Human Performance Management
Personnel Certification: Radiation Safety Officers
Class II Nuclear Facilities and Prescribed Equipment Regulations

REGDOC-2.2.3

June 2014
Preface

This regulatory document is part of the CNSC’s Human Performance Management series of regulatory documents, which also covers personnel training and fitness for duty. The full list of regulatory document series is included in the back of this document and can be found on the CNSC’s website.

Regulatory document REGDOC-2.2.3, Personnel Certification: Radiation Safety Officers sets out guidance to assist applicants in completing an application for certification as a Radiation Safety Officer (RSO) pursuant to the Class II Nuclear Facilities and Prescribed Equipment Regulations.

This document is based on the Nuclear Safety and Control Act (NSCA) and its regulations, which are administered by the CNSC. The document provides detailed information about the completion of an application and the process for the RSO certification. The document explains what is needed in an application form, in order to assess if the applicant has the qualifications necessary to be certified as a RSO. The information submitted will also help the CNSC plan and conduct the certification examination. Any information which is submitted may subsequently be referred to in the RSO certificate. It then becomes a requirement of the certificate, and is thus legally binding.

While the use of the application form is not a specific requirement for certification, it is intended to assist applicants in submitting complete and structured information to the CNSC, so that the request can be processed as quickly as possible. The application form is available at nuclearsafety.gc.ca.

Important note: Where referenced in a licence either directly or indirectly (such as through licensee-referenced documents), this document is part of the licensing basis for a regulated facility or activity.

The licensing basis sets the boundary conditions for acceptable performance at a regulated facility or activity, and establishes the basis for the CNSC’s compliance program for that regulated facility or activity.

Where this document is part of the licensing basis, the word “shall” is used to express a requirement to be satisfied by the licensee or licence applicant. “Should” is used to express guidance or that which is advised. “May” is used to express an option or that which is advised or permissible within the limits of this regulatory document. “Can” is used to express possibility or capability.

Nothing contained in this document is to be construed as relieving any licensee from any other pertinent requirements. It is the licensee’s responsibility to identify and comply with all applicable regulations and licence conditions.
Table of Contents

1. Introduction ................................................................................................................................... 1
   1.1 Purpose.................................................................................................................................. 1
   1.2 Scope.................................................................................................................................... 1
   1.3 Exemption from certification................................................................. 1
   1.4 Relevant legislation......................................................................................... 1

2. Radiation Safety Officer ........................................................................................................ 2
   2.1 Responsibilities of the RSO and delegation of tasks ............................................. 2

3. Requirement for Certification ............................................................................................ 2
   3.1 Different types of licensed activities at a given site................................................. 3
   3.2 Multiple RSOs ................................................................................................................ 3
      3.2.1 Assistant or deputy RSOs .................................................................................. 3
      3.2.2 Provincial or Corporate RSO........................................................................ 3

4. Certification Process .......................................................................................................... 3
   4.1 General............................................................................................................................ 3
      4.1.1 Responsibilities of licensee in certification process ...................................... 3
      4.1.2 Overview of the certification process.............................................................. 3
   4.2 Submission of application............................................................................................ 4
   4.3 Service standards ........................................................................................................ 4
   4.4 Examination.................................................................................................................. 4
      4.4.1 Examination results and re-examination......................................................... 5
      4.4.2 Decertification ..................................................................................................... 5
      4.4.3 Certification invalidation.................................................................................. 6
      4.4.4 Expiration of certificates.................................................................................. 7
      4.4.5 Opportunity to be heard................................................................................... 7
   4.5 Absences and designation of temporary replacements............................................. 7
      4.5.1 Temporary absence from duties...................................................................... 7
      4.5.2 Extended absence from duties ...................................................................... 8
      4.5.3 Designating a temporary replacement as Radiation Safety Officer.......... 8

5. Completing an application .................................................................................................. 8
   5.1 Section A – Applicant information............................................................................. 9
   5.2 Section B – RSO candidate information and qualifications ............................. 9
5.3 Section C – Licensed activities and locations ......................................................... 10
5.4 Section D – Legal signing authority ........................................................................ 10

