

Reporting Requirements

Reporting Requirements for Waste Nuclear Substance Licensees, Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices

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Reporting Requirements for Waste Nuclear Substance Licensees, Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices Regulatory document REGDOC-3.1.3

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Document availability

This document can be viewed on the <u>CNSC website</u>. To request a copy of the document in English or French, please contact:

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Preface

This regulatory document is part of the CNSC's reporting requirements series of regulatory documents, which also covers reporting requirements for nuclear power plants and Class I nuclear facilities. The full list of regulatory document series is included at the end of this document and can also be found on the CNSC's website.

Regulatory document REGDOC-3.1.3, Reporting Requirements for Waste Nuclear Substance Licensees, Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices, incorporates and clarifies requirements found in the Nuclear Safety Control Act (NSCA) and regulations made under the NSCA. This regulatory document also provides guidance for reports and notifications that licensees must submit to the Commission. It also provides details on the events, situations and dangerous occurrences that must be reported.

Guidance contained in this document exists to inform the applicant, to elaborate further on requirements or to provide direction to licensees and applicants on how to meet requirements. It also provides more information about how CNSC staff evaluate specific problems or data during their review of licence applications. Licensees are expected to review and consider guidance; should they choose not to follow it, they should explain how their chosen alternate approach meets regulatory requirements. For existing facilities: The requirements contained in this document do not apply unless they have been included, in whole or in part, in the licence or licensing basis.

An applicant or licensee may put forward a case to demonstrate that the intent of a requirement is addressed by other means and demonstrated with supportable evidence.

The requirements and guidance in this document are consistent with modern national and international practices addressing issues and elements that control and enhance nuclear safety. In particular, they establish a modern, risk-informed approach to reporting requirements.

For information on the implementation of regulatory documents and on the graded approach, see REGDOC-3.5.3, *Regulatory Fundamentals*.

The words "shall" and "must" are used to express requirements 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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Reporting Requirements for Waste Nuclear Substance Licensees, Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices

1. Introduction

1.1 Purpose

This regulatory document sets out requirements and guidance for reports and notifications that licensees of waste nuclear substances, Class II nuclear facilities and users of prescribed equipment, nuclear substances and radiation devices must submit to the Canadian Nuclear Safety Commission (CNSC). This document also presents the types of reports and the applicable timeframe for reporting.

Licensees and those who transport nuclear substances are required to report to the CNSC regarding situations, events and dangerous occurrences. Regulatory document REGDOC-3.1.3 incorporates and clarifies requirements found in the *Nuclear Safety and Control Act* (NSCA) and regulations made under the NSCA, including requirements for content and timing of reports. Additionally, it provides guidance on the interpretation and scope of application of these requirements in the context of Class II nuclear facilities, nuclear substances and radiation devices and waste nuclear substance licensees.

Further to the reporting requirements set by the NSCA and the regulations, a licence may contain any term or condition that identifies a reporting requirement and the time frame for submitting the report. This document provides guidance on these licence conditions, including the submission of an annual compliance report (ACR).

1.2 Scope

This regulatory document incorporates and clarifies requirements found in the NSCA, the regulations made under the NSCA and licence conditions for reporting. Reporting requirements found in the NSCA and the regulations apply to all licensees; licence conditions for reporting apply only to those licensees who have said conditions included in their licence.

Note: The term "reporting" means reports on events, notifications and the submission of specific records, along with ACRs. Specifically, this document covers the following types of reports and notifications:

- preliminary reports and immediate notifications
- full reports
- action level reports
- specific reports under the *Packaging and Transport of Nuclear Substances Regulations*, 2015 (PTNSR 2015)
- ACRs

This document applies to licensees of waste nuclear substances, Class II nuclear facilities and users of prescribed equipment, nuclear substances and radiation devices and those who transport nuclear substances under the PTNSR 2015. Class I and uranium mines and mills licensees who are also authorized to conduct these activities under their Class I and uranium mines and mills licences should instead consult either REGDOC-3.1.1, *Reporting Requirements for Nuclear*

Power Plants, version 2 or REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Facilities and Uranium Mines and Mills, as appropriate.

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.

1.3 Relevant legislation

The following provisions of the NSCA and the regulations made under it are most relevant to this document:

- *Nuclear Safety and Control Act*:
 - subsection 24(5)
 - paragraph 27(b)
 - section 45
- General Nuclear Safety and Control Regulations:
 - section 15
 - subsections 28(1), (2) and (3)
 - sections 29, 30, 31 and 32
- Radiation Protection Regulations:
 - paragraph 6(2)(c)
 - paragraphs 16(a) and (e)
- Class II Nuclear Facilities and Prescribed Equipment Regulations:
 - subsection 17(1)
 - paragraph 19(2)(d)
- Nuclear Substances and Radiation Devices Regulations:
 - subsection 18(3)(d)
 - subsection 30(2)
 - sections 35 and 38
- Packaging and Transport of Nuclear Substances Regulations, 2015:
 - subsections 3(3)(b) and (c), (4) and (5)(a) and (d)
 - paragraphs 32(a) and (d)
 - subsection 36(2)
 - sections 37, 38, 40(4) and (6) and 41(a)

As part of Appendix A, the relevant reporting requirement provisions found in the NSCA and regulations made under the NSCA are provided in full.

2. Reporting Requirements

The following reporting requirements apply to licensees of waste nuclear substances, Class II nuclear facilities and users of prescribed equipment, nuclear substances and radiation devices:

- 1. After determining if a situation, event or dangerous occurrence is reportable, the licensee shall immediately notify, or make a preliminary report to, the Commission.
- 2. The licensee shall file a report to the Commission in response to an event, a situation or a dangerous occurrence.
- 3. As required, licensees shall provide other notifications or reports, including a failure to comply with section 26 of the PTNSR 2015.
- 4. All reports filed by the licensee shall contain the name and address of the sender of the report, and the date the report was submitted to the Commission.
- 5. The licensee shall report on the licence conditions listed in Appendix A of this document as applicable to the licensee.
- 6. A full report, preliminary report or notification shall:
 - a. contain the specific information required by the reporting provision; see sections 3.1, 3.2 and Appendix A for guidance
 - b. be submitted within the time frames as required by the reporting provision; see Appendix A for guidance

Guidance

The NSCA and the regulations made under the NSCA state that reports are submitted to "the Commission". In terms of submitting reports and notifications, "the Commission" is understood to be the CNSC. If needed, reporting parties should contact their CNSC point of contact for information on how to submit any particular report. Once a report is submitted, the point of contact may contact the licensee if more information is required.

Appendix A lists the situations, events and dangerous occurrences that require a report or notification, along with time frames for providing the respective reports or notifications.

The first priority for any situation, event or dangerous occurrence is to ensure that reasonable measures have been taken to mitigate the potential consequences for the health and safety of persons or the environment, or for security. For reporting requirements involving "immediate" notification of the Commission, notification should occur as soon as practicable after the licensee becomes aware that a situation, event or dangerous occurrence is reportable and has taken reasonable mitigation measures. Complete remediation of the situation or event is not required prior to reporting.

A preliminary report or notification that must be submitted immediately may only be provided in person or by telephone to either the duty officer through the emergency telephone number at 613-995-0479 (or toll-free at 1-844-879-0805), or the licensee's CNSC point of contact, depending on the situation, event or dangerous occurrence. If the point of contact cannot be reached, the Duty Officer must be notified.

Table A indicates to whom licensees should send their preliminary reports. Note that a licensee should speak to someone; leaving a voicemail or sending an email is not acceptable. Further information on reporting is available on the CNSC website.

Full reports that do not include prescribed information (e.g., security issues) may be filed by email, fax or regular mail. All related information required under the regulations or a licence condition may also be submitted in electronic format (e.g., emails with pdf attachments, scanned copies of documents and photographs). Note: Prescribed information must not be transmitted electronically.

Licensees should report any of the following events to the CNSC, directly through the duty officer: an event or incident that triggers actions under emergency response programs, even if it is a false alarm, and an event such as a spill, a release or an injury that could trigger stakeholder interest.

The licensee should make all reasonable efforts to obtain timely information that has been reviewed for accuracy when filing a report to the CNSC. For reports of situations or events that have not attained stability and predictability, timeliness of informing CNSC staff of the situation or event should be prioritized over the availability of data and/or information.

A situation, event or dangerous occurrence that triggers multiple reporting provisions may be amalgamated into a single report at the licensee's discretion.

A situation, event or dangerous occurrence that triggers reporting by multiple parties may be amalgamated into a single report, subject to the approval of the CNSC.

Licensees should use the reporting provisions of table A that best correspond to the situation(s), event(s) or dangerous occurrence(s).

Flexibility is allowed for integrated/harmonized reporting. For example, if a licensee is required to submit reports to regulatory bodies other than the CNSC, then sending a copy of the report to the CNSC is acceptable provided the copied report contains all of the reporting information required by the CNSC. This option allows the licensee to avoid duplication of effort and to minimize the administrative burden.

If, after further investigation, the licensee concludes that a situation or event was not reportable, the licensee may provide the CNSC with a written statement that includes a rationale to support this conclusion.

If the licensee determines that investigation beyond the preliminary report is unlikely to yield further relevant details or identify additional corrective actions to prevent recurrence of the situation or event, then a full report may not be necessary. In this case, only one report may be submitted; however, the preliminary report should include the information that would have been required in the full report.

Licensees may use the situation or event reporting according to this regulatory document as input to their public disclosure protocol as applicable.

A report should not contain any proprietary business information so it can be made available to the public upon request. Information should be considered public for the most part. Any information considered classified, protected, proprietary or personal should be submitted with the appropriate security precautions and marked with appropriate protection and classification.

