

**Abbreviations**  
RP - Radiation Protection  
SCA - Safety and Control Area  
LC - Licence Condition

GN - General Nuclear Safety and Control  
SSR-6 - IAEA Safety Standards 2012 Edition  
PTNS, 2015 - Packaging and Transport of Nuclear  
Substances, 2015  
TDG - Transport of Dangerous Goods Regulations

NSCA - Nuclear Safety and Control Act  
NSRD - Nuclear Substances and Radiation Devices  
CII - Class II Nuclear Facility and Prescribed Equipment

## Type II Inspection Worksheet

### Use Type: 823 - servicing, installation and dismantling of devices - complex servicing

Licensee:		Report Number:
Licence Number:		Inspection Date:
Address:		Inspector Name:
City:	Province:	Postal Code:
Person Seen:	Phone Number:	Use Type Number: 823
		Risk Group: 3.00

Description	Regulatory Requirements	Compliance Expectations	Risk
<b>Work Doc: 1 TII - Records</b>			
Change notified	GN 15 (c)	Changes of personnel responsible for management and control of licensed activity (RSO, Applicant Authority and Signing Authority) have been reported to the CNSC within 15 days.	M
Rating:	Comments:		
Agents for service	LC 2999	The licensee must have at all times an agent for service that meet the criteria set out in the licence. The licensee immediately informs the CNSC of any changes to the agent or agent's address.	M
Rating:	Comments:		
Inventory	NSRD 36 (1) (a)	A complete nuclear substance and radiation device inventory is available.	M
Rating:	Comments:		
Records retained	NSRD 36 (1) (c), (e), (3), (4)	(1)(c) Records of transfer, receipt, disposal and abandonment are available. (1)(e) Records of inspection, measurement, test and servicing are available. (3), (4) Records of inspection, measurement, test and servicing are kept on file for three years.	L
Rating:	Comments:		
Licence details	NSCA 26	Licence activities are conducted in accordance with the licence.	H
Rating:	Comments:		
Annual Compliance Report	LC 2916	The licensee submits the annual compliance report in the form specified in the appendix of the licence for each year the licence is valid.	M
Rating:	Comments:		
Device certification and transfer	NSRD 11	(1) The radiation device in use is a certified model (unless authorized in the licence). (2) The radiation device transferred to other licensees is a certified model.	H
Rating:	Comments:		
Records retained	GN 28	(2) The CNSC was notified 90 days prior to the disposal of any prescribed records.	L
Rating:	Comments:		

**Work Doc: 1 TII - Records**

Storage notification Rating:	LC 2298-1 Comments:	Upon requested by the CNSC, the licensee notified the CNSC of the storage site of each nuclear.	M
Transfer documents Rating:	NSRD 19 Comments:	(1) A copy of the most recent leak test result is provided for all transfers of radiation devices as well as instructions to follow in the event of an accident. (2) A copy of the most recent leak test result is provided for all transfers of sealed source or nuclear substance used as shielding.	L
Authorized transfer Rating:	GN 13 Comments:	All transfers of nuclear substances or radiation devices have been done to authorized licensees.	H
Device use restrictions Rating:	LC 2000-8 Comments:	Prior to the date of the transfer, the licensee was given permission by the CNSC to transfer a device listed in the licence to another licensee. The device listed in the appendix was disposed of at a licenced nuclear waste facility	H
Leak test Rating:	NSRD 18 (1) (a), (b), (d) Comments:	Leak testing is performed at the required frequency following acceptable procedures.	L
Leak test/event Rating:	NSRD 18 (1) (c) Comments:	Leak testing was performed immediately after any event that may have damaged the sealed source(s).	L
Failed leak test Rating:	NSRD 18 (3) Comments:	Appropriate actions were taken upon detection of a leaking source.	M
Device accidents Rating:	NSRD 21 Comments:	Any radiation device involved in an accident or incident has been tested/inspected and confirmed to be functioning properly prior to return to use.	H
Reportable events Rating:	GN 29 Comments:	Incidents and unplanned events have been immediately reported to the CNSC and a detailed written report was submitted within 21 days (refer to NSRD 38).	H
Reporting requirements Rating:	PTNS 37-38-40 Comments:	The consignor, the carrier and the consignee must provide an immediate report to the CNSC (PTNS 37 (1)) and a 21 day report (PTNS 38) when becoming aware of any of the following situations: - failure to comply with the requirements of section 26; - a conveyance carrying radioactive material is involved in an accident; - package damage or tampering or leaking; - radioactive material lost, stolen or loss of control; - radioactive material has escaped from a containment system, a package or a conveyance during transport; - failure to comply with the Act and Regulations can lead to a situation in which the environment, the health and safety of persons or national security is adversely affected; - the level of non-fixed contamination as defined in the IAEA Regulations, during transport exceeds limits; - licensee has provided reports of damage or tampering discovered while opening packages as per PTNS 40(4), (5), (6).	H
Training and sufficient workers Rating:	GN 12 (1) (a), (b) Comments:	There are (a) a sufficient number of trained and (b) qualified workers to carry on licensed activity.	M

