Annual Compliance Reporting Form

Licensed Activity: Operate and service an isotope production accelerator facility

Usetype (616)

Revision Date: September 2016

Declaration of Licensee Representative

I Michael Campbell having the authority to act for the licensee pursuant to Section 15 of the General Nuclear Safety and Control Regulations, certify that all statements and representations made in this Annual Compliance Report and any supplementary pages appended to this report are true and correct to the best of my knowledge.

Title	Date (YYYY-MM-DD)
Radiation Safety Officer	2018-11-16

It is an offence under the Nuclear Safety and Control Act to knowingly make a false report.

For more information, or for questions on the content and/or filling of ACR forms, please contact the CNSC Directorate of Nuclear Substance Regulation at 1-888-229-2672.

When complete, please submit this form via email to cnsc.acr-rac.ccsn@canada.ca or by fax to 613-995-5086.

Print Form Reset Form

Licensee Organization Information

Licensee Name	Licensee Corporation Number (if applicable)
Thunder Bay Regional Health Sciences Centre	1122866 (Ontario)

Licensee Business Number	Licence Number
	01461-21-21.6

Reporting Period

This Annual Compliance Report covers the 12 month period.

From	To
2017-11-01	2018-10-31

Head Office Legal Address

Street Address

980 Oliver Road

City	Province/State	Country	Postal/Zip Code
Thunder Bay	ON	Canada	P7B 6V4

Radiation Safety Officer (RSO)

Name	Title
Michael Campbell	Radiation Safety Officer

Mailing Address

Street Address	City
1040 Oliver Road, Suite B1	Thunder Bay

Province/State	Country	Postal/Zip Code	Telephone Number
ON	Canada	P7B 7A5	[redacted]

Alternate Telephone Number	Facsimile	Email Address
[redacted]		[redacted]

Alternate Radiation Safety Officer (if applicable)

☐ Check here if no alternate RSO

Name	Title
Sonja Desjardins	Cyclotron Associate

Mailing Address

☑ Check here if same as "Radiation Safety Officer"

Street Address	City
1040 Oliver Road, Suite B1	Thunder Bay

Province/State	Country	Postal/Zip Code	Telephone Number
ON	Canada	P7B 7A5	[redacted]

Alternate Telephone Number	Facsimile	Email Address
[redacted]	[redacted]	[redacted]

Financial Contact (if applicable)

Name	Title
Peter Myllymaa	Executive Vice-President, Corporate Services and Operations

Mailing Address

☐ Check here if same as "Radiation Safety Officer"

Street Address	City
980 Oliver Road	Thunder Bay

Province/State	Country	Postal/Zip Code	Telephone Number
ON	Canada	P7B 6V4	[redacted]

Alternate Telephone Number	Facsimile	Email Address
[redacted]	[redacted]	[redacted]

Signing Authority

☑ Check here if same as "Radiation Safety Officer"

Name	Title
Michael Campbell	Radiation Safety Officer

Mailing Address

☑ Check here if same as "Radiation Safety Officer"

Street Address	City
1040 Oliver Road, Suite B1	Thunder Bay

Province/State	Country	Postal/Zip Code	Telephone Number
ON	Canada	P7B 7A5	[redacted]

Alternate Telephone Number	Facsimile	Email Address
[redacted]	[redacted]	[redacted]

Applicant Authority

☐ Check here if same as "Radiation Safety Officer"

Name	Title
Peter Myllymaa	Executive Vice-President, Corporate Services and Operations

Mailing Address

☐ Check here if same as "Radiation Safety Officer"

Street Address: 980 Oliver Road

City	Province/State	Country	Postal/Zip Code
Thunder Bay	ON	Canada	P7B 6V4

Telephone Number	Alternate Telephone Number	Facsimile
[redacted]	[redacted]	[redacted]

Email Address: [redacted]

Inventory: Sealed Sources

Enter your inventory of CNSC-licensed sealed sources specific to this licence in the table below. Report one source per line.

☐ Check here if you currently have no sealed sources in inventory.

Date of inventory (YYYY-MM-DD): 2018-11-16

NOTE: The information requested on this page may be submitted as a separate spreadsheet attached to the same email as this form. Please ensure your spreadsheet uses the same headings as in the table below, and contains all required information, or see www.nuclearsafety.gc.ca/acr for templates.

Sealed Source(s)
(List only sealed sources that are not contained in a radiation device)

Manufacturer	Model	Serial Number	Nuclear Substance	Current Activity †	Activity Units
Please see attached list					

† If the Current Activity is not known, but is known for a date in the past, use the decay calculator located at http://www.radprocalculator.com/Decay.aspx to deter mine the Current Activity

Comments

Per instructions from inspectors some of the sources that previously had been classified as sealed sources are now classified as open unsealed/reference sources

Please see attached list.

