Attachment 1: Information Required for the Renewal of the Operating Licence

	REQUIREMENTS	SCA[1]	Response
General Nuclear Safety and Control Regulations			
3(1)	An application for a licence shall contain the following information:		
3(1)(*a*)	the applicant's name and business address;		Nordion (Canada) Inc. 447 March Road Ottawa, ON K2K 1X8 Applicant authority: Riaz Bandali President (613) 592-3400 ext. 2589 riaz.bandali@nordion.com

[1] See acronyms at the end of the table.

	REQUIREMENTS	SCA[1]	Response
3(1)(*b*)	the activity to be licensed and its purpose;		• Nordion (Canada) Inc. is a nuclear processing facility situated at the location named in Section 3(1)(a) of this table under the *General Nuclear Safety and Control Regulations* and comprising the facilities described in the "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12) and "Final Safety Analysis Report for Cobalt Pools", IN/SR 2638 Co60 (4). • Nordion (Canada) Inc. is applying for renewal of the Facility Operating Licence for a period of 25 years, from November 1, 2025 to October 31, 2050. • Activities to be licenced: a) Operate a nuclear substance processing facility at the location named in Section 3(1)(a) of this table under the *General Nuclear Safety and Control Regulations*, for the purpose of processing and manufacturing nuclear substances and sealed sources used in health sciences, health care, and industrial applications. b) Possess, transfer, use, process, import, manage, store, and dispose the nuclear substances that are required for, associated with or arise from the activities described in a); c) Possess, transfer, use, import, and service prescribed equipment that is required for, associated with, or arises from the activities described in a); d) Possess, transfer, use, service, or import prescribed equipment from clients; e) Possess and use prescribed information that is required for, associated with, or arises from the activities described in a).
3(1)(*c*)	the name, maximum quantity and form of any nuclear substance to be encompassed by the licence;	SA	• $>1x10^{15}$ Bq per calendar year Co-60 in solid, liquid or gaseous form. • Various other radioisotopes atomic numbers between 1 to 103 in quantities of $<1x10^{15}$ Bq per calendar year in solid, liquid or gaseous form that arise from the Nordion's activities.

	REQUIREMENTS	SCA[1]	Response
3(1)(*d*)	a description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence;	SA	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC) and "Final Safety Analysis Report for Cobalt Pools", IN/SR 2638 Co60 (4) July 22nd, 2020. • "KOB GROUND FLOOR LICENSED NUCLEAR FACILITY", PEAE-61266 Version 12, previously submitted May 8th, 2023. • "KOB SECOND FLOOR LICENSED NUCLEAR FACILITY", PEAE-61267 Version 5, previously submitted September 23rd, 2020. • "KOB BASEMENT LICENSED NUCLEAR FACILITY", PEAE-61278 Version 4, previously submitted November 12th, 2018. • "HEATING PLANT BASEMENT LICENSED NUCLEAR FACILITY", PEAE-40093 Version 3, previous submitted May 26th, 2017. • "HEATING PLANT FUEL OIL TANK LICENSED NUCLEAR FACILITY", PEAE-40094 Version 4, previously submitted May 26th, 2017. • "HEATING PLANT GROUND FLOOR LICENSED NUCLEAR FACILITY", PEAE-40095 Version 6, previously submitted November 21st, 2017. • "SITE PLAN KANATA LICENSED NUCLEAR FACILITY", PEAE-70027 Version 4, previously submitted May 26th, 2017. • "KANATA SITE BLDGS AND TUNNEL LOCATION LICENSED NUCLEAR FACILITY", PEAE-70028 version 3, previously submitted May 26th, 2017. • Gammacell 220 (GC-220) Irradiator Serial Number 59 used for dosimeter calibrations and materials irradiation, containing Co-60 sealed sources. • Any Gammacell 220 Irradiators for dosimeter calibrations and materials irradiation. • GE Homeland Protection Mobile Trace electron capture detector Serial Number 160783 used for explosives detection, containing a Ni-63 source. • Security sensitive information including security response plans and procedures and CNSC security correspondence.

	REQUIREMENTS	SCA[1]	Response
3(1)(*e*)	the proposed measures to ensure compliance with the *Radiation Protection Regulations* and the *Nuclear Security Regulations*;	RP/NS	*Radiation Protection Regulations*: • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • organization and administration for RP Refer to organizational charts • RP training and qualification Refer to Section 4(a)(ii) of this table under *Radiation Protection Regulations* "Radiation Surveyors On-the-Job Training Program", SE-TRN-001 (19) for Radiation Surveyors and Monitors "Cobalt Monitor On-the-Job Training Program", CO-MD/OP-0028 (8) for Sterilization Monitors • classification of areas and local rules "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11) Section 4.4 • radiation exposure and dose control "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • RP equipment and instrumentation Refer to Section 3(1)(i) of this table under *Nuclear Substances and Radiation Devices Regulations* • radiation monitoring and dose assessment "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11) Sections 5.6, 5.7, and 6 • contamination control "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11) Section 7 • planning for unusual situations Refer to Section 4(a)(iv) of this table under *Radiation Protection Regulations*

