

Guidance for applications for licences under the Nuclear Energy Act for visits by nuclear-powered naval vessels to Norwegian territorial waters and ports

Reference

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Abstract

This booklet sets out the conditions applied by DSA when forming its recommendations to the Norwegian government regarding the issuing of a licence to carry out a visit of a nuclear-powered naval vessel to a Norwegian port or territorial waters in accordance with the Nuclear Energy Act.

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1 Background

Norway regularly receives visits from foreign nuclear-powered naval vessels visiting Norwegian ports or sailing through Norwegian territorial waters. With the exception of the right of innocent passage through territorial waters and the right to seek safe haven, the Norwegian authorities regulate and govern the access of foreign nuclear-powered naval and civilian vessels to Norwegian territory.

Visits to and passage through Norwegian territorial waters by nuclear-powered naval vessels are generally subject to requirements regarding diplomatic clearance/written authorisation pursuant to military regulations. A prerequisite for such clearance/permit is that a licence can be granted in accordance with the Nuclear Energy Act.

Pursuant to the Regulations of 5 November 1999, the Ministry of Defence (MoD) and the Ministry of Health and Care Services (HOD) have been delegated authority under the Nuclear Energy Act to grant licences for visits by naval and civilian nuclear-powered vessels respectively. DSA is the supreme competent body with regard to safety and is the recommending and advisory body with respect to the relevant ministry (cf. Section 10 of the Nuclear Energy Act).

Guidelines for foreign nuclear-powered naval and civilian vessels visiting and passing through Norwegian waters were approved by MoD and HOD in October 2009, and are described in a separate recommendation of October 2008 («*Sivile og militære reaktordrevne fartøyers anløp av og ferdsel i norske farvann – Bestemmelser, aktører og rutiner*») [1]. These guidelines set out guidance concerning responsibilities, safety and emergency preparedness arrangements for such visits.

The number of visits have been rising in recent years, and there has been a desire to facilitate visits to new locations, including ports in the north and internal waters. Over time, focus on requirements regarding nuclear safety have increased both in Norway and internationally. DSA also wishes to note that in connection with visits to ports in the north this will be the first time that plans are drawn up for visits to an existing civilian port. This presents a number of specific challenges and a need to clarify administrative procedures. As a result of the foregoing and experience gained through application of the 2009 guidelines, DSA find it necessary to review administrative practices and clarify the statutory requirements regarding visits by nuclear-powered vessels as nuclear installations, and to handle visits more in line with the regulation of onshore nuclear installations. This guide describes the criteria that should be met in an application and is intended as guidance to applicants regarding what must be submitted before DSA can provide a recommendation regarding a visit. DSA applies these criteria when reviewing applications for licences and when formulating its recommendations to MoD concerning licences for visits by nuclear-powered naval vessels to Norwegian territorial waters and ports in accordance with the Nuclear Energy Act. This guide solely covers nuclear-powered naval vessels.

2 Requirements regarding licences and legal basis for passage and visits by foreign nuclear-powered naval vessels in Norwegian ports and waters

2.1 Requirements regarding licences

It follows from Section 17 of the Nuclear Energy Act that nuclear-powered vessels are nuclear installations, and all the provisions of the Nuclear Energy Act concerning nuclear installations thus apply in principle to nuclear-powered vessels. As a result, visiting vessels must have been granted a licence to visit (Section 4 of the Nuclear Energy Act). Although nuclear-powered vessels under the Act are deemed to constitute nuclear installations, the provisions of the Nuclear Energy Act were primarily formulated with regard to onshore installations, and certain adjustments must therefore be made as a result of the special conditions associated with visits (e.g. that the nuclear installations (vessels) are mobile, that the visits are temporary, and that only the flag state has jurisdiction over the nuclear-powered naval vessels (immunity)).

