
- 2) *Each Contracting Party shall take the appropriate steps to ensure that, insofar as they are likely to be affected by a radiological emergency, its own population and the competent authorities of the States in the vicinity of the nuclear installation are provided with appropriate information for emergency planning and response.*
- 3) *Contracting Parties which do not have a nuclear installation on their territory, insofar as they are likely to be affected in the event of a radiological emergency at a nuclear installation in the vicinity, shall take the appropriate steps for the preparation and testing of emergency plans for their territory that cover the activities to be carried out in the event of such an emergency.*

### Summary Statement for Article

As Norway is a Category 3 CP, it voluntarily reports on its fulfilment of the obligations Article 16. Although Norway has no NIs, it prepares and tests emergency plans for national nuclear facilities. Description of EPR arrangements is provided in the Article 16.3.

#### 16.1 Emergency Plans

Sub-Article 16.1 does not apply to Norway.

#### 16.2 Information of the Public and Neighbouring States

Sub-Article 16.2 does not apply to Norway.

#### 16.3 Emergency Preparedness for Contracting Parties Without Nuclear Installations

##### 16.3.1 Emergency Plans

##### On-site Emergency Plans

The licence holder for a radiological or nuclear facility has the prime responsibility for on-site emergency preparedness and response (EPR), according to the radiation protection, nuclear energy and pollution control acts and regulations. Before authorization, the potential licence holder must present adequate EPR plans as part of the authorization/licensing procedure. DSA is the national regulatory body and responsible for review and assessment of the EPR plans. The licence holder is responsible for regular review of the EPR plans and whenever there are changes in production, threat assessment, organisation or other that may impact EPR, or when exercises or responses to real incidents reveal necessary changes. Revision should be approved by DSA.

Licence holders' EPR plans shall be exercised regularly. The on-site response is coordinated with the First Responders plan for on-site and off-site response, the municipality emergency plan and with the EPR plan for the Crisis Committee.

DSA performs inspections of EPR plans and observes emergency exercises to assess compliance with the legal framework. In case of non-compliance, DSA will issue an order to implement changes.

The licence holder is responsible for updating their threat assessment whenever there are changes that may influence internal or external EPR.

### **National Arrangements**

At the national level, The Crisis Committee for Nuclear and Radiological (CC-NR) Preparedness is responsible for and mandated to decide implementation of protective measures to reduce the consequences of a nuclear or radiological accident. In addition to emergency preparedness plans developed and implemented by each member organization of the CC-NR, the CC-NR have developed a joint emergency preparedness plan that outline, among other things, the responsible authority and relevant legislation for implementation of early protective measures. The Nuclear and Radiological Emergency Preparedness and Response Organisation (see figure 3) has been created to provide expertise to deal with radiological and nuclear incidents and to ensure rapid decisions and implementation of measures to protect lives, health, the environment, and other important social interests. It is comprised of:

- The Crisis Committee for Nuclear and Radiological Preparedness,
- Advisors to the Crisis Committee,
- Secretariat of the Crisis Committee (DSA),
- The county governors and the governor of Svalbard as the regional arm of the Crisis Committee.

### **Municipal Level**

The Civil Protection Act regulates the municipalities responsibility in maintaining preparedness and responding to crises, with activities such as risk and vulnerability assessment and contingency plans for identified risks. It is mandated in the Civil Protection Act that the contingency plans are to be revised on yearly basis.

The county governor is responsible for inspections regarding municipal contingency plans and adherent exercises.

### **The Ministries**

The ministries are responsible for EPR within their area of responsibility, specifically in the prevention and preparedness phase. The Ministry of Health and Care Services heads the Ministerial Coordination Committee for radiological and nuclear EPR.

### **The Role of the DSA**

The director of the DSA chairs the Crisis Committee. The DSA is also a member and provides the secretariat and command centre for the Crisis Committee.

DSA is the national and international warning point and competent authority for early notification of nuclear and radiological incidents.

In the day-to-day emergency preparedness work, the secretariat will run courses and drills and establish lines of communication within the emergency response organisation. In the event of a nuclear incident, the DSA is responsible for gathering and processing information and measurement data, preparing forecasts and situation reports, and presenting proposals to the Crisis Committee for mitigating measures.