	REQUIREMENTS	SCA[1]	Response
3(1)(*e*), continued			• RP program oversight EHS Committee - "Nordion Environmental, Health & Safety Responsibilities and Committees", CPM-6-19 (21) RP program oversight is provided by the EHS Committee. In addition, an EHS regulatory Compliance audit is performed at least once every 3 years by an external 3rd party. This audit is conducted to review all aspects of EHS, including Radiation Protection and is a requirement of Nordion's EHS Management Systems and Nordion's Board of Directors. *Nuclear Security Regulations:* • "2024 Security Report", submitted March 1st, 2024. This report contains the Nordion Security Plan covering all aspects of the security program. This is prescribed information. • "Physical Security Threat Assessment". Updated annually and available to CNSC Security Division review on site at request, as per normal protocol. (Refer to Section 6(l) of this table under Class I Nuclear Facilities Regulations)
3(1)(*f*)	any proposed action levels for the purpose of section 6 of the *Radiation Protection Regulations*;	RP	• Sections 5.6, 5.7, 9.5 and 10 of the "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), previously submitted April 29th, 2024 (current version under review by CNSC)
3(1)(*g*)	the proposed measures to control access to the site of the activity to be licensed and the nuclear substance, prescribed equipment or prescribed information;	NS	• "2024 Security Report", submitted March 1st, 2024. This report contains the Nordion Security Plan covering all aspects of the security program. This is prescribed information. • "Physical Security Threat Assessment". Updated annually and available to CNSC Security Division review on site at request, as per normal protocol.
3(1)(*h*)	the proposed measures to prevent loss or illegal use, possession or removal of the nuclear substance, prescribed equipment or prescribed information;	NS	• "2024 Security Report", submitted March 1st, 2024. This report contains the Nordion Security Plan covering all aspects of the security program. This is prescribed information. • "Physical Security Threat Assessment". Updated annually and available to CNSC Security Division review on site at request, as per normal protocol.

	REQUIREMENTS	SCA[1]	Response
3(1)(*i*)	a description and the results of any test, analysis or calculation performed to substantiate the information included in the application;	SA	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), Section 9, previously submitted May 14th, 2024 (current version under review by CNSC) and "Final Safety Analysis Report for Cobalt Pools", IN/SR 2638 Co60 (4) July 22nd, 2020.
3(1)(*j*)	the name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including waste that may be stored, managed, processed, or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste;	WM	• Annual Compliance and Operational Performance Reports • "Final Safety Analysis Report for Cobalt Operations Radioactive Waste Management", IN/SR 2315 Co60 (3) • "Final Safety Analysis Report for the Waste Diversion Program", IN/SR 1859 C000 (4) • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 13 • "Chemical Handling and Storage", SE-HS-008 (10) • "Waste Management Program", SE-ENV-022 (7)
3(1)(*k*)	the applicant's organizational management structure insofar as it may bear on the applicant's compliance with the Act and the Regulations made under the Act, including the internal allocation of functions, responsibilities and authority;	MS	• "Nordion Environmental, Health & Safety Responsibilities and Committees", CPM-6-19 (21) • Organization charts for Environment, Health & Safety (EHS) & Regulatory and Executive Management Team
3(1)(*l*)	a description of any proposed financial guarantee relating to the activity to be licensed; and	OMRI	• Nordion has in place a financial guarantee that is acceptable to the CNSC.
3(1)(*m*)	any other information required by the Act or the Regulations made under the Act for the activity to be licensed and the nuclear substance, nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence.	OMRI	As requested.

	REQUIREMENTS	SCA[1]	Response
3(1.1)	The Commission or a designated officer authorized under paragraph 37(2)(*c*) of the Act, may require any other information that is necessary to enable the Commission or the designated officer to determine whether the applicant (a) is qualified to carry on the activity to be licensed; or (b) will, in carrying on that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.	OMRI	As requested.
3(2)	Subsection (1) does not apply in respect of an application for a licence to import or export for which the information requirements are prescribed by the *Nuclear Non-Proliferation Import and Export Control Regulations*, or in respect of an application for a licence to transport while in transit for which the information requirements are prescribed by the *Packaging and Transport of Nuclear Substances Regulations*.	N/A	Not applicable.
5	An application for the renewal of a licence shall contain:		
5(*a*)	the information required to be contained in an application for that licence by the applicable Regulations made under the Act; and		

	REQUIREMENTS	SCA[1]	Response
5(*b*)	a statement identifying the changes in the information that was previously submitted.	MS	The organization of the Facility has changed since the last application. Refer to the attached Organization Charts. All programs and procedures have been revised with the exception of the following documents: “Gammacell 220 Spare Parts List”, IN/DS 1087 GC220 (5) “Installation Procedure for Gammacell 220 Irradiators”, IN/IN 0060 GC220 (2) “Gammacell-220 Inspection Procedure - Field Function Only”, IN/IM 0062 J0300 (2) “Inspection Procedure for GC-220 Irradiators Returned for Source Loading”, IN/IM 0114 J0300 (1) “Radiation Survey Report for the GC-220”, IN/IM 0308 GC220 (6) “Radioactive Source Storage in Transport Packages”, CO-GEN/GD-0003 (2) “Shipping Procedure for the Cobalt Operations Shipper/Receiver”, CO-SR/OP-0002 (3) “Helium Leak Testing of Sub-Assemblies and Capsule Components”, CO-PNG/IT-0001 (2) The changes to each of the procedures have been administrative or a result of improvements to the programs.
7	An application for a licence or for the renewal, suspension in whole or in part, amendment, revocation or replacement of a licence may incorporate by reference any information that is included in a valid, expired or revoked licence.	N/A	See individual sections, as applicable.

