



Human Performance Management: **Personnel Certification: Radiation Safety Officers**

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Personnel Certification: Radiation Safety Officers

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Document availability

This document can be viewed on the CNSC Web site at nuclearsafety.gc.ca or to request a copy of the document in English or French, please contact:

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Publishing history

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 Web site at nuclearsafety.gc.ca/regulatory-documents

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.

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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 person applying for—or holding—a certificate for a Radiation Safety Officer pursuant to the *Class II Nuclear Facilities and Prescribed Equipment Regulations*.

1.3 Exemptions from certification

This document does not apply to any Class II nuclear facility for which the RSO or equivalent is already 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* lists 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:

1. ensuring the health and safety of personnel, the public and the environment
2. managing the daily aspects of the Radiation Protection Program
3. acting as the primary contact with the CNSC for licensing and compliance matters
4. identifying radiation safety problems
5. implementing corrective actions
6. ensuring compliance with the CNSC regulatory requirements
7. reporting regulatory non-compliances to the CNSC
8. holding the authority to stop any activity that might result in a regulatory non compliance
9. developing procedures and policies related to radiation safety and training
10. acting as the signing authority for CNSC licences

2.1 Responsibility 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 the assigned duties; however, the oversight of the radiation safety program 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 organizational structure there may be several positions that are eligible to undergo certification.

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

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.

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.

3.3 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(b) of the regulations if they were not onsite at the time of licensed activity 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.

3.3.1 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:

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

The licensee should contact the CNSC if this situation applies.

3.3.2 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.

4. Certification Process

4.1 General

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

It is the responsibility of the licensee to identify a candidate to be appointed as RSO, and contact the CNSC to initiate the process for certification.

There are two components to the certification process:

1. assessment of the candidate's capabilities to perform the duties of the position, based on the submitted application
2. assessment of the candidate's knowledge, based on an examination

The process is initiated by the CNSC upon receipt of a complete application from the licensee. Upon review of the application, if an assessment of the material provided indicates that the candidate appears to be capable of performing the duties of the position, CNSC staff will contact the candidate to schedule a certification examination.

If the candidate is able to clearly demonstrate his or her knowledge (see section 4.3, below) 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.

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

For electronic applications, the completed form and supporting documentation can be sent to Forms-Formulaire@cnsccsn.gc.ca.

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 Examination

The content of the examination will be tailored to:

- the operational risks of the licensed activity and equipment
- 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.

4.3.1 Examination results and re-examination

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

4.3.1.1 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.

4.3.1.2 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 4.3.5 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.

Once the CNSC refuses to certify a candidate, the candidate may not assume the title of RSO, nor can the candidate carry out the duties required as an RSO.

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

4.3.1.2.1 Re-examination

If a candidate fails to qualify for certification after a first attempt at an examination, the candidate may request a second examination. A request for re-examination must be communicated to the CNSC within 30 days of receiving the notification of the proposed decision to not certify, otherwise the licensee will be issued a *Refusal to Certify*.

4.3.2 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 4.3.5 of this document.

Scenarios that may lead to decertification include:

1. evidence of significant or willful non-compliance with NSCA, or the regulations made under the NSCA
2. evidence of incompetence
3. the RSO is otherwise incapable of performing duties

4. request by licensee to decertify RSO

If for any reason, a certified RSO is decertified by the CNSC, that person must wait three years before being eligible for certification again.

4.3.2.1 Certification following decertification

A decertified person may request to be certified again if:

1. the basis for the refusal to certify person is no longer applicable
2. the person successfully passes the requirements for certification

4.3.3 Certificate 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:

1. 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*.
2. 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.
3. 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.
4. The person has been away from RSO duties for an extended period of time, as described in section 4.5.2.

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.

4.3.3.1 Certification following 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:

1. The person is seeking to retain the position of RSO at the current site.
2. 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.

4.3.4 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 4.3.3, or revoked as a result of decertification as described in section 4.3.2 of this document.

4.3.5 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.

4.4 Absences and designation of temporary replacements

4.4.1 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.

4.4.1.1 Reinstatement following a temporary absence from duties

4.4.1.1.1 Absence of 60 days or less

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

4.4.1.1.2 Absence of more than 60 days, but less than 13 calendar months

Following an absence of more than 60 consecutive working days but less than 13 calendar months, the person may be reinstated only if:

1. the person has reviewed, at a minimum, the following material:
 - a. basic radiation safety
 - b. refresher of the radiation protection program, and any changes to policies and procedures
 - c. changes to Class II prescribed equipment
 - d. changes to regulatory requirements
 - e. changes to Class II licences and their referenced documents
 - f. operational incidents that have occurred during the absence
2. 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

4.4.2 Extended absence from duties

If a person has been absent from RSO duties for reasons such as:

1. illness
2. injury
3. pregnancy, or other family-related responsibilities
4. a leave of absence
5. 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.

4.4.3 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 consecutive working days in any 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@cnsccsn.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 licenced activities

A.2 Language of certificate

Choose the official language (English or French) for the certificate.

A.3 Licensee 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.

