

# **Welcome Package: Applicant Authority**

Class II nuclear facilities and prescribed equipment

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### **Document availability**

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Canadian Nuclear Safety Commission  
280 Slater Street  
P.O. Box 1046, Station B  
Ottawa, Ontario K1P 5S9  
CANADA

Tel.: 613-995-5894 or 1-800-668-5284 (in Canada only)

Fax: 613-995-5086

Email: [cnscccsn@canada.ca](mailto:cnscccsn@canada.ca)

Website: [nuclearsafety.gc.ca](http://nuclearsafety.gc.ca)

Facebook: [facebook.com/CanadianNuclearSafetyCommission](https://facebook.com/CanadianNuclearSafetyCommission)

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LinkedIn: [linkedin.com/company/cnscccsn](https://linkedin.com/company/cnscccsn)

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## Welcome Package: Applicant Authority

### 1. Introduction

#### 1.1 Purpose

The purpose of this package is to help applicant authorities of Class II nuclear facilities and prescribed equipment understand and be effective in their role.

#### 1.2 Scope

This package outlines the role and typical responsibilities of an applicant authority and outlines the main obligations of a licensee that the applicant authority needs to know.

### 2. Role of an Applicant Authority

The applicant authority is a duly authorized representative of the applicant or licensee who is ultimately accountable for the licensed activities in accordance with the [Nuclear Safety and Control Act](#) (NSCA), its associated regulations and the licence.

### 3. Responsibilities of an Applicant Authority

The main responsibilities of an applicant authority are:

- fostering a healthy safety culture
- appointing a radiation safety officer
- appointing representatives of the applicant or licensee
- directing resources
- monitoring performance of licensed activities

The following sections describe these responsibilities and provide guidance on how to carry them out them effectively.

#### 3.1 Fostering a healthy safety culture

The Canadian Nuclear Safety Commission (CNSC) defines safety culture as the characteristics of the work environment, such as the values, rules and common understandings that influence workers' perceptions and attitudes about the importance that the organization places on safety.

A healthy safety culture is a key factor in reducing the likelihood of safety-related events, mitigating their potential impact and continually improving safety performance. All workers, from the applicant authority downwards, have a shared responsibility to ensure that safety is a priority.

The applicant authority can help foster a healthy safety culture by structuring the organization with safety as the overriding priority and leading by example through their behaviour and direction. For more information on fostering a healthy safety culture, refer to [REGDOC 2.1.2, Safety Culture](#).

#### 3.2 Appointing a radiation safety officer

According to sections 15.01 and 15.02 of the [Class II Nuclear Facilities and Prescribed Equipment Regulations](#), every licensee who operates a Class II nuclear facility or services Class II

prescribed equipment must appoint a radiation safety officer (RSO) who is certified by the Commission or a designated officer.

The RSO is responsible for the management and control of the licensed activities and is authorized to act for the applicant or licensee. The RSO is the safety champion of the facility and ensures on a day-to-day basis that licensed activities are performed in accordance with CNSC requirements. The responsibilities of an RSO typically include:

- ensuring the health and safety of personnel, the public and the environment
- overseeing the daily aspects of the radiation safety program
- acting as the primary contact with the CNSC for licensing and compliance matters
- identifying radiation safety problems
- providing radiation safety advice to workers upon request
- implementing corrective actions
- ensuring compliance with the CNSC regulatory requirements
- reporting regulatory non-compliances to the CNSC
- holding the authority to stop any activity related to the operation of a Class II facility or servicing of Class II prescribed equipment that might result in non-compliance
- developing procedures and policies related to radiation safety and training
- acting as the signing authority for CNSC licences

At a minimum, Class II licensees must have one certified RSO. However, depending on the variety of licensed activities and the qualifications of the candidates, it may be appropriate to have more than one certified RSO.

It is the applicant authority's responsibility to appoint an RSO candidate for certification. It is imperative that the applicant authority select a candidate who possesses the qualifications outlined in the table below:

Qualification	Description
Education	<ul style="list-style-type: none"> <li>• Science or engineering degree</li> </ul>
Experience	<ul style="list-style-type: none"> <li>• Minimum of two years of experience working with a similar licensed activity</li> </ul>
Knowledge	<ul style="list-style-type: none"> <li>• Relevant provisions of the NSCA and its ensuing regulations</li> <li>• Principles of radiation safety</li> <li>• Radiation physics</li> <li>• Operational activities and facilities that are to be licensed by the CNSC</li> <li>• Facility's radiation protection program</li> </ul>
Behavioural attributes	<ul style="list-style-type: none"> <li>• Approachable</li> <li>• Active listener</li> <li>• Team player</li> <li>• Respectful</li> <li>• Confident in making and enforcing decisions</li> <li>• Excellent written and verbal communication skills</li> </ul>

During the certification process, the CNSC evaluates whether the candidate has the education and experience to perform the duties of the position by reviewing the candidate's application. Additionally, the CNSC assesses the candidate's knowledge based on an examination. Although education and knowledge are very important to the position, it has been the CNSC's experience that in order to be an effective RSO, the behavioural attributes are just as important to the position. In addition, it is essential that the RSO be allocated a sufficient amount of time to perform their duties commensurate with the complexity and scope of the licensed activities.