	REQUIREMENTS	SCA[1]	Response
15	Every applicant for a licence and every licensee shall notify the Commission of: (*a*) the persons who have authority to act for them in their dealings with the Commission; (*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.	MS	Applicant authority: Riaz Bandali President (613) 592-3400 ext. 2589 riaz.bandali@nordion.com Signing authorities: Richard Wassenaar (613) 592-3400 ext. 2539 richard.wassenaar@nordion.com Sabrina Sng (613) 592-3400 ext. 2286 sabrina.sng@nordion.com
Class I Nuclear Facilities Regulations			
3	An application for a licence in respect of a Class I nuclear facility, other than a licence to abandon, shall contain the following information in addition to the information required by section 3 of the *General Nuclear Safety and Control Regulations*:		
3(*a*)	a description of the site of the activity to be licensed, including the location of any exclusion zone and any structures within that zone;	SA/PD	• Refer to Section 3(1)(d) of this table under the *General Nuclear Safety and Control Regulations* • "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC) and "Final Safety Analysis Report for Cobalt Pools", IN/SR 2638 Co60 (4) July 22nd, 2020.

	REQUIREMENTS	SCA[1]	Response
3(*b*)	plans showing the location, perimeter, areas, structures, and systems of the nuclear facility;	PD	• Refer to Section 3(1)(d) of this table under the *General Nuclear Safety and Control Regulations* • "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12): ○ The building name, its principal uses, number of floors and basic construction (e.g., steel frame, reinforced concrete, wood frame, etc); (Sections 5.1 General Description, 5.3 Nordion Facilities, and 5.4.1 Structure) ○ Identification of the boundaries of the Nordion facility encompassed by the licence; (Section 5.3 Nordion Facilities) ○ A description of the facility ventilation, heating and cooling systems, electrical circuits, fire protection features, systems and equipment, emergency lighting and location of emergency exits; (Sections 5.6 Site Services, 5.6.2 Electrical, 5.7 Ventilation System, 7.3.4 Fire Detectors, and 7.4 Control) ○ A description of building and laboratory hazards including such things as natural gas pipes, compressed gas storage, significant combustible inventories and water mains that are a potential flooding hazard. (Section 9 Hazard Analysis and Safety Assessment) • "Final Safety Analysis Report for Cobalt Pools", IS/SR 2638 Co60 (4)
3(*c*)	evidence that the applicant is the owner of the site or has authority from the owner of the site to carry on the activity to be licensed;		• Refer to attach City of Ottawa Property Tax 2024 – Interim bill
3(*d*)	the proposed quality assurance program for the activity to be licensed;	MS	• "Management System for Safety", SE-LIC-001 (17), previously submitted February 14th, 2022
3(*e*)	the name, form, characteristics and quantity of any hazardous substances that may be on the site while the activity to be licensed is carried on;	WM	• Chemical inventory available upon request • SDS sheets for all substances available upon request • "Asbestos Management Program", SE-HS-013 (8) • Asbestos Inventory Report – a record of the locations of friable material containing asbestos in the building. Report available upon request.

	REQUIREMENTS	SCA[1]	Response
3(*f*)	the proposed worker health and safety policies and procedures;	CHS	• "Nordion Environmental, Health and Safety Policy", CPM-6-06 (11) • Safety and Environment Health and Safety Procedures, SE-HS-XXX series of procedures • "Fire Safety Plan", SE-ERP-001 (8), previously submitted December 12th, 2022 • "Nordion Environmental, Health & Safety Responsibilities and Committees", CPM-6-19 (21) • "External Personal Radiation Monitoring", SE-RP-004 (11) • "Protective Clothing and Gloves in Active Area Laboratories", SE-RP-005 (4) • "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), previously submitted April 29th, 2024 (current version under review by CNSC)
3(*g*)	the proposed environmental protection policies and procedures;	EP	• "Nordion Environmental, Health and Safety Policy", CPM-6-06 (11) • "Nordion Environmental Protection Program", SE-ENV-015 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • "Environmental Management System Manual", SE-ENV-001 (12), previously submitted June 10th, 2022
3(*h*)	the proposed effluent and environmental monitoring programs;	EP	• "Nordion Environmental Protection Program", SE-ENV-015 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • "Environmental Management System Manual", SE-ENV-001 (12), previously submitted June 10th, 2024 • "Soil Monitoring Program", SE-ENV-017 (6) • "Non-Radiological Environmental Monitoring Program", SE-ENV-021 (4) • "Radiation Protection Manual - Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • "Daily Workstation Air Monitoring", SE-OP-007 (19) • "Stack Air Sampling", SE-OP-010 (10) • "Water Effluent Monitoring", SE-OP-013 (20) • "Delay and Holding Tank Water Sample Collection Procedure", CO-MD/OP-0007 (9)