As part of the licence application, Sections 7 and 11 of the Nuclear Energy Act require, among other things, an assessment of the safety aspects of the installation (i.e., a safety report) to be submitted. Because visits often take place with as little as 14 days' advance notice (application for diplomatic clearance), as much as possible of the documentation necessary for the licence application must be submitted in advance.

Under the Act, DSA is the recommending and advisory body for the ministry concerned, and is required to prepare and submit recommendations concerning all licence applications. In order to be able to recommend a licence be granted for a visit, DSA must, among other things, have received safety reports and other documents required in accordance with Section 11 (2) as part of the licence application sufficiently early to enable a satisfactory review and assessment to be carried out. The fact that the safety report is continuously kept up-to-date, that regular safety reviews are conducted, and that changes are continually approved by DSA will enable licences for individual visits to be recommended quickly and seamlessly. This is in the interests of all the parties concerned.

Alterations to the construction, operation or management of an onshore installation which constitute a departure from the conditions forming the basis on which authorisation was granted under Section 11 (2) and which may have a bearing on safety must be approved by DSA pursuant to Section 12. Although, in reality, operating permits are not granted under Section 11 (2) for nuclear-powered vessels, the principle of Section 12 regarding approval of alterations must nevertheless be applied, because without such an arrangement it would not be possible for DSA to recommend a licence be granted for an individual visit in such a short period of time.

Licences are granted subject to the conditions that are necessary to safeguard safety and other public interests (cf. Section 8 (1) of the Nuclear Energy Act), and the conditions set out in this guide provide supplementary information and clarification of the conditions that DSA considers necessary to safeguard safety and other public interests. The guide clarifies and supplements what is required in order to meet the documentation requirements set out in Section 11 (2), which in turn relates to the documentation which must be submitted pursuant to Section 7 before DSA can recommend a licence be granted by the relevant ministry.

2.1.1 Advance approval

Pursuant to Section 7 of the Nuclear Energy Act, “preliminary approval may be given of the building site and other aspects of the application for the licence”, i.e., advance approval. DSA considers that it may be appropriate to apply for advance approval for ports of call. This applies both to ports of call and to geographical areas in open water which will be visited. Under the general principles of administrative law, certain conditions may be linked to advance approval. The advance approval and the information on which it is based, as well as the conditions stipulated therein, will form part of DSA’s recommendation regarding the granting of a licence for each visit. The information that forms the basis for advance approval must be kept up-to-date, and approval must be sought for any changes which deviate from what formed the basis for the advance approval and which could have a bearing on safety. The preliminary approval also has a parallel in the guidelines dating from 2009, which describe pre-approved ports, and it was proposed that as much “basic information” as possible should be provided in advance, i.e., before any application was submitted for licences for the individual visit. Such an approach could not only meet the need which justified the distinction made in the previous guidelines between basic information and dynamic information, it could also link this more clearly to the wording of the Act.

In any case, the key point is that DSA receives sufficient information in advance regarding safety and emergency preparedness matters relating to the individual ports of call and vessel types in order to be able to recommend a licence be granted for the individual visit concerned. However, it may be appropriate for the applicant to request formal advance approval of a port of call before submitting the first application for a visit. This would clarify the conditions regarding surroundings and stakeholders and formalise what were referred to in previous guidelines as “pre-approved ports”. Such advance approval and any associated conditions will then form part of the basis for a subsequent recommendation regarding the granting of a licence for the individual visit.

In order to carry out a visit, it is necessary to obtain approval (advance approval) for the port of call (the port or area where the visit is to take place), along with a separate licence for the individual visit. This will help to ensure that the administration is more in line with the provisions of the Nuclear Energy Act and its intentions, as described in the preparatory work.