3. Content of Reports and Notifications

Table A in Appendix A provides a list of the situations, events and dangerous occurrences for which a report or notification is required, and includes the timing for each report or notification.

3.1 Preliminary reports and immediate notifications

Both a preliminary report and an immediate notification of a situation, event or dangerous occurrence shall contain the following information, as applicable:

- 1. the location
- 2. the circumstances, which may include:
 - a. a description of the situation, event or dangerous occurrence
 - b. date and time of the onset and the duration (if known), or date and time of discovery (if the time of occurrence is not known)
 - c. whether the situation, event or dangerous occurrence is ongoing
- 3. a description of any actions taken or proposed to mitigate the situation, event or dangerous occurrence and reestablish control of the nuclear substance or prescribed equipment
- 4. confirmation that any workers who were exposed to radiation as a consequence of the situation, and whose dose limit has exceeded the regulatory limit, have stopped any work that is likely to add to the dose of the worker (this includes any work outside of the situation, event or dangerous occurrence that has the potential to add to the dose of the worker)

Guidance

A notification refers to the obligation to inform the CNSC of a situation. A preliminary report is required in certain circumstances. If further reporting is necessary, a full report must be submitted in accordance with the table in Appendix A.

The preliminary report typically contains preliminary, readily available or provisional information on the situation, event or dangerous occurrence being reported. Without compromising safety or recovery, it is important to begin the data collection phase immediately following the situation, event or dangerous occurrence to ensure that data is not lost. The information that should be collected consists of conditions before, during and after the situation, event or dangerous occurrence; personnel involvement (including actions taken); environmental factors; and other information having relevance to the situation, event or dangerous occurrence.

If the licensee has additional information on the situation, event or dangerous occurrence (such as descriptions of any nuclear substances, radiation devices, prescribed equipment or packages), they should include it in the preliminary report or notification.

If available, preliminary reports should contain enough information such that CNSC staff have an understanding of the effects of the situation, event or dangerous occurrence on the health, safety and security of Canadians and the environment.

Contact information, including phone number and email if available, for the person reporting the event should be provided with a preliminary report or immediate notification, along with the names of the persons involved in the situation.

3.2 Full reports

A full report shall contain the following information as far as practicable and applicable:

- 1. reference to the original preliminary report or notification
- 2. the date, time and location where the situation or event occurred or, if unknown, the approximate date, time and location, and the date and time of becoming aware of the situation or event
- 3. the probable cause of the situation or event
- 4. a description of the situation or event and the circumstances including, if applicable, any problem with a radiation device or prescribed equipment
- 5. the effects on:
 - a. the health, safety and security of persons or the environment
 - b. the maintenance of national security
 - c. if applicable, international obligations that have been compromised as a result of the situation or event
- 6. the effective dose and equivalent dose of radiation received by any person (including whether they are nuclear energy workers) as a result of the situation or event, including the measured or estimated doses to the public
- 7. if the situation or event involved an exposure device, the qualifications of the workers, including any trainees, who were involved
- 8. if applicable, information on the activity of the nuclear substance, and the name, model and serial number of the radiation device or prescribed equipment involved
- 9. for dangerous occurrences (under the PTNSR 2015), the names of persons involved and the details of the packaging and packages
- 10. the actions that the licensee has taken or proposes to take, including actions identified and taken to re-establish normal operations, actions taken to mitigate the impact on people and the environment and actions taken or proposed to prevent a recurrence
- 11. any actions that the licensee has taken to inform the public and target audience about the situation or event according to the public disclosure program, if applicable
- 12. if applicable, the information specified in section 3.3, Action level reports

Guidance

The full report is a written evaluation of a situation, event or dangerous occurrence, prepared in sufficient detail to enable assessment of the significance, consequences or implications of the situation, event or dangerous occurrence; and to enable the evaluation of actions being employed to correct the condition and to avoid recurrence. This report is generally required within 21 days after the preliminary report of the event and should be submitted to the CNSC point of contact unless otherwise specified in Table A. There should be sufficient information included to allow for efficient review of the report. For example, the report should:

- identify updates and information that is new or additional to that provided previously
- identify the location of the event through drawings or pictures
- identify any further missing information and the date that the missing information will be provided to the CNSC
- identify the target completion date for each action that the licensee proposes to take to re-establish normal operations or to prevent a recurrence
- provide all details and assumptions in the calculations of estimated doses
- provide statements from persons involved with or witnesses of the situation, event or dangerous occurrence
- provide a summary of any analysis completed, including the probable cause(s) and conclusions drawn from the investigation(s) after the situation or event
- provide an evaluation of any deficiencies in design, operations, training, management or human performance uncovered by the situation or event
- provide an evaluation of any corrective actions taken and their effectiveness, including recommendations for continuous improvement

3.3 Action level reports

When a licensee with an action level in their licence becomes aware that an action level has been reached, the licensee shall:

- 1. within the time period specified in the licence, notify the CNSC that an action level has been reached
- 2. file a report with the CNSC that:
 - a. describes the results of the investigation conducted to establish the cause of reaching the action level
 - b. describes the steps identified and taken to restore the effectiveness of the radiation protection program
 - c. identifies any incomplete information and describes how and when the information will be provided to the CNSC
 - d. for licensees holding a WNSL, describes the steps identified and taken to restore the effectiveness of the environmental protection program, if applicable

3.4 Specific reports under the PTNSR 2015

Expert assessment of an event in packaging and transport

As per subsection 36(2) of the PTNSR 2015, after a dangerous occurrence the consignor, carrier or consignee must have an expert in radiation protection assess the situation. The expert must report the results of the assessment as soon as feasible to the CNSC.

Note: "As soon as feasible" means as soon as possible after becoming aware that a dangerous occurrence is reportable, but after the obligations listed in subsection 36(1) of the PTNSR 2015 have been met.

Annual report of radiation detections in packaging and transport

As per subsection 3(1) of the PTNSR 2015, any nuclear substance referred to in paragraph 2(2)(o) (of the PTNSR 2015) must be characterized at the earliest possible time to determine the extent to which it is subject to the PTNSR 2015 and the *Nuclear Substances and Radiation Devices Regulations* (NSRDR).

As per paragraph 3(3)(b) of the PTNSR 2015, the person who performs the characterization must file an annual report to the CNSC by April 30 that contains a summary of radiation detections for the calendar year before the date of the report.

3.5 Other reportable situations and events

The licensee may report on all other situations or events that are not otherwise specified in this document but can be reasonably assumed to be of regulatory interest, including notifications and situation or event reports to other regulatory agencies within the scope covered by the objects of the Commission (see section 9 of the NSCA).

Guidance

As an example, the licensee may submit to the CNSC copies of the report(s) or notification(s) prepared for other governing regulatory bodies.

4. Annual Compliance Report (ACR)

The licensee shall submit an ACR in the form specified by the licence conditions, which includes:

- 1. information that can be made available to the public (note: any classified, protected, proprietary or personal information shall be submitted to the CNSC in accordance with the appropriate security precautions and marked with appropriate protection and classification)
- 2. sufficient details to provide CNSC staff with information to verify that licensees are meeting their regulatory requirements and are operating safely

Guidance

If information from any previous ACR is needed for completeness, the licensee should repeat it to the appropriate level of detail. ACR forms are available on the CNSC's <u>Annual Compliance</u> <u>Reporting</u> Web page. ACR forms are grouped by license category and customized for the activity authorized by the licence.

Each annual compliance report should act as a stand-alone document. If any of the information has previously been provided to the CNSC (for example, in an event report or in a separate or previous compliance report), this information does not need to be duplicated. In these cases, a reference(s) pointing to the previous report(s) is adequate.

For licensees holding a WNSL, a sample structure for an annual compliance report, based on the CNSC's SCA framework, is provided in Appendix B. The licensee is under no obligation to follow this format if a different format is outlined in the WNSL Licence Condition Handbook. However, the report may include all of the information listed in Appendix B, as applicable. If a particular SCA is not relevant or does not apply, the licensee shall include a statement to that effect in the report.

Appendix A: Reports, Notifications and Timing

Table A lists the situations and events that require a report or notification, along with time frames for providing the report or notification. The first priority for any event is to ensure that the reporting party has taken all reasonable measures to mitigate the potential consequences of the event.

For all reportable situations or events, the preliminary report is due immediately (where "immediately" means as soon as the licensee becomes aware that an event is reportable) and, if required, shall be updated with additional information in a full report, generally within 21 days after the licensee becomes aware of the event.

In addition to the reporting requirements given in the NSCA and regulations made under it, a licensee's licence conditions may contain additional reporting requirements. Licence conditions with reporting requirements are included in table A and only apply to licensees with said conditions in their licences.

Table A also identifies the person to whom licensees should send their reports or notifications (either the CNSC duty officer [613-995-0479 or toll-free at 1-844-879-0805] or the licensee's designated contact).