Appendix A: Basis for Refusal .......................................................................................... 11

Appendix B: Physical presence of RSOs ................................................................. 12
   B.1 Offsite facilities and close proximity locations ................................................. 12
   B.2 Third-party servicing licensees ......................................................................... 12

Appendix C: Candidate Qualifications .......................................................................... 13
   C.1 Education ........................................................................................................ 13
   C.2 Minimum experience ..................................................................................... 13
   C.3 Level of knowledge .......................................................................................... 13

Glossary .............................................................................................................................. 14
Personnel Certification: Radiation Safety Officers

1. Introduction

1.1 Purpose

This regulatory document provides information to assist applicants in preparing and submitting applications for certification as a Radiation Safety Officer (RSO). Its purpose is to ensure that persons seeking certification by the Canadian Nuclear Safety Commission (CNSC) for the position of RSO at a Class II nuclear facility are qualified to carry out the duties of the position, in accordance with the Nuclear Safety and Control Act (NSCA) and its regulations.

The document also presents information related to the process that candidates seeking certification must undergo, in order to acquire and maintain the certification.

1.2 Scope

This document applies to any licensee applying to certify a candidate as a Radiation Safety Officer pursuant to the Class II Nuclear Facilities and Prescribed Equipment Regulations.

1.3 Exemption from certification

The requirement to have a certified RSO at a Class II facility is established in sections 15.01 and 15.02 of the Class II Nuclear Facilities and Prescribed Equipment Regulations. The only exemption to this requirement is established in section 15.12 of the same regulations.

In accordance with section 15.12 of the Class II Nuclear Facilities and Prescribed Equipment Regulations, a licensee does not need to appoint a RSO for a Class II facility if a person who has duties equivalent to that of a RSO has been designated and that person is certified under subsection 9(2) of the Class I Nuclear Facilities Regulations.

1.4 Relevant legislation

The provisions of the NSCA and its regulations relevant to this document include:

1. Paragraph 21(1)(i) of the NSCA empowers the Commission to certify and decertify persons referred to in paragraph 44(1)(k) of the NSCA as qualified to carry out their duties.
2. Paragraph 44(1)(k) of the NSCA empowers the Commission to make regulations respecting the qualifications for—and the training and examination of—nuclear energy workers and other persons employed in a nuclear facility.
3. Paragraph 37(2)(b) of the NSCA states that the Commission may authorize a designated officer to certify and decertify persons referred to in paragraph 44(1)(k) of the NSCA as qualified to carry out their duties.
4. Paragraph 12(1)(a) of the General Nuclear Safety and Control Regulations (GNSCR) obliges every licensee to “ensure the presence of a sufficient number of qualified workers to carry on the licensed activity safely and in accordance with the Act, the regulations made under the Act and the licence.”
5. Paragraph 12(1)(b) of the GNSCR obliges every licensee to “train the workers to carry on the licensed activity in accordance with the Act, the regulations made under the Act and the licence.”
6. Paragraph 15(b) of the GNSCR obliges every licensee to notify the Commission of “the names and position titles of the persons who are responsible for the management and control of the licensed activity and the nuclear substances, nuclear facility, prescribed equipment or prescribed information encompassed by the licence.”

7. Section 15.01 of the *Class II Nuclear Facilities and Prescribed Equipment Regulations* obliges every licensee to appoint a Radiation Safety Officer.

8. Section 15.02 of the *Class II Nuclear Facilities and Prescribed Equipment Regulations* states that the RSO must be certified by the Commission or a designated officer authorized under paragraph 37(2)b) of the Act.

9. Sections 15.03 to 15.12 of the *Class II Nuclear Facilities and Prescribed Equipment Regulations* list several other RSO requirements for every licensee operating a Class II facility or holding a Class II servicing licence.