2.1.2 DSA’s supervision and inspections

Pursuant to Section 11 of the Nuclear Energy Act, DSA is responsible for continuously monitoring the construction of nuclear installations, and it follows from Section 13 that the operation of nuclear installations is under continuous supervision by DSA. DSA must ensure that the licence conditions are being followed, that the requirements of Section 11(2) are met at all times and that operation of the installation complies with the relevant operating regulations and is otherwise prudent. It also follows from Section 14 that DSA may at any time require access to a nuclear installation and *the surrounding area*, but DSA will not have access to individual vessels. DSA will carry out supervision on ports and areas around ports of call when there is no visit taking place, in addition to supervision to verify that the conditions of any advance approval are being met.

The Norwegian Armed Forces apply for licences and advance approvals and represent the ship/vessel’s owner as licence holder once a licence has been granted and is therefore responsible for ensuring compliance with the conditions stipulated within the licence and any advance approval.

Due to limitations in national civilian nuclear preparedness, DSA does not consider it desirable for more than one ordinary visit to a particular area to take place at the same time.

2.2 Foreign naval vessels

Foreign naval vessels and foreign state-owned vessels used for state purposes under public law, along with their crews, are granted immunity and are exempt from Norwegian jurisdiction and law enforcement. The vessels must nevertheless comply with Norwegian legislation regulating passage through territorial waters and access to internal waters and, where applicable, ports, as well as the requirements of the Regulations relating to foreign state-owned vessels as described below. Non-compliance could, for example, result in the vessel being ordered to leave Norwegian territorial waters immediately.

Given that the vessel has been granted diplomatic clearance (access to Norwegian territory), the following regulations also contribute to the Norwegian authorities' control and overview, irrespective of the vessel's assignment:

Foreign state-owned vessels must report their position and planned route to Norwegian authorities when they cross the territorial border, and thereafter every six hours while sailing in Norwegian territorial waters; cf. Section 5, first paragraph of the Regulations relating to foreign state-owned vessels¹. Foreign vessels which are forced to stop or drop anchor during innocent passage through territorial waters must notify Norwegian authorities without delay of the stay and the reason for it. The same applies to foreign vessels in distress at sea which are forced to seek safe haven in Norwegian internal waters; Section 5, second paragraph of the Regulations relating to foreign state-owned vessels. The notification must be submitted to the Norwegian Armed Forces Joint Headquarters (*Forsvarets operative hovedkvarter*).

In the interests of safe navigation or national security, Norwegian authorities may make decisions concerning the compulsory use of a pilot in Norwegian internal waters and in territorial waters; cf. Section 6 of the Regulations relating to foreign state-owned vessels. If the reason behind the need to require a pilot is to ensure safe navigation, the decision will be made by the Norwegian Coastal Administration; cf. delegation to the Norwegian Coastal Administration concerning access for foreign vessels. If the reason is to safeguard national security, the decision will be made by the Ministry of Defence or the authority authorised by the ministry.

In Norwegian territorial waters, foreign naval submarines must be in the fully emerged state at all times and fly the appropriate flag, except as part of approved exercises and training; cf. Section 7 of the Regulations relating to foreign state-owned vessels.

In Norwegian waters, foreign vessels must follow the approved shipping routes at all times, cf. Section 9 of the Regulations relating to foreign state-owned vessels.

Foreign military and civilian state-owned vessels must use the anchoring, mooring or landing sites specified by Norwegian authorities. The captain and crew on board foreign naval vessels and aircraft shall otherwise comply with the military rules and regulations issued by the local military command authority; cf. Section 16, first paragraph of the Regulations relating to foreign state-owned vessels.

The captain and crew of such vessels shall comply with applicable Norwegian legislation, including environmental, health, customs, pilotage, traffic, immigration and public order provisions; cf. Section 16, second paragraph of the Regulations relating to foreign state-owned vessels.

Irrespective of any breaches of applicable provisions and when special reasons apply, the Norwegian authorities may order foreign military and civilian state-owned vessels to leave Norwegian territory without prior notice; cf. Section 17, second paragraph of the Regulations relating to foreign state-owned vessels.