Table A: Situations and events for which a report or notification is required, including the timing

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
A.	Authorized activities			
1	Contravention of the Nuclear Safety and Control Act (NSCA) in relation to an activity	that is authorized		
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days after becoming
	NSCA: "27. Every licensee and every prescribed person shall		Notify CNSC point of contact	aware of the event
	(b) make the prescribed reports and file them in the prescribed manner, including a report on			event
	(ii) any contravention of this Act in relation to an activity that is authorized by this Act and any measure that has been taken in respect of the contravention."			
	General Nuclear Safety and Control Regulations (GNSCR):			
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:			
	(a) a situation referred to in paragraph 27(b) of the Act;"			
2	Notification of authorized delegates and responsible persons			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Applicable section(s) of the NSCA or regulations made under the NSCA:			
	GNSCR:	Within 15 days		
	"15. Every applicant for a licence and every licensee shall notify the Commission of	Notify CNSC		
	(a) the persons who have authority to act for them in their dealings with the Commission;	point of contact		
	(b) the names and position titles of the persons who are responsible for the management and control of the licensed activity and the nuclear substance, nuclear facility, prescribed equipment or prescribed information encompassed by the licence; and			
	(c) any change in the information referred to in paragraphs (a) and (b), within 15 days after the change occurs."			
	Guidance			
	These positions include radiation safety officers and applicant authorities.			
В.	Management system, human performance, conventional health and safety, financial st	atus		
3	Contingency plan			
3a)	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR:		Notify duty	after becoming aware of the
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:		officer	aware of the event
	(d) a situation or event that requires the implementation of a contingency plan in accordance with the licence;"			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Guidance			
	A contingency plan may be required for:			
	i. any situation or event (flood, fires, earthquakes, etc.) that requires the implementation of the emergency plan, or the use of any abnormal operating procedures or emergency operating procedures, or the mobilization of resources in response to the situation or event			
	ii. the occurrence of any unusual external events (flood, fires, earthquakes etc.) at or near the site that require further inspection of the location and to verify the condition of the nuclear substances, radiation devices or prescribed equipment			
	Full reports may not be necessary if a contingency plan is triggered but the situation is resolved quickly and prior to the contingency plan being fully implemented.			
3b)	(g) an actual, threatened or planned work disruption by workers;		Immediate	Within 21 days
	Guidance		Notify CNSC	after becoming aware of the
	The licensee should report any actual, impending, planned or threatened work disruption, including a slowdown, study day, walkout or strike, or another action (such as a civil demonstration) that could affect the safety or security of operations or the capability of the licensee to maintain the staffing levels required by the licensee. Situations involving the possibility of a strike are considered to be reportable when a union is in a legal strike position, regardless of whether any actual strike activity has taken place.		point of contact	event
4	Serious illness, injury or death			
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR: "29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to		Notify duty officer	after becoming aware of the event

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	take with respect to it:			
	(h) a serious illness or injury incurred or possibly incurred as a result of the licensed activity;			
	(i) the death of any person at a nuclear facility;"			
	Guidance			
	Illnesses and injuries that do not result directly from the licensed activity do not need to be reported. (e.g., the death of a patient in the hospital is not reportable but the death or injury of a patient as a result of malfunctioning certified prescribed equipment is reportable.)			
5	Financial status			
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR:		Notify CNSC	after becoming aware of the
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:		point of contact	event
	(j) the occurrence of any of the following events:			
	(i) the making of an assignment by or in respect of the licensee under the <i>Bankruptcy and Insolvency Act</i> ,			
	(ii) the making of a proposal by or in respect of the licensee under the <i>Bankruptcy and Insolvency Act</i> ,			
	(iii) the filing of a notice of intention by the licensee under the <i>Bankruptcy and Insolvency Act</i> ,			
	(iv) the filing of a petition for a receiving order against the licensee under the			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Bankruptcy and Insolvency Act,			
	(v) the enforcement by a secured creditor of a security on all or substantially all of the inventory, accounts receivable or other property of the licensee that was acquired for, or used in relation to, a business carried on by the licensee,			
	(vi) the filing in court by the licensee of an application to propose a compromise or an arrangement with its unsecured creditors or any class of them under section 4 of the <i>Companies' Creditors Arrangement Act</i> ,			
	(vii) the filing in court by the licensee of an application to propose a compromise or an arrangement with its secured creditors or any class of them under section 5 of the <i>Companies' Creditors Arrangement Act</i> ,			
	(viii) the making of an application for a winding-up order by or in respect of the licensee under the <i>Winding-up and Restructuring Act</i> ,			
	(ix) the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of the licensee under provincial or foreign legislation, or			
	(x) the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of a body corporate that controls the licensee under provincial or foreign legislation."			
C.	Records			
6	Inaccurate or incomplete records			
6a)	Applicable section(s) of the NSCA or regulations made under the NSCA: GNSCR:			Within 21 days after becoming aware of the
	"31(1) Every licensee who becomes aware of an inaccuracy or incompleteness in a record that the licensee is required to keep by the Act, the regulations made under the Act or the licence shall file a report of the inaccuracy or incompleteness with the Commission within 21 days after becoming aware of it, and the report shall contain the following information:			inaccuracy OR Not required if

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(a) the details of the inaccuracy or incompleteness; and			GNSCR 31(2)
	(b) any action that the licensee has taken or proposes to take with respect to the inaccuracy or incompleteness.			applies
	(2) Subsection (1) does not apply to a licensee if			
	(a) the licence contains a term or condition that requires the licensee to report inaccuracies or incompleteness in a record to the Commission; or			
	(b) the inaccuracy or incompleteness in the record could not reasonably be expected to lead to a situation in which the environment, the health and safety of persons or national security is adversely affected."			
	Guidance			
	Examples of inaccuracies or incompleteness in records can include changes in dosimetry records or action levels, changes in operational policies and procedures in radiation safety manuals, inaccurate commitments made to the CNSC, or inadvertent loss or destruction of records. Licensees should notify the CNSC of any changes in their radiation safety manual and any failure to record the release of a nuclear substance as required by the licence.			
6b)	Licence condition 2920	As soon as		
	The licensee shall report to the Commission or a person authorized by the Commission,	practicable		
	as soon as is practicable, the discovery of any inaccuracy or incompleteness in the documents referred to in the Appendix: Licence Document(s).	Notify CNSC point of contact		
7	Notification and filing of record of disposal of records			
	Applicable section(s) of NSCA or regulations made under the NSCA: GNSCR: "28(2) No person shall dispose of a record referred to in the Act, the regulations made	At least 90 days before the date of disposal		
	20(2) 110 person shall dispose of a record referred to in the rict, the regulations made	Notify CNSC		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	under the Act or a licence unless the person	point of contact		
	(a) is no longer required to keep the record by the Act, the regulations made under the Act or the licence; and			
	(b) has notified the Commission of the date of disposal and of the nature of the record at least 90 days before the date of disposal.			
	(3) A person who notifies the Commission in accordance with subsection (2) shall file the record, or a copy of the record, with the Commission at its request."			
	Guidance			
	Examples of records include licence applications, inventories of nuclear substances and/or radiation devices, survey meter calibration certificates, training certificates and leak test certificates.			
	Licensees do not have to wait for a response from the CNSC following the notification to dispose of the records as long as 90 days have passed. A copy of the notification should be kept by the licensee.			
D.	Operating performance			
8	Failure, degradation or weakening of operating conditions			
8a)	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR:		Notify duty	after becoming aware of the
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposed proposes to take with respect to it:		officer	event
	(f) information that reveals the incipient failure, abnormal degradation or weakening			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	of any component or system at the site of the licensed activity, the failure of which could have a serious adverse effect on the environment or constitutes or is likely to constitute or contribute to a serious risk to the health and safety of persons or the maintenance of security;"			
	Guidance			
	Reporting should include any incipient failure, abnormal degradation or weakening of any systems that could result in a hazard to the health and safety of any person, or that could prevent the system from performing its intended safety function or meeting its limiting conditions for safe operation. Some examples of events that could result in adverse effects are:			
	 failure in the security system for Category 1, 2 or 3 sealed sources (i.e., alarm system is not working properly) 			
	failure of Class II safety systems			
8b)	Licence condition 2017 The licensee shall notify the Commission of any operation to recover a sealed source	Prior to conducting the operation		
	stuck in a borehole prior to conducting the operation .	Notify CNSC point of contact		
8c)	Licence condition 2026		Immediate	Within 21 days
	The licensee shall submit a written report to the Commission within 21 days of submitting the preliminary report of any sealed source that has been abandoned down a borehole.		Notify duty officer	of submitting the preliminary report
	Guidance			
	The report should include:			
	(a) the date of the occurrence			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(b) a description of the well logging source involved, including the nuclear substance and quantity, and chemical and physical form			
	(c) a description of the condition of the source and its integrity, if known.			
	(d) the surface location and identification of the well			
	(e) the results of the efforts to immobilize and seal the source in place			
	(f) a brief description of the attempted recovery effort			
	(g) the depth of the source			
	(h) the depth of the top of the cement plug			
	(i) the depth of the well			
	(j) any other information, such as a warning statement, contained on the permanent identification plaque			
	(k) a list of the other organizations that received a copy of the report			
8d)	Licence condition 2298	Upon request, in		
	Upon request from the Commission or a person authorized by the Commission the licensee shall notify the Commission in writing of the storage site(s) of each nuclear substance.	writing Notify the person who		
	Guidance	made the request		
	The licensee should submit the information to the person who made the request. The notification should be provided in the format and method detailed by the requester.	request		
8e)	Licence condition 2300	Within 7 days of starting or		
	The licensee shall , for any site where licensed activities are to be conducted for more than 90 consecutive days, notify the Commission in writing of the site within 7 days of	discontinuance		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	starting to conduct the activities at the site. The licensee shall notify the Commission in writing within 7 days of the discontinuance of licensed activities at any site. The continuity of consecutive days is not broken during offsite use or offsite temporary storage.	Notify CNSC point of contact		
	Guidance			
	"90 consecutive days" is equivalent to 90 calendar days.			
8f)	Licence condition 2524	Upon request in		
	Upon request from the Commission or a person authorized by the Commission the	advance		
	licensee shall notify the Commission in advance of the time, date and location of each job site.	Notify the person who		
	Guidance	made the		
	The licensee should submit the information to the person who made the request. The notification should be provided in the format and method detailed by the requester.	request		
8g)	Licence condition 2970		Reportable	Within 21 days
	The licensee shall submit a written report to the Commission within 21 days of submitting the preliminary report of any neutron generator that has been abandoned down a borehole to include:		under licence condition 2975 (See section 8h of table A)	after submitting the preliminary report
	(a) the date of the occurrence		or table A)	
	(b) a description of the well logging neutron generator involved,			
	including the nuclear substance and quantity, and chemical and physical			
	form			
	(c) the surface location and identification of the well			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(d) the results of the efforts to immobilize and seal the neutron generator in place			
	(e) a brief description of the attempted recovery effort			
	(f) the depth of the neutron generator			
	(g) the depth of the top of the cement plug			
	(h) the depth of the well			
	(i) any other information, such as a warning statement, contained on			
	the permanent identification plaque			
	(j) a list of the other organizations that received a copy of the report			
	Guidance			
	Descriptions of the integrity of the neutron generator should be provided, if known.			
8h)	Licence condition 2975		Immediate	
	The licensee shall immediately make a preliminary report to the Commission of the location and circumstances of the situation involving any neutron generator the licensee has abandoned in a borehole.		Notify CNSC point of contact	
8i)	Licence condition 2985	Prior to		
	The licensee shall notify the Commission of any operation to recover a neutron generator stuck in a borehole prior to conducting the operation.	conducting the operation		
	ower in a coronord prior to consumoning the operation	Notify CNSC point of contact		
9	Nuclear substances, radiation devices, and exposure devices and sealed source assemblies, and Class II equipment			
9a)	Applicable section(s) of the NSCA or regulations made under the NSCA:	Immediate		Within 21 days