**Work Doc: 1 TII - Records**

Worker records retained Rating:	NSRD 36 (1) (b), (d), (2) Comments:	(1)(b) The name of each worker who handles nuclear substances and/or radiation devices is recorded. (1)(d) Training records for all workers who handle nuclear substances and/or radiation devices are available. (2) Worker training records are kept on file for three years after termination.	M
TDG training certificate on file Rating:	TDG 6.6, 6.7 Comments:	A copy of the TDG training certificate is kept on file for two years and is available to the inspector.	M
List of NEWs Rating:	RP 24 Comments:	A record including names and job category of each NEW is available.	L
Nuclear Energy Workers informed Rating:	RP 07 Comments:	(1) Each NEW has been informed in writing of their NEW designation, of the risks associated with their work, of the regulatory dose limits and of their individual dose. (2) Female NEW has been informed in writing of their rights (RP 07) and obligations (RP 11). (3) A signed acknowledgment form is available for each NEW.	M
Ascertainment and recording of doses Rating:	RP 05 Comments:	(1) Personnel doses are ascertained and recorded. (2) Doses are determined by (a) direct measurement or (b) estimation.	H
Dose limits Rating:	RP 13 (1), 14 Comments:	Dose limits not exceeded.	H
Licensed dosimetry Rating:	RP 08 Comments:	A licensed dosimetry service is used where the effective dose of a NEW will likely exceed 5 mSv in a one-year period.	H
Shipping doc kept 2 years Rating:	TDG 3.11 Comments:	Shipping documents kept on file for two years.	M
Servicing Records Rating:	NSRD 36 (1.1) Comments:	The following records are maintained: (a) the name and address of the client; (b) the licence number of the client; (c) the brand name, model number and serial number of the radiation device; (d) the name, quantity and date of measurement of the nuclear substance contained in the radiation device; and (e) a summary of the work and the date on which the servicing was performed.	M
Competent authority certificates Rating:	PTNS 25 (2)(c) Comments:	Consignor has competent authority certificates for applicable sources and packages (refer to SSR-6 561).	M
Act/Regs available Rating:	GN 12 (1) (k) Comments:	A copy of the Act and Regulations (paper or electronic copy) are readily available to all workers.	L
Export restrictions/sealed sources Rating:	LC 2408-8 Comments:	Export of sealed sources is within the limits specified in the licence condition. An export licence has been issued for any exports of sealed sources exceeding the limits specified in the licence condition.	H
Meter calibrated Rating:	NSRD 20 Comments:	Survey meter that is used has been calibrated within the previous twelve months of its use.	H