	REQUIREMENTS	SCA[1]	Response
3(*i*)	if the application is in respect of a nuclear facility referred to in paragraph 2(*b*) of the *Nuclear Security Regulations*, the information required by section 3 of those Regulations;	N/A	Not applicable.
3(*j*)	the proposed program to inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from the activity to be licensed; and	OMRI	• "Nordion Public Information Program", SE-LIC-010 (15), previously submitted January 8th, 2021
3(*k*)	the proposed plan for the decommissioning of the nuclear facility or of the site.	WM	• "Preliminary Decommissioning Plan for Class 1B Facility (KOB)", SE-LIC-009 (6), previously submitted December 10th, 2021
6	An application for a licence to operate a Class I nuclear facility shall contain the following information in addition to the information required by section 3 of the *Class I Nuclear Facilities Regulations*:		
6(*a*)	a description of the structures at the nuclear facility, including their design and their design operating conditions;	PD	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), Section 5.4
6(*b*)	a description of the systems and equipment at the nuclear facility, including their design and their design operating conditions;	PD	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), Sections 5.6, 5.7 and 9

	REQUIREMENTS	SCA[1]	Response
6(*c*)	a final safety analysis report demonstrating the adequacy of the design of the nuclear facility;	SA	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12)
6(*d*)	the proposed measures, policies, methods, and procedures for operating and maintaining the nuclear facility;	OP/FS/EM/MS	• "Management System for Safety", SE-LIC-001 (17), previously submitted February 14th, 2022 Sections 4, 5 and Appendix A of SE-LIC-001 (17) "EHS Regulatory Reporting and Notifications", SE-EHS-009 (11)
6(*d*), continued			• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • "Fire Protection Program – Nordion Ottawa Site", SE-EHS-007 (7), previously submitted February 28th, 2022 • "Facilities Maintenance Master Plan", R-Master (15), previously submitted February 19th, 2024 • "Calibration Master Plan", CP-001 (1), previously submitted April 1st, 2023 • Schedules for performing all routine maintenance available upon request • "Site Emergency Response Plan", SE-ERP-002 (12), previously submitted May 31st, 2022 • "Radiation Emergency Response Plan", SE-ERP-011 (7) • "Change Control Procedure", QAP AP-45 (32)

	REQUIREMENTS	SCA[1]	Response
6(*e*)	the proposed procedures for handling, storing, loading, and transporting nuclear substances and hazardous substances;	WM/PT/OP	• "Management System for Safety", SE-LIC-001 (17), previously submitted February 14th, 2022 • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • "Requirements for the Transport of Radioactive Materials", 000079.SOP (5) • "Transport of Radioactive Material Program", SE-OP-036 (6), previously submitted March 22nd, 2024 • "Receiving Radioactive Material", SE-OP-015 (7), previously submitted May 10th, 2023 • Shipping Radioactive Material", SE-OP-014 (11), previously submitted May 10th, 2023 • "Shipping Procedure for the Cobalt Operations Shipper/Receiver", CO-SR/OP-0002 (3) • "Chemical Handling and Storage", SE-HS-008 (10) • "Sealed Source Reporting", SE-OP-079 (24), previously submitted May 14th, 2024
6(*f*)	the proposed measures to facilitate Canada's compliance with any applicable safeguards agreement;	SG	• "Safeguards Program", SE-LIC-016 (14)
6(*g*)	the proposed commissioning program for the systems and equipment that will be used at the nuclear facility;	PD	• "Management System for Safety", SE-LIC-001 (17), Section 5.19
6(*h*)	the effects on the environment and the health and safety of persons that may result from the operation and decommissioning of the nuclear facility, and the measures that will be taken to prevent or mitigate those effects;	SA/EP	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC) • "Nordion Environmental Protection Program", SE-ENV-015 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • "Environmental Management System Manual", SE-ENV-001 (12), previously submitted June 10th, 2022 • "Preliminary Decommissioning Plan for Class 1B Facility (KOB)", SE-LIC-009 (6), previously submitted December 10th, 2021

	REQUIREMENTS	SCA[1]	Response
6(*i*)	the proposed location of points of release, the proposed maximum quantities and concentrations, and the anticipated volume and flow rate of releases of nuclear substances and hazardous substances into the environment, including their physical, chemical and radiological characteristics;	EP/WM	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC) • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 9 for airborne effluent • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 10 for liquid effluent • "Nordion Class 1B Facility Derived Release Limits", REP-EHS-009 (1), Section 10 for derived release limit for air and liquid releases
6(*j*)	the proposed measures to control releases of nuclear substances and hazardous substances into the environment;	EP/WM	• "Nordion Environmental Protection Program", SE-ENV-015 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • "Environmental Management System Manual", SE-ENV-001 (12), previously submitted June 10th, 2022 • "Soil Monitoring Program", SE-ENV-017 (6) • "Non-Radiological Environmental Monitoring Program", SE-ENV-021 (4) • "Radiation Protection Manual - Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • "Chemical Handling and Storage", SE-HS-008 (10) • "Stack Air Sampling", SE-OP-010 (10) • "Water Effluent Monitoring", SE-OP-013 (20) • "Delay and Holding Tank Water Sample Collection Procedure", CO-MD/OP-0007 (9)