Proof of legal status – The Business Number (BN) identifier is assigned to each business or other entity by the Canada Revenue Agency (CRA).

Applicants must provide proof of their legal status, such as a proof of incorporation, corporation number, or charter, in a separate, appended document.

If the Applicant is a corporation, it needs to submit proof of incorporation and an official corporation profile report which sets out various information about the corporation, including:

- corporation's legal name
- corporation number
- date of incorporation
- registered office address

An official corporation profile report can be obtained from Industry Canada for federally incorporated companies under the Canada Business Corporation Act, R.S.S., c. C-44. For provincially incorporated corporations, similar corporation profile reports are available and for more information you should contact the provincial department where your corporation was registered.

Proof of legal status should also be provided when the applicant's original organization name has changed.

In the space provided, indicate the title of the appended document.

If the Applicant is a Public Institution, specify the name of the enabling legislation (act) under which the institution was created.

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

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

Candidate information – Provide the name, title, and 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 for a medical facility, non-medical facility or servicing licence can be found in Appendix B.

Candidate signature – The candidate must sign the application, to indicate their desire to be certified.

5.3 Section C – Licensed activities and locations

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.

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

5.4 Section D – Legal signing authority

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 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:

1. relevant provisions of the NSCA and its ensuing regulations
2. principles of radiation safety
3. radiation physics
4. operational activities and facilities which are to be licensed by the CNSC
5. 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 the examination 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 a different candidate will need to be selected to undergo RSO certification for the new facility types.

If a previously uncertified candidate fails to qualify for certification as RSO, this does not preclude the person from being certified as an RSO for a different licensee, should the candidate change employers within the two-year period after the CNSC refuses to certify the candidate

Appendix B – Candidate Qualifications

RSO candidates must possess certain qualifications before they will be considered for certification.

B.1 Candidate qualifications in a medical facility

B.1.1 Education

The candidate seeking certification must have at least a Bachelor's degree in engineering or science from a recognized university. Alternate education qualification will be reviewed for acceptability by the CNSC on a case-by-case basis.

B.1.2 Minimum experience

The candidate must have a minimum of two years experience working in a medical facility working directly with Class II nuclear facilities, or two to five years of relevant experience in one or more of the following fields:

1. health or medical radiation physics
2. radiation protection
3. Class II prescribed equipment
4. other types of nuclear facilities

B.1.3 Level of knowledge

The candidate must demonstrate an appropriate level of knowledge covering:

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

B.2 Candidate qualifications in a non-medical facility

B.2.1 Education

The candidate should have a Bachelor's degree in engineering or science from a recognized university; for some industrial facilities, a technical certification in a related field may be acceptable *in lieu* of the above requirement.

B.2.2 Minimum experience

The candidate should have a minimum of two years of related experience working in a Class II facility. For newly constructed smaller industrial facilities, the above requirement may be waived (subject to CNSC approval on a case-by-case basis).

B.2.3 Level of knowledge

The candidate must have an appropriate level of knowledge covering:

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

B.3 Candidate qualifications for a servicing licensee**B.3.1 Education**

The candidate should have a Bachelor's degree in engineering or science from a recognized university. An acceptable substitute to the above requirement is a technical certification in a related field (e.g., electronics technology) with three years of related experience, in addition to the two years required in section B.3.2, for a total of five years.

B.3.2 Minimum experience

The candidate must have a minimum of two years of related experience.

B.3.3 Level of knowledge

The candidate must have an appropriate level of knowledge covering:

1. the relevant provisions of the NSCA
2. the relevant sections of the following regulations:
 - a. *General Nuclear Safety and Control Regulations*
 - b. *Radiation Protection Regulations*
 - c. *Class II Nuclear Facilities and Prescribed Equipment Regulations*
 - d. *Nuclear Substance and Radiation Devices Regulations*
 - e. *Packaging and Transport of Nuclear Substances Regulations*

3. the operational activities which are licensed by the CNSC, and for which he will be acting as RSO
4. any operational requirement from the CNSC, as listed in licence conditions
5. radiation physics
6. principles of radiation safety
7. the radiation protection program of the facility – more specifically:
 - a. policies and procedures of the organization with respect to the radiation safety
 - b. details of the design the Class II prescribed equipment to be serviced under the licence, including essential safety components and systems
 - c. safe operating procedures for the Class II prescribed equipment to be serviced, including the proper function and use of all safety systems and interlocks
 - d. appropriate quality assurance procedures to be conducted for verification of servicing prior to returning Class II prescribed equipment to normal operation
 - e. the responsibilities and authority of senior management
 - f. the responsibilities of people working under the radiation protection program

CNSC Regulatory Document Series

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, there may also be requirements 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
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2.0 Safety and control areas

- Series 2.1 Management system
- 2.2 Human performance management
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- 2.4 Safety analysis
- 2.5 Physical design
- 2.6 Fitness for service
- 2.7 Radiation protection
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- 2.9 Environmental protection
- 2.10 Emergency management and fire protection
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- 2.14 Packaging and transport

3.0 Other regulatory areas

- Series 3.1 Reporting requirements
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- 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 Web site at nuclearsafety.gc.ca/regulatory-documents