

Table 1 – General Nuclear Safety and Control Regulations [A-1]

Section	Requirement	CNL Response	Document Enclosed
General Nuclear Safety and Control Regulations			
3(1)	An application for a licence shall contain the following information: (a) the applicant's name and business address;	Applicant's Name: Canadian Nuclear Laboratories Ltd. Business Address: Chalk River Laboratories 286 Plant Road Chalk River, Ontario K0J 1J0 Contact Person, Signing Authority, and Licence Holder: John Osborne Vice President, Central Technical Authority CRL Site Licence Holder Canadian Nuclear Laboratories Ltd. Telephone: 613-584-3311 ext. 41722 Official language of application: English	N/A
3(1)	(b) the activity to be licensed and its purpose;	CNL intends to conduct the following activities which are currently permitted pursuant to the Chalk River Laboratories (CRL) licence [A-2] and CRL Licence Conditions Handbook (LCH) [A-3]: • Operate, wholly or in part, any facility/building at CRL. • Carry out site preparation, construction, or construction modification, or undertakings that are required for, associated with, or arise from the conduct of licensed activities at CRL. • Construct, modify or abandon any facility/building at CRL.	N/A

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		• Transition from operation to an extended or permanent safe shutdown state any facility/building at CRL, or any parts thereof. • Maintain in safe shutdown state (extended or permanent) any facility/building at CRL, or any parts thereof. • Transition from operation or from safe shutdown state to decommissioning any facility/building at CRL, or any parts thereof. • Decommission/demolish any facility/building at CRL, or any parts thereof. • Release any decommissioned/demolished facility/building from CNSC regulatory control. • Produce, possess, process, refine, transfer, use, package, manage, store, dispose or abandon nuclear substances. • Produce, possess, use, service, transfer or abandon prescribed equipment. • Produce, possess, use, transfer or abandon prescribed information. • Process, store or dispose of waste received from offsite clients. • Receive, repair, modify, store and return contaminated equipment from offsite clients CNL also requests authorization to transport, by road and within the confines of the CRL site, irradiated and non-	

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		irradiated materials as described in the <i>CRL Transportation Security Plan</i> [A-4]. Refer to Attachment B of the licence application [A-5] for details on this administrative change.	
3(1)	(c) the name, maximum quantity, and form of any nuclear substance to be encompassed by the licence;	Nuclear substances in solid, liquid, and gaseous forms are in use at CRL. Limitations on the maximum quantities of nuclear substances permitted on the CRL site are specified in: • Facility-specific safety analysis reports for nuclear facilities; • Radioisotope Laboratory Protocols and Operating Envelope documents for the radioisotope laboratories; • Criticality Safety Documents; • Detailed Decommissioning Plans Current versions of the aforementioned documents are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. For facilities/areas that encompass nuclear substances but that are not governed by the above documents, limitations on the maximum quantities of nuclear substances are set forth in <i>Radiological Areas and Zones</i> [A-7], which defines the dose rate and contamination limits for radiological safety zones.	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Radiological Areas and Zones</i> [A-7]
3(1)	(d) a description of any nuclear facility, prescribed equipment or prescribed information to be	Relevant information on the nuclear facilities and prescribed equipment is presented in the safety analysis reports for the CRL facilities, which are referenced in the	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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	encompassed by the licence;	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Any specific required information that may be prescribed information will be provided to the Commission under separate cover, consistent with clause 21(2) of the <i>General Nuclear Safety and Control Regulations</i> [A-1], which states that information made public is not prescribed information for the purposes of the <i>Nuclear Safety and Control Act</i> [A-8].	
3(1)	(e) the proposed measures to ensure compliance with the <i>Radiation Protection Regulations</i> , the <i>Nuclear Security Regulations</i> , and the <i>Packaging and Transport of Nuclear Substances Regulations</i>	CNL proposes to maintain the existing compliance measures. Measures to ensure compliance with the <i>Radiation Protection Regulations</i> [A-9] at CRL are implemented by the following CNL Functional Support Areas (FSAs): • Radiation Protection, through the documents referenced in Safety and Control Area (SCA) – Radiation Protection, Licence Condition 7.1 Radiation Protection Program of the CRL LCH [A-3]. • Environmental Protection, through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 Environmental Protection Program of the CRL LCH [A-3]. Measures to ensure compliance with the <i>Nuclear Security Regulations</i> [A-10] at CRL are implemented by the CNL Security FSA and Nuclear Cyber Security FSA through the documents referenced in SCA – Security, Licence Condition 12.1 of the CRL LCH [A-3].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.7 Section 4.9 Section 4.12 Section 4.14

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		Measures to ensure compliance with the <i>Packaging and Transport of Nuclear Substances Regulations</i> [A-11] are implemented by the CNL Transportation of Dangerous Goods FSA, through the documents referenced in SCA – Packaging and Transport, Licence Condition 14.1 of the current CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
3(1)	(f) any proposed action level for the purpose of Section 6 of the <i>Radiation Protection Regulations</i> ;	CNL proposes to maintain the existing action levels. Radiation Protection action levels at CRL are defined under the Radiation Protection FSA, through the <i>Radiation Protection Action Levels</i> document [A-13] referenced in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. Radioactive effluent and emission action levels at CRL are defined under the Environmental Protection FSA, through the <i>Administrative Levels and Action Levels for CRL's Radioactive Effluents and Emissions</i> [A-14] referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3].	<i>Radiation Protection Action Levels</i> [A-13] <i>Administrative Levels and Action Levels for CRL's Radioactive Effluents and Emissions</i> [A-14] <i>Supplemental Information</i> [A-12]: Section 4.7 Section 4.9
3(1)	(g) the proposed measures to control access to the site of	CNL proposes to maintain the existing measures for	<i>Licensing Basis List for Chalk River</i>

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	the activity to be licensed and the nuclear substance, prescribed equipment or prescribed information;	purposes of Section 3(1)(g). Measures to ensure compliance with the <i>Nuclear Security Regulations</i> [A-10] are implemented by the CNL Security FSA and the Nuclear Cyber Security FSA, through the documents referenced in SCA – Security, Licence Condition 12.1 of the current CRL LCH [A-3]. The Security and Nuclear Cyber Security FSAs are described in the respective Program Description Documents, which are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.12
3(1)	(h) the proposed measures to prevent loss or illegal use, possession or removal of the nuclear substance, prescribed equipment or prescribed information	CNL proposes to maintain the existing measures for purposes of Section 3(1)(h). Measures to ensure compliance with the <i>Nuclear Security Regulations</i> [A-10] are implemented by the CNL Security FSA and the Nuclear Cyber Security FSA, through the documents referenced in SCA – Security, Licence Condition 12.1 of the current CRL LCH [A-3]. The Security and Nuclear Cyber Security FSAs are described in the respective Program Description Documents, which are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.12
3(1)	(i) a description and results of any test, analysis or calculation performed to substantiate the	No tests, analyses or calculations were performed specifically to substantiate the information contained in this application. CRL is an existing operating facility, subject to the terms and conditions of the existing licence and all applicable laws. The documents included within the	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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	information included in the application;	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6], enclosed, contain the tests, analyses and calculations to which the CRL site operates.	
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;	Specific information on radioactive and hazardous wastes at CRL is reported annually in the CRL Annual Compliance Monitoring Report to meet the requirement of SCA – Operating Performance, Licence Condition 3.2 of the CRL LCH [A-3]. The <i>Chalk River Laboratories Annual Compliance Monitoring Report for 2025</i> [A-15] is enclosed with this application. To support planning, waste forecasting activities are conducted under the CNL Waste Management FSA. Relevant requirements for managing and disposing of radioactive and hazardous waste at the CRL site are defined in the CNL Waste Management FSA and implemented through the documents referenced in SCA – Waste Management, Licence Condition 11.1 of the CRL LCH [A-3]. The Waste Management FSA is described in the Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Chalk River Laboratories Annual Compliance Monitoring Report for 2025</i> [A-15] <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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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, responsibility and authority;	CNL's organizational management structure will not change as a result of the requested licence renewal. CNL's senior management organizational structure for the operation of CRL is documented in the <i>CNL Management System Manual</i> [A-16], which also defines functions, responsibilities, and authorities. Further relevant information regarding the responsibilities and authority at the CRL site is provided in <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> document [A-17].	<i>Canadian Nuclear Laboratories Management System Manual</i> [A-16] <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> [A-17] <i>Supplemental Information</i> [A-12]: Section 4.1.3
3(1)	(l) a description of any proposed financial guarantee relating to the activity to be licensed; and	Atomic Energy of Canada Limited (AECL) owns assets and liabilities that CNL has been contracted to manage and operate. AECL is a federal Crown corporation and agent of the Government of Canada. AECL's liabilities are ultimately liabilities of the Government of Canada, which was confirmed by the Minister of Natural Resources in a letter dated 2015 July 31 [A-18] accepted by CNSC staff most recently in [A-19].	Letter, G. Rickford (NRCAN) to M. Binder (CNSC) [A-18] Letter, N. Greencorn (CNSC) and S. Watt (CNSC) to A. Tisler (CNL) [A-19]
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,	Information required to be provided at the time of the application is incorporated throughout the entirety of the application.	N/A