¹ Regulations of 2 May 1997 No. 396 relating to access to and stays on Norwegian territory in peacetime for foreign military and non-military state-owned vessels (Regulations relating to foreign state-owned vessels)

2.3 Exceptions from the requirements concerning diplomatic clearance and a licence pursuant to the Nuclear Energy Act

2.3.1 Innocent passage and the right to seek safe haven

An important exception from the requirement for diplomatic clearance and the requirement to have a licence is the right of innocent passage through territorial waters (between the baseline and 12 nautical miles) pursuant to the UN Convention on the Law of the Sea. The right to seek safe haven also applies. The right of innocent passage is laid down in Section 2 of the Territorial Waters Act². The right of innocent passage through territorial waters, and to stop or drop anchor in territorial waters during transit passage when necessary as a result of force majeure or distress at sea or to provide assistance to persons, ships or aircraft in danger or distress, is further enshrined in Section 4 of the Regulations relating to foreign state-owned vessels.

DSA notes that notification must be given to the Norwegian authorities³ without delay in the event of anchoring or stopping during innocent passage; cf. Section 5 of the Regulations relating to foreign state-owned vessels.

2.3.2 Emergency procedures

For visits that only involve movements through territorial waters linked to the evacuation of personnel for medical or humanitarian reasons (MEDEVAC or HUMEVAC) in open water, notification must be sent to DSA by telephone or e-mail stating the time and place. As this only takes place in emergency situations, normal diplomatic clearance/written permission will not be required. The exception is stipulated in Sections 4 and 5 of the Regulations relating to foreign state-owned vessels. DSA will therefore only be informed of the time and place of the visit, and will not submit any recommendation regarding the granting of a licence.

To ensure an auditable trail within the public administration, further written information regarding the visit must be submitted retrospectively via the ordinary channel for classified notifications.

2.4 Legal basis in the Nuclear Energy Act, other rules and agreements

A number of sets of regulations apply to the administration of visits and passage by nuclear-powered naval vessels in Norwegian territorial waters. This guide addresses the provisions and requirements of the Nuclear Energy Act related to applications and conditions for licences, and DSA refers to the following regulations, agreements and guidelines, as well as relevant international conventions, agreements and guidelines:

2.4.1 Nuclear Energy Act and associated regulations

- Act of 12 May 1972 No. 28 relating to Nuclear Energy Activities (the Nuclear Energy Act)
- Regulation No. 1809 of 2 November 1984 on the physical protection of nuclear material and nuclear installations (Regulations relating to nuclear materials and installations)
- Regulation No. 1144 of 5 November 1999 on the delegation of authority to the Ministry of Defence and the Ministry of Health and Care Services to grant licences for visits by

² Act No. 57 of 27 June 2003 on Norway's territorial waters and adjacent zone (the Territorial Waters Act)

³ In this context, 'the Norwegian authorities' means the Ministry of Defence or a party authorised by the Ministry; cf. the Regulations relating to foreign state-owned vessels.

nuclear-powered vessels pursuant to Section 4 of the Nuclear Energy Act (delegation pursuant to the Nuclear Energy Act)

- Regulation No. 444 of 19 May 2000 on the delegation of authority to the Ministry of Health and Care Services to introduce and determine supervision fees and processing fees for the processing of licence applications under the Nuclear Energy Act (delegation to the Ministry of Health and Care Services pursuant to the Nuclear Energy Act)

2.4.2 International conventions, agreements and guidelines

- International Convention for the Safety of Life at Sea (SOLAS), 1 November 1974
- United Nations Convention on the Law of the Sea, 10 December 1982
- Convention on Early Notification of a Nuclear Accident, 26 September 1986
- NATO Status of Forces Agreement (SOFA), 19 June 1951
- International Convention for the unification of certain rules concerning the immunity of State-owned ships with Additional Protocol of 24 May 1934, 10 April 1926
- Agreement between Norway and the United Kingdom on the early notification of nuclear accidents and the exchange of information concerning the operation and management of nuclear installations, 24 November 1987.