2. **Radiation Safety Officer**

Pursuant to the *Class II Nuclear Facilities and Prescribed Equipment Regulations*, all licensees who operate Class II nuclear facilities or who service Class II prescribed equipment are required to appoint a Radiation Safety Officer (RSO). The person occupying the position of RSO has several responsibilities, mainly ensuring that all CNSC requirements are followed whenever the activities authorized under the organization’s licence are performed. RSO’s responsibilities may include:

- ensuring the health and safety of personnel, the public and the environment
- oversight of the daily aspects of the Radiation Protection Program
- acting as the primary contact with the CNSC for licensing and compliance matters
- identifying radiation safety problems
- 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 noncompliance
- developing procedures and policies related to radiation safety and training
- acting as the signing authority for CNSC licences

2.1 **Responsibilities of the RSO and delegation of tasks**

An RSO is the person designated by the licensee as being responsible for the management and control of radiation safety for the licensed activity. An RSO may delegate some responsibilities or tasks to an assistant with the appropriate qualifications to carry out designated duties; however, the oversight of radiation safety remains with the certified RSO. As such, it is the RSO who is accountable to the licensee, and it is the licensee who is accountable to the CNSC for the appropriate safety and proper execution of duties within the Radiation Protection Program.

3. **Requirement for Certification**

All licensees who operate Class II facilities or service Class II prescribed equipment must have a certified RSO or a qualified temporary replacement. 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.
3.1 **Different types of licensed activities at a given site**

A licensee’s site may contain several different types of licensed activities. Given that an RSO certificate specifies the type of licensed activity for which the person is certified, it is possible to have several RSOs at a given site, each one certified for a different type of licensed activity.

For example, a site with linear accelerators and a cyclotron may have a certified RSO for the linear accelerator facilities, and a different certified RSO for the cyclotron facility.

3.2 **Multiple RSOs**

3.2.1 **Assistant or deputy RSOs**

If a licensee has an assistant or deputy RSO, these positions may also be eligible for certification if the assistant is regularly undertaking tasks similar to that of an RSO. It is therefore possible to have more than one certified person per licensee or licensed activity, though it is not a regulatory requirement to have assistants certified.

3.2.2 **Provincial or Corporate RSO**

Corporate, provincial or other higher level RSO positions do not require certification if they are not at the site of the licensed activity on a daily basis and not involved in the day-to-day operation of the facility.

4. **Certification Process**

4.1 **General**

The *Class II Nuclear Facilities and Prescribed Equipment Regulations* require that every candidate be certified by the CNSC before being appointed as RSO.

4.1.1 **Responsibilities of licensee in certification process**

It is the responsibility of the licensee to:

- clearly describe the qualifications and responsibilities of a RSO in the form of a job description or equivalent document
- appoint candidates that they feel are capable of fulfilling this role
- contact the CNSC to initiate the certification process for those candidates described above

4.1.2 **Overview of the certification process**

There are two components to the certification process:

- assessment of the candidate’s capabilities to perform the duties of the position, based on the submitted application
- assessment of the candidate’s knowledge, based on an examination

The certification process is initiated by the CNSC upon receipt of a complete application (see section 5.0 – Completing an application) from the licensee.

Upon review of the application an assessment of the material provided is made to determine if the candidate appears to be capable of performing the duties of the position.
If the assessment indicates that the candidate appears incapable of performing the duties, the CNSC will refuse to certify (see section 4.4.1.2) at this point, without proceeding to the examination.

If the assessment indicates that the candidate appears to be capable of performing the duties, CNSC staff will contact the candidate to schedule a certification examination. The certification examination is then administered (see section 4.4 - Examination). If the candidate is able to clearly demonstrate his or her knowledge as it relates to the position of RSO within their organization, the CNSC will issue a certificate for the individual, detailing the location, organization and types of facilities for which the person is certified to serve as RSO.

The certificate will be sent to the licensee who made the application for certification and a copy will be sent to the person who was certified.