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	prescribed equipment, or prescribed information to be encompassed by the licence.		
4	An application for a licence to abandon a nuclear substance, a nuclear facility, prescribed equipment or prescribed information shall contain the following information in addition to the information required by Section 3: (a) the name and location of the land, buildings, structures, components, and equipment that are to be abandoned; (b) the proposed time and location of the abandonment; (c) the proposed method of and procedure for abandonment; and (d) the effects on the environment and the health and safety of persons that may result	The requirements for abandoning a nuclear facility at CRL are implemented by the CNL Cleanup FSA, through the documents referenced in SCA – Waste Management, Licence Condition 11.2 of the current CRL LCH [A-3]. The Cleanup FSA implements the decommissioning plan under the Waste Management SCA, and is described in the Cleanup Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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	from the abandonment, and the measures that will be taken to prevent or mitigate those effects.		
5	An application for the renewal of a licence shall contain: (a) the information required to be contained in an application for that licence by the applicable regulations made under the Act; and	This application includes all information required by the applicable regulations made under the <i>Nuclear Safety and Control Act</i> [A-8].	N/A
5	(b) a statement identifying the changes in the information that was previously submitted.	CNL will maintain its current scope of authorized activities into the next licence, ensuring stable and reliable capabilities throughout the next licensing period. No new authorized activities are being requested. CNL has established processes for implementing programmatic changes and notifies CNSC staff of these changes as required. Several administrative changes are being requested to the CRL licence and LCH [A-3] as described in Attachments B and C of the licence application submission [A-5].	N/A
15	Every applicant for a licence and every licensee shall notify the Commission of	The persons with authority to act on behalf of CNL in dealings with the Commission are documented in <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> [A-17].	<i>Designated Representatives of the Licensee, Site Licenses, Certificates</i>

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	(a) the persons who have authority to act for them in their dealings with the Commission;		<i>& Permits [A-17]</i>
15	(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	The names and position titles of the responsible personnel are documented in <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits [A-17]</i> .	<i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits [A-17]</i>

Table 2 – Class I Nuclear Facilities Regulations [A-20]

Section	Requirement	CNL Response	Document Enclosed
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 <i>General Nuclear Safety and Control Regulations</i>: (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;	The CRL site and exclusion zone are documented in the current CRL LCH [A-3] under Licence Condition G.3 – Land Use and Occupation, and in the <i>CRL Outer Area Plant Boundary Monuments Property Plan</i> referenced therein [A-21].	<i>CRL Outer Area Plant Boundary Monuments Property Plan</i> [A-21]
3	(b) plans showing the location, perimeter, areas, structures and systems of the nuclear facility;	Relevant information for the Class I nuclear facilities is provided in the facility-specific safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
	(c) evidence that the applicant is the owner of the site or has authority from the	Atomic Energy of Canada Limited (AECL) has engaged CNL to manage and operate its sites and projects, including the CRL site [A-22].	Letter, G. Williamson (AECL) to D. Carr (CNL) [A-22] <i>Supplemental</i>

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	owner of the site to carry on the activity to be licensed;		<i>Information</i> [A-12]: Section 2.2
3	(d) the proposed management system for the activity to be licensed, including measures to promote and support safety culture;	CNL is proposing to utilize the existing Management System for the licensed activities. CNL's Management System is documented in the <i>CNL Management System Manual</i> [A-16] and lower tier documents through the documents referenced in SCA – Management System, Licence Condition 1.1 of the CRL LCH [A-3]. The Management System covers a breath of areas, including, but not limited to, measures to promote and support a safety culture.	<i>Canadian Nuclear Laboratories Management System Manual</i> [A-16] <i>Supplemental Information</i> [A-12]: Section 4.1
3	(d.1) the proposed human performance program for the activity to be licensed, including measures to ensure workers' fitness for duty;	CNL is proposing to utilize the existing human performance program. Human performance at CRL is implemented by the CNL Performance Assurance FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.1 of the CRL LCH [A-3]. The Performance Assurance FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Workers' fitness for duty measures, including hours of work and fatigue management, are implemented through CNL's Fitness for Duty standards [A-23][A-24].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Fitness for Duty</i> [A-23] <i>Fitness for Duty: Policy on Managing Alcohol and Drug Use</i>

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			[A-24] <i>Supplemental Information</i> [A-12]: Section 4.2
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;	Comprehensive information on name, form, characteristics, and quantity of hazardous substances present at CRL is described in the following documents: • Facility-specific chemical inventories, which are posted at facility entrances and summarize the name, form, and quantity of chemicals stored and used in CRL licensed facilities. • Safety Data Sheets, which are available for all hazardous substances in use across CRL and provide detailed information on their characteristics. • Preliminary and Detailed Decommissioning Plans. • Safety Analysis Reports	N/A

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3	(f) the proposed worker health and safety policies and procedures;	CNL is proposing to utilize the existing worker health and safety policies and procedures. Worker health and safety at CRL is implemented by the: • CNL Occupational Safety and Health and Electrical Safety FSAs, through the documents referenced in SCA – Conventional Health and Safety, Licence Condition 8.1 of the CRL LCH [A-3]. • CNL Safety and Health Policy [A-25]. The Occupational Safety and Health and Electrical Safety FSAs are described in Program Description Documents which are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Safety and Health</i> [A-25] (the policy) <i>Supplemental Information</i> [A-12]: Section 4.8
3	(g) the proposed environmental protection policies and procedures;	CNL is proposing to utilize the existing environmental protection policies and procedures. Environmental protection at CRL is implemented by the: • CNL Environmental Protection FSA, through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. • CNL Environment Policy [A-26]. The Environmental Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Environment</i> [A-26] (the policy) <i>Supplemental Information</i> [A-12]: Section 4.9
3	(h) the proposed effluent and environmental monitoring programs;	CNL is proposing to utilize the existing effluent and environmental monitoring programs. Effluent and environmental monitoring is implemented by	<i>Supplemental Information</i> [A-12]: Section 4.9

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		the CNL Environmental Protection FSA through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3], specifically: • <i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan [A-27].</i> • <i>CRL Radioactive Effluent and Emissions Verification Monitoring Plan [A-28]</i> • <i>Chalk River Laboratories Environmental Monitoring Plan [A-29]</i>	<i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan [A-27]</i> <i>CRL Radioactive Effluent and Emissions Verification Monitoring Plan [A-28]</i> <i>Chalk River Laboratories Environmental Monitoring Plan [A-29]</i>
3	(i) if the application is in respect of a nuclear facility referred to in paragraph 3(b) of the <i>Nuclear Security Regulations</i> , the information and documents required by sections 4 and 27 of those Regulations;	See Table 6.	N/A

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	(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	CNL is proposing to utilize the existing programs for purposes of Section 3(j). Notification to local residents and associated activities is implemented by the: • CNL Public Information Program [A-30], through the documents referenced in Licence Condition G.6 of the CRL LCH [A-3]. • Emergency Preparedness FSA, through the documents referenced in SCA – Emergency Management and Fire Protection, Licence Condition 10.1 of the CRL LCH [A-3]. The Emergency Preparedness FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Public Information Program for Canadian Nuclear Laboratories</i> [A-30] <i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 2.5 Section 4.10
3	(k) the proposed plan for the decommissioning of the nuclear facility or of the site.	CNL is proposing to utilize the existing decommissioning plans for the CRL site. The proposed plan for the decommissioning of the CRL site is captured in the <i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> (ODCP)[A-31], as per SCA – Waste Management, Licence Condition 11.2 of the CRL LCH [A-3].	<i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]
4	An application for a licence to prepare a site for a Class I nuclear facility shall contain the following information in	Any consideration to prepare a site for a Class I facility will be evaluated through a licensing basis assessment (LBA). The LBA is required to be submitted to CNSC staff for review and concurrence on CNL's LBA determination. CNSC staff will review the information submitted by CNL to	N/A