3 Requirements regarding applications and conditions for licences for visits

Applications for licences for visits must describe how the requirements set out in this chapter are met. When reviewing applications for licences and drafting recommendations to the Ministry of Defence concerning a licence, DSA assesses whether the requirements have been adequately documented and met. Although there is no requirement in the Act to apply for advance approval of a port of call, DSA deems it appropriate, as permitted by law, that such advance approval should be requested. The basic documentation relating to a new port of call must in any case be submitted well in advance of the submission of the application for the first visit, so that DSA can assess whether the requirements for a licence application are met. Furthermore, the applicant must ensure that DSA receives subsequent documentation on any changes which deviate from what has previously been submitted and which may have an impact on the safety of a visit. Once such pre-approved ports of call have been approved, applications for visits may refer to the advance approval and the information on which it is based. In addition, the application may contain information related to the individual visit in line with previously established practice.

3.1 Responsibility and management, resources and internal control

- 3.1.1. The licence holder must be clearly stated. Organisational structure must be documented and position structure and tasks described. The licence holder is responsible for ensuring compliance with the conditions stipulated for the licence and has overall responsibility for ensuring and documenting an adequate level of safety and emergency preparedness during a visit to the port of call area, and for taking all necessary measures to ensure that no harm is caused; cf. Section 15 of the Nuclear

Energy Act. The licence holder is responsible for the provision of information to and cooperation with Civil authorities in the event of an accident.

- 3.1.2. The licence holder shall at all times secure the necessary financial and human resources for the safe and proper execution of visits. There must always be sufficient personnel with an adequate level of expertise at every level within the organisation.
- 3.1.3. The licence holder must be in control of any changes in organisational structure or resources that could impact on safety and submit planned changes to DSA for approval (Section 12 of the Nuclear Energy Act). Changes to the organisational structure or resources must be described according to the associated safety implications.
- 3.1.4. The licence holder's management must at all times facilitate and encourage a sound safety culture.
- 3.1.5. The licence holder must ensure that ongoing safety and emergency preparedness work is carried out relating to visits and conduct regular audits and updates of safety and emergency preparedness arrangements.
- 3.1.6. The licence holder must at all times have a Health, Safety and Environmental (HSE) programme for the port of call area, which must also be updated regularly. There must be registers, procedures and monitoring of personnel doses which are archived (HSE).

3.2 Documentation and retention

- 3.2.1. The licence holder must be able to document that the licence conditions are met. The licence holder must retain all documents of relevance to the licence for at least ten years after the visit took place, or for a different period as stipulated by DSA.
- 3.2.2. If so required by DSA, the licence holder must submit documentation prepared as a basis for or in support of compliance with licence conditions.
- 3.2.3. The need to classify information pursuant to the Security Act shall not prevent the submission or transmission of information that DSA deems necessary; cf. the provisions of the Nuclear Energy Act. Classified information may be transmitted via an ordinary channel with security clearance.

3.3 Competence and exercises

- 3.3.1. All employees and contractors, as well as emergency personnel and other parties involved, must possess the necessary knowledge and competence in relation to their tasks and positions linked to visits by nuclear-powered vessels. A competence plan must be prepared for each function.
- 3.3.2. Personnel with tasks linked to assignments in a radiologically contaminated area must be equipped with the necessary protective equipment and have received the necessary training. Procedures for assignments in radiologically contaminated areas must be described.

- 3.3.3. The licence holder is responsible for ensuring that regular exercises are conducted at all levels in the management of incidents and accidents linked to visits by nuclear-powered vessels. The exercises must be risk-based and follow an established exercise plan.

3.4 Control over the port of call area

- 3.4.1. The licence holder must establish the port of call as a temporary or permanent military area during the visit. This applies regardless of whether the port of call is at sea or in a port. The licence holder must at all times have control over the port of call area while the visit is in progress. There must be person and access control to the area.
- 3.4.2. During a visit, an appropriate safety zone must be established around the vessel. The licence holder must prepare and implement the necessary measures to prevent unauthorised persons from entering the safety zone while a visit is in progress.