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Nuclear Substances and Radiation Devices Regulations (NSRDR):	Notify duty		after the day on
	"30(2) Every licensee who becomes aware of any of the following situations shall notify the Commission immediately of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:	officer		which the licensee becomes aware of the event
	(a) the exposure device or the sealed source assembly is lost, stolen or damaged to an extent that could impair its normal use;			or the event
	(b) the exposure device has a radiation dose rate of more than 2 mSv per hour on any part of its surface when the sealed source assembly is in the shielded position;			
	(c) the sealed source assembly is separated from the exposure device when the latter is not being serviced; or			
	(d) the sealed source assembly fails to return to the shielded position inside the exposure device."			
9b)	NSRDR:	Immediate		Within 21 days
	"38(1)Every licensee who possesses or uses a nuclear substance or a radiation device and becomes aware of any of the following situations shall notify the Commission immediately of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:	Notify duty officer		after the day on which the licensee becomes aware of the event
	(b) the radiation device is damaged to an extent that could impair its normal use;			of the event
	(c) the sealed source is separated from the radiation device when the latter is not being serviced;			
	(d) the sealed source fails to return to the shielded position inside the radiation device; and			
	(e) there is a spill of			
	(i) an unsealed radioactive nuclear substance that is set out in column 1 of Schedule 1, that has produced in excess of 100 times the activity set out in			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	column 3, and			
	(ii) an unsealed radioactive nuclear substance that is not set out in column 1."			
	Guidance			
	Examples of reportable situations may include the inability to retract a source to the shielded position in a portable gauge, shutter damage on a radiation device, and when a portable gauge is crushed at a worksite. Spills less than 100 exemption quantity are not reportable but may be recorded by the licensee in their internal documentation, which can be used during a licensee's review of their safety practices. If, however, a spill of less than 100 exemption quantities of the nuclear substance results in personnel contamination with a resulting dose above the CNSC regulatory limits, it is reportable.			
9c)	Applicable section(s) of the NSCA or regulations made under the NSCA:	In writing, as		
	Class II Nuclear Facilities and Prescribed Equipment Regulations (CNFPER):	soon as practicable		
	"17(1) Every licensee who installs a sealed source in any Class II prescribed equipment other than a pool-type irradiator shall, after installing the source, take measurements of radiation dose rates when the equipment is not in the irradiation mode and notify the Commission in writing as soon as practicable if the dose rate at any location that is 1 m from any sealed source in its shielded position exceeds the manufacturer's specifications."	Notify CNSC point of contact		
	Guidance			
	In many instances, a CNSC servicing licensee is contracted to install the sealed sources and take the measurements; they are responsible for notifying the Commission.			
9d)	NSRDR:	Before		Within 60 days
	"35(1) Every licensee who uses more than 2 GBq of a nuclear substance that is not a sealed source for the purpose of conducting a tracer or subsurface tracer study shall notify the Commission before conducting the study.	conducting the study Notify CNSC		after using a nuclear substance
	(2) Every licensee shall, within 60 days after using a nuclear substance referred to in subsection (1) for the purpose of conducting a tracer or subsurface tracer study, file with	point of contact		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	the Commission a report that includes:			
	(a) the date and location of the study;			
	(b) the name, quantity in Bq and form of the nuclear substance used in the study;			
	(c) the name of the person for whom the study was conducted;			
	(d) the names of all workers who handled the nuclear substance and the dosimeter readings and bioassay results for those workers;			
	(e) a description of any unusual occurrence;			
	(f) a description of the disposition of any unused nuclear substance; and			
	(g) the specific activity of the nuclear substance upon entering and leaving the system studied and a description of the disposition of the nuclear substance."			
10	Counterfeit, fraudulent or suspect items			
	Specific reporting provisions		Immediate	Within 60
	The licensee shall report on the discovery of counterfeit, fraudulent or suspect items during the conduct of licensed activities.		notification to the CNSC point of contact	days after becoming aware of the event
11	Other reportable situations and events			
	The licensee may report on all other situations or events that are not otherwise specified in this document but can be reasonably assumed to be of regulatory interest, including notifications and situation or event reports to other regulatory agencies within the scope covered by the objects of the Commission (see section 9 of the NSCA). Guidance As an example, the licensee may submit to the CNSC copies of the report(s) or	Simultaneous with submitting the report to the other regulatory agency; otherwise, immediately		Upon request
	As an example, the licensee may submit to the CNSC copies of the report(s) or notification(s) prepared for other governing regulatory bodies.	immediately notify CNSC		

	Event, notification or filing of specific records with the CNSC	Timing			
No.		Notification or filing of specific records	Preliminary event reports	Full report	
		point of contact			
E	Radiation protection				
12	Actual or potential exposure in excess of legal radiation dose limits				
12a)	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days	
	GNSCR:		Notify duty	after becoming aware of the event	
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:		officer		
	(b) the occurrence of an event that is likely to result in the exposure of persons to radiation in excess of the applicable radiation dose limits prescribed by the <i>Radiation Protection Regulations</i> ;"				
	Guidance				
	Limits are provided under the <i>Radiation Protection Regulations</i> (RPR), sections 13, 14 and 15. An example of when an event is "likely" to result in an exposure in excess of a limit is where there is a reason to believe that a regulatory dose limit may be exceeded but has not yet been confirmed.				
	The CNSC's expectations for the reporting of skin contamination incidents is that only instances in which the dose exceeds 10 percent of the corresponding dose limit must be reported. An <u>information document</u> on this subject is available on the CNSC's website.				
	"Persons" include nuclear energy workers, pregnant nuclear energy workers and any person who is not a nuclear energy worker.				
	If a licensee submits this report, a separate report under section 16 of the RPR is not required, if the event is the reason that the person exceeded the regulatory dose limit.				

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
12b)	RPR:	Immediate		Within 21 days
	"16. When a licensee becomes aware that a dose of radiation received by and committed to a person or an organ or tissue may have exceeded an applicable dose limit prescribed by section 13, 14 or 15, the licensee shall	Notify duty officer		after becoming aware that the dose limit has been exceeded
	(a) immediately notify the person and the Commission of the dose;			been exceeded
	(e) within 21 days after becoming aware that the dose limit has been exceeded, report to the Commission the results of the investigation or on the progress that has been made in conducting the investigation."			
	Guidance			
	Results of the investigation are expected to confirm whether the exposure resulted in a dose that exceeded the applicable dose limits.			
	Examples of possible overexposure:			
	 person entering or crossing restricted/cordoned off area while the source is in the exposed position 			
	 person entering a confined space/vessel without properly locking out a fixed gauge 			
	• major spill with personnel contamination. If a licensee submits this report, a separate report under paragraph 29(1)(b) or subsection 29(2) of the GNSCR is not required. Licensees should follow the content of reports given in sections 3.1. and 3.2 of this document for reports made under section 16 of the RPR.			
12c)	NSCA:	Immediate		
	"45. Every person who, on reasonable grounds, believes that	Notify duty		
	(a) a place or vehicle is contaminated, in excess of the prescribed limit, by a	officer		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	radioactive nuclear substance, or			
	(b) an event has occurred that is likely to result in the exposure of persons or the environment to a dose of radiation in excess of the prescribed limits,			
	shall immediately notify the Commission or an appropriate authority of the location and circumstances of the contamination or event."			
	Guidance			
	NSCA 45(b) applies to every person who is aware of the event.			
12d)	Licence condition 2601		Immediate	
	If thyroid screening detects more than 10 kBq of iodine-124, iodine-125 or iodine-131, or 100 kBq of iodine-123 in the thyroid, the licensee shall immediately make a preliminary report to the Commission or a person authorized by the Commission and have bioassay performed within 24 hours by a person approved by the Commission to provide internal dosimetry.		Notify CNSC point of contact	
13	Reaching an action level for the purposes of environmental or radiation protection			
13a)	RPR: "6(2) When a licensee becomes aware that an action level referred to in the licence for the purpose of this subsection has been reached, the licensee shall	Within the period specified in the licence		
	(c) notify the Commission within the period specified in the licence."	Notify CNSC point of contact		
	Guidance			
	Each licensee's specific values for action levels are defined in the licensee's radiation protection program and are referenced in the licence.			
13b)	Licence condition 2700	Within 48 hours		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Subject to any other condition of this licence and unless otherwise permitted by the prior written approval of the Commission or a person authorized by the Commission, the licensee shall report in writing to the Commission or a person authorized by the Commission within 48 hours after becoming aware that any action level specified in the Appendix: Licence Documents has been reached.	in writing Notify CNSC point of contact		
13c)	Licence condition 2945 The licensee shall report in writing to the Commission or a person authorized by the Commission within 21 days after becoming aware that any action level specified in the Appendix: Licence Documents has been reached.	Within 21 days in writing Notify CNSC point of contact		
	Guidance			
	If the results of the investigation are known, they should be included in the report.			
13d)	Licence condition found in some WNSLs:	Within the		Within 21 days
	The licensee shall implement and maintain an environmental protection program, which includes a set of action levels. When the licensee becomes aware that an action level has been reached, the licensee shall notify the Commission within X days.	period specified in the licence		of the notification date or, if the licence specifies a
	Note: In the specific licence condition, "X days" is replaced with a specified period.			different time
	Each licensee's specific values for action levels are defined in the licensee's environmental protection program.			period, within that time period