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	addition to the information required by Section 3: (a) description of the site evaluation process and of the investigations and preparatory work that have been and will be done on the site and in the surrounding area; (b) a description of the site's susceptibility to human activity and natural phenomena, including seismic events, tornadoes and floods; (c) the proposed program to determine the environmental baseline characteristics of the site and the surrounding area; (d) the proposed quality assurance program for the design of the nuclear facility; and (e) the effects on the environment and the health and safety of persons that	independently determine if the proposed activity remains within the licensing basis. If the activity is determined to be within the licensing basis, a licensing plan will be submitted to CNSC staff and CNL will use existing programs to ensure that all applicable requirements are met. If the activity is determined to be outside of the licensing basis, a licence amendment will be sought, as required.	

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	may result from the activity to be licensed, and the measures that will be taken to prevent or mitigate those effects.		
5	An application for a licence to construct a Class I nuclear facility shall contain the following information in addition to the information required by Section 3: (a) a description of the proposed design of the nuclear facility, including the manner in which the physical and environmental characteristics of the site are taken into account in the design; (b) a description of the environmental baseline characteristics of the site and the surrounding area; (c) the proposed construction program, including its schedule;	Any consideration to prepare a site for a Class I facility will be evaluated through a licensing basis assessment. The licensing basis assessment is required to be submitted to CNSC staff for review and concurrence on CNL's LBA determination. CNSC staff will review the information submitted by CNL to independently determine if the proposed activity remains within the licensing basis. If the activity is determined to be within the licensing basis, a licensing plan will be submitted to CNSC staff and CNL will use existing programs to ensure that all applicable requirements are met. If the activity is determined to be outside of the licensing basis, a licence amendment will be sought, as required.	N/A

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	(d) a description of the structures proposed to be built as part of the nuclear facility, including their design and their design characteristics; (e) a description of the systems and equipment proposed to be installed at the nuclear facility, including their design and their design operating conditions; (f) a preliminary safety analysis report demonstrating the adequacy of the design of the nuclear facility; (g) the proposed quality assurance program for the design of the nuclear facility; (h) the proposed measures to facilitate Canada's compliance with any applicable safeguards agreement; (i) the effects on the environment and the health and safety of persons that		

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	may result from the construction, operation and decommissioning of the nuclear facility, and the measures that will be taken to prevent or mitigate those effects; (j) 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; (k) the proposed measures to control releases of nuclear substances and hazardous substances into the environment; (l) the proposed program and schedule for recruiting, training and qualifying workers in respect of the		

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	operation and maintenance of the nuclear facility; and (m) a description of any proposed full-scope training simulator for the nuclear facility.		
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: (a) a description of the structures at the nuclear facility, including their design and their design operating conditions;	Relevant information on the Class I nuclear facilities structures, their design, and design operating conditions, can be found in the individual facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
6	(b) a description of the systems and equipment at the nuclear facility, including their design and their design operating conditions;	Relevant information on the Class I nuclear facilities systems and equipment, including their design and design operating conditions, can be found in the individual facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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6	(c) a final safety analysis report demonstrating the adequacy of the design of the nuclear facility;	Relevant information demonstrating the adequacy of the design of the Class I nuclear facilities can be found in the individual facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
6	(d) the proposed measures, policies, methods, and procedures for operating and maintaining the nuclear facility;	CNL is proposing to utilize the existing measures, policies, methods and procedures for the purposes of Section 6(d). The measures, policies, methods, and procedures for operating the nuclear facilities at CRL are defined by the CNL Conduct of Operations FSA and implemented through the documents listed in SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3], including individual facility authorization documents. The measures, policies, methods, and procedures for maintaining the nuclear facilities at CRL are defined by the CNL Fitness for Service FSA and implemented through the documents listed in SCA – Fitness for Service, Licence Condition 6.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.3 Section 4.6
6	(e) the proposed procedures for handling, storing, loading, and transporting nuclear	CNL is proposing to utilize the existing procedures for the purposes of Section 6(e). The procedures for handling, storing, loading, and	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

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Class I Nuclear Facilities Regulations			
	substances and hazardous substances;	transporting nuclear and hazardous substances are defined by the: • CNL Transportation of Dangerous Good FSA and implemented through the documents listed in SCA – Packaging and Transport, Licence Condition 14.1 of the CRL LCH [A-3]. • CNL Nuclear Materials and Safeguards Management FSA and implemented through the documents listed in SCA –Safeguards and Non-Proliferation, Licence Condition 13.1 of the CRL LCH [A-3]. • CNL Radiation Protection FSA and implemented through the documents listed in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. • CNL Occupational Safety and Health FSA and implemented through the documents listed in SCA – Conventional Health and Safety, Licence Condition 8.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Supplemental Information</i> [A-12]: Section 4.14 Section 4.13 Section 4.7 Section 4.8
6	(f) the proposed measures to facilitate Canada's compliance with any applicable safeguards agreement;	CNL is proposing to utilize existing measures to facilitate Canada's compliance with applicable safeguards agreements. Canadian safeguards agreements are implemented by the Nuclear Materials and Safeguards Management FSA and through the documents listed in SCA – Safeguards and Non-	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.13

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
		Proliferation, Licence Condition 13.1 of the CRL LCH [A-3]. The Nuclear Materials and Safeguards Management FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
6	(g) the proposed commissioning program for the systems and equipment that will be used at the nuclear facility;	CNL is proposing to utilize the existing commissioning program for the systems and equipment that will be used at CRL. Commissioning is implemented by the Commissioning FSA in accordance with SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3]. The Commissioning FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
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;	The measures to be taken to prevent or mitigate effects on the environment and health and safety of persons at CRL are implemented by the: • CNL Environmental Protection FSA as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. • CNL Occupational Safety and Health and Electrical Safety FSAs as per SCA – Conventional Health and Safety, Licence Condition 8.1 of the CRL LCH [A-3]. • CNL Radiation Protection FSA as per SCA - Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.9 Section 4.8 Section 4.7

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
		Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
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;	Relevant information is provided in the <i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-27] and <i>CRL Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-28].	<i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-27] <i>CRL Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-28]
6	(j) the proposed measures to control releases of nuclear substances and hazardous substances into the environment;	CNL is proposing to utilize the existing measures to control releases of nuclear and hazardous substances into the environment. Environmental protection at CRL is implemented by the CNL Environmental Protection FSA as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. The Environmental Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.9
6	(k) the proposed measures to prevent or mitigate the effects of accidental releases	CNL is proposing to utilize the existing measures for the purposes of Section 6(k). The measures to mitigate or prevent the effects of	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
	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	accidental releases are implemented by the following CNL FSAs: - Environmental Protection, through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. - Emergency Preparedness, through the documents referenced in SCA – Emergency Management Fire Protection, Licence Condition 10.1 of the CRL LCH [A-3]. - Radiation Protection, through the documents referenced in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Supplemental Information</i> [A-12]: Section 4.9 Section 4.10 Section 4.7