Enquiries related to the certification process can be sent to info@cnsc-ccsn.gc.ca

4.2 Submission of application

Submit a signed and dated application and supporting documentation to the CNSC at:

Canadian Nuclear Safety Commission
Directorate of Nuclear Substance Regulation
P.O. Box 1046, Station B
280 Slater Street
Ottawa, ON K1P 5S9

The applicant should keep a completed copy of the application for their records. All information submitted is subject to the provisions of the Access to Information Act and the Privacy Act.

4.3 Service standards

Service standards related to the processing of an RSO certification application can be found at nuclearsafety.gc.ca

4.4 Examination

The examination content will be focused on the following five subjects:

- relevant provisions of the NSCA and its ensuing regulations
- principles of radiation safety
- radiation physics
- operational activities and facilities which are to be licensed by the CNSC
- radiation protection program of the facility

The content of the examination will be tailored to:

- the operational risks of the licensed activity
- the organization’s policies and procedures
- the candidate’s academic background and work experience

The examination will normally be conducted in the form of an oral examination.
An examination can be expected to last no more than two hours.

4.4.1 Examination results and re-examination

The CNSC will communicate examination results to the licensee and the candidate within 10 working days following the examination.

4.4.1.1 Certification

If the candidate is able to clearly demonstrate to the CNSC their knowledge, as it relates to the RSO position within their organization, the CNSC will certify the candidate.

The certification comes into effect the day the certificate is issued.

4.4.1.2 Refusal to certify

If the candidate is unable to demonstrate to the CNSC their knowledge, as it relates to the RSO position within their organization, the CNSC will not certify the candidate.

After an examination, if certification refusal is being considered, the CNSC shall notify the licensee and the candidate of the proposed decision and the basis for that proposed decision, at least 30 days before the refusal is issued (as per section 15.07 of the Class II Nuclear Facilities and Prescribed Equipment Regulations). Within this 30-day period, the licensee or the candidate may request an opportunity to be heard as described in section 4.4.5 of this document.

As part of the notification of its proposed decision not to certify, the CNSC will provide information regarding the subject areas for which the candidate failed to demonstrate adequate knowledge. Please note: It is the responsibility of the applicant and candidate to review the identified knowledge gaps and, if necessary, have the candidate obtain additional training in these subject areas before applying again for certification.

Once the CNSC refuses to certify a candidate, the candidate may not assume the role of RSO as required by the Class II Nuclear Facilities and Prescribed Equipment Regulations.

Please be advised that there is no difference in the process between an initial application for certification and an application following refusal to certify. If the CNSC refuses to certify the candidate after administering the examination, the licensee will have to make another application to have the candidate certified so the candidate can reattempt the examination to successfully demonstrate their knowledge to the CNSC.

More details on the basis for a refusal to certify can be found in Appendix A.

4.4.2 Decertification

An RSO may be decertified when, in the opinion of the CNSC, the person is no longer able to serve as RSO. If decertification of an RSO is being considered, the RSO and the licensee concerned shall be notified of the proposed decision and the basis for that proposed decision at least 30 days before decertification, as per section 15.08 of the Class II Nuclear Facilities and Prescribed Equipment Regulations. Within this 30-day period, the licensee and the RSO may request an opportunity to be heard, as described in section 4.4.5 of this document.
Scenarios that may lead to decertification include:

- evidence of significant or wilful non-compliance with NSCA, or the regulations made under the NSCA
- evidence of incompetence

### 4.4.2.1 Certification following revocation

A person who has their certification revoked may reapply if:

- the basis for the decertification is no longer applicable
- the person successfully passes the requirements for certification
- a minimum of three years has passed since the person was decertified

Information regarding the basis of the decertification will have been provided prior to actual decertification taking place (see section 4.4.2 above). This information should make it clear to the licensee what is required before they can make an application for certification of the previously decertified person.

### 4.4.3 Certification invalidation

A certificate is no longer valid if any substantive conditions of the original certification change, thereby nullifying the certificate. A certificate is not invalidated by the CNSC, but rather by a change in circumstances. In many cases, the invalidation will require the RSO to undergo re-certification.