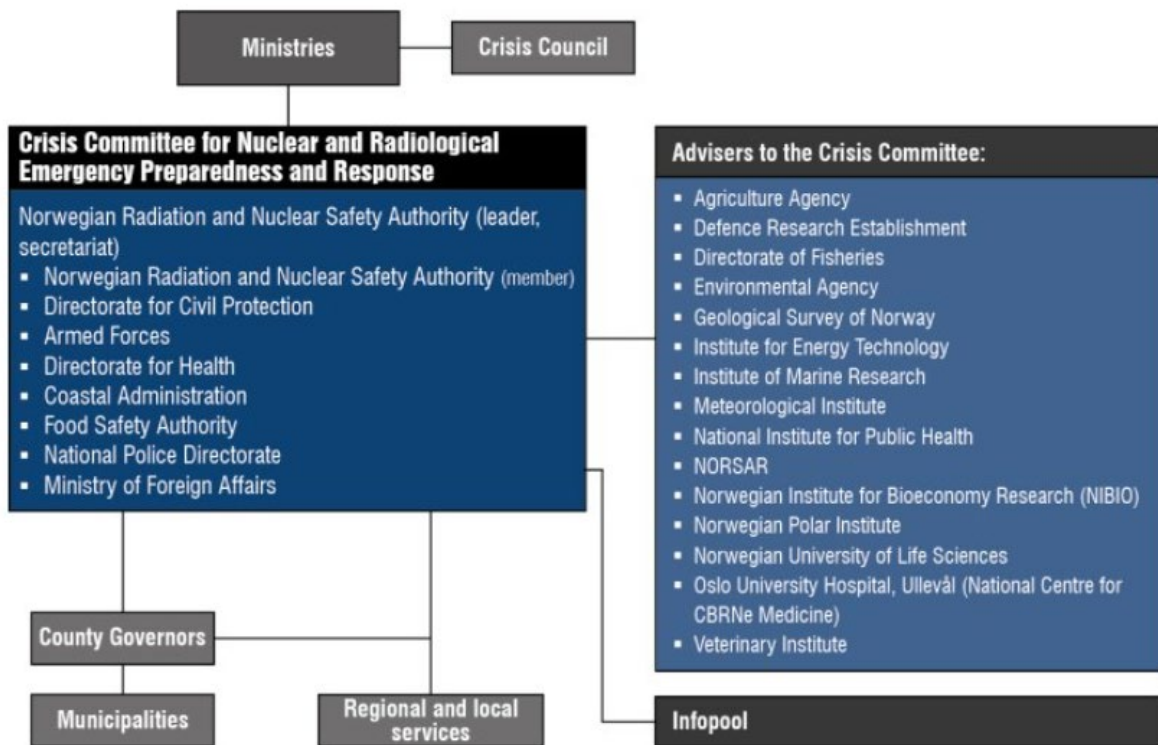
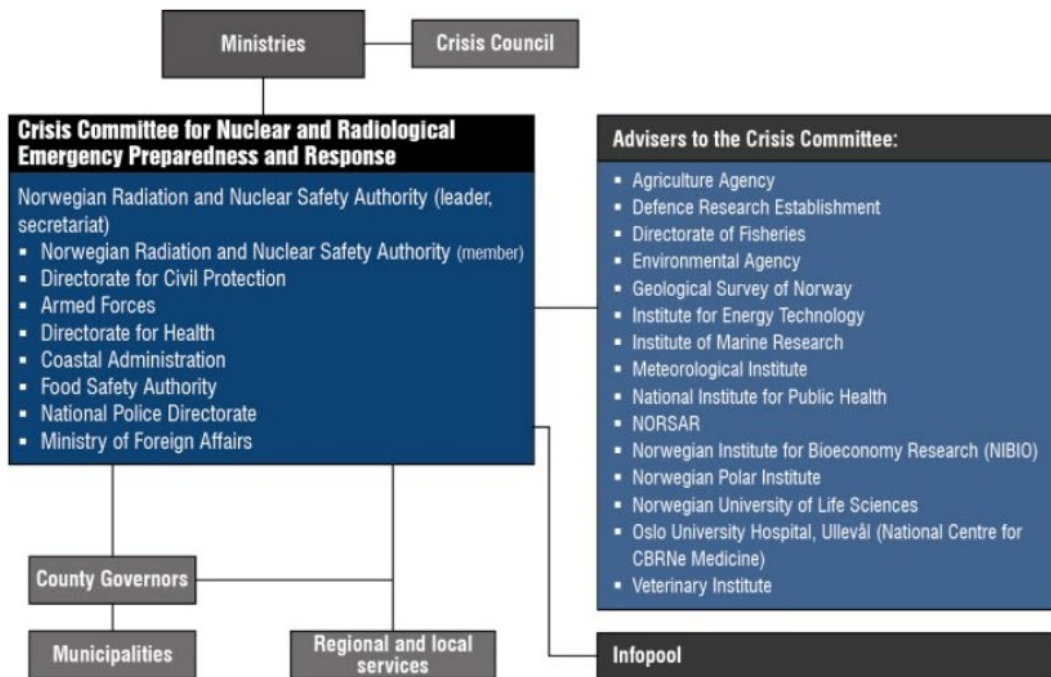


Figure 3: Organisational chart for the Norwegian nuclear and radiological emergency preparedness and response organisation.

### **16.3.2 Information of the Public and Neighbouring States**

The Crisis Committee has a communication policy and plans for radiological and nuclear incidents. A range of information products have been developed and made available, both for the public and relevant authorities.

