

Canadian Nuclear Safety Commission

2017–18

Departmental Plan

The Honourable Jim Carr, P.C., M.P.
Minister of Natural Resources

Canadian Nuclear Safety Commission
2017–18 Departmental Plan

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President’s message

Our 2017–18 Departmental Plan provides parliamentarians and Canadians with information on what we do and the results we are trying to achieve during the upcoming year. To improve reporting to Canadians, we are introducing a new, simplified report to replace the Report on Plans and Priorities.

The title of the report has been changed to reflect its purpose: to communicate our annual performance goals and the financial and human resources forecast to deliver those results. The report has also been restructured to tell a clearer, more straightforward and balanced story of the actual results we are trying to achieve, while continuing to provide transparency on how taxpayers’ dollars will be spent. We describe our programs and services for Canadians, our priorities for 2017–18, and how our work will fulfill our departmental mandate commitments and the government’s priorities.



The Canadian Nuclear Safety Commission (CNSC) provides regulatory oversight for the licensing and certification of nuclear facilities and activities, and ensures licensees’ compliance with the regulatory regime. This year, we will focus on the following key priorities:

- continuing to ensure **modern nuclear regulation** using science-based, risk-informed and technically sound regulatory practices that consider scientific uncertainties; through conservative regulatory decisions; and evolving expectations
- being a **trusted regulator** that is recognized by the public and industry as independent, open and transparent, as well as a credible source of scientific, technical and regulatory information – all while maintaining a competent and agile organization that is ready and able to meet all challenges that face us
- increasing our **global nuclear influence**, leveraging our expertise as a world-class regulator to influence global nuclear efforts to enhance international nuclear safety, security and non-proliferation
- continuing to **improve management effectiveness**, strengthening workforce planning, modernizing human resource and financial service delivery, and leveraging technology to maximize organizational performance

Of note this year is the Seventh Review Meeting of the Contracting Parties to the Convention on Nuclear Safety. Parties to the Convention have a common interest in developing and promoting nuclear safety. The appointment of our Executive Vice-President and Chief Regulatory Officer as President of this year’s meeting, to be held in the spring of 2017, is an honour for the CNSC.

As in 2016–17, the CNSC will continue to monitor and participate in any government reviews, such as reviews of environmental assessment processes, as well as continue to strengthen our approach to public participation and outreach, including Aboriginal engagement and CNSC 101 sessions. We will be preparing for a licence renewal for the Pickering Nuclear Generating Station, and holding hearings for a number other licence renewals, including those for Point Lepreau Nuclear Generating Station and McClean Lake Mill.

In October 2016, the Commissioner of the Environment and Sustainable Development released a report which included a chapter on the management of site inspections carried out by CNSC staff at nuclear power plants. The CNSC agreed with the Commissioner’s recommendations and has given special attention this year to addressing them. The CNSC has addressed all five recommendations, and will maintain these enhancements moving forward this year.

That said, the bulk of our work will continue to be the day-to-day oversight of nearly 1,700 licensees and ensuring the continued safety of all nuclear activities in Canada. In support of this work, we will maintain our focus on our 10-year workforce renewal plan. We will continue to identify critical competencies for our regulatory work, address attrition risks in our workforce and ensure our staff and new graduates have access to growth and development opportunities.

We also remain committed to promoting a healthy safety culture that encourages professional and respectful scientific debate. The CNSC is a science-based organization that fosters a working environment that encourages staff to communicate their best professional judgments. The ability to raise issues is an important element of a healthy safety culture.

On behalf of the CNSC, I wish to thank our staff, licensees, stakeholders and the public for their continued confidence and support in our efforts to regulate Canada’s nuclear industry and to keep Canada and Canadians safe. Rest assured we will continue to be true to our goals and never compromise safety.

Michael Binder
President

Plans at a glance

In addition to undertaking the regulatory oversight of almost 1,700 licensees, the CNSC has identified the following priorities for 2017–18.

Modern nuclear regulation: Ensure the CNSC uses science-based, risk-informed and technically sound regulatory practices that take into account scientific uncertainties, through conservative regulatory decisions, and evolving expectations.

The CNSC will continue to deliver a modern regulatory program that reflects best practices in regulation and nuclear industry oversight, with a focus on maintaining transparent, science-based and risk-informed programs. To that end, the CNSC reviews its risks regularly and updates its program implementation accordingly.

The CNSC operates in a dynamic environment. Important changes in technology or in nuclear science can have an impact on the CNSC’s regulatory approach. Fundamental changes are also taking in how stakeholders and the public evolve their expectations of the regulator in the licensing approval process. As a modern regulator, the CNSC recognizes that societal changes need to be monitored and addressed and that it must have the tools and processes required to meet these challenges.

The CNSC has for many years used a risk-informed approach to licensing the many varied activities of the nuclear industry. The CNSC strives to continuously improve this practice, with a particular focus on prioritizing regulatory work and allocating resources according to the relative risk of the activities being regulated.

Trusted regulator: Ensure the CNSC is recognized by the public and industry as an independent, open and transparent regulator, and as a credible source of scientific, technical and regulatory information.

The CNSC is mandated through legislation to disseminate objective scientific and technical information. To achieve that mandate, the CNSC must engage in meaningful, science-based dialogue to create a climate of trust and openness with its stakeholders, starting with the safety culture of the regulator, and continue to ensure the transparency of the public hearing process.

Through strengthened consultation, communication and outreach efforts, the CNSC continues to provide information to Aboriginal groups, the public and communities near existing