Typical scenarios that can lead to the invalidation of a certificate are as follows:

- the RSO is no longer employed by the licensee, as stipulated in section 15.05 of the *Class II Nuclear Facilities and Prescribed Equipment Regulations*
- the person occupying the position of RSO has changed duties to another position within the same organization, where the person’s new duties are substantially different from that of an RSO
- the certified person will be working at a different site that belongs to the same licensee. In such a case, the RSO is required to undergo certification regarding the facilities’ policies and procedures specific to that site
- the person has been away from RSO duties for an extended period of time, as described in section 4.5.2
- the person is no longer capable of performing the duties of RSO

If new types of facilities are added at a given site, the existing certificate will not cover the new facilities. Consequently, the licensee will need to apply for certification for these new types of facilities. If a certified RSO is successful in their application to oversee the new facilities, their previously held certificate will be invalidated only after a new one has been issued.

Example: A given licensee has only linear accelerators at a given site, and one RSO who is certified for these linear accelerators. If the licensee would like to add a high dose rate (HDR) brachytherapy facility, the licensee must request that their RSO (or a different candidate) undergo certification for the HDR brachytherapy facility.
4.4.3.1 Recertification follow invalidation
If a certificate is invalidated by a change in circumstances or a change in licensing, the licensee may request that the previously certified person be certified again if any of the following apply:

- the person is seeking to retain the position of RSO at the current site
- the person is seeking to assume the position of RSO at a different site or different organization

An examination may be required for the above stated circumstances, which will be determined on a case-by-case basis.

4.4.4 Expiration of certificates
As stated in section 15.05 of the Class II Nuclear Facilities and Prescribed Equipment Regulations, once a certificate is issued, it remains valid for the period for which the person is employed by the licensee as RSO. Thus, certificates, unlike licences, do not expire and do not require renewals, though they may be invalidated by circumstances as listed in section 4.4.3, or revoked as a result of decertification as described in section 4.4.2 of this document.

4.4.5 Opportunity to be heard
If a licensee or a candidate for certification receives a notice from the CNSC, stating its intent to refuse to certify the candidate (or a notice of intent to decertify, in the case of an RSO), the licensee, candidate or RSO may request, within 30 days after the date of receipt of the notice, an opportunity to be heard orally or in writing.

Upon completion of the hearing, the licensee or the candidate or the RSO shall be notified of the CNSC’s final decision and the reasons for it.

4.5 Absences and designation of temporary replacements

4.5.1 Temporary absence from duties
The licensee shall ensure that a certified RSO who is temporarily absent from their position maintains the competence to retain their certification. Upon returning from their absence, the person must meet the conditions of reinstatement prior to resuming the duties of RSO.

4.5.1.1 Reinstatement following a temporary absence from duties

4.5.1.1.1 Absence of 60 days or less
A certified individual who has been absent from the duties of RSO for 60 working days or less in any consecutive 365 day period, may be reinstated by the licensee without any restrictions.

4.5.1.1.2 Absence of more than 60 days, but less than 13 calendar months
Following an absence of more than 60 working days in any consecutive 365 day period but less than 13 consecutive calendar months, the person may be reinstated only if:

- the person has reviewed, at a minimum, the following material:
  - basic radiation safety
  - refresher of the radiation protection program, and any changes to policies and procedures
• changes to Class II prescribed equipment
• changes to regulatory requirements
• changes to Class II licences and their referenced documents
• operational incidents that have occurred during the absence
• the licensee has provided written confirmation to the CNSC that the above-mentioned review has been completed, and that the individual has the required knowledge and skills to resume the duties of RSO

4.5.2 Extended absence from duties

If a person has been absent from RSO duties for reasons including but not limited to:

• illness
• injury
• pregnancy, or other family-related responsibilities
• a leave of absence
• temporary assignment to other duties

for a period exceeding 13 consecutive calendar months, the person may not resume the role as RSO, and their certification is deemed invalid. If the person wishes to resume the duties of RSO, they will have to be recertified.