In 2024, a National Emergency Alert system was implemented. The system has different pre-scripted messages to be issued to the public in case of an emergency.

DSA has bilateral agreements on early notification with neighbouring countries. The agreements differ slightly in wording but are based on the IAEA Convention of Early Notification. These agreements will ensure an early notification if an event occurs as well as information exchange during the response phase of an incident.

In addition to international and bilateral agreements, the Nordic authorities have formalized communication during a crisis in NORMAN (The Nordic Manual). NORMAN describes practical arrangements to ensure the harmonization of the Nordic policy with the IAEA guidelines, in particular the Operations Manual for Incident and Emergency Communication (IEComm), the IAEA Safety Requirements for Preparedness and Response for a Nuclear or Radiological Emergency (GSR Part 7) and the IAEA Safety Guide on Arrangements for Preparedness for a Nuclear or Radiological Emergency (GS-G-2.1).

### **16.3.3 Fostering Cross Border Collaboration**

The Nordic countries collaborate on matters related to emergency preparedness and response and have developed a common guideline on protective actions in a nuclear or radiological emergency. The Nordic guidelines harmonize the approach by incorporating the international standards for radiation protection during emergencies. These guidelines provide a starting point for the practical application of consistent public protective actions in our respective countries, enabling an efficient cross-border response. The Nordic guidelines are the result of a joint project carried out by the Nordic Emergency Preparedness (NEP) group, providing the latest version of the Nordic Flag Book issued in 2024.

Cooperation with Russia has been put on hold since February 2022, however the countries continue cooperation on early notification and information exchange in case of nuclear and radiological incidents.

## **Summary of Significant Changes Since Previous Report**

Norway has no significant changes to highlight under Article 16 during the reporting period.



## **PART D: SAFETY OF INSTALLATIONS**

Part D consists of three Articles:

Article 17 Siting

Article 18 Design and construction

Article 19 Operation

## Article 17: Siting

*Each Contracting Party shall take the appropriate steps to ensure that appropriate procedures are established and implemented:*

- (i) for evaluating all relevant site-related factors likely to affect the safety of a nuclear installation for its projected lifetime;*
- (ii) for evaluating the likely safety impact of a proposed nuclear installation on individuals, society and the environment;*
- (iii) for re-evaluating as necessary all relevant factors referred to in sub-paragraphs (i) and (ii) so as to ensure the continued safety acceptability of the nuclear installation;*
- (iv) for consulting Contracting Parties in the vicinity of a proposed nuclear installation, insofar as they are likely to be affected by that installation and, upon request providing the necessary information to such Contracting Parties, in order to enable them to evaluate and make their own assessment of the likely safety impact on their own territory of the nuclear installation.*

### Summary Statement for Article

Article 17 does not apply to Norway.

## **Article 18: Design and construction**

*Each Contracting Party shall take the appropriate steps to ensure that:*

- (i) the design and construction of a nuclear installation provides for several reliable levels and methods of protection (defence in depth) against the release of radioactive materials, with a view to preventing the occurrence of accidents and to mitigating their radiological consequences should they occur;*
- (ii) the technologies incorporated in the design and construction of a nuclear installation are proven by experience or qualified by testing or analysis;*
- (iii) the design of a nuclear installation allows for dependable, stable and easily manageable operation, with specific consideration of human factors and the man-machine interface.*

### **Summary Statement for Article**

Article 18 does not apply to Norway.

## Article 19: Operation

*Each Contracting Party shall take the appropriate steps to ensure that:*

- (i) the initial authorization to operate a nuclear installation is based upon an appropriate safety analysis and a commissioning programme demonstrating that the installation, as constructed, is consistent with design and safety requirements;*
- (ii) operational limits and conditions derived from the safety analysis, tests and operational experience are defined and revised as necessary for identifying safe boundaries for operation;*
- (iii) operation, maintenance, inspection and testing of a nuclear installation are conducted in accordance with approved procedures;*
- (iv) procedures are established for responding to anticipated operational occurrences and to accidents;*
- (iv) necessary engineering and technical support in all safety-related fields is available throughout the lifetime of a nuclear installation;*
- (v) incidents significant to safety are reported in a timely manner by the holder of the relevant licence to the regulatory body;*
- (vi) programmes to collect and analyze operating experience are established, the results obtained and the conclusions drawn are acted upon and that existing mechanisms are used to share important experience with international bodies and with other operating organizations and regulatory bodies.*
- (viii) the generation of radioactive waste resulting from the operation of a nuclear installation is kept to the minimum practicable for the process concerned, both in activity and in volume, and any necessary treatment and storage of spent fuel and waste directly related to the operation and on the same site as that of the nuclear installation take into consideration conditioning and disposal.*

### Summary Statement for Article

Article 19 does not apply to Norway.



## References

- [1] [IRRS mission report 2019.](#)