	REQUIREMENTS	SCA[1]	Response
6(*k*)	the proposed measures to prevent or mitigate the effects of accidental releases of nuclear substances and hazardous substances on the environment, the health and safety of persons and the maintenance of national security, including measures to: (i) assist off-site authorities in planning and preparing to limit the effects of an accidental release, (ii) notify off-site authorities of an accidental release or the imminence of an accidental release, (iii) report information to off-site authorities during and after an accidental release, (iv) assist off-site authorities in dealing with the effects of an accidental release, and (v) test the implementation of the measures to prevent or mitigate the effects of an accidental release;	EM	• Nordion periodically meets with the local Fire, Paramedics, Police, and Ottawa Hospitals to review Nordion emergency management protocols, provide site familiarization, and to review roles of off-site authorities during on-site emergencies. • "Site Emergency Response Plan", SE-ERP-002 (12), previously submitted May 31st, 2022 • "Radiation Emergency Response Plan", SE-ERP-011 (7) • "Emergency Response Training and Testing", SE-ERP-010 (13) • "Fire Safety Plan", SE-ERP-001 (8), previously submitted December 12th, 2022 • "Fire Safety Plan – Firefighters Copy", SE-SC-016 (7), 017 (6) and 018 (6)
6(*l*)	the proposed measures to prevent acts of sabotage or attempted sabotage at the nuclear facility, including measures to alert the licensee to such acts;	NS	• "2024 Security Report", submitted March 1st, 2024. This report contains the Nordion Security Plan covering all aspects of the security program. This is prescribed information. • "Physical Security Threat Assessment". Updated annually and available to CNSC Security Division review on site at request, as per normal protocol.

	REQUIREMENTS	SCA[1]	Response
6(*m*)	the proposed responsibilities of and qualification requirements and training program for workers, including the procedures for the requalification of workers; and	HP	• Job descriptions are available for all Active Area Operations employees. • For professional and administrative support staff, Nordion uses a system of job families to describe job responsibilities and the minimum education requirements. General responsibilities for EHS professionals are described in the Quality, Regulatory Affairs/EHS job family description. • "Management System for Safety", SE-LIC-001 (17), Sections 4 and 5.6 • "Systematic Approach to Training System", SE-TRN-006 (9), previously submitted on July 17th, 2023 • "Compliance Environment, Health and Radiation Safety Training", SE-TRN-003 (16) defines the available EHS training, training frequencies and who requires the training. • Departmental training programs define the initial and continuing training requirements. These are available upon request.
6(*n*)	the results that have been achieved in implementing the program for recruiting, training and qualifying workers in respect of the operation and maintenance of the nuclear facility.	HP	• There are currently 128 Nuclear Energy Workers (NEWs) working in the licenced facility. In the past year, EHS Compliance training has been provided to meet the training frequency described in "Compliance Environment, Health and Radiation Safety Training", SE-TRN-003 (16). • Training is assigned and tracked electronically in an Electronic Quality Management System (EQMS) that incorporates training management.
Radiation Protection Regulations			
4	Every licensee shall implement a radiation protection program and shall, as part of that program,		
4(a)	keep the amount of exposure to radon progeny and the effective dose and equivalent dose received by and committed to persons as low as is reasonably achievable, social and economic factors being taken into account, through the implementation of	RP	• Radon progeny is not applicable to Nordion

	REQUIREMENTS	SCA[1]	Response
4(a)(i)	management control over work practices,	RP	• "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), Section 4.1 • "Nordion Environmental, Health & Safety Responsibilities and Committees", CPM-6-19 (21) • “Management System for Safety”, SE-LIC-001 (17), previously submitted February 14th, 2022 • "Radiation Protection Manual - Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • “Work Permit Authorization Program”, SE-HS-009 (13)
4(a)(ii)	personnel qualification and training,	RP	• "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), Section 4.2 • “Management System for Safety”, SE-LIC-001 (17), Sections 4 and 5.6 • “Compliance Environment, Health and Radiation Safety Training”, SE-TRN-003 (16) • “Radiation Surveyors On-the-Job Training Program”, SE-TRN-001 (19) for Radiation Surveyors and Monitors • “Cobalt Monitor On-the-Job Training Program”, CO-MD/OP-0028 (8) for Sterilization Monitors
4(a)(iii)	control of occupational and public exposure to radiation, and	RP	• “Keeping Radiation Exposures and Doses “As Low as Reasonably Achievable (ALARA)””, SE-RP-002 (8), Section 4.3 • “Radiation Protection Manual – Ottawa Site”, SE-RP-001 (11), Sections 5.6 and 5.7

	REQUIREMENTS	SCA[1]	Response
4(a)(iv)	planning for unusual situations; and	RP	• "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), Section 4.4 • “Safety Analysis Reports”, CPM-6-20 (18), previously submitted April 8th, 2024 • “Site Emergency Response Plan”, SE-ERP-002 (12), previously submitted May 31st, 2022 • “Radiation Emergency Response Plan”, SE-ERP-011 (7) • “Nordion Environmental, Health & Safety Responsibilities and Committees”, CPM-6-19 (21), Section 5.3 • “EHS Requirements Checklist”, SE-EHS-014 (7) • “Change Control Procedure”, QAP AP-45 (32) • “External Personal Radiation Monitoring”, SE-RP-004 (11) • “Protective Clothing and Gloves in Active Area Laboratories”, SE-RP-005 (4) • “Respirator Protection Program”, SE-HS-014 (4) • “EHS Committee Approved Activity Limits for Facilities”, SE-LIC-007 (23), previously submitted March 18th, 2022 • “Work Permit Authorization Program”, SE-HS-009 (13)
4(b)	ascertain the quantity and concentration of any nuclear substance released as a result of the licensed activity (i) by direct measurement as a result of monitoring, or (ii) if the time and resources required for direct measurement as a result of monitoring outweigh the usefulness of ascertaining the quantity and concentration using that method, by estimating them.	RP	• “Nordion Environmental Protection Program”, SE-ENV-015 (8), previously submitted April 29th, 2024 (current version under review by CNSC) • “Environmental Management System Manual”, SE-ENV-001 (12), previously submitted June 10th, 2022 • “Radiation Protection Manual – Ottawa Site”, SE-RP-001 (11), Sections 9 and 10 • "Daily Workstation Air Monitoring", SE-OP-007 (19) • "Weekly Environmental Equipment Testing", SE-OP-027 (26) • “Stack Air Sampling", SE-OP-010 (10) • “Water Effluent Monitoring”, SE-OP-013 (20) • “Delay and Holding Tank Water Sample Collection Procedure”, CO-MD/OP-0007 (9)