4.5.3 Designating a temporary replacement as Radiation Safety Officer

The licensee shall designate in writing a temporary replacement, as per section 15.1 of the Class II Nuclear Facilities and Prescribed Equipment Regulations. The replacement must be qualified to replace the RSO, although the replacement need not be certified.

As per section 15.11 of the Class II Nuclear Facilities and Prescribed Equipment Regulations, a designated replacement may not replace the certified RSO for more than a total of 60 working days in any consecutive 365-day period. Thus, any absence in excess of this requires the temporary replacement to be certified.

5. Completing an application

All required information must be provided to the CNSC. The Class II Radiation Safety Officer Certification Application Form may be used by applicants to assist them in providing this information. The form can be found on the CNSC Web site: nuclearsafety.gc.ca

The CNSC uses the information provided and the results of the examination to determine whether a candidate is capable of performing the duties of the position. Depending on the circumstances, additional information may be required.

For additional information, please contact the CNSC:

• toll-free: 1-888-229-2672
• fax: 613-995-5086
• email: info@cnsc-ccsn.gc.ca

Ensure that information provided on the form and in the attached supporting documents is clear, precise, accurate and complete. Attachments should specify to which section of the application they pertain. Provide the document titles, as well as any cross-references.
5.1 Section A – Applicant information

A.1 Type of request
Indicate if the application pertains to a:

- a new request for certification
- an amendment to an existing certification for additional licensed activities

A.2 Language of certificate
Choose the official language (English or French) for the certificate.

A.3 Licence information

Licensee name - Provide the full legal name of the licensee applying for the certification. Indicate the name as it appears on the proof of legal status documentation, such as the proof of incorporation or sole proprietorship. Name an individual only if that person is a sole proprietor.

CNSC licence number(s) – Provide the CNSC license numbers associated with this certificate.

Business Number (BN): Provide the business number of the licensee. The Business Number is the identifier is assigned to each business or other entity by the Canada Revenue Agency (CRA).

Canadian Head Office address – Provide the legal, physical address of the applicant's head office, including the complete street name and number, rural route number if appropriate, city, province or territory, and postal code. A post office box address is not acceptable for a head office address.

Mailing address – Provide the mailing address, if different from the head office address, including the complete street name and number, rural route number if appropriate, city, province or territory, and postal code.

If no address is provided here, the certificate issued in response to the application will be mailed to the head office address. A post office box is acceptable as a mailing address.

5.2 Section B – RSO candidate information and qualifications

B.1 Candidate information

Candidate contact information – Provide the name, title and other contact information of the candidate.

Candidate qualifications – Append the candidate’s curriculum vitae. This document should clearly demonstrate how the candidate meets the required qualifications for an RSO for the licensed facility. A description of candidate qualifications can be found in Appendix C.
Candidate signature – The candidate should sign the application, to indicate their desire to be certified.

5.3 Section C – Licensed activities and locations

C.1 Licensed activities

Indicate all applicable prescribed equipment types and licensed activities for which the candidate is seeking to be certified. If the application is for a current RSO seeking to be certified for additional equipment types or licensed activities, only indicate the new licensed activities for which the RSO is seeking certification.

C.2 Location

Indicate all locations for which the candidate is to be designated as RSO.

5.4 Section D – Legal signing authority

D.1 Applicant authority

Provide the name, title, address, email address and telephone number of the individual who signed the application as the applicant authority.

The applicant authority confirms that the candidate is qualified to perform the role of RSO and understands that all statements and representations made in its application and on supplementary pages are binding on the applicant.
Appendix A: Basis for Refusal

Certification examinations cover the following topics, in relation to the types of Class II prescribed equipment and facilities for which the applicant has requested certification:

- relevant provisions of the NSCA and its ensuing regulations
- principles of radiation safety
- radiation physics
- operational activities and facilities which are to be licensed by the CNSC
- Radiation Protection Program of the facility

If, during the examination, a candidate fails to demonstrate a reasonable level of knowledge with respect to one or more of these categories, this can lead to a Refusal to Certify.