For more information on the certification process, please refer to [REGDOC-2.2.3, Personnel Certification: Radiation Safety Officers](#).

### 3.3 Appointing representatives of the applicant or licensee

According to paragraph 15(a) of the [General Nuclear Safety and Control Regulations](#) (GNSCR), every applicant and licensee must notify the Commission of the persons who have authority to act for them in their dealings with the Commission. This may include licence applications and amendments, reporting to the Commission or responding to notices of non-compliance.

This notification is made by completing and submitting the [Representatives of Applicants and Licensees](#) form. This form must be completed and submitted by applicants not currently holding a Class II licence. It must also be completed and submitted within 15 days of any change to the information provided in the form in accordance with paragraph 15(c) of the GNSCR.

On the form, the applicant authority declares that he or she is a representative and authorizes the RSO and alternative representatives to act on behalf of the licensee or applicant.

It is important to note that all statements and representations made by the representatives are binding on the licensee or applicant and that it is an offence, pursuant to paragraph 48(d) of the NSCA, to knowingly make a false or misleading written or oral statement to the Commission or designated officer.

### **3.4 Directing resources**

It is the applicant authority's responsibility to ensure that resources are present to conduct licensed activities safely, securely and in accordance with the NSCA, the regulations and the licence. The following sections describe the type of resources that are typically required for licensed activities.

#### **3.4.1 Equipment**

Pursuant to paragraph 12(1)(d) of the GNSCR, every licensee must provide the devices required by the NSCA, the regulations and the licence, and maintain them within the manufacturer's specifications. These devices include equipment resources required for radiation safety, security and monitoring releases in a facility, as discussed in the following sections.

##### **3.4.1.1 Facility safety systems**

As part of the facility design, specific safety systems must be installed and maintained to ensure the radiation safety of workers. These systems must be compliant with section 15 of the [Class II Nuclear Facility and Prescribed Equipment Regulations](#). The safety systems required depend on the type of Class II prescribed equipment within the facility.

##### **3.4.1.2 Radiation safety program**

Additional equipment is required for the radiation safety program based on the type of licensed activities conducted. Examples of radiation safety equipment are:

- dosimeters (extremity and whole body)
- radiation detection instrumentation (survey and contamination meters)
- personal protective equipment (gloves, lab coats, safety glasses, etc.)

##### **3.4.1.3 Security**

Pursuant to paragraphs 12(1)(g) and (h) of the GNSCR, the licensee must implement measures for alerting the licensee to:

- the illegal use or removal of a nuclear substance, prescribed equipment or prescribed information, or the illegal use of a nuclear facility
- acts of sabotage or attempted sabotage anywhere at the site of the licensed activity

Additionally, if the Class II facility uses or stores sealed sources, they must also comply with [REGDOC-2.12.3, Security of Nuclear Substances: Sealed Sources and Category I, II and III Nuclear Material, Version 2](#).

In order to comply with these requirements, the applicant authority must ensure that the proper security equipment is installed and maintained. Security equipment typically includes access controls, an intrusion detection system and physical barriers.

##### **3.4.1.4 Monitoring and controlling releases**

According to paragraph 12(1)(f) of the GNSCR, every licensee must take all reasonable precautions to control the release of radioactive nuclear substances or hazardous substances within the site

of the licensed activity and into the environment as a result of the licensed activity. Therefore, the equipment required to monitor and control any potential releases within or from the facility must be acquired and maintained.

### **3.4.2 Qualified workers**

According to paragraph 12(1)(a) of the GNSCR, every licensee must ensure the presence of a sufficient number of qualified workers to carry on the licensed activity safely and in accordance with regulatory requirements. It is the applicant authority's responsibility to ensure that the number of qualified workers present at the facility is proportionate to the scope and complexity of their licensed activities.

### **3.4.3 Training**

Pursuant to paragraphs (b), (e) and (j) of subsection 12(1) of the GNSCR, every licensee must:

- train their workers to carry on the licensed activity in accordance with the NSCA, the regulations and the licence
- require that every person at the site of the licensed activity use equipment, devices, clothing and procedures in accordance with the NSCA, the regulations and the licence
- instruct the workers on the physical security program at the site of the licensed activity and on their obligations under that program

The applicant authority must ensure the RSO has sufficient resources to train every worker on all areas required for their position.

### **3.4.4 Financial guarantee**

A financial guarantee is a tangible commitment by a licensee that there will be sufficient resources to safely terminate licensed activities authorized by a Class II licence. A financial guarantee does not relieve licensees from complying with regulatory requirements for termination of licensed activities, but ensures there are funds available if licensees are unable to carry out safe termination.