	REQUIREMENTS	SCA[1]	Response
5(1)	For the purpose of keeping a record of doses of radiation in accordance with section 27 of the Act, every licensee shall ascertain and record the magnitude of exposure to radon progeny of each person referred to in that section, as well as the effective dose and equivalent dose received by and committed to that person.	RP	• Radon progeny is not applicable to Nordion
5(2)	A licensee shall ascertain the magnitude of exposure to radon progeny and the effective dose and equivalent dose (*a*) by direct measurement as a result of monitoring; or (*b*) if the time and resources required for direct measurement as a result of monitoring outweigh the usefulness of ascertaining the amount of exposure and doses using that method, by estimating them.	RP	• Radon progeny is not applicable to Nordion
7(1)	Every licensee shall inform each nuclear energy worker, in writing,		
7(1)(a)	that he or she is a nuclear energy worker;	RP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 5.1 and NEW Acknowledgement forms Appendix H • NEW acknowledgement forms, available upon request
7(1)(b)	of the risks associated with radiation to which the worker may be exposed in the course of his or her work, including the risks associated with the exposure of embryos and foetuses to radiation;	RP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Sections 5.6 and 5.7, and Appendix B • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Sections 5.1 and NEW Acknowledgement forms Appendix H

	REQUIREMENTS	SCA[1]	Response
7(1)(c)	of the applicable effective dose limits and equivalent dose limits prescribed by sections 13, 14 and 15; and	RP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 5.6 • Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 5.1 and NEW Acknowledgement forms Appendix H
13(1)	Every licensee shall ensure that the effective dose received by and committed to a person described in column 1 of an item of the table to this subsection, during the period set out in column 2 of that item, does not exceed the effective dose set out in column 3 of that item.	RP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Sections 5.6 and 5.7 • "Keeping Radiation Exposures and Doses "As Low as Reasonably Achievable (ALARA)"", SE-RP-002 (8), previously submitted April 29th, 2024 (current version under review by CNSC)
14(1)	Every licensee shall ensure that the equivalent dose received by and committed to an organ or tissue set out in column 1 of an item of the table to this subsection, of a person described in column 2 of that item, during the period set out in column 3 of that item, does not exceed the equivalent dose set out in column 4 of that item	RP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Sections 5.6 and 5.7

	REQUIREMENTS	SCA[1]	Response
20(1)	No person shall possess a container or device that contains a radioactive nuclear substance unless the container or device is labelled with the radiation warning symbol set out in Schedule 3 and the words “RAYONNEMENT – DANGER – RADIATION”; and the name, quantity, date of measurement and form of the nuclear substance in the container or device. (2) Subsection (1) (2) Subsection (1) does not apply in respect of a container or device (a) that is an essential component for the operation of the nuclear facility at which it is located; (b) that is used to hold radioactive nuclear substances for current or immediate use and is under the continuous direct observation of the licensee; (c) in which the quantity of radioactive nuclear substances is less than or equal to the exemption quantity; or (d) that is used exclusively for transporting radioactive nuclear substances and labelled in accordance with the Packaging and Transport of Nuclear Substances Regulations.	RP	• “Radiation Protection Manual – Ottawa Site”, SE-RP-001 (11), Section 4.4.4.1 • "Radioactive Source Storage in Transport Packages", CO-GEN/GD-0003 (2) • "Cobalt Operations Facility Non-Process Related Waste Handling Procedure", CO-MD/OP-0022 (9)

	REQUIREMENTS	SCA[1]	Response
21(1)	Every licensee shall post and keep posted, at the boundary of and at every point of access to an area, room enclosure or vehicle, a durable and legible sign that bears the radiation warning symbol set out in Schedule 3 and the words “RAYONNEMENT – DANGER – RADIATION”; if (a) there is a radioactive nuclear substance in a quantity greater than 100 times its exemption quantity in the area, room, enclosure or vehicle; or (b) there is a reasonable probability that a person in the area, room, enclosure or vehicle will be exposed to an effective dose rate greater than 25 μSv/hr.	RP	• “Radiation Protection Manual – Ottawa Site”, SE-RP-001 (11), Section 4.4.4.1
22	22. Whenever the radiation warning symbol set out in Schedule 3 is used, (a) it shall be (i) prominently displayed, (ii) of a size appropriate for the size of the container or device to which it is affixed or attached, or of the area, room, enclosure or vehicle in respect of which it is posted, (iii) in the proportions depicted in Schedule 3, and (iv) oriented with one blade pointed downward and centred on the vertical axis; and (b) no wording shall be superimposed on it.	RP	• “Radiation Protection Manual – Ottawa Site”, SE-RP-001 (11), Section 4.4.4.1