3.5 Risk and vulnerability analysis and Design Basis Threat assessment

- 3.5.1. The licence holder must produce a risk and vulnerability analysis (RVA) based on a selection of relevant scenarios relating to visits by nuclear-powered vessels. The RVA analysis must include a review of hypothetical scenarios and possible consequences. Dispersal calculations must be performed. The RVA analysis must clearly state the types and classes of vessels for which it has been prepared.
- 3.5.2. The RVA analysis must include a description of the port of call area and the activities carried out there. It must also include a description of the geographical conditions, road systems, commercial activity and population in the surrounding area. It must furthermore include a description of military prohibition areas.
- 3.5.3. The licence holder must prepare a Design Basis Threat (DBT) assessment for the port of call area.
- 3.5.4. The RVA and DBT assessment must include both approach and departure shipping channels in addition to the port of call area.
- 3.5.5. The RVA and DBT assessment must be used to define safety arrangements and emergency preparedness for visits to the port of call area.
- 3.5.6. The RVA analysis must provide a basis for preparedness planning by the relevant civil authorities for visits to the port of call area.

3.6 Reception plan and security arrangements

- 3.6.1. The reception plan and security arrangements for visits to the port of call area must be described. The security plan must describe physical security, guard duty arrangements, etc. and include measures to reduce the likelihood of accidents and incidents. The division of responsibilities for coordination, facilitation and preparation for visits must be described. The security arrangements must be based on RVA analyses and the adopted DBT assessment. The reception plan must describe the

organisation and procedures for visits to the port of call area and dialogue between the licence holder and the vessel/flag state. Responsibilities for security and safety must be clearly described for all aspects of the visit, including both approach and departure and any mooring.

- 3.6.2. A local military leader responsible for the execution of the visit must be appointed. This person will be responsible for securing the port of call area and the vessel, the safety of his or her own personnel and for the necessary notification and implementation of immediate measures in the event of an accident or incident.
- 3.6.3. Emergency personnel in the port of call area, as well as guards and security personnel in the vicinity of the visiting vessel, shall be provided with radiation detectors and be able to use them correctly.

3.7 Preparedness plans

- 3.7.1. The licence holder must have updated emergency preparedness plans for the reporting and handling of all types of accidents and incidents that could occur or affect the vessel. This includes both incidents relating to reactor safety on board the vessel and other incidents that could affect the vessel, such as fire, collision, grounding, etc. The preparedness arrangements must be based on RVA analyses and the DBT assessment.
- 3.7.2. Procedures must be established to ensure immediate notification to DSA of accidents, incidents or suspected incidents. Procedures must be established for communication and information exchange in emergency situations, including notification to and communication with local civilian authorities such as the local police district, county governor and municipality. Procedures must be established which ensure good communication with the vessel/flag state.
- 3.7.3. Emergency preparedness zones must be established around the port of call area to ensure the rapid implementation of necessary early measures in the event of an accident or incident. The following zones must be established:
 - a. *Precautionary Action Zone (PAZ)*: Preparedness zone in the immediate vicinity of the vessel, must be subject to full military control while the visit is in progress. Unauthorised persons must not have access to the port of call area. On Their own initiative, the local military leader must order the evacuation of all unnecessary personnel from the zone if there is any suspicion of a possible accident or incident related to the visit.
 - b. *Urgent Protective action Zone (UPZ)*: Preparedness zone outside the immediate evacuation zone (PAZ). The UPZ is the immediate area around the port of call. Within the UPZ, preparations must be made for the implementation of mitigatory measures, such as the provision of advice to stay indoors, the use of iodine tablets, etc. Procedures must be established for radiological measurements within the UPZ in the event of an accident or incident.

The extent and layout of the zones must be based on RVA and the DBT assessment. DSA can provide more detailed guidance concerning emergency preparedness zones.