**Work Doc: 1 TII - Records**

Sealed Source Tracking (General) Rating:	LC 2406-16 Comments:	The CNSC is notified of any transfer, receipt, export or import of a sealed source in accordance with the licence condition.	H
Import Restrictions Rating:	LC 2402-4 Comments:	Imports are within the limits specified in the licence condition.	H
Export Restrictions Rating:	LC 2403-7 Comments:	Exports are within the limits specified in the licence condition.	H
Import Export Restrictions Rating:	LC 2480 Comments:	The licensee is not authorized to import or export all items described in the schedule, Parts A and B, of the Nuclear Non-proliferation Import and Export Control Regulations, and specifically listed in the licence condition.	H
Type A package certification Rating:	PTNS 42 Comments:	Type A package design, test results and packaging instructions kept on file for two years after last shipment.	H

**Work Doc: 2 TII - Operation/Storage**

Worker's obligations Rating:	GN 17 Comments:	Every worker: (a) uses equipment, devices, facilities and clothing in a responsible and reasonable manner in accordance with the Act, Regulations and Licence Conditions; (b) complies with procedures and measures established by the licensee; (c) informs the licensee or supervisor of any situation where there may be: (i) an increase in the risk to the environment or the health and safety of persons; (ii) a threat to security; (iii) a failure to comply with regulatory requirements; (iv) sabotage, theft, loss or illegal use or possession of prescribed equipment, or (v) a release into the environment not authorized by the licence; (d) observes and obeys all notices and warning signs; and (e) takes all reasonable precautions to ensure the safety and security of individuals, the environment and the nuclear substances or facilities.	H
Posting of Signs Rating:	RP 21 Comments:	A radiation warning symbol is posted: (a) at the boundary of and at every point of access where there is more than 100 times the Exemption Quantity (EQ) of nuclear substances; or (b) where the radiation dose rate could exceed 0.025 m µSv/h.	H
Contact details posted Rating:	NSRD 23 Comments:	The name or job title and a 24 hr. telephone number are posted in a readily visible location where the nuclear substance is stored or used (refer to RP 21).	H
Radiation Warning Sign Rating:	RP 22 Comments:	When a radiation warning symbol is used, it is posted in accordance with regulations.	L
Frivolous posting of signs Rating:	RP 23 Comments:	Radiation warning symbols are not posted where there is no radiation, nuclear substance or prescribed equipment.	L
Security indicators Rating:	GN 12 (1) (c), (g), (h), (i), (j) Comments:	Provisions are in place to ensure the security of nuclear substances and radiation devices and the health and safety of persons. This may be achieved through restricted access (for example use of locks, alarms, and security systems) and reporting of incidents including loss, theft and sabotage.	H

**Work Doc: 2 TII - Operation/Storage**

Sealed Source Security Requirements	LC 2490-1	Licensees have in place security measures including: - Inventory accounting - Access control measures - Up-to-date security plan - Information security measures - Intrusion detection with monitoring and testing - Response protocol - Secure storage of substances and devices - Security awareness program - Vehicle security measures	H
Rating:	Comments:		
Post licence	GN 14	(1) A copy of the licence or an appropriate notice is posted in a conspicuous place at the site of the licensed activity. (2) The complete licence is available at field locations.	L
Rating:	Comments:		
Container/Device labelled	RP 20	Each container or device containing greater than one Exemption Quantity of nuclear substance(s) is labelled with the radiation warning symbol and the required wording.	H
Rating:	Comments:		
Installation/Service Approval	LC 2022-3	The servicing is performed by qualified persons in accordance with written procedures submitted to the CNSC.	H
Rating:	Comments:		
Survey Meter Requirements	LC 2058-1	A properly functioning survey meter is available at all times.	M
Rating:	Comments:		
Field devices I.D.	NSRD 22	Device is labelled with contact information including a 24 hour telephone number.	M
Rating:	Comments:		
Use of equipment & procedures	GN 12 (1) (e)	Licensee ensures equipment, clothing and procedures are used appropriately at the site of the licensed activity.	H
Rating:	Comments:		
Operation notification	LC 2524-0	The CNSC is notified of each job site when requested.	M
Rating:	Comments:		
Location notification	LC 2300-2	CNSC was informed in writing, within seven days, of sites where licensed activities were conducted for more than 90 days. Discontinuance of such sites was also reported within 7 days.	M
Rating:	Comments:		
Inaccuracies Notification	LC 2920-6	Changes to documents listed in the licence appendix have been reported to the CNSC.	L
Rating:	Comments:		
Operation Limitations - General	LC 2917	Activities and procedures, as listed in the licence appendix, are followed.	L
Rating:	Comments:		
ALARA/RP program	RP 04 (a)	The licensee has implemented a radiation protection program that keeps doses ALARA and includes: (i) management control over work practices; (ii) personnel qualification and training; (iii) control of occupational and public exposure to radiation; and (iv) planning for unusual situations.	H
Rating:	Comments:		