	REQUIREMENTS	SCA[1]	Response
Nuclear Substances and Radiation Devices Regulations			
3(1)	An application for a licence in respect of a nuclear substance or a radiation device, other than a licence to service a radiation device, shall contain the following information in addition to the information required by section 3 of the *General Nuclear Safety and Control Regulations*:		
3(1)(*a*)	the methods, procedures and equipment that will be used to carry on the activity to be licensed;	OP	• "Management System for Safety", SE-LIC-001 (17), previously submitted February 14th, 2022 • "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), previously submitted April 29th, 2024 (current version under review by CNSC) • Procedures associated with the licensed activity fall into the following categories: - EHS procedures which cover radiation protection, chemical handling, calibration, environmental protection, emergency response - Operating procedures for Cobalt processing - Operating procedures for production of Medical Isotopes products - Packaging of nuclear substances - Shipping - Waste handling - Maintenance - Security Environmental, health, and safety procedures are submitted with this application. Other procedures are available upon request.

	REQUIREMENTS	SCA[1]	Response
3(1)(*b*)	the methods, procedures and equipment that will be used while carrying on the activity to be licensed, or during and following an accident, to		
3(1)(*b*)(i)	monitor the release of any radioactive nuclear substance from the site of the activity to be licensed,	EP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Sections 9 and 10
3(1)(*b*)(ii)	detect the presence of and record the radiation dose rate and quantity in becquerels of radioactive nuclear substances at the site of the activity to be licensed,	RP/EP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 12
3(1)(*b*)(iii)	limit the spread of radioactive contamination within and from the site of the activity to be licensed, and	EP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 7 and 14
3(1)(*b*)(iv)	decontaminate any person, site or equipment contaminated as a result of the activity to be licensed;	RP/EP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 7 and 14 • "Investigations", SE-RP-003 (17), Section 5.2.1 and Appendix A
3(1)(*c*)	a description of the circumstances in which the decontamination referred to in subparagraph (*b*)(iv) of the *Nuclear Substances and Radiation Devices Regulations* will be carried out;	RP/EP	• "Radiation Protection Manual – Ottawa Site", SE-RP-001 (11), Section 7 and 14
3(1)(*d*)	the proposed location of the activity to be licensed, including a description of the site;	PD	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC)
3(1)(*e*)	the roles, responsibilities, duties, qualifications, and experience of workers;	HP	• "Management System for Safety", SE-LIC-001 (17), Sections 4 and 5.6
3(1)(*f*)	the proposed training program for workers;	HP	• "Management System for Safety", SE-LIC-001 (17), Section 5.6 • "Systematic Approach to Training System", SE-TRN-006 (9), previously submitted July 17th, 2023

	REQUIREMENTS	SCA[1]	Response
3(1)(*g*)	the proposed instructions for dealing with accidents, including fires and spills, in which the nuclear substance may be involved;	EM	• "Site Emergency Response Plan", SE-ERP-002 (12), previously submitted May 31st, 2022 • "Radiation Emergency Response Plan", SE-ERP-011 (7) • "Fire Safety Plan", SE-ERP-001 (8), previously submitted December 12th, 2022 • "Fire Safety Plan – Firefighters Copy", SE-SC-016 (7), 017 (6) and 018 (6) • "Chemical Spill Response Plan", SE-ERP-1-005 (5) • "Procedure for Containment of Sprinkler Water", SE-ERP-015 (2)
3(1)(*h*)	the proposed inspection program for the equipment and systems that will be used to carry on the activity to be licensed;	FS	• "Facilities Maintenance Master Plan", R-Master (15), previously submitted February 19th, 2024 • "Calibration Master Plan", CP-001 (1), previously submitted April 1st, 2023
3(1)(*i*)	the methods, procedures and equipment that will be used to calibrate radiation survey meters in accordance with these Regulations;	FS	• "Calibration of Survey Meters", SE-CA-002 (17) • "Source Activity Decay Correction", SE-CA-003 (22) • "General Procedure for the Calibration of Contamination Meters", SE-CA-005 (7) • "Testing of Direct Reading Dosimeters", SE-CA-008 (6)
3(1)(*j*)	the methods, procedures and equipment that will be used to calibrate and verify the calibration of dosimeters referred to in paragraphs 30(3)(*d*) and (*e*) of the *Nuclear Substances and Radiation Devices Regulations*;	FS	• "Testing of Direct Reading Dosimeters", SE-CA-008 (6) • "External Personal Radiation Monitoring", SE-RP-004 (11)
3(1)(*k*)	the methods, procedures and equipment that will be used to conduct the leak tests and surveys required by these Regulations;	FS	• "Radioactive Material Inventory", SE-LIC-015 (21), Section 13 • "Underwater Source Swipe Tests for Detection and Isolation of Leaking Source Capsules in Pool #13", CO-PRD/OP-0072 (5) • "Operation of Varian Leak Detection Software", CO-C5/IT-0004 (7) • "Ultrasonic Effluent Test Procedure", CO-PRD/OP-0033 (10) • "Dry Wipe Test", CO-PRD/TP-0003 (5) • "Helium Leak Test of Sub-Assemblies and Capsule Components", CO-PNG/IT-0001 (2) • "Outer Capsule Welding and Leak Testing for Elekta Process Using Mini-Trays", CO-C5/OP-0019 (9)