	Event, notification or filing of specific records with the CNSC	Timing			
No.		Notification or filing of specific records	Preliminary event reports	Full report	
14	Nuclear and hazardous substance release				
14a)	Applicable section(s) of the NSCA or regulations made under the NSCA: GNSCR: "29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it: (c) a release, not authorized by the licence, of a quantity of radioactive nuclear substance into the environment;" Guidance Releases outside the scope of the licensed activity or above disposal limits are reportable. For example, licensees should report on the following: • any failure to monitor, control or record the release of a nuclear substance as required by the licence • any event that has adversely affected the environment or has the potential to do so • disposal of nuclear substances in the sewer or municipal garbage in an amount greater than the limit specified in the licence since this is a release not authorized by the licence • any releases into the environment that are not within the release limits specified in the WNSL or the licence conditions handbook (LCH).		Immediate Notify duty officer	Within 21 days after becoming aware of the event	

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
14b)	Licensees holding a WNSL shall report on:			
	a) any failure to monitor or control the release of a hazardous substance as required by any federal or provincial regulation, or a licence, permit or certificate issued by a municipal, provincial or other federal authority			
	Guidance			
	Some examples of events that should be reported are:			
	 radioactive release or hazardous substance release to the environment due to pipes or vessels 			
	any line leak causing a release of radioactive mine water into the environment			
	 failure of air pollution abatement equipment, resulting in an atmospheric release of a radioactive substance or hazardous substance 			
	For item a), a failure to collect an individual sample where justified, is not considered failure to monitor, For the purpose of event reporting, failure to monitor is more appropriately considered in the context of programmatic failure.			
15	Notification of sealed source leakage of 200 Bq or greater	_		
	Applicable section(s) of the NSCA or regulations made under the NSCA:	Immediately		Within 21 days
	NSRDR 18(3) and CNFPER 19(2)(d):	after complying with paragraphs		after becoming aware of an
	"Where a licensee, in the course of conducting a leak test on a sealed source or on shielding, detects the leakage of 200 Bq or more of a nuclear substance, the licensee shall	18(3)(a) to (c) of the NSRDR		event as set out in GNSCR 29(1)
	(d) immediately after complying with paragraphs (a) to (c), notify the Commission that	OR paragraphs		- (=/

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	the leakage has been detected."	19(2)(a) to (c) of the CNFPER		
	Guidance			
	If the leakage of the sealed source leads to an event as found in GNSCR 29(1), a full report is required.	Notify CNSC point of contact		
F.	Security			
16	Theft or loss of nuclear substance, prescribed equipment or prescribed information			
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	NSCA:			after becoming aware of the
	"27. Every licensee and every prescribed person shall:			event
	(b) make the prescribed reports and file them in the prescribed manner, including a report on			
	(i) any theft or loss of a nuclear substance, prescribed equipment or prescribed information that is used in carrying on any activity that is authorized by this Act."			
	GNSCR:		Immediate	Within 21 days
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:		Notify duty officer	as per GNSCR 29(2)
	(a) a situation referred to in paragraph 27(b) of the Act;"			
	OR			
	NSRDR:	Immediate		Within 21 days as per NSRDR

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	"38(1)Every licensee who possesses or uses a nuclear substance or a radiation device and becomes aware of any of the following situations shall notify the Commission immediately of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:	Notify duty officer		38(2)
	(a) the nuclear substance or the radiation device is lost or stolen;"			
	Guidance			
	A nuclear substance is as defined in section 2 of the NSCA, and includes controlled nuclear substances as defined in the <i>Nuclear Non-Proliferation Import and Export Control Regulations</i> , subsections 1(1) and 1(2).			
	Prescribed equipment and prescribed information are as defined in sections 20 and 21 of the GNSCR, and include controlled nuclear equipment and controlled nuclear information as defined in the <i>Nuclear Non-Proliferation Import and Export Control Regulations</i> , subsections 1(1), 1(3) and 1(4).			
17	Actual or attempted breach of security or act of sabotage			
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR:		Notify duty	after becoming aware of the
	"29(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:		officer	event
	(e) an attempted or actual breach of security or an attempted or actual act of sabotage at the site of the licensed activity;"			
	Guidance			
	Includes any damage to any building or equipment that might affect the security of the facility or site, and includes actual or attempted theft, loss or unauthorized movement of			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	 nuclear substances or prescribed information. Examples include but are not limited to: unauthorized access to a facility or site any attempted or actual breach against the alarm system theft of the master key bomb threat The report should include a description of any signs of wrongful entry, efforts undertaken in recovering the source and whether local authorities have been notified. Note: "Security" includes cybersecurity (such as hacker attacks on computer systems). 			
G	Sealed source tracking			
18	Filing of a sealed source tracking report			
	Licence condition 2404 and licence condition 2406* Unless otherwise permitted by the prior written approval of the Commission or a person authorized by the Commission, the licensee shall, in respect of a radioactive nuclear substance set out in the Appendix: Nuclear Substances and Radiation Devices, or in the Appendix: Nuclear Substances and Class II Prescribed Equipment of this licence, report in writing to the Commission or a person authorized by the Commission any transfer, receipt, import or export of any sealed source: (a) at least 7 days before any transfer or export	Report in writing at least 7 days before transfer or export, and within 48 hours of receipt of a transfer or import		
	(b) within 48 hours of any receipt of a transfer or import.	Notify CNSC point of contact		

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	The written report shall be in a form acceptable to the Commission that includes:	through SSTS		
	(a) on transfer or export of a sealed source or sealed sources,			
	(i) the date of transfer or export			
	(ii) the export licence number (where applicable)			
	(iii) the name of the recipient and licence number or the name of the importer			
	(iv) the address of the recipient's or importer's authorized location			
	(v) the nuclear substance (radionuclide)			
	(vi) the activity (radioactivity) (Bq) per sealed source on the reference date			
	(vii) the reference date			
	(viii) the number of sealed source(s)			
	(ix) the aggregate activity (Bq)			
	(x) the sealed source unique identifiers (if available)			
	(xi) where the sealed source is incorporated into prescribed equipment			
	(1) the name and model number of the equipment			
	(2) the equipment serial number (if available)			
	(b) on receipt or import of a sealed source or sealed sources,			
	(i) the date of receipt of a transfer or import			
	(ii) the name of the shipper and licence number or the name of the exporter,			
	(iii) the address of the shipper's or exporter's authorized location,			
	(iv) the nuclear substance (radionuclide)			
	(v) the activity (radioactivity) (Bq) per sealed source on the reference date			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(vi) the reference date			
	(vii) the number of sealed source(s)			
	(viii) the aggregate activity (Bq)			
	(ix) sealed source unique identifiers (if available)			
	(x) where the sealed source is incorporated into prescribed equipment			
	(1) the name and model number of the equipment			
	(2) the equipment serial number (if available)			
	* For licence condition 2406, the list of applicable nuclear substances has been omitted for ease or reading.			
	Guidance			
	The report can be provided through the <u>Sealed Source Tracking System</u> (SSTS), within 48 hours (2 business days).			
Н	Safeguards and non-proliferation			
19	Safeguards			
	Applicable section(s) of the NSCA or regulations made under the NSCA:		Immediate	Within 21 days
	GNSCR:		Notify CNSC point of contact	after becoming
	"30(1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the situation and of any action that the licensee has taken or proposes to take with respect to it:			aware of the event
	(a) interference with or an interruption in the operation of safeguards equipment or the alteration, defacement or breakage of a safeguards seal, other than in accordance with the safeguards agreement, the Act, the regulations made under the Act or the			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	licence; and			
	 (b) the theft, loss or sabotage of safeguards equipment or samples collected for the purpose of a safeguards inspection, damage to such equipment or samples, or the illegal use, possession, operation or removal of such equipment or samples. (2) Every licensee who becomes aware of a situation referred to in subsection (1) shall file a full report of the situation with the Commission within 21 days after becoming aware of it, unless some other period is specified in the licence, and the report shall contain the following information: (a) the date, time and location of becoming aware of the situation; (b) a description of the situation and the circumstances; (c) the probable cause of the situation; (d) the adverse effects on the environment, the health and safety of persons and the maintenance of national and international security that have resulted or may result from the situation; (e) the effective dose and equivalent dose of radiation received by any person as a result of the situation; and (f) the actions that the licensee has taken or proposes to take with respect to the 			
	situation."			
	Guidance			
	If there is any question as to whether interference, theft, loss or sabotage of safeguards equipment or samples collected for the purpose of safeguards inspection has occurred, the licensee should make a preliminary report.			
I.	Packaging and transport	1		