**Work Doc: 2 TII - Operation/Storage**

Storage	LC 2575-2	(a) Access to storage areas containing nuclear substances or radiation devices is restricted to authorized personnel. (b) Dose rates at occupied areas outside storage areas do not exceed 2.5 µSv/hr. (c) Dose limits are not exceeded as a result of nuclear substances or radiation devices in storage.	H
Rating:	Comments:		
Device provided & maintained	GN 12 (1) (d)	Required devices have been provided and have been maintained according to manufacturer's instruction.	H
Rating:	Comments:		

**Work Doc: 3 TII - Special Case**

Source change records	NSRD 34 (1)	Person who performs source change: (1) shall have written authorization from the licensee (refer to NSRD 30 (5)); (2) shall record (a) the device surface dose rates resulting from the source change and (b) the DRD reading; and (3) shall report the dose rate in (2) to the licensee.	M
Rating:	Comments:		
Licensee obligations	NSRD 30 (1), (3), (4), (6)	The following obligations are met: (1) the device is tagged and locked; (3) a survey meter that meets the requirements, emergency equipment, personal monitoring equipment (TLD, DRD, alarming), radiation warning sign for the 0.1 mSv/h barrier and DRD forms are available; (4) only a functioning exposure device with a surface dose rate less than 2 mSv/h is used; and (6) non-NEW dose is within 0.1 mSv per week and 0.5 mSv per year.	H
Rating:	Comments:		
Registered User Type B	PTNS 19 (3)	Licensee has a letter from the CNSC confirming they are registered users for all of the Type B Packages they use.	M
Rating:	Comments:		

**Work Doc: 4 TII - Packaging and Transport**

Transport document requirement	PTNS 29(1)	The consignor of radioactive material provides a shipping document that includes the following (refer to TDG 3.5 and SSR-6 546): - consignor and consignee names and addresses; - 24 hour contact number; - number of packages; - UN number*; - shipping name*; - Class # 7*; - radionuclide identification*; - form*; - maximum activity*; - category of package*; - transport index*; - competent authority certificate number(s)*. For consignments of more than one package, the required information (*) must be given for each package. - Consignor's certification with printed name of the consignor - PTNS 25(1), TDG 3.6.1.	M
Rating:	Comments:		
Transport document location	TDG 3.7	Shipping document is located within driver's reach or in a door pocket on the driver's side.	M
Rating:	Comments:		