	REQUIREMENTS	SCA[1]	Response
3(1)(*l*)	where the application is in respect of a nuclear substance that is an unsealed source and that is to be used in a room, the proposed design of the room;	PD	• "Final Safety Analysis Report for Cobalt Operations", IS/SR 1057 Z000 (12), previously submitted May 14th, 2024 (current version under review by CNSC) • "Final Safety Analysis Report for Cobalt Pools", IN/SR 2638 Co60 (4) July 22nd, 2020
3(1)(*m*)	if the application is in respect of a nuclear substance that is contained in a radiation device, the brand name and model number of the radiation device, and the quantity of the devices;	PD	• Gammacell 220, Serial Number 59. • Any serial number of Gammacell 220 devices brought to the facility for refurbishment and use or for servicing.
3(1)(*n*)	where the application is in respect of Category I, II or III nuclear material, as defined in section 1 of the *Nuclear Security Regulations*,	N/A	Not applicable
3(1)(*n*)(i)	the measures that will be taken to prevent nuclear criticality, and	N/A	Not applicable
3(1)(*n*)(ii)	the information required by section 3 or 4 of the *Nuclear Security Regulations*, as applicable;	N/A	Not applicable
3(1)(*o*)	if the applicant will be manufacturing or distributing radiation devices referred to in paragraph 5(1)(*c*) of the *Nuclear Substances and Radiation Devices Regulations* or section 6 or 7 of the *Nuclear Substances and Radiation Devices Regulations*, or check sources mentioned in section 8.1 of the *Nuclear Substances and Radiation Devices Regulations*, the proposed procedure for the disposal of each radiation device or check source or for its return to the manufacturer.	WM	Not applicable

	REQUIREMENTS	SCA[1]	Response
4.	An application for a licence to service a radiation device shall contain the following information in addition to the information required by section 3 of the *General Nuclear Safety and Control Regulations*:	N/A	Not applicable
4.(a)	the brand name and model number of the device or the number of the certificate relating to the device;	SA	• Gammacell 220 Irradiator

4(b)	a description of the nature of the servicing proposed to be carried on;	SA	• Servicing of the Gammacell 220 consisting of the following:
			  ○ Source removal and reloading
			  ○ Surveying
			  ○ Wipe tests
			  ○ Routine preventative maintenance
			  ○ Maintenance as required for repairs (e.g. replacement of broken switches, motor repairs)
			• Servicing of any Gammacell 220 Irradiator at the Nordion Ottawa location. The devices would be brought to the facility to refurbish and use at the Nordion Ottawa location or to service and return to the customer.

4(c)	the proposed methods, procedures and equipment for carrying on the servicing;	SA	• "Gammacell 220 Spare Parts List", IN/DS 1087 GC220 (5) • "Installation Procedure for Gammacell 220 Irradiators", IN/IN 0060 GC220 (2) • "Gammacell-200 Inspection Procedure – Field Function Only", IN/IM 0062 J0300 (2) • "Inspection Procedure for GC-220 Irradiators Returned for Source Loading", IN/IM 0114 J0300 (1) • "Radiation Survey Report for the GC-220", IN/IM 0308 GC220 (6) • "GC-220 Loading and Unloading Procedure", CO-C6/OP-0014 (11)
4(d)	the proposed qualification requirements and training program for workers; and	SA	• "Installation and Service Technician Training Program", IN/OP 2642 Z000 (4)
4(e)	the proposed procedures to be followed after completion of the servicing to confirm that the device is safe to use.	SA	• "Gammacell-220 Inspection Procedure – Field Function Only", IN/IM 0062 J0300 (2) • "Radiation Survey Report for the GC-220", IN/IM 0308 GC220 (6)

	REQUIREMENTS	SCA[1]	Response
Nuclear Security Regulations			
41	An application for a licence in respect of a nuclear facility shall contain, in addition to the information required by sections 3 to 8 of the *Class I Nuclear Facilities Regulations*, a description of the physical protection measures to be taken to ensure compliance with sections 42 to 48.	NS	• "2024 Security Report", submitted March 1st, 2024. This report contains the Nordion Security Plan covering all aspects of the security program. This is prescribed information. • "Facility Access Security Clearance", SE-SC-005 (4) • "Security Guard Vehicle Inspection Post Orders", SE-SC-014 (6). This is prescribed information. • "Written Arrangements between Nordion (Canada) Inc. and the Ottawa Police Service pursuant to Section 47 of the Canadian Nuclear Security Regulations". This is prescribed information.

ACRONYMS

SCA	Safety and Control Area
MS	Management System
HP	Human Performance Management
OP	Operating Performance
SA	Safety Analysis
PD	Physical Design
FS	Fitness for Service
RP	Radiation Protection
CHS	Conventional Health and Safety
EP	Environmental Protection
EM	Emergency Management and Fire Protection
WM	Waste Management
NS	Security
SG	Safeguards
PT	Packaging and Transport
OMRI	Other Matters of Regulatory Interest
N/A	Not Applicable