			Timing	Full report Within 10 days
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
20	Characterizing a nuclear substance			
20a)	Applicable section(s) of the NSCA or regulations made under the NSCA:	Immediate		
	Packaging and Transport of Nuclear Substances Regulations, 2015 (PTNSR 2015):	Notify duty		
	"2(2)These Regulations, except for sections 6 and 7, do not apply to the packaging and transport of a nuclear substance	officer		
	(p) that is being transported by a peace officer to a location for proper characterization, if			
	(v) the Commission is advised immediately of the transport."			
		Immediate		
	3(3)(c) The person who performs the characterization must immediately notify the Commission if the source of the radioactivity in the load is determined to be a licensable quantity of a nuclear substance.	Notify CNSC point of contact		
20b)	PTNSR 2015:		Immediate	-
	"3(4) If the measured dose rate at the time that the alarm is triggered is greater than 5 μ Sv/h and less than or equal to 25 μ Sv/h and there is no loss or dispersal of the nuclear substance during the transport, the consignor, the carrier and the consignee must		Notify CNSC point of contact if known.	of the initial detection (if the quantity is licensable)
	(a) immediately make a preliminary report to the Commission indicating the alarm level, the details of the transport, information on the location and circumstances of the detected radiation and any action that they have taken or propose to take in respect of it; and		Otherwise, notify duty officer Win afte dete qua	OR Within 21 days after the initial
	(b) characterize the source of the radiation within 10 days after its detection and make a follow-up report			detection (if the quantity is not licensable)

			Timing	Full report Within 10 days of the initial detection (if the
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(i) immediately, if the characterization of the source of the radioactivity in the load indicates that it is a licensable quantity of a nuclear substance, or			
	(ii) within 21 days after the initial detection, if the nuclear substance in the load is determined not to be of a licensable quantity, with a summary of the radiation detection and the disposal of the substance and a confirmation that it is not of a licensable quantity."			
	Guidance			
	This reporting requirement applies if an alarm has been triggered and therefore a person is characterizing a nuclear substance in a load that is being transported (see paragraph 2(2)(o) of the PTNSR 2015). The measurement of the dose rate should be taken at the external surface of the vehicle used for transport.			
	The expert in radiation protection may be an employee of the consignor, carrier or consignee (e.g., a radiation safety officer), or may be an independent consultant retained for the purpose of assessing the situation and reporting to the Commission.			
20c)	PTNSR 2015:		Immediate	
	"3(5) If the measured dose rate at the time that the alarm is triggered is greater than 25 μ Sv/h but less than or equal to 500 μ Sv/h and there is no loss or dispersal of the nuclear substance during the transport, the consignor, carrier and consignee must		Notify CNSC point of contact if known.	
	(a) immediately make a preliminary report to the Commission indicating the alarm level, the details of the transport, information on the location and circumstances of the detected radiation and any action that they have taken or propose to take in respect of it;		Otherwise, notify duty officer	OR
	(b) isolate the load, prevent dispersal of the nuclear substance and control access to it to ensure that persons are not exposed to effective doses that exceed the limits set out in section 13 of the <i>Radiation Protection Regulations</i> ;			Within 21 days after the initial detection (if the quantity is not

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(c) have an expert in radiation protection assess the situation; and			licensable)
	(d) report the results of the assessment to the Commission within 10 days after the detection and make a follow-up report			
	(i) immediately, if the characterization of the source of the radioactivity in the load indicates that it is a licensable quantity of a nuclear substance, or			
	(ii) within 21 days after the initial detection, if the nuclear substance in the load is determined not to be of a licensable quantity, with a summary of the radiation detection and the disposal of the substance and a confirmation that it is not of a licensable quantity."			
	Guidance			
	This reporting requirement applies if an alarm has been triggered and therefore a person is characterizing a nuclear substance in a load that is being transported (see paragraph 2(2)(0) of the PTNSR 2015). The measurement of the dose rate should be taken at the external surface of the vehicle used for transport.			
	The expert in radiation protection may be an employee of the consignor, carrier or consignee (e.g., a radiation safety officer), or may be an independent consultant retained for the purpose of assessing the situation and reporting to the Commission.			
21	Actual or potential exposure in excess of legal radiation dose limits (during transport)			
	Applicable section(s) of the NSCA or regulations made under the NSCA:	Immediate		Within 21 days
	PTNSR 2015:	Notify duty		after becoming aware that the
	"32. Every consignor, carrier or consignee who becomes aware that a dose of radiation received by a person may have exceeded an applicable dose limit prescribed by the <i>Radiation Protection Regulations</i> must	officer	officer	dose limit may have been exceeded
	(a) immediately notify the person and the Commission of the dose;			
	(b) conduct an investigation to determine the magnitude of the dose and to establish			

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	the causes of the exposure;			
	(c) take any action required to prevent the occurrence of a similar incident; and			
	(d) within 21 days after becoming aware that the dose limit may have been exceeded, report to the Commission the results of the investigation or the progress that has been made in conducting it."			
	Guidance			
	Results of the investigation are expected to confirm whether the exposure resulted in a dose that exceeded the applicable dose limits.			
22	Dangerous occurrence			
	Guidance			
	Dangerous occurrences with respect to packaging and transport of radioactive material are defined in section 35 of the PTNSR 2015. Dangerous occurrences do not include minor errors in documentation, labelling or handling. Similarly, they do not include any instance of non-compliance with the PTNSR 2015 or with any licence or certificate applicable to a package that may be reasonably expected to have no adverse effects on the environment, the health and safety of persons, or national security.			
22a)	Applicable section(s) of the NSCA or regulations made under the NSCA:		Notify duty	Within 21 days
	PTNSR 2015:		officer	after the dangerous
	"35. For the purpose of sections 36 to 38, a dangerous occurrence is any of the following situations:			occurrence, to CNSC point of
	(a) a conveyance carrying radioactive material is involved in an accident;"			contact
	Guidance			
	Regardless of the severity of the accident, the reporting requirements remain unchanged. All accidents involving a conveyance carrying radioactive material must be reported.			

			Timing	Full report Within 21 days after the dangerous occurrence, to CNSC point of contact
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
22b)	"(b) a package shows evidence of damage, tampering or leakage of its contents, or its integrity is degraded in a manner that may reasonably be expected to impair its ability to comply with these Regulations or its certificate;"		Notify CNSC point of contact (if package is at destination with no leakage) Notify duty officer (if the package has leaked or has not yet reached its destination)	after the dangerous occurrence, to CNSC point of
22c)	"(c) radioactive material is lost, stolen or no longer in the control of a person who is required to have control of it under the Act;"		Notify duty officer	Within 21 days after the dangerous occurrence, to CNSC point of contact
22d)	"(d) radioactive material has escaped from a containment system, a package or a conveyance during transport;"		Notify CNSC point of contact (if containment system is broken but the leak is contained in the internal package) Notify duty officer (if the leak is not contained)	Within 21 days after the dangerous occurrence, to CNSC point of contact

			Timing	
No.	No. Event, notification or filing of specific records with the CNSC		Preliminary event reports	Full report
22e)	"(e) fissile material is outside the confinement system during transport;"		Notify duty officer	Within 21 days after the dangerous occurrence, to CNSC point of contact
22f)	"(f) the level of non-fixed contamination, as defined in the IAEA Regulations, during transport exceeds the following limits as applicable when averaged over any area of 300 cm ² of any part of the surface of the package or the conveyance:		Notify duty officer	Within 21 days after the dangerous
	(i) 4 Bq/cm ² for beta and gamma emitter and low toxicity alpha emitters, or			occurrence, to CNSC point of
	(ii) 0.4 Bq/cm ² for all other alpha emitters;"			contact
	"Exception			
	37(2) No preliminary report is required for the dangerous occurrence referred to in paragraph 35(f) in respect of the internal surfaces of a tank or intermediate bulk container, as those terms are defined in the IAEA Regulations – or of a freight container or conveyance – that is dedicated to the transport of unpackaged radioactive material under exclusive use for as long as it remains under that specific exclusive use."			
22g)	"(g) there is a failure to comply with the provisions of the Act, the provisions of these Regulations or any licence or certificate that is applicable to a package that may reasonably be expected to lead to a situation in which the environment, the health and safety of persons or national security is adversely affected."		Call the 24-hour number on the shipping document and	Within 21 days after the dangerous occurrence, to
	Guidance		notify CNSC point of contact	CNSC point of contact
	As per paragraph 35(g) of the PTNSR 2015 not all non-compliances are considered a dangerous occurrence, and therefore reportable. Only those non-compliances that can adversely affect the environment, the health and safety of persons or national security are reportable.		(if during transport)	contact

			Timing	
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Examples of non-compliances, relating to the transport documents that would not require reporting are:			
	 Typographical errors such as incorrect spelling of shipping names 			
	 Activity not accurately matching what was in transport or what is stated on transport labels 			
	Incomplete or incorrect declaration			
	Note that if no transport document is present, during transport, this would be reportable.			
	Examples of non-compliances, relating to the labelling or marking of packages that would not require reporting are:			
	 Activity not accurately matching what was in transport or what is stated on transport document 			
	Incorrect transport index noted on label.			
	 Typographical errors such as incorrect spelling of shipping names. 			
	 Missing mark, as long it does not adversely affect the environment, the health and safety of persons or national security, such as international vehicle registration code (VRI code), etc. 			
	Note that if no transport labels are displayed on the package, this would be reportable.			
	However, it should also be noted that for any non-compliances with section 26 of the PTNSR 2015 reports are required.			
22h)	PTNSR 2015: "36(2) As soon as feasible after a dangerous occurrence has occurred the consignor, carrier or consignee of the package or radioactive material involved in the occurrence must have an expert in radiation protection assess the situation. The expert must report the results of the assessment to the Commission as soon as feasible."	As soon as feasible after a dangerous occurrence		