The applicant authority must ensure that the licensee has a financial guarantee in place at all times. The financial guarantee is calculated according to the liability of each sealed source possessed based on activity and the liability of each Class II prescribed equipment. For more information, please refer to the [financial guarantees](#) Web page.

### **3.4.5 Performance monitoring**

In order for the applicant authority to be accountable for the licensed activities, the applicant authority needs to be aware of how the licensee is performing from a safety and security perspective to ensure that any major issues are addressed. The following sections outline the core of effective performance monitoring.

#### **3.4.5.1 Relationship with the radiation safety officer**

In order for the applicant authority to maintain awareness of the facility's performance and to direct resources where they are required, the applicant authority must effectively and regularly communicate with the radiation safety officer (RSO). A good communication tool used by some licensees is having the RSO provide the applicant authority with status reports summarizing licensed activities conducted, the safety performance associated with the activities and issues that require attention. Furthermore, the applicant authority needs to support the RSO by eliminating any barriers preventing the



RSO from fixing major issues. Moreover, the applicant authority needs to empower the RSO to be a champion for safety, to allow for direct communication with the CNSC and to have the authority to direct workers in performing their work safely, even if it means stopping any operational or servicing activity.

### **3.4.5.2 Peer or self-audits**

A peer or self-audit is a constructive way of assessing the performance of licensed activities on a continuous basis and resolving any non-compliances against regulatory requirements identified. The audit report is also a useful tool for communicating the facility's performance with the applicant authority.

The document *Guidance on Conducting Peer Audits or Self-Audits* has been produced to aid licensees in creating their own programs to conduct peer or self-audits.

### **3.4.5.3 Radiation safety committee**

A radiation safety committee (RSC) is an effective method of maintaining oversight of the radiation safety program. An RSC meets regularly to make decisions associated with the radiation safety program and to address any issues with regard to the program's effectiveness. It is also an opportunity to review the strengths of the safety program and to reflect on each RSC committee member's personal contributions to safety.

In order to be of value, the RSC should consist of a representative from each position within the program. For example, a facility that is licensed to operate and service a medical linear accelerator should consist of a representative from each of the following positions:

- medical radiation technologist
- medical physicist
- service engineer
- radiation oncologist

It is also important that the RSO attend the meetings to provide information on the program's activities. However, the RSO should refrain from making decisions, as it is the RSC's responsibility to advise the RSO and management concerning the program. Although the applicant authority should be invited, their attendance is not mandatory. The RSC meeting minutes should be sent to the applicant authority to keep them updated on the program's effectiveness.

In order for the RSC to be productive, comprehensive terms of reference outlining the roles and responsibilities of the committee and meeting quorum must be documented. For more information on what should be documented in the terms of reference, please refer to [REGDOC 1.4.1 - Licence Application Guide: Class II Nuclear Facilities and Prescribed Equipment](#).

## **4. Position of an Applicant Authority**

The applicant authority needs to be in a position with the authority to direct the financial and human resources as outlined in section 3.4, [Directing resources](#). The applicant authority is typically a senior manager such as a director or officer of the corporation, owing to the level of authority inherent in those positions. At the same time, the applicant authority must not be in a position so far removed from operations that they do not have the time or ability to form a good working relationship with the RSO.

## 5. Licensee's Obligations

In order to be accountable for licensed activities, the applicant authority needs to know the obligations of a licensee.

Firstly, the licensee must comply with the [Nuclear Safety and Control Act](#) (NSCA) and related regulations. The NSCA sets out the CNSC's mandate, responsibilities and powers to regulate the use of nuclear energy and materials in Canada. Regulations are an extension of the NSCA that outline requirements for all types of licence applications and obligations, as well as provide exemptions for licensing.

Secondly, there are several obligations of licensees within subsection 12(1) of the *General Nuclear Safety and Control Regulations*. In addition to the obligations previously described in this document, a licensee must:

- take all reasonable precautions to protect the environment and the health and safety of persons and to maintain the security of nuclear facilities and of nuclear substances
- take all necessary measures to facilitate Canada's compliance with any applicable safeguards agreement
- keep a copy of the NSCA and the regulations that apply to the licensed activity readily available for consultation by the workers

Furthermore, it is an obligation under section 20 of [Class II Nuclear Facilities and Prescribed Equipment Regulations](#) and section 16 of [Nuclear Substances and Radiation Devices Regulations](#), that no licensee shall use Class II prescribed equipment, a radioactive nuclear substance or a radiation device on a person except as directed by a medical practitioner who is qualified to give such direction under the applicable provincial legislation.

When a person is taking on the role of an applicant authority, that person must attest to their knowledge and agreement of these obligations within the [Representatives of Applicants and Licensees](#) form. In conclusion, it is important for these obligations to be well understood and not taken lightly.

If you have any questions about applicant authorities, please contact your respective project officer at the CNSC.