**Work Doc: 4 TII - Packaging and Transport**

Type A package requirements	PTNS 28 (1)	<p>A Type A package must be prepared and labelled in accordance of PTNS 28(1) and associated requirements from SSR-6. Package requirements are as follows:</p> <ul style="list-style-type: none"> <li>- contact dose rate below 2 mSv/h (non-exclusive use) - SSR-6 527;</li> <li>- name of consignor or consignee package - SSR-6 531;</li> <li>- shipping name - SSR-6 532 and TDG 4.11;</li> <li>- activity within limits - PTNS 26(2) and SSR-6 428;</li> <li>- UN number - SSR-6 532 and TDG 4.12;</li> <li>- "Type A" marking - SSR-6 534(b);</li> <li>- VRI code - SSR-6 534(c);</li> <li>- two (I-white, II-Yellow or III-Yellow) labels - SSR-6 538, 539, and TDG 4.6, 4.7;</li> <li>- identify the radionuclide on labels -SSR-6 540 (a);</li> <li>- maximum activity on labels - SSR-6 540 (b)(c) and TDG 4.14;</li> <li>- transport index on labels (II-Yellow and III-Yellow) - SSR-6 540(d) as determined by SSR-6 523-524;</li> <li>- package integrity must not be compromised - PTNS 24(a) and SSR-6 306(b).</li> </ul>	H
Rating:	Comments:		
Excepted packages content/activity	PTNS 26(1)(a)	<p>Excepted packages meet the following criteria:</p> <ul style="list-style-type: none"> <li>- dose rate below 0.005 mSv/h – PTNS 25(4)(a) and SSR-6 516;</li> <li>- activity within limits of PTNS 26(2) and SSR-6 422;</li> <li>- consignor or consignee I.D. - PTNS 28(1)(i) and SSR-6 531;</li> <li>- UN number on package - PTNS 28(1)(i) and SSR-6 532;</li> <li>- package must be accompanied by a shipping document (a log kept by driver is acceptable for UN 2909, 2910, 2911) that identifies the shipping name and UN number - PTNS 29(2)(a) and TDG 1.43;</li> <li>- "RADIOACTIVE" visible inside package(UN2910) upon opening - PTNS 26(1)(a)(i) and SSR-6 424(b)(i).</li> </ul> <p>For UN 2908 (Empty Packages):</p> <ul style="list-style-type: none"> <li>- contamination inside an empty package does not exceed 100 times the levels specified in SSR-6 427(c) and PTNS 26(1)(a)(i);</li> <li>- Labels removed PTNS 26(1)(a)(i) and SSR-6 427(d);</li> <li>- package integrity must not be compromised – PTNS 26(1)(a) and SSR-6 306(b).</li> </ul>	H
Rating:	Comments:		
Vehicle placarded	TDG 4.15	<p>Vehicle must be placarded on four sides when:</p> <ul style="list-style-type: none"> <li>- package is III-Yellow 4.16.1(2)(i);</li> <li>- package weight exceeds 500 kg; or</li> <li>- exception of PTNS 28(2)(a) is used.</li> </ul>	H
Rating:	Comments:		
Exposure device exception	PTNS 28(2)(a)	<p>Exposure devices transported under section 28(2)(a) do not require labelling in accordance with SSR-6 538 to 540, if the following criteria are met:</p> <ul style="list-style-type: none"> <li>- the device is certified – PTNS 28(2)(a) and NSRD 30(1)(a);</li> <li>- is transported with goods from one consignor only and in a conveyance that is not carrying passengers;</li> <li>- the package and the overpack, if one is used, are clearly marked with the word "RADIOACTIVE" or "RADIOACTIF" PTNS 28(2)(a)(iii); and</li> <li>- the vehicle displays 4 Class 7 placards - PTNS 28(2)(a)(ii).</li> </ul>	M
Rating:	Comments:		
Package secured in vehicle	PTNS 25 (4)	<p>Consignments are segregated and securely stowed (refer to SSR-6 562, 564, 574 - PTNS 25(1) and TDG 5.4). Category II-Yellow and III-Yellow packages are not carried in compartments occupied by passengers - SSR-6 563.</p>	H
Rating:	Comments:		