No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	Guidance The expert in radiation protection may be an employee of the consignor, carrier or consignee, or may be an independent consultant retained for the purpose of assessing the situation and reporting to the Commission.	Notify CNSC point of contact		
22i)	PTNSR 2015: "37(1) Immediately after becoming aware of a failure to comply with the requirements of section 26 or after the obligations set out in subsection 36(1) have been discharged, every consignor, carrier, consignee and holder of a licence to transport a package while in transit must make a preliminary report of the situation to the Commission."		Immediate Notify CNSC point of contact	
	"38. Within 21 days after the failure to comply with the requirements of section 26 or after the dangerous occurrence, the consignor, carrier and consignee and any holder of a licence to transport a package while in transit must file a full report with the Commission that includes the following information: (a) the date, time and location of the failure to comply or of the dangerous			Within 21 days after a dangerous occurrence or a failure to
	(a) the date, time and location of the failure to comply of of the dangerous occurrence; (b) the names of the persons involved; (c) the details of the packaging and packages;			comply with the requirement To CNSC point of contact
	(d) the probable cause;(e) the effects on the environment, the health and safety of persons, and national or international security that have resulted or may result;			
	(f) the doses of radiation that any person has received or is likely to have received; and			
	(g) the actions taken to remedy the failure to comply or the dangerous occurrence and to prevent its recurrence."			

No.	Event, notification or filing of specific records with the CNSC	Timing		
		Notification or filing of specific records	Preliminary event reports	Full report
	Guidance			
	Subsection 37(1) and section 38 refer to section 26, which sets out the requirements for presenting a package containing radioactive material or a nuclear substance for transport.			
	Subsection 37(1) refers to subsection 36(1), which sets out the [non-reporting] obligations of the consignor, carrier or consignee in the event of a dangerous occurrence.			
	As stated in subsection 37(2), "no preliminary report is required for the dangerous occurrence referred to in paragraph 35(f) in respect of the internal surfaces of a tank or intermediate bulk container, as those terms are defined in the IAEA Regulations – or of a freight container or conveyance – that is dedicated to the transport of unpackaged radioactive material under exclusive use for as long as it remains under that specific exclusive use."			
23	Package is damaged, tampered with, or contents are outside the containment system			
	Applicable section(s) of the NSCA or regulations made under the NSCA:			
	PTNSR 2015:			
	"40(3) Every person who receives a package or who opens a package must, at that time, determine if any of the following conditions exist:			
	(a) the package is damaged;			
	(b) the package has been tampered with;			
	(c) if the package contains fissile material, whether any portion of the fissile material is outside the confinement system; and			
	(d) any portion of the contents of the package is outside the containment system.			
	(4) If any of the conditions exist, the person must immediately make a preliminary report to the Commission and to the consignor.			

		Timing		
No.	Event, notification or filing of specific records with the CNSC	Notification or filing of specific records	Preliminary event reports	Full report
	(5) The preliminary report must include information on how and where the condition was discovered and on any action that the person has taken or proposes to take with respect to it.		Immediate Notify duty officer (if the issue with the package may cause an immediate danger to the health and safety of persons or the environment)	
	 (6) Within 21 days after the condition has been discovered the consignor and the person who made the preliminary report must file a full report with the Commission that includes the following information: (a) the date, time and location of the discovery of the condition; (b) the names of the persons involved; (c) the details of the packaging and packages; (d) the probable cause; (e) the effects on the environment, the health and safety of persons, and national or international security that have resulted or may result; (f) the doses of radiation that any person has received or is likely to have received; and (g) the actions taken to remedy the condition and to prevent its recurrence." 			Within 21 days after the discovery Notify CNSC point of contact
	Guidance			
	If the issue with the package does not cause an immediate danger to the health and safety of persons or the environment, the reporter may notify their CNSC point of contact for the immediate report. For example:			

No.	Event, notification or filing of specific records with the CNSC	Timing		
		Notification or filing of specific records	Preliminary event reports	Full report
	if there is no contamination outside of the package			
	if the package is damaged or tampered with and has reached its destination			
24	Notification of undeliverable consignments			
	Applicable section(s) of the NSCA or regulations made under the NSCA:	As soon as feasible Notify CNSC point of contact (if known)		
	PTNSR 2015:			
	"41. If a consignment cannot be delivered to the consignee, the carrier must			
	(a) notify the consignor, the consignee and the Commission;"			
	Guidance			
	The intent is for the carrier to notify the CNSC when a shipment cannot be delivered to the consignee in order for the CNSC to ensure that the undelivered consignment is secured until they can be delivered or returned to the consignor.			
	Note that this section only requires a notification to the CNSC. As this is a notification only, the CNSC does not expect a report.			

Appendix B:Sample Structure and Content for an Annual Compliance Report for Waste Nuclear Substance Licensees

This appendix provides a sample structure for an annual compliance report for Waste Nuclear Substance Licensees, based on the CNSC's safety and control areas (SCAs). The licensee is under no obligation to follow this format; however, the report may include all information as applicable. For more information on SCAs and the specific areas within each SCA, refer to the CNSC website.

Waste Nuclear Substance Licences (WNSLs) cover a broad range of sites and activities, including:

- universities
- decommissioned and remediated mines
- waste management sites
- sites which process waste

As such, this sample structure should be used solely as a guideline; licensees shall report only on the areas which are applicable to their site or activity. If a particular SCA is not relevant or does not apply, the licensee shall include a statement to that effect in the report.

Cover page

The cover page of the report should clearly summarize the name of the facility, the licensee and the reporting period.

Note: Where the period for a set of information is different from the reporting period, the licensee should use the information that most closely aligns with the reporting period. The licensee should clearly identify this detail. In all cases, each annual compliance report shall be contiguous with the previous annual report.

Table of contents

The following is a suggested structure that licensees may use for their annual compliance report:

- 1.0 Identifying information
- 2.0 Introduction
- 3.0 Safety and control areas
 - 3.1 Management system
 - 3.2 Human performance management
 - 3.3 Operating performance
 - 3.4 Safety analysis
 - 3.5 Physical design
 - 3.6 Fitness for service
 - 3.7 Radiation protection
 - 3.8 Conventional health and safety
 - 3.9 Environmental protection
 - 3.10 Emergency management and fire protection
 - 3.11 Waste management

- 3.12 Security
- 3.13 Safeguards and non-proliferation
- 3.14 Packaging and transport

4.0 Other matters of regulatory interest

- 4.1 Licensee's public information and disclosure program
- 4.2 Financial guarantees
- 4.3 Other facility-specific matters of regulatory interest

Identifying information

The report should include the following identifiers:

- licensee's name
- licence number
- name of the facility or facilities (as identified in the licence or LCH)
- reporting period
- licensee's business address (including suite number, if applicable, and postal code)

Introduction

The report should include the following general information:

- document report date
- a summary of the licensee's compliance with other federal, provincial and municipal regulations
- a summary of any new licensed activities (since the last compliance report)
- a summary of significant modifications or changes to the site or facility, including modifications to any facility buildings, processes, equipment, procedures, programs or organizational structure

Safety and control areas

The report should include information on all applicable SCAs. Information that should be discussed under each SCA, if applicable, is described below.

Management system

- a description of the degree of implementation of the management system and the scope of activities it applies to
- a conclusion of the effectiveness of the management system in meeting all of its requirements (including all the programs and safety areas under the management system), supported by a summary of the outcome of assessments of the effectiveness of each element of the management system, plus any resultant improvement actions and their progress
- an overview and the conclusions of audits of the management system carried out by the licensee and external parties, including a description of any resultant actions and the status of these actions
- a summary of any revisions or changes to the management system, its processes and the documents that describe it and the reason for any change
- a summary of any changes to the organizational structure and the roles and responsibilities of the persons responsible for the management and control of the licensed activity and the

nuclear substance, nuclear facility, prescribed equipment or prescribed information encompassed by the licence, including the revised organizational structure, roles and responsibilities

Note: The expectation is that the effectiveness of individual programs is to be reported under their respective SCAs.