Inventory Unsealed Sources

Enter your inventory of CNSC-licensed unsealed sources in possession applicable to this licence.

☐ Check here if you currently have no unsealed sources in inventory	Date of inventory (YYYY-MM-DD) 2018-11-16

NOTE: The information requested on this page may be submitted as a separate spreadsheet attached to the same email as this form. Please ensure your spreadsheet uses the same headings as in the table below, and contains all required information, or see www.nuclearsafety.gc.ca/acr for templates

Unsealed Sources		
Nuclear Substance	**Current Activity †**	**Activity Units**
please see attached list		

† If the Current Activity is not known, but is known for a date in the past, use the decay calculator located at http://www.radprocalculator.com/Decay.aspx to deter mine the Current Activity

Comments

Please see attached list.

Ascertainment of Doses: Whole Body

Provide a summary of the annual effective whole body radiation doses received by Nuclear Energy Workers (NEWs) and non-NEWs during the year ending December 31st. Provide the information in detail, as shown below.

NOTE: Please do NOT send personal information, such as social insurance numbers, etc. to CNSC.

	Number of Workers in each effective dose category (mSv)							Dosimetry Service Provider ††	Maximum individual dose (mSv)
	BDL †	> BDL † and ≤ 0.5	> 0.5 and ≤ 1	> 1 and ≤ 5	> 5 and ≤ 20	> 20 and ≤ 50	> 50		
Number of NEWs	7							Health Canada - NDS	BDL
Number of Non-NEWs	2	0	0	0	0	0	0	Health Canada - NDS	BDL

† BDL = Below Detectable Limits for the dosimeter being used.

†† Enter the name of the dosimetry service provider. If a dosimetry service provider is not used, enter "ESTIMATED" and provide brief details on how dose estimates were derived in the comments area below.

Comments

Above readings are for the 12 month period ending September 30, 2018 based on the quarterly reporting from NDS. Non-NEW's consist of cleaning staff and a graduate student Badges are also located in public spaces on main floor as area monitors. None of the area monitor badges have shown a reading above background.

This past year work was focused on preparing Health Canada application and very few runs were carried out and is thus reflected in the above readings

Ascertainment of Doses – Extremity Doses

If your organization monitors workers for extremity exposures, provide a summary of the extremity doses received by NEWs and non-NEWs during the year ending December 31 st. Provide the information in detail, as shown below.

NOTE: Please do NOT send personal information, such as social insurance numbers, etc. to CNSC.

☐ Check here if your organization has no extremity dose information to submit for the reporting period.

	Number of Workers in each effective dose category (mSv)							Dosimetry Service Provider †	Maximum individual dose (mSv)
	<10	>10 and ≤50	> 50 and ≤100	> 100 and ≤200	> 200 and ≤350	> 350 and ≤500	> 500		
Number of NEWs	3	4						Health Canada - NDS	34
Number of Non-NEWs	2							Health Canada - NDS	

† Enter the name of the dosimetry service provider. If a dosimetry service provider is not used, enter "ESTIMATED" and provide brief details on how dose estimates were derived in the comments area below.

Comments

The dose measurements reported are the sum of Left and Right hand doses.
Readings are for the 12 month period ending September 30, 2018

Reading of 0 for Non-new indicates BDL

Workload - Isotope Production Accelerator

Provide a summary of the workload of isotope production accelerators during the reporting period for all operating modes. If you have exceeded your approved annual workload, please submit details in the comments area below, including an explanation as to why the approved workload was exceeded, and calculations showing that doses to persons in adjacent areas are still ALARA.

NOTE: In all cases, records of workload must be maintained for inspection by CNSC.

Target Identifier or Part No. [1]	µA-hours [2]	Annual production (GBq)	Number of batches/year	No. of target failures
LT - F18	1170	2339.9	41	
STT - C-11	2	12.6	1	
HC Target Station - Dummy target	2.6	-	2	
Totals	1174.6	2352.5	44	

NOTES:

1. The target Identifier listed here should match the Target Identifier in the "Part No." column of the Appendix: Licensed Targets on your licence
2. If reporting on dual-beam targets, provide the sum of µA-hours from both beams
3. If reporting on research/test/dummy targets, list each type of target individually
4. If different beam types were used with the same target, report each beam type on a separate line (i.e. research targets with proton beams, research targets with deuteron beam, etc.)

Comments

For the period from Nov 1, 2017 to October 31, 2018

Transport Carriers

List all carriers employed to transport radioactive materials for the purposes of this licence during the reporting period:

Carrier Name	Contact Telephone (ex. 123-456-7890)	Full name of Contact (if available)	Location of Carrier (City, Province)
Carrick Express Inc.	[redacted]	[redacted]	Thunder Bay, Ontario

NOTE: do not list all shipments, list only carriers used to transport packages during the reporting period. If using the same carrier, there should be only one entry in the table.