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
	prevent or mitigate the effects of an accidental release;		
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;	CNL is proposing to utilize the existing measures to prevent acts of sabotage or attempted sabotage at CRL. Security at CRL is implemented by the CNL Security FSA and Nuclear Cyber Security FSA, through the documents referenced under SCA – Security, Licence Condition 12.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.12
6	(m) the proposed responsibilities of and qualification requirements and training program for workers, including the procedures for the requalification of workers; and	CNL is proposing to utilize the existing programs for the purposes of Section 6(m). Training and qualification of personnel at CRL is implemented by the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3]. The Training and Development FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Some positions and roles at CNL require a fully implemented and formally governed Systematic Approach to Training (SAT) program. These positions and roles are identified in the <i>Application of the Systematic Approach to</i>	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
		<i>Training (SAT) at CNL</i> list, which is also referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
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.	CNL is proposing to utilize the existing programs for the purposes of Section 6(n). Training and qualification of personnel at CRL is ensured through implementation of the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3]. The Training and Development FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Some positions and roles at CNL require a fully implemented and formally governed Systematic Approach to Training (SAT) program. These positions and roles are identified in the <i>Application of the Systematic Approach to Training (SAT) at CNL</i> list, which is also referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3
7	An application for a licence to decommission a Class I nuclear facility shall contain the following information in addition to the information required by section 3: (a) a description of and the proposed schedule for the	The proposed plan for the decommissioning of the CRL site is captured in the <i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31], as per SCA – Waste Management, Licence Condition 11.2 of the CRL LCH [A-3]. CNL will inform the CNSC under separate cover on a case-by-case basis of the intention to proceed with decommissioning activities with submission of detailed	<i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
	decommissioning, including the proposed starting date and the expected completion date of the decommissioning and the rationale for the schedule; (b) the nuclear substances, hazardous substances, land, buildings, structures, systems and equipment that will be affected by the decommissioning; (c) the proposed measures, methods and procedures for carrying on the decommissioning;	decommissioning plans and obtain all necessary approvals at the appropriate time.	
7	(d) the proposed measures to facilitate Canada's compliance with any applicable safeguards agreement;	CNL is proposing to utilize existing measures to facilitate Canada's compliance with applicable safeguards agreements. Canadian safeguards agreements are implemented by the Nuclear Materials and Safeguards Management FSA and through the documents listed in SCA – Safeguards and Non-Proliferation, Licence Condition 13.1 of the CRL LCH [A-3]. The Nuclear Materials and Safeguards Management FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.13

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
7	(e) the nature and extent of any radioactive contamination at the nuclear facility;	Relevant information is provided in the <i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]	<i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]
7	(f) the effects on the environment and the health and safety of persons that may result from the decommissioning, and the measures that will be taken to prevent or mitigate those effects;	The effects on the environment and the health and safety of persons that may result from decommissioning are described in Detailed Decommissioning Plans, referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. The measures to be taken to prevent or mitigate effects on the environment and health and safety of persons at CRL are implemented by the: • CNL Environmental Protection FSA as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. • CNL Occupational Safety and Health and Electrical Safety FSAs as per SCA – Conventional Health and Safety, Licence Condition 8.1 of the CRL LCH [A-3]. • CNL Radiation Protection FSA as per SCA - Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
7	(g) the proposed location of points of release, the proposed maximum quantities and	Relevant information is provided in the <i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-27] and <i>CRL Radioactive Effluent Verification Monitoring Plan</i> [A-28].	<i>CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
	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;		27] <i>CRL Radioactive Effluent and Emissions Verification Monitoring Plan</i> [A-28]
7	(h) the proposed measures to control releases of nuclear substances and hazardous substances into the environment;	CNL is proposing to utilize the existing measures to control releases of nuclear and hazardous substances into the environment. Environmental protection at CRL is implemented by the CNL Environmental Protection FSA as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. The Environmental Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.9
7	(i) 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 an emergency response plan;	CNL is proposing to utilize the existing measures for the purposes of Section 7(i). The measures to mitigate or prevent the effects of accidental releases are implemented by the following CNL FSAs: - Environmental Protection, through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. - Emergency Preparedness, through the documents	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.9 Section 4.10 Section 4.7

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
		referenced in SCA – Emergency Management Fire Protection, Licence Condition 10.1 of the CRL LCH [A-3]. Radiation Protection, through the documents referenced in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
7	(j) the proposed qualification requirements and training program for workers; and	CNL is proposing to utilize the existing programs for the purposes of Section 7(j). Training and qualification of personnel at CRL is implemented by the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3]. The Training and Development FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Some positions and roles at CNL require a fully implemented and formally governed Systematic Approach to Training (SAT) program. These positions and roles are identified in the <i>Application of the Systematic Approach to Training (SAT) at CNL</i> list, which is also referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3

Section	Requirement	CNL Response	Document Enclosed
Class I Nuclear Facilities Regulations			
7	(k) a description of the planned state of the site on completion of the decommissioning.	Relevant information is provided in the <i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]	<i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]

Table 3 – Class II Nuclear Facilities and Prescribed Equipment Regulations [A-32]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
3	An application for a licence to construct a Class II nuclear facility shall contain the following information in addition to the information required by section 3 of the <i>General Nuclear Safety and Control Regulations</i>: (a) the proposed name and location of the nuclear facility; (b) evidence that the applicant is the owner of the proposed site or has authority from the owner of the site to construct the nuclear facility; (c) a description of the Class II prescribed equipment that is proposed to be used, including its design operating conditions; (d) the proposed measures to control access within the nuclear facility and any other safety-related	The need to construct a Class II facility will be evaluated through a licensing basis assessment. If the activity is determined to be within the licensing basis, a licensing plan will be submitted to CNSC staff and CNL will use existing programs to ensure that all applicable requirements are met. If the activity is determined to be outside of the licensing basis, a licence amendment will be sought, as required.	N/A

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	features, including the schematics of the devices involved and their wiring; (e) the proposed plans, elevations and drawings of the nuclear facility, showing its layout, location, the location of its components and the location of adjacent areas that may be occupied by persons; (f) the proposed purpose of the adjacent areas, including a description of their uses and the estimated levels of occupancy; (g) the proposed location, type, composition, thickness, and density of shielding material, including the method that will be used to verify the composition and density and the calculations that will be used to determine the adequacy of the shielding;		

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	(h) the proposed location and dimensions of voids in the shielding, including access ways and service ducts; (i) a description of the proposed ventilation system, including the ventilation flow rate, air circulation and location of intake and discharge points in respect of any irradiator or particle accelerator; (j) the proposed quality assurance program for the design and construction of the nuclear facility; (k) the type and energy of radiation produced by any particle accelerator to be encompassed by the licence; (l) the anticipated maximum dose of radiation that may be received by any person as a result of the commissioning of and		

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	during the operation of the nuclear facility; (m) the direction of the direct beam of any teletherapy machine to be encompassed by the licence and a description of the physical means that may be used to limit the direction of that beam; (n) the expected and maximum radiological workloads during the commissioning and operation of the nuclear facility, per week in grays at 1 m, for any teletherapy machine to be encompassed by the licence; (o) the anticipated number of hours per week that the Class II prescribed equipment in the nuclear facility will be operated for the purpose of treatment, dosimetry, servicing or research;		

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	(p) the effects on the environment and the health and safety of persons that may result from the activity to be licensed; (q) the proposed responsibilities of and qualification requirements and training program for workers during the operation of the nuclear facility; (r) the 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 nuclear facility; and (s) the proposed plan for the decommissioning of the nuclear facility		
4	An application for a licence to operate a Class II nuclear	The name and location of the existing Class II nuclear facilities at CRL are described in the facility-specific safety	<i>Licensing Basis List for Chalk River</i>

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	facility shall contain the following information in addition to the information required by section 3 of the <i>General Nuclear Safety and Control Regulations</i> : (a) the name and location of the nuclear facility;	analysis reports, which are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Laboratories</i> [A-6]
4	(b) the proposed commissioning plan;	CNL is proposing to utilize the existing commissioning plans. Commissioning is implemented by the Commissioning FSA in accordance with SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3]. The Commissioning FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(c) a description of the results of any commissioning work;	Requirements for commissioning are implemented by the Commissioning FSA in accordance with SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3]. The Commissioning FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(d) evidence that the applicant is the owner of the site or has authority from the owner of the site to operate the nuclear facility;	AECL has engaged CNL to manage and operate its sites and projects, including the CRL site [A-22].	Letter, G. Williamson (AECL) to D. Carr (CNL) [A-22] <i>Supplemental</i>

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
			<i>Information</i> [A-12]: Section 2.2
4	(e) a description of the components, systems and equipment proposed to be used, including their design operating conditions;	Relevant information on the Class II nuclear facilities' components, systems, and equipment, including their design operating conditions, can be found in the individual facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(f) the proposed measures, policies, methods, and procedures for operating and maintaining the nuclear facility;	CNL is proposing to utilize the existing measures, policies, methods, and procedures for the purposes of Section 4(f). The measures, policies, methods, and procedures for operating the nuclear facilities at CRL are defined by the CNL Conduct of Operations FSA and implemented through the documents listed in SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3], including individual facility authorization documents. The measures, policies, methods, and procedures for maintaining the nuclear facilities at CRL are defined by the CNL Fitness for Service FSA and implemented through the documents listed in SCA – Fitness for Service, Licence Condition 6.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.3 Section 4.6