**Work Doc: 4 TII - Packaging and Transport**

Type B package requirements	PTNS 28 (1)	A Type B package must be prepared and labelled in accordance with PTNS 28(1) and associated requirements from SSR-6. Package requirements are as follows: - name of consignor or consignee on package - SSR-6 531; - shipping name - SSR-6 532 and TDG 4.11; - UN number - SSR-6 532 and TDG 4.12; - "Type B" marking - SSR-6 535 (c); - fire proof trefoil SSR-6 536; - competent authority mark - SSR-6 535(a); - gross mass marked if exceeding 50 kg - SSR-6 533. If PTNS 28(2)(a) exception is not used the following is required : - two (I-white, II-Yellow or III-Yellow) labels - SSR-6 538, 539 and TDG 4.6, 4.7, 4.10 which include radionuclide (most restrictive), maximum activity; - transport index on labels, SSR-6 540; - package integrity must not be compromised - PTNS 24 and SSR-6 306.	H
Rating:	Comments:		
Showing proof of TDG training	PTNS 25 (1)	A person handling dangerous goods must provide their training certificate or copy of it to an inspector immediately upon request. (TDG 6.8) This requirement does not apply for excepted package (TDG 1.43 (b))	M
Rating:	Comments:		
TDG training certificate	TDG 6.1, 6.3, 6.5	The employer is responsible for: 6.1(2)(a) ensuring that only an adequately trained worker who holds a valid TDG certificate handle Class 7 dangerous goods ; or 6.1 (2)(b) performs those activities in the presence and under the direct supervision of a person who is adequately trained and who holds a training certificate in accordance with this Part. 6.3 issuing training certificate that includes: - the employer's business address; - the employee's name; - aspects of handling and transporting; - employee and employer signatures; and - the expiry date of the certificate (TDG 6.5).	M
Rating:	Comments:		

**Disclaimer - CNSC licensees may use this worksheet voluntarily to ascertain the CNSC's general expectations regarding regulatory requirements. Such requirements would generally be assessed during a Type I and Type II Inspection of licences issued pursuant to the Nuclear Substances and Radiation Devices Regulations. The expectations listed for each regulatory requirement are only provided as a guide. Similar worksheets will be used by CNSC staff for on-site inspections. Inspections, will, however, be carried out on a case-by-case basis in the context of the licensed activities and the circumstances of individual situations. This worksheet is not intended to limit the scope of CNSC inspections or the powers of CNSC inspectors. Licensees should contact the CNSC to obtain information regarding their specific regulatory requirements.**



## APPENDIX A RATING SYSTEM (GRADES)

### **A - Exceeds requirements**

Assessment topics or programs meet and consistently exceed applicable CNSC requirements and performance expectations. Performance is stable or improving. Any problems or issues that arise are promptly addressed, such that they do not pose an unreasonable risk to the maintenance of health, safety, security, environmental protection, or conformance with international obligations to which Canada has agreed.

### **B - Meets requirements**

Assessment topics or programs meet the intent or objectives of CNSC requirements and performance expectations. There is only minor deviation from requirements or the expectations for the design and/or execution of the programs, but these deviations do not represent an unreasonable risk to the maintenance of health, safety, security, environmental protection, or conformance with international obligations to which Canada has agreed. That is, there is some slippage with respect to the requirements and expectations for program design and execution. However those issues are considered to pose a low risk to the achievement of regulatory performance requirements and expectations of the CNSC.

### **C - Below requirements**

Performance deteriorates and falls below expectations, or assessment topics or programs deviate from the intent or objectives of CNSC requirements, to the extent that there is a moderate risk that the programs will ultimately fail to achieve expectations for the maintenance of health, safety, security, environmental protection, or conformance with international obligations to which Canada has agreed. Although the risk of failing to meet regulatory requirements in the short term remains low, improvements in performance or programs are required to address identified weaknesses. The licensee or applicant has taken, or is taking appropriate action.

### **D - Significantly below requirements**

Assessment topics or programs are significantly below requirements, or there is evidence of continued poor performance, to the extent that whole programs are undermined. This area is compromised. Without corrective action, there is a high probability that the deficiencies will lead to an unreasonable risk to the maintenance of health, safety, security, environmental protection, or conformance with international obligations to which Canada has agreed. Issues are not being addressed effectively by the licensee or applicant. The licensee or applicant has neither taken appropriate compensating measures nor provided an alternative plan of action.

### **E - Unacceptable**

Evidence of an absence, total inadequacy, breakdown, or loss of control of an assessment topic or a program. There is a very high probability of an unreasonable risk to the maintenance of health, safety, security, environmental protection, or conformance with international obligations to which Canada has agreed. An appropriate regulatory response, such as an order or restrictive licensing action has been or is being implemented to rectify the situation.

### **N/A – Not applicable**

### **N/C – Not checked**