If a certified RSO is seeking certification for a new facility type at the site for which he is currently RSO, and fails to demonstrate that they are qualified to be certified for this new facility type, the Refusal to Certify will apply only to the new facility type, and does not affect their current certification. Thus, the RSO remains certified, but the licensee will have to make another application for the certification of an RSO for the new facility types.
Appendix B: Physical presence of RSOs

While there is no specific regulatory requirement to have a certified RSO onsite on a day-to-day basis, aside from the two scenarios described below, the RSO would not normally be capable of performing the duties of the position as required in section 15.04(1)b of the Class II Nuclear Facilities and Prescribed Equipment Regulations if they were not onsite on each day of normal operation and therefore there should be, at a minimum, one certified RSO working at the site of the licensed activity on a day-to-day basis.

B.1 Offsite facilities and close proximity locations

In some cases, a facility may be installed at a satellite location nearby, but is part of the same organizational structure as the main facility. In other instances, the licensee’s operations may be spread over multiple locations within close proximity in one city, but again, all locations are under the same organizational structure. In such cases it may not be necessary to have one certified RSO per site if:

- the RSO is easily capable of accessing all locations on a day-to-day basis
- the RSO routinely visits each site as part of the RSO’s normal duties

The licensee should contact the CNSC for guidance if this situation applies. Contact information is provided in section 4 of this guide.

B.2 Third-party servicing licensees

Organizations holding a third-party Class II servicing licence may have only one RSO whom is responsible for a given licensed activity, but not necessarily present at each location where the licensed activity is performed.
Appendix C: Candidate Qualifications

The qualifications indicated below are provided as guidance as to the applicant qualifications that are typically considered acceptable by the Commission for certification as RSO. Alternate qualifications will be reviewed for acceptability by the CNSC on a case-by-case basis.

C.1 Education

The candidate seeking certification should have at least a Bachelor’s degree in engineering or science from a recognized university. Technical certification in a related field may be acceptable but will be reviewed for acceptability by the CNSC on a case-by-case basis.

C.2 Minimum experience

The candidate should have a minimum of two years of experience working with a similar licensed activity.

C.3 Level of knowledge

The candidate must demonstrate, through the successful completion of the examination process, that they have an appropriate level of knowledge covering:

- the relevant provisions of the NSCA
- the relevant sections of the following regulations:
  - General Nuclear Safety and Control Regulations
  - Radiation Protection Regulations
  - Class II Nuclear Facilities and Prescribed Equipment Regulations
  - Nuclear Substance and Radiation Devices Regulations
  - Packaging and Transport of Nuclear Substances Regulations (if applicable).
- the operational activities which are licensed by the CNSC, and for which the candidate will be the RSO
- any operational requirement from the CNSC, as may be listed in licence conditions
- radiation physics
- principles of radiation safety
- the radiation protection program of the facility – more specifically:
  - policies and procedures of the organization with respect to radiation safety
  - details of the construction of the facility, including shielding, safety systems, interlocks and prescribed equipment specifications
  - the responsibilities and authority of senior management
  - the responsibilities of people working under the radiation protection program
Glossary

absent from duty
Not available on a day normally scheduled for duty.

applicant authority
A position within the applicant’s organizational structure with power to direct the application of financial and human resources.

certification
A written attestation from the Commission, or from a Designated Officer authorized by the Commission, that a person is qualified to carry out the duties of a given position referred to in a licence.

CNSC
The Canadian Nuclear Safety Commission. The CNSC refers to the organization generally, including both its staff and the Commission members.