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
4	(g) a description of the proposed procedures for handling, storing, loading, and transporting nuclear substances and hazardous substances;	CNL is proposing to utilize the existing procedures for the purposes of Section 4(g). The procedures for handling, storing, loading, and transporting nuclear and hazardous substances are defined by the: • CNL Transportation of Dangerous Good FSA and implemented through the documents listed in SCA – Packaging and Transport, Licence Condition 14.1 of the CRL LCH [A-3]. • CNL Nuclear Materials and Safeguards Management FSA and implemented through the documents listed in SCA –Safeguards and Non-Proliferation, Licence Condition 13.1 of the CRL LCH [A-3]. • CNL Radiation Protection FSA and implemented through the documents listed in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. • CNL Occupational Safety and Health FSA and implemented through the documents listed in SCA – Conventional Health and Safety, Licence Condition 8.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.14 Section 4.13 Section 4.7 Section 4.8
4	(h) the proposed quality assurance program;	CNL is proposing to utilize the existing quality assurance program. The quality assurance program is implemented by the CNL	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
		Quality FSA, as per SCA – Management System, Licence Condition 1.1 of the CRL LCH [A-3]. The Quality FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
4	(i) the type and energy of radiation produced by any particle accelerator to be encompassed by the licence;	Relevant information is provided in the facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(j) the proposed measures to ensure that the type of beam producible by, and the maximum output energy, limits to the beam orientation and maximum radiation dose rate of, the Class II prescribed equipment cannot be inadvertently altered;	CNL is proposing to utilize the existing measures for the purposes of Section 4(j). Relevant information is provided in the facility safety analysis reports as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(k) the proposed method for measuring the effectiveness of the shielding of the nuclear facility and any	CNL is proposing to utilize the existing measures for the purposes of Section 4(k). Relevant information is provided in the facility safety analysis reports as per SCA – Safety Analysis, Licence	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	results of those measurements;	Condition 4.1 of the CRL LCH [A-3]. The requirements for shielding are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
4	(l) a description of the proposed portable radiation detection equipment, including its type, sensitivity, range, and accuracy and the methods and procedures for calibrating it;	CNL is proposing to utilize the existing equipment for the purposes of Section 4(l). These are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(m) the proposed methods, procedures and equipment for conducting the leak tests required by these Regulations;	CNL is proposing to utilize the existing measures for the purposes of Section 4(m). Leak testing is implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
4	(n) a description of any proposed area radiation monitoring system;	CNL is proposing to utilize the existing systems for the purposes of Section 4(n). The requirements for area radiation monitoring are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(o) the anticipated maximum dose of radiation that may be received by any person as a result of the commissioning of the nuclear facility;	The anticipated maximum dose of radiation that may be received as a result of the commissioning of a nuclear facility is assessed and managed under CNL's Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(p) the expected and maximum radiological workloads, per week in grays at 1 m, for any teletherapy machine to be encompassed by the licence;	There are no teletherapy machines at CRL.	N/A
4	(q) the anticipated number of hours per week that the Class II prescribed	The weekly operational hours for Class II prescribed equipment fluctuate based on evolving operational	<i>Chalk River Laboratories Annual Compliance</i>

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	equipment in the nuclear facility will be operated for the purpose of treatment, dosimetry, servicing or research;	requirements of the Class II facilities. Operational hours for the Class II facilities are reported in the <i>Chalk River Laboratories Annual Compliance Monitoring Report</i> [A-15].	<i>Monitoring Report for 2025</i> [A-15]
4	(r) the proposed methods, procedures and equipment for conducting radiation surveys, including the frequency of the surveys and the location of radiation survey points;	CNL is proposing to utilize the existing methods, procedures, and equipment for the purposes of Section 4(r). The requirements for conducting radiation surveys are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
4	(s) the proposed responsibilities of and qualification requirements and training program for workers; and	CNL is proposing to utilize the existing programs and requirements for the purposes of Section 4(s). Training and qualification of personnel at CRL is implemented by the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3]. The Training and Development FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. Specific and generic position descriptions exist within each	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
		facility to define responsibilities and qualification requirements for operators and other workers. Training plans are established accordingly based on these defined requirements.	
4	(t) the proposed plan for the decommissioning of the nuclear facility.	CNL is proposing to utilize the existing plans for decommissioning nuclear facilities at CRL. Decommissioning of nuclear facilities at CRL is implemented by the Cleanup FSA, through the documents referenced in SCA – Waste Management, Licence Condition 11.2 of the CRL LCH [A-3]. The Cleanup FSA is described in a Program Description Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
5	An application for a licence to decommission a Class II nuclear facility shall contain the following information in addition to the information required by section 3 of the <i>General Nuclear Safety and Control Regulations</i>: (a) the name and location of the nuclear facility; (b) the proposed nature of and schedule for the decommissioning;	The proposed plan for the decommissioning of the CRL site is captured in the <i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31] as per SCA – Waste Management, Licence Condition 11.2 of the CRL LCH [A-3]. CNL will inform the CNSC under separate cover on a case-by-case basis of the intention to proceed with decommissioning activities with submission of detailed decommissioning plans and obtain all necessary approvals at the applicable time.	<i>Chalk River Laboratories Overview Decommissioning and Cleanup Plan</i> [A-31]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	(c) the land, buildings, structures, components, systems, equipment, nuclear substances and hazardous substances that will be affected by the decommissioning; (d) the nature, quantity and activity of any radioactive nuclear substances at the nuclear facility; (e) the nature and extent of any radioactive contamination at the nuclear facility, including radiation dose rates; (f) the proposed measures to control releases of radioactive nuclear substances and hazardous substances into the environment; (g) the anticipated maximum dose of radiation that may be received by any person as a result of the decommissioning;		

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
	(h) the maximum quantities and concentrations of nuclear substances and hazardous substances that may be released into the environment; (i) the effects on the environment and the health and safety of persons that may result from the decommissioning, and the measures that will be taken to prevent or mitigate those effects; (j) the proposed responsibilities of and qualification requirements for workers; and (k) a description of the planned state of the site upon completion of the decommissioning.		

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
6	An application for a licence in respect of Class II prescribed equipment, other than a licence to service, shall contain a copy of or the number of any certificate relating to the equipment in addition to the information required by section 3 and, where applicable, section 4 of the <i>General Nuclear Safety and Control Regulations</i> .	The certificate information for Class II prescribed equipment at CRL is included in the <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> list [A-17].	<i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> [A-17]
7	An application for a licence to service Class II prescribed equipment shall contain the following information in addition to the information required by section 3 of the <i>General Nuclear Safety and Control Regulations</i> : (a) the name, model number and characteristics of the equipment or the number of the certificate relating to the equipment	The certificate information for Class II prescribed equipment at CRL is included in the <i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> list [A-17].	<i>Designated Representatives of the Licensee, Site Licenses, Certificates & Permits</i> [A-17]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
7	(b) a description of the nature of the servicing proposed to be carried on	CNL is proposing to utilize the existing methods, procedures and equipment for carrying out servicing. Servicing of the CRL Class II prescribed equipment is incorporated in the facility safety analysis reports, as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
7	(c) the proposed methods, procedures and equipment for carrying on the servicing;	CNL is proposing to utilize the existing methods, procedures and equipment for carrying out servicing. Servicing of the CRL Class II prescribed equipment is incorporated in the facility safety analysis reports, as per SCA – Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. Current versions of the safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
7	(d) the proposed qualification requirements and training program for workers; and	CNL is proposing to utilize the existing programs for the purposes of Section 7(d). Training and qualification of personnel at CRL is implemented by the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3]. The Training and Development FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3
7	(e) the proposed procedures to be followed after completion of the servicing to confirm that the equipment is safe to use.	CNL is proposing to utilize the existing procedures for the purposes of Section 7(e). Relevant material for the Class II nuclear facilities is provided in the facility authorization documents and facility-specific safety analysis reports. Current versions of the facility authorizations and safety analysis reports are referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
15.01	(1) Every licensee who operates a Class II nuclear facility shall appoint a radiation safety officer. (2) Every licensee who services Class II prescribed	Through its decision of 2014 October 22 [A-33], the Commission exempted CNL from requirements of sections 15.01 and 15.02 of the <i>CNSC Class II Nuclear Facilities and Prescribed Equipment Regulations</i> [A-32] in relation to the requirement for a certified radiation safety officer. CNL requests that this exemption remain in effect for the next licence period.	N/A

Section	Requirement	CNL Response	Document Enclosed
Class II Nuclear Facilities and Prescribed Equipment Regulations			
15.02	equipment shall appoint a radiation safety officer. No person shall hold the position of radiation safety officer unless the person has been certified by the Commission or a designated officer authorized under paragraph 37(2)(b) of the Act.		