Human performance management

The annual compliance report should include, as applicable:

- a description of the implementation status of the various programs used in the management of human performance, and of the interfaces between the programs
- an assessment of the overall human performance at the licensed site
- a summary of the applicable training, including how the training programs satisfy the conditions outlined in the licensee's LCH as well as the legislative requirements of the *Nuclear Safety and Control Act* (NSCA) and the regulations made under the NSCA; a general description of relevant statistics should include mandatory federal and provincial legislative training activities and job/task-specific training activities
 - **Note:** For any mandatory training program (such as the radiation protection training program), the licensee is required to provide training and qualification statistics (such as completion rate), including a comparison with the performance benchmark adopted by the licensee
- confirmation that the licensee had a sufficient number of qualified workers to carry on the licensed activities safely and in accordance with the NSCA and the regulations made under the NSCA
- any matters concerning the examination for certification and the certification of personnel (including recertification and decertification) and any change in status of certified personnel (for example, termination, removal from duties, failure to pass a requalification exam, retirements and transfers)

Operating performance

The report should include, as applicable:

- an assessment of how well the licensee conducted operations in accordance with the licensee's relevant programs and procedures
- an overview and the conclusion of any audits (related to the licensed activities) that were carried out by the licensee and external parties during the review period
- information about compliance with operational limits and conditions
- a summary of reportable events during the review period, excluding exceedances of radiation and environmental protection regulatory limits and action levels (which should be reported under the radiation protection section and the environmental protection section of this report)

Safety analysis

- a description of how the facility's overall safety case was validated and maintained over the reporting period, including an assessment of the effectiveness of the validation and maintenance
- a summary of all modifications and changes to the facility that may affect that facility's safety analysis

- a description of actual or potential hazards or benefits/improvements associated with those modifications and changes
- a description of how the preventive measures and strategies for the potential hazards are implemented, along with the evaluation of their effectiveness
- where applicable, a description of the effectiveness of the nuclear criticality program

Physical design

The report should include, as applicable:

- a summary of the changes that occurred in the physical design and related activities that
 affect the ability of structures, systems and components (SSCs) to meet and maintain their
 design basis
- for any major changes, a description of all validation activities and the results of the validation

Fitness for service

The report should include, as applicable:

- a description of the effectiveness of the maintenance, surveillance, and in-service inspection and testing programs, including post-maintenance verification and testing
- a description of the effectiveness of all aging management strategies

Radiation protection

- a summary of the application of the ALARA (as low as reasonably achievable) principle; that is, a description of initiatives and activities undertaken to improve the control of worker doses and radiological hazards for the reporting period, and a summary of initiatives and targets for the upcoming year (next reporting period)
- a summary that evaluates the radiation protection program performance against the initiatives and activities identified above, including a discussion of initiatives and activities that were planned but not completed or conducted
- a summary of revisions and improvements to the radiation protection program; some examples are methods and processes, instrumentation and equipment, procedures and training programs
- a summary of radiation doses received by all persons as a result of the licensed activity during the reporting calendar year (that is, January 1 to December 31) according to the following specifications:
 - radiation dose data should be reported for all monitored persons and additional dose data should be provided for each work group, as identified by the licensee (for example, various operational work groups, administrative staff, contractors and visitors)
 - radiation dose data should include, as a minimum, the total number of persons monitored and the average, maximum and collective dose for all groups of persons as defined above, for the reporting period; two averages should be reported an average that includes dose values of zero, and an average of all measurable doses that excludes the zero dose values, where:

- average dose is the arithmetic mean of all exposure results for persons monitored for that licensed activity during the reporting period
- maximum dose is the highest dose incurred by an individual as a result of the licensed activity during the reporting period
- the maximum individual dose for the current five-year dosimetry period should be provided
- the radiation dose data should be reported as effective dose, with additional data for each assigned dose component (for example, internal, long-lived radioactive dust, radon progeny) each dose component category should include the average and maximum dose, as well as the number of persons assigned a dose in each category
- the equivalent dose results (for example, extremity, skin and lens of the eye) should be reported for all monitored persons and for all additional groups of persons as defined by the licensee, as applicable
- the radiation dose data should be presented in tabular or graphical format, and should include the distribution of radiation doses by total number of persons monitored by dose range; dose ranges should be appropriate for the range of data and should include the following ranges as a minimum: 0 mSv; 0.01 to 1.00 mSv; 1.01 to 5.00 mSv; 5.01 to 10.00 mSv; 10.01 to 20.00 mSv; > 20.01 mSv
- an assessment of the significance of the radiation dose trends from year to year should be included, for a minimum period of five years
- a discussion of data and results, including an assessment of trends and fluctuations, of routine radiation surveys and contamination monitoring conducted during the reporting period; some examples are:
 - radiation field surveys
 - measurements of the concentrations of airborne nuclear substances
 - measurements of surface contamination
 - personnel contamination events
- a summary of the estimated effective doses to members of the public, including:
 - the results and calculations of the annual radiation doses to the representative persons and/or critical group or groups in comparison to the regulatory public dose limit
 - a description of the environmental transfer / exposure pathways associated with the operation of the facility, including the dispersion and dosimetric models used
 - the mean and maximum doses
 - a discussion of the significance of the data
 - a description of the trends from year to year, with comments on their significance, for a period of five years

Conventional health and safety

- a discussion of the conventional health and safety program and its effectiveness, including:
 - frequency of internal and external inspections, audits and reviews
 - a description of the findings and corrective actions from the inspections, audits and reviews
 - a discussion of effectiveness and adequacy of managerial control on the prevention of unreasonable risks to persons

- details of the occupational/conventional health and safety committee
- a summary of any conventional health and safety improvements and revisions; some examples are methods, instrumentation, equipment and procedures
- a discussion of all conventional health and safety occurrences related to non-radiological health and safety activities, including medical aids/consultations and lost-time incidents (frequency and severity)

Environmental protection

- a summary of effluent (air and water releases) monitoring, including:
 - a description of the monitoring and testing methods, quality assurance, quality control and detection limits
 - discussion on how the results were estimated or calculated
 - data for both radiological and non-radiological releases (for example, activity, concentrations, flow rates and loadings)
- an analysis of the effluent monitoring results, including:
 - a discussion of any emerging trends
 - a separate discussion for each air and water quality monitoring activity on the significance of the air and water release monitoring results
 - details on how these trends or results relate to the estimated dose to the public and any critical groups
 - trends from year to year, for a period of five years or longer
- whenever either an environmental protection regulatory limit was exceeded or action level was reached, a summary of the investigations completed and corrective actions taken
- an overview of how the environmental protection program is reviewed and its effectiveness, including:
 - the frequency of internal and external inspection, audits and reviews
 - a description of the findings and corrective actions
- a summary of any environmental protection program improvements and revisions; some examples are the methods, instrumentation, equipment and procedures
- for the environmental protection program performance:
 - a description of all performance and initiatives compared against the goals and targets for the year
 - a summary of initiatives and targets for the upcoming year
 - an evaluation of whether the environmental protection program met its previous year objectives, goals and targets
 - a summary of environmental monitoring, including:
 - a description of the monitoring and testing methods, quality assurance, quality control and detection limits
 - discussion on how the results were calculated
 - data for both radiological and non-radiological releases (for example, activity, concentrations)

- an analysis of the environmental monitoring results, including:
 - a discussion of any emerging trends
 - a separate discussion for each environmental monitoring activity on the significance of the results
 - trends from year to year, for the same period of five years or longer as for the effluent monitoring results
- a summary of spills to the environment, including a description of any corrective actions taken, and their effectiveness

Emergency management and fire protection

The report should include, as applicable:

- a summary of emergency preparedness activities at the licensed site, including:
 - a description of the effectiveness of the program and any review
 - a summary of any changes and improvements to the emergency preparedness program
- a summary of the fire protection activities at the licensed site, including:
 - the frequency of the inspections, audits, drills and reviews
 - any findings and corrective actions
 - a description of the effectiveness of the program and any review
 - a summary of any changes and improvements to the fire protection program

Waste management

The report should include, as applicable:

- a description of any change or improvement made to the waste management activities during the reporting period
- identification and characterization of the waste streams generated by the operation of the facility, including:
 - production rates and volumes
 - physical, chemical and radiological characteristics of each of the waste streams
- inventories of each of the following, including type, volume, total activity level and/or concentration:
 - hazardous or radioactive waste stored onsite
 - waste that is transferred elsewhere (within a site or offsite) for processing, storage or disposal
 - waste that is disposed through authorized controlled releases into the environment
- a description of the effectiveness of the existing waste segregation and/or minimization components, if any, of the facility's waste management activities, including the effectiveness of any new waste segregation and/or minimization strategies implemented in the course of the reporting period
- the results of any inspection, audit or review completed on any aspect of the waste management activities

Security

The report should include, <u>as applicable</u> but without compromising the security of the site, information on the status of compliance with the regulatory requirements related to security.

Safeguards and non-proliferation

The report should include, as applicable:

- an assessment of the overall performance of safeguards activities, including their effectiveness at the site
- a summary of any changes to safeguards activities
- information on safeguards inspections (if applicable), including the number and type of inspections, who performed the inspections, and any findings (such as issues, best practices, etc.) resulting from the inspections

Packaging and transport

The report should include, <u>as applicable</u>, a brief description of the licensee's performance with respect to packaging and transporting nuclear substances in accordance with the appropriate regulations.

Other matters of regulatory interest

The report should include information on the following additional matters of regulatory interest:

Public Concerns

The licensee should include any information about public concerns regarding licensed activities received during the reporting period.

Financial guarantees

The licensee should include, as applicable, information that the financial guarantee remains valid and in effect.

Other facility-specific matters of regulatory interest

The report may include, as applicable, information about any facility-specific matter of regulatory interest, to an appropriate level of detail.

Abbreviations

ACR	annual compliance report
Bq	becquerel
CNFPER	Class II Nuclear Facilities and Prescribed Equipment Regulations
GNSCR	General Nuclear Safety and Control Regulations
IAEA	International Atomic Energy Agency
μSv	microsievert
μSv/h	microsieverts per hour
mSv	millisievert
NSCA	Nuclear Safety and Control Act
NSRDR	Nuclear Substances and Radiation Devices Regulations
RPR	Radiation Protection Regulations
PTNSR 2015	Packaging and Transport of Nuclear Substances Regulations, 2015
SSTS	Sealed Source Tracking System

Glossary

For definitions of terms used in this document, see <u>REGDOC-3.6</u>, <u>Glossary of CNSC Terminology</u>, which includes terms and definitions used in the <u>Nuclear Safety and Control Act</u> and the regulations made under it, and in CNSC regulatory documents and other publications. REGDOC-3.6 is provided for reference and information.

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, 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 Indigenous engagement
 - 3.3 Financial guarantees
 - 3.4 Commission proceedings
 - 3.5 CNSC processes and practices
 - 3.6 Glossary of CNSC terminology

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.