Commission
[NSCA] The Canadian Nuclear Safety Commission established by Section 8 [of the NSCA].

licensed activity
An activity described in paragraph 26a), c) or e) of the Act that a licence authorizes the licensee to carry on in relation to a Class II nuclear facility or Class II prescribed equipment.

licensing basis
A set of requirements and documents for a regulated facility or activity comprising:

- the regulatory requirements set out in the applicable laws and regulations
- the conditions and safety and control measures described in the facility’s or activity’s licence and the documents directly referenced in that licence
- the safety and control measures described in the licence application and the documents needed to support that licence application

NSCA
The Nuclear Safety and Control Act.

nuclear facility
[NSCA] Any of the following facilities, namely,

- A nuclear fission or fusion reactor or subcritical nuclear assembly;
- A particle accelerator;
- A uranium or thorium mine or mill;
- A plant for the processing, reprocessing or separation of an isotope of uranium, thorium or plutonium;
- A plant for the manufacture of a product from uranium, thorium or plutonium;
- A plant for the processing or use, in a quantity greater than $10^{15}$ Bq per calendar year, of nuclear substances other than uranium, thorium or plutonium;
- A facility for the disposal of a nuclear substance generated at another nuclear facility;
- A vehicle that is equipped with a nuclear reactor; and
- Any other facility that is prescribed for the development, production or use of nuclear energy or the production, possession or use of a nuclear substance, prescribed equipment or prescribed information,
and includes, where applicable, the land on which the facility is located, a building that forms part of, or equipment used in conjunction with, the facility and any system for the management, storage or disposal of a nuclear substance.

**prescribed equipment**

[GNSCR] Each of the following items is prescribed equipment for the purposes of the Act:

- a package, special form radioactive material and low dispersible radioactive material, as defined in subsection 1(1) of the *Packaging and Transport of Nuclear Substances Regulations*;
- a radiation device and a sealed source, as defined in section 1 of the *Nuclear Substances and Radiation Devices Regulations*;
- Class II prescribed equipment, as defined in section 1 of the *Class II Nuclear Facilities and Prescribed Equipment Regulations*; and
- equipment that is capable of being used in the design, production, operation or maintenance of a nuclear weapon or nuclear explosive device.

**qualified**

For the purposes of REGDOC-2.2.3, qualified means being eligible and meeting the requirements to be a successful applicant for certification as an RSO.

**Radiation Safety Officer (RSO)**

A radiation safety specialist who implements and administers a radiation safety program on a day-to-day basis.

**signing authority**

A person designated by the Applicant Authority to act on behalf of the applicant in communications with the CNSC.
Facilities and activities within the nuclear sector in Canada are regulated by the Canadian Nuclear Safety Commission (CNSC). In addition to the Nuclear Safety and Control Act and associated regulations, these facilities and activities may also be required to comply with other regulatory instruments such as regulatory documents or standards.

Effective April 2013, the CNSC’s catalogue of existing and planned regulatory documents has been organized under three key categories and twenty-five series, as set out below. Regulatory documents produced by the CNSC fall under one of the following series:

1.0 Regulated facilities and activities

Series 1.1 Reactor facilities
1.2 Class IB facilities
1.3 Uranium mines and mills
1.4 Class II facilities
1.5 Certification of prescribed equipment
1.6 Nuclear substances and radiation devices

2.0 Safety and control areas

Series 2.1 Management system
2.2 Human performance management
2.3 Operating performance
2.4 Safety analysis
2.5 Physical design
2.6 Fitness for service
2.7 Radiation protection
2.8 Conventional health and safety
2.9 Environmental protection
2.10 Emergency management and fire protection
2.11 Waste management
2.12 Security
2.13 Safeguards and non-proliferation
2.14 Packaging and transport

3.0 Other regulatory areas

Series 3.1 Reporting requirements
3.2 Public and Aboriginal engagement
3.3 Financial guarantees
3.4 Commission proceedings
3.5 Information dissemination

Note: The regulatory document series may be adjusted periodically by the CNSC. Each regulatory document series listed above may contain multiple regulatory documents. For the latest list of regulatory documents, visit the CNSC’s website.