Table 4 – Nuclear Substances and Radiation Devices Regulations [A-34]

Section	Requirement	CNL Response	Document Enclosed
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 <i>General Nuclear Safety and Control Regulations</i>: (a) the methods, procedures and equipment that will be used to carry on the activity to be licensed;	CNL is proposing to utilize the existing methods, procedures, and equipment for the purposes of Section 3(1)(a). CNL manages the handling of nuclear substances and the operation of radiation devices in compliance with requirements under the following CNL FSAs: • Radiation Protection, through the documents referenced in SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. • Conduct of Operations, through the documents referenced in SCA – Operating Performance, Licence Condition 3.1 of the CRL LCH [A-3]. • Nuclear Materials and Safeguards Management, through the documents referenced in SCA – Safeguards and Non-Proliferation, Licence Condition 13.1 of the CRL LCH [A-3]. • Transportation of Dangerous Goods, through the documents referenced in SCA – Packaging and Transport, Licence Condition 14.1 of the CRL LCH [A-3]. • Environmental Protection, through the documents referenced in SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i>, [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.7 Section 4.3 Section 4.13 Section 4.14 Section 4.9

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
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 i) monitor the release of any radioactive nuclear substance from the site of the activity to be licensed, 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, iii) limit the spread of radioactive contamination within and from the site of the activity to be licensed, and iv) decontaminate any person, site or equipment contaminated	CNL is proposing to utilize the existing methods, procedures, and equipment for the purposes of Section 3(1)(b). Post-accident recovery is implemented by the Emergency Preparedness FSA as per SCA – Emergency Management and Fire Protection, Licence Condition 10.1 of the CRL LCH [A-3]. Monitoring releases of radioactive nuclear substances from the site is implemented by the Environmental Protection FSA as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. Monitoring radioactive contamination and conducting decontamination is implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.10 Section 4.9 Section 4.7

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
	as a result of the activity to be licensed;		
3(1)	(c) a description of the circumstances in which the decontamination referred to in subparagraph (b)(iv) will be carried out;	Levels at which decontamination of personnel and equipment is required are listed in <i>Radiation Levels and Limits</i> document [A-35], which is maintained by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Radiation Levels and Limits</i> [A-35]
3(1)	(d) the proposed location of the activity to be licensed, including a description of the site;	The CRL site is described in the current CRL LCH [A-3] under Licence Condition G.3 – Land Use and Occupation, and in the <i>CRL Outer Area Plant Boundary Monuments Property Plan</i> referenced therein [A-21].	<i>CRL Outer Area Plant Boundary Monuments Property Plan</i> [A-21]
3(1)	(e) the roles, responsibilities, duties, qualifications, and experience of workers;	Specific and generic position descriptions exist within each facility and laboratory located at the CRL site to define roles, responsibilities (duties) and qualification requirements for personnel. Training plans are established accordingly based on these defined requirements.	N/A
3(1)	(f) the proposed training program for workers;	CNL proposes to utilize the existing training program for workers. Training and qualification of personnel at CRL is implemented by the Training and Development FSA, through the documents referenced in SCA – Human Performance Management, Licence Condition 2.2 of the CRL LCH [A-3].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.2.3

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
		The Training and Development FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
3(1)	(g) the proposed instructions for dealing with accidents, including fires and spills, in which the nuclear substance may be involved;	CNL proposes to utilize the existing instructions for this item. Procedures in the event of accidents, including fires and spills, are implemented by the following CNL FSAs: • Emergency Preparedness, as per SCA – Emergency Management and Fire Protection, Licence Condition 10.1 of the CRL LCH [A-3]. • Radiation Protection, as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. • Environmental Protection, as per SCA – Environmental Protection, Licence Condition 9.1 of the CRL LCH [A-3]. • Transportation of Dangerous Goods, as per SCA – Packaging and Transport, Licence Condition 14.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]: Section 4.10 Section 4.7 Section 4.9 Section 4.14
3(1)	(h) the proposed inspection program for the equipment and systems that will be used to carry on the activity to be licensed	CNL proposes to utilize existing inspection programs for the equipment and systems carrying on licenced activities. These are implemented by the Fitness for Service FSA as per SCA – Fitness for Service, Licence Condition 6.1 of the CRL LCH [A-3], and the Radiation Protection FSA as per SCA –	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6] <i>Supplemental Information</i> [A-12]:

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
		Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	Section 4.6
3(1)	(i) the methods, procedures and equipment that will be used to calibrate radiation survey meters in accordance with these Regulations;	CNL will utilize existing methods, procedures and equipment. These are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-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).	CNL will utilize the existing methods and procedures and equipment. These are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
3(1)	(k) the methods, procedures and equipment that will be used to conduct the leak	CNL will utilize existing methods and procedures and equipment. These are implemented by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
	tests and surveys required by these Regulations;	CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	
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;	The CRL site contains existing laboratories and facilities that can accommodate unsealed sources. Relevant requirements regarding laboratory and facility design are implemented by the following CNL FSAs: • Radiation Protection as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. • Design Authority and Design Engineering as per SCA - Physical Design, Licence Condition 5.1 of the CRL LCH [A-3]. • Safety Analysis as per SCA - Safety Analysis, Licence Condition 4.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
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	Relevant information regarding nuclear substances and radiation devices at the CRL site is maintained in a database by the Radiation Protection FSA as per SCA – Radiation Protection, Licence Condition 7.1 of the CRL LCH [A-3]. The Radiation Protection FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
	device, and the quantity of the devices;		
3(1)	(n) where the application is in respect of Category I, II or III nuclear material, as defined in section 1 of the <i>Nuclear Security Regulations</i>, i) the measures that will be taken to prevent nuclear criticality, and ii) the information required by Section 4 of the Nuclear Security Regulations and, if applicable, section 27 of those Regulations;	CNL proposes to utilize existing measures to prevent nuclear criticality. These are implemented by the Nuclear Criticality Safety FSA as per SCA – Safety Analysis, Licence Condition 4.2 of the CRL LCH [A-3]. The Nuclear Criticality Safety FSA is described in a Program Description Document referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. See Table 6 for the information required by the Nuclear Security Regulations.	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]
3(1)	(o) if the applicant will be manufacturing or distributing radiation devices referred to in paragraph 5(1)(c) or section 6 or 7, or check sources mentioned in section 8.1, the proposed procedure for the disposal of each radiation device or check source or for its return to the manufacturer.	CNL previously manufactured certain radiation devices and check sources. On an occasional basis, CNL receives these items at CRL from former customers for the purpose of safe management and disposal in accordance with applicable regulatory requirements. Procedures for the disposal of radiation devices and check sources are managed by the Waste Management and Radiation Protection FSAs. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Substances and Radiation Devices Regulations			
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 <i>General Nuclear Safety and Control Regulations</i>: (a) the brand name and model number of the device or the number of the certificate relating to the device; (b) a description of the nature of the servicing proposed to be carried on; (c) the proposed methods, procedures and equipment for carrying on the servicing; (d) the proposed qualification requirements and training program for workers; and (e) the proposed procedures to be followed after completion of the servicing to confirm that the device is safe to use.	At present, servicing of radiation devices at CRL is performed by qualified service providers. Should a future operational need arise for servicing to be conducted by CNL (for example, in the event that a manufacturer or authorized service provider is no longer in operation), CNL has established programs under the Radiation Protection and Training and Development FSAs that would enable such activities to be undertaken. This would involve development and implementation of appropriate procedures, the provision of suitable tools and equipment, and the completion of required training and qualification of workers. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Table 5 – Packaging and Transport of Nuclear Substances Regulations [A-11]