- 3.7.4. The preparedness plans must be consistent with local, regional and national preparedness plans, and follow international recommendations and standards within the field of nuclear preparedness. The preparedness plans must have provision for the local police district to take over responsibility for response management.
- 3.7.5. Preparedness must be established to enable emergency towing. The necessary towing capacity must accompany the vessel while it is in motion and otherwise be able to be on site within one hour's notice. The crew on board the towing vessel must have detection capability, the necessary training and appropriate protective equipment.
- 3.7.6. Emergency preparedness must be established to enable the nuclear-powered vessel to be hosed down.
- 3.7.7. Procedures must be established for the notification of and provision of information to the general public and the population within the vicinity of the port of call (within the Urgent Protective action Zone, UPZ).
- 3.7.8. The preparedness plans must include procedures for, among other things, measurements and sampling in the event of an accident or incident, the deployment of measuring instruments, emergency preparedness equipment, notification procedures in the event of operational issues and other incidents, the deployment of emergency personnel, evacuation and indoor stays for non-essential personnel, the use of iodine tablets, implementation of mitigatory measures such as the towing of vessels into open water and the hosing down of vessels, the reporting of emissions from the vessel, interaction with the vessel/flag state, as well as any cleaning and follow-up of exposed personnel.
- 3.7.9. The preparedness plans must include a description of the de-escalation of emergency preparedness. The preparedness situation shall cease when the vessel has left Norwegian waters, there is no release of radioactive substances from the vessel taking place, background radiation is normal and DSA recommends that the preparedness situation be terminated.

3.8 Environmental monitoring

- 3.8.1. A programme shall be established for environmental monitoring at the port of call. The monitoring programme should include information on the samples that are to be taken, how these samples are to be analysed, monitoring stations in the environment, etc.
- 3.8.2. The licence holder is responsible for environmental monitoring and sampling while a visit is taking place. A local manager must be appointed to take responsibility for the environmental monitoring and measurement service.
- 3.8.3. To confirm that no discharge of radioactive water is taking place, a water sample must as a minimum requirement be taken by the side of the ship near the vessel's stern. The water sample must have a volume of at least two litres and be sent to DSA for analysis. In the case of visits to ports, the sample must be taken no more than two to three hours after the vessel arrived at the quay.

- 3.8.4. Continuous measurements of radioactivity must be taken in the surroundings during a visit. If alarm limits are exceeded, DSA and local police must be notified immediately.
- 3.8.5. A measurement service must be established consisting of personnel who routinely take measurements in the vicinity of the port of call. In the event of an accident or incident, the measurement service must be operational with one hour's notice. Measurement data must be retained.
- 3.8.6. Measuring instruments must be regularly checked, calibrated and maintained. Measuring instruments must be stored so that they are readily accessible to the measuring service.

3.9 Information about the vessel, purpose and time of visit, etc.

- 3.9.1 Applications must as a minimum contain information about the safety of the specific vessel, where and when the visit is to take place, the purpose of the visit, special safety issues and other relevant information relating to the visit. The application must state the name, nationality and class of the vessel.

3.10 Escort and presence during the visit

- 3.10.1 Nuclear-powered vessels must be accompanied by an escort with measuring and emergency towing capacity when visiting Norwegian waters, incl. during approach and departure to/from the port of call area. The escort vessel must have the equipment and expertise necessary to remain in the area in the event of an accident or incident. Procedures must be established for the notification and dissemination of information.

3.11 Threat assessment

- 3.11.1 A threat assessment must be prepared for each visit. The threat assessment must be used to adjust safety arrangements and preparedness plans for the visit as necessary.

3.12 Special requirements for ports

Control over the port of call area

- 3.12.1 The licence holder must mark the boundary of the port with a perimeter/fencing or other appropriate means and ensure that these boundaries are maintained

Reception plan and safety arrangements

- 3.12.2 There must be a detailed plan in place for protection and security at the port of call, including security and access control, patrols and continuous security on and around the vessel.