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
7	An application for a licence under subsection 24(2) of the Act to transport a nuclear substance must contain: (a) the applicable information required by section 3 of the <i>General Nuclear Safety and Control Regulations</i> ;	See Table 1.	N/A
7	(b) the information required by section 100 of the <i>Nuclear Security Regulations</i> if the substance is a Category I nuclear material, Category II nuclear material or Category III nuclear material, as those terms are defined in section 1 of those Regulations;	See Table 6.	<i>Transportation Security Plan</i> [A-4]
7	(c) the name, postal address and telephone number of each consignor and consignee;	CNL is the consignor and consignee of all shipments of nuclear material within the CRL site. Relevant information is provided below. Applicant's Name: Canadian Nuclear Laboratories Ltd. Business Address: Chalk River Laboratories 286 Plant Road	N/A

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
		Chalk River, Ontario K0J 1J0 Telephone Number: 613-584-3311	
7	(d) if the nuclear substance is one of those referred to in paragraph 6(1)(b), i) a description of the nuclear substance, including the name, chemical form and physical state, the activity — or, in the case of fissile material, the mass — of each nuclear substance in a package and the total activity or mass in the consignment, ii) the country of origin of the nuclear substance, iii) the reason for selecting a route through Canada, iv) the name of each carrier, v) the dates, times and locations of its arrival into and departure from Canada and of any	Nuclear substances in various forms and physical states are transported within the boundaries of the CRL site. These movements are conducted under established site-specific procedures and are controlled and secure. The <i>Chalk River Laboratories Site Emergency Response Plan</i> [A-36] applies to on-site transportation involving radioactive material. The plan [A-36] is maintained by CNL's Emergency Preparedness FSA and is updated on a periodic basis, as required.	<i>Chalk River Laboratories Site Emergency Response Plan</i> [A-36]

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	scheduled stop or transshipment in Canada, vi) the number of the certificate or approval applicable to the package, vii) the number of packages to be transported, viii) the types of conveyance to be used during transit, ix) if a vessel is to be used as a conveyance during transit, the name of the vessel and its flag state, x) the United Nations number for the nuclear substance, and xi) the reference number of the emergency response assistance plan that is approved under section 7 of the <i>Transportation of Dangerous Goods Act, 1992</i> or a reference to the effect that a plan is not required, as the case may be;		

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
7	(e) if the nuclear substance is contained in a large object, i) information that demonstrates that the internal contamination (A) is contained within the object and that all openings are sealed, (B) meets the requirements applicable to an SCO-I or SCO-II as set out in the IAEA Regulations, (C) is caused by a substance that is classified as non-fissile or fissile-excepted radioactive material, and (D) is caused by a substance that is in solid form and that any liquid content is negligible, ii) information that demonstrates that the large object (A) meets the free drop test requirements set out in the IAEA Regulations for the industrial package	Nuclear substances in various forms and physical states are transported within the boundaries of the CRL site. These movements are conducted under established site-specific procedures and are controlled and secure.	N/A

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	type referred to in section 27 for the SCO classification determined for the internal contamination, (B) does not have a dose rate on contact of more than 2 mSv/h from the accessible surfaces of the object, as prepared for shipment, and (C) does not have more than 4 Bq/cm² of contamination on the exterior surfaces, iii) a detailed transport plan covering all activities associated with the shipment, including (A) radiation protection, (B) emergency response, and (C) any special precautions or special administrative or operational controls that are to be employed during transport, and		

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	iv) details of the applicable management system;		
7	(f) if the transport of the nuclear substance cannot meet the requirements of these Regulations, i) information that demonstrates that the overall level of safety in transport is at least equivalent to that which would be provided if all the applicable requirements of these Regulations were met, ii) a statement of the reasons why the consignment cannot meet the requirements of these Regulations, and iii) a statement of any special precautions or special administrative or operational controls that are to be employed during transport to compensate for the	Nuclear substances in various forms and physical states are transported within the boundaries of the CRL site. These movements are conducted under established site-specific procedures and are controlled and secure.	N/A

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	inability to meet the requirements of these Regulations;		
7	(g) if the transport of the nuclear substance requires a special use vessel, i) the vessel owner's and operator's contact information, including, as applicable, their names, postal addresses, email addresses, telephone numbers and fax numbers, ii) a copy of the radiation protection program applicable to the shipment, iii) details of the consignment, iv) information on the stowage arrangements for the duration of the voyage, including for any consignments loaded or unloaded at ports of call en route,	Nuclear substances in various forms and physical states are transported within the boundaries of the CRL site. These movements are conducted under established site-specific procedures and are controlled and secure.	N/A

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	v) the dates, times and locations of arrival into and departure from Canada and of any scheduled stop in Canada, vi) a copy of any certificate or approval applicable to packages or materials in the consignment, vii) the name of the vessel and its flag state, and viii) a copy of any document issued by the competent authority of the vessel's flag state approving the radiation protection program; and		
7	(h) if the transport of the nuclear substance requires approval of shipment in accordance with the IAEA Regulations, i) the period of time, related to the shipment, for which the approval is sought,	Nuclear substances in various forms and physical states are transported within the boundaries of the CRL site. These movements are conducted under established site-specific procedures and are controlled and secure.	N/A

Section	Requirement	CNL Response	Document Enclosed
Packaging and Transport of Nuclear Substances Regulations			
	ii) information on the radioactive contents, the expected types of conveyance and the probable or proposed route, iii) details of how the precautions and administrative or operational controls referred to in the approval for the package design, if applicable, that was issued in accordance with the IAEA Regulations are to be put into effect, iv) a copy of the applicable approvals for the package design, and v) in the case of fissile material, information on the sum of criticality safety indexes and any related safety assessment, emergency response plan and administrative or operational controls.		

Table 6 – Nuclear Security Regulations [A-10]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
4	An application for a licence in respect of Category I nuclear material, Category II nuclear material or Category III nuclear material or a nuclear facility, other than a transport licence, must contain, in addition to the information required by section 3 of the <i>Nuclear Substances and Radiation Devices Regulations</i> or sections 3 to 8 of the <i>Class I Nuclear Facilities Regulations</i>, as applicable, (a) a nuclear security plan that contains i) a description of the proposed nuclear security system, including each nuclear security measure and any characteristics of the design of the nuclear facility that improve its security,	CNL proposes to utilize the existing nuclear security plans for the CRL site through the requested licence period. These are implemented by the following FSAs: - Physical Security as per SCA - Security, Licence Condition 12.1 of the CRL LCH [A-3]. - Nuclear Cyber Security as per SCA - Security, Licence Condition 12.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	ii) a list that identifies each nuclear security measure that is a critical security measure and that sets out the compensatory measures that will be implemented in the event that it becomes degraded, inoperative or compromised, iii) a description of the areas where Category I nuclear material, Category II nuclear material or Category III nuclear material or other nuclear substances are to be produced, used, processed, stored or transported and the location of those areas, iv) the written arrangements made between the applicant and any off-site response force,		

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	v) the plan and procedures to assess and respond to nuclear security events at the nuclear facility, vi) the process for controlling access to the nuclear facility and verifying the identity of each person who accesses it, vii) the processes for determining who, on entering or exiting the nuclear facility, will be searched or screened, and viii) the cyber security program consisting of the plans, policies and procedures for the protection of the computer systems and electronic components of the nuclear facility against cyber security threats identified in the		

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	threat and risk assessment; and (b) the threat and risk assessment.		
27	The nuclear security plan contained in an application for a licence in respect of a high-security site must contain, in addition to the information and documents required under paragraph 4(a), the following information and documents: (a) in the description of the proposed nuclear security system, a description of the central alarm station, the backup alarm station and the physical barriers, structures, devices and nuclear security measures in respect of each protected area, vital area and inner area in the site; (b) a description of the protected areas, vital areas and inner areas in the site and the potential targets of	CNL proposes to utilize existing systems, equipment, procedures, measures, barriers and otherwise in place at the CRL site in respect of these items. These are implemented by the following CNL FSAs: - Physical Security as per SCA - Security, Licence Condition 12.1 of the CRL LCH [A-3]. - Nuclear Cyber Security as per SCA - Security, Licence Condition 12.1 of the CRL LCH [A-3]. The aforementioned FSAs are described in the respective Program Description Documents referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6].	<i>Licensing Basis List for Chalk River Laboratories</i> [A-6]