- 3.12.3 The quay must be inspected and the seabed checked before the visit takes place. The quay must be secured by a perimeter/fencing. Armed patrol boats must patrol the waters around the vessel 24 hours a day.
- 3.12.4 An emergency preparedness review must be carried out with representatives from the vessel once it has docked at the quay. The emergency preparedness review must at least include a review of the measures that will be implemented in the event of an accident or incident and information about notification and procedures for liaising.

Preparedness plans

- 3.12.5 Procedures must be established for contamination control and the decontamination of contaminated persons. It must be possible to establish and fully operationalise a decontamination station within one hour.
- 3.12.6 Precautions must be taken to ensure that nuclear-powered vessels visiting the port can rapidly be moved away from the quay. A plan must be in place for moving the vessel using towing capacity. The emergency preparedness plans must describe the towing of the vessel in an emergency, including assessment of possible destinations for the tow and any emergency ports or anchoring sites.

Environmental monitoring

- 3.12.7 A station affiliated to DSA's automatic monitoring and notification network (RADNETT) must be established at the port. The station must measure radioactivity continuously, even when no visit is taking place. Data from the station must be transmitted to the military operational unit responsible for the port of call area and DSA. If alarm limits are exceeded, DSA and local police must be notified immediately.

3.13 Requirements regarding vessels, documentation from flag state

- 3.13.1 The licence holder must ensure that the vessel complies with Norwegian laws and international agreements and conventions, as well as requirements imposed through the diplomatic clearance.
- 3.13.2 A copy of the diplomatic clearance must be sent to DSA after the licence has been granted and before the visit takes place.

The diplomatic clearance must at least include the following requirements:

- a. The vessel is obliged to protect against damage/injury as a result of radioactivity. No solid or liquid radioactive waste must be discharged into Norwegian waters.
- b. The vessel is obliged to report any operational issues and other accidents or incidents to the Norwegian authorities without delay.
- c. The vessel is obliged to use a pilot in Norwegian waters.
- d. Reactors on board must be operated at the lowest possible power level during visits to Norwegian waters. No repairs or maintenance must be carried out on

reactors during visits. However, if it is necessary to carry out such repairs or maintenance, DSA must be notified.

- e. The vessel shall be obliged to leave Norwegian territory without prior notice if Norwegian authorities decide; cf. Section 17, second paragraph of the Regulations relating to foreign state-owned vessels.

- 3.13.3 The diplomatic clearance must provide the necessary contact details for the relevant Norwegian authorities.
- 3.13.4 Approach and departure to/from the port of call area must follow the planned shipping channels.
- 3.13.5 There must be documentation from the flag state containing a description of the safety aspects of the vessel, including a declaration that the vessel does not pose an unreasonable risk to personnel and the population, the environment, shipping channels or other public interests. Documentation must specify relevant safety standards and the approval authority for relevant classes of vessels.
- 3.13.6 There must be a declaration of liability from the flag state, i.e., a guarantee of absolute liability for any damage resulting from adverse events involving the reactor on board the vessel.

3.14 Information for civil authorities

- 3.14.1 The County Governor and the police in the county/police district where the visit is to take place must always be notified in advance of any visit. The County Governor is responsible for notifying the relevant municipalities. DSA must receive a copy of the notification.

4 References

- [1] Sivile og militære reaktordrevne fartøyers anløp av og ferdsel i norske farvann. Bestemmelser, aktører og rutiner. Innstilling oktober 2008 (unntatt offentlighet). Ref. letter from MoD to HoD of 15 October 2009 (ref. 2007/02711-8/FD II 4/GID/005.0) and letter from HOD to DSA of 22 October 2009 (ref. 200804368-/ESA) with a copy to MoD
- [2] Generelle vilkår for vurdering av søknader om konsesjon etter atomenergiloven. Strålevernhefte 2018:33. Østerås: Statens strålevern, 2018.

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