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	sabotage and the location of those areas and targets in the site; (c) information about the organizational structure, duties and training of nuclear security officers, the procedures those officers must follow and the minimum number of nuclear security officers and other personnel who will carry out duties related to security at the site; (d) a description of the nuclear security measures that will be implemented by the licensee to ensure that an effective intervention can be made at that site, taking into account the design basis threat and any other threat identified in the threat and risk assessment; (e) a description of the on-site and off-site communications		

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	equipment, systems and procedures; (f) the tactical deployment plans developed with the off-site response force and, if any, the on-site nuclear response force, including an analysis of potential pathways for adversaries and security response times; and (g) for each physical barrier and nuclear security measure that is intended to delay adversaries who are described in the design basis threat or the threat and risk assessment, an analysis of the delay time provided by that barrier or measure and the data supporting that analysis.		
100	An application for a licence to transport Category I nuclear material, Category II nuclear material or Category III nuclear material must contain, in	CNL proposes to utilize the existing transport security plan(s) in place for the CRL site. These are implemented by the Security FSA as per SCA – Security, Licence Condition 12.1 of the CRL LCH [A-3]. The Security FSA is described in the Program Description	<i>Licensing Basis List for Chalk River Laboratories [A-6]</i> <i>Transportation Security Plan [A-4]</i>

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	addition to the information required under section 7 of the <i>Packaging and Transport of Nuclear Substances Regulations, 2015</i>, a transport security plan that includes (a) the name, quantity, radiation level in Gy/h, chemical and physical characteristics and isotopic composition of the nuclear material; (b) a threat and risk assessment; (c) a description of the conveyance and, if any, the escort arrangements; (d) the proposed security measures; (e) a description of how the applicant will evaluate and improve the security measures, including the proposed scheduling of security exercises; (f) the planned route and at least one alternate route;	Document which is referenced in the <i>Licensing Basis List for Chalk River Laboratories</i> [A-6]. For the movement of nuclear material within the boundaries of the CRL site, the CRL Security Program has a <i>Transportation Security Plan</i> [A-4].	

Section	Requirement	CNL Response	Document Enclosed
Nuclear Security Regulations			
	(g) the tracking and communication arrangements made among the applicant, the operator of the land vehicle transporting the nuclear material, the recipient of the material and any off-site response force throughout the transport; and (h) the arrangements made between the applicant and any off-site response force throughout the transport.		

REFERENCES

- [A-1] *General Nuclear Safety and Control Regulations*, SOR/2000-202.
- [A-2] Canadian Nuclear Safety Commission, *Chalk River Laboratories Nuclear Research and Test Establishment Operating Licence*, NRTEOL-01.01/2028, Expiry Date: 2028 March 31.
- [A-3] Canadian Nuclear Safety Commission, *Chalk River Laboratories Nuclear Research and Test Establishment Operating Licence, Licence Conditions Handbook*, NRTEOL-LCH-01.01/2028 (Revision 5), CRL-508760-HBK-002 (Revision 5), 2024 October 31.
- [A-4] *CRL Transportation Security Plan*, 119-508710-PLA-020, Revision 0, 2028 April.
- [A-5] Letter, J. Osborne (CNL) to C. Salmon (CNSC), *Application for Renewal of the Nuclear Research and Test Establishment Operating Licence for Chalk River Laboratories*, CRL-CNNO-26-0034-L, 2026 June.
- [A-6] *Licensing Basis List for Chalk River Laboratories*, 900-514300-LST-006300, Revision 0.1, 2026 June.
- [A-7] *Radiological Areas and Zones*, 900-508740-MCP-027, Revision 3.0, 2025 May.
- [A-8] *Nuclear Safety and Control Act*, S.C. 1997, c. 9.
- [A-9] *Radiation Protection Regulations*, SOR/2000-203.
- [A-10] *Nuclear Security Regulations*, SOR/2000-209.
- [A-11] *Packaging and Transport of Nuclear Substances Regulations*, SOR/2015-145.
- [A-12] *CRL 2028 Licence Renewal Application – Supplemental Information*, CRL-508760-REPT-012604, 2026 June.
- [A-13] *Radiation Protection Action Levels*, 900-508740-LST-002, Revision 3.0, 2025 September 15.
- [A-14] *Administrative Levels and Action Levels for CRL's Radioactive Effluents and Emissions*, 900-509200-STD-008, Revision 4.0, 2026 April 13.
- [A-15] *Chalk River Laboratories Annual Compliance Monitoring Report for 2025*, CRL-00583-ACMR-011607, Revision 0, 2026 April.
- [A-16] *Canadian Nuclear Laboratories Management System Manual*, 900-514100-MAN-001, Revision 4.0, 2026 June.
- [A-17] *Designated Representatives of the Licensee, Sites Licenses, Certificates & Permits*, 900-514300-LST-001, Revision 14.1, 2026 June.
- [A-18] Letter, G. Rickford (NRCAN) to M. Binder (CNSC), untitled, relating to provision of financial guarantees for CNL sites in Canada, 145-NRCANNO-15-0001-L, 2015 July 31.

- [A-19] Letter, N. Greencorn (CNSC) and S. Watt (CNSC) to A. Tisler (CNL), *CNL-CRL – CNSC Staff Review of Canadian Nuclear Laboratories' Submission of the Information Regarding Financial Guarantees for all Atomic Energy of Canada Limited Sites Operated by Canadian Nuclear Laboratories*, 145-NOCN-25-0038-L, 2025 October 02.
- [A-20] *Class I Nuclear Facilities Regulations*, SOR/2000-204, Canada.
- [A-21] *CRL Outer Area Plant Boundary Monuments Property Plan*, E-4500-1101, Revision 8, 2026 June.
- [A-22] Letter, G. Williamson (AECL) to D. Carr (CNL), *Current CNL Applications for Nuclear Facility licence renewals for Chalk River Laboratories and Whiteshell Laboratories- Evidence that CNL has authority from AECL to carry on the licensed activities*, 145-AECLCNL-26-001-L, 2026 April 29.
- [A-23] *Fitness for Duty*, 900-510000-STD-013, Revision 1.2, 2026 February.
- [A-24] *Fitness for Duty: Policy on Managing Alcohol and Drug Use*, 900-510000-STD-015, Revision 1, 2026 March.
- [A-25] *Safety and Health – Policy*, 900-510400-POL-001, Revision 4.4, 2026 May.
- [A-26] *Environment – Policy*, 900-509200-POL-001, Revision 3.4, 2026 May.
- [A-27] *CRL Non-Radioactive Effluent and Emissions Verification Monitoring Plan*, CRL-509200-PLA-003, Revision 2.1, 2025 March.
- [A-28] *CRL Radioactive Effluent and Emissions Verification Monitoring Plan*, CRL-509200-PLA-004, Revision 2.1, 2025 March.
- [A-29] *Chalk River Laboratories Environmental Monitoring Plan*, CRL-509200-PLA-007, Revision 1.0, 2025 March.
- [A-30] *Public Information Program for Canadian Nuclear Laboratories*, CW-513430-REPT-001, Revision 10.0, 2024 October.
- [A-31] *Chalk River Laboratories Overview Decommissioning and Cleanup Plan*, 225-508300-PLA-001, Revision 2, 2023 June.
- [A-32] *Class II Nuclear Facilities and Prescribed Equipment Regulations*, SOR/2000-205, Canada.
- [A-33] Canadian Nuclear Safety Commission, *Record of Proceedings, Including Reasons for Decision, In the Matter of Atomic Energy of Canada Limited: Request for Five Licence Transfers to, and Request for Two Specific Exemptions for, Canadian Nuclear Laboratories Limited*, 2014 October 22.
- [A-34] *Nuclear Substances and Radiation Devices Regulations*, SOR/2000-207, Canada.
- [A-35] *Radiation Levels and Limits*, 900-508740-STD-019, Revision 0.2, 2025 January 29.
- [A-36] *Chalk River Laboratories Site Emergency Response Plan*, CRL-508730-PLA-001, Revision 6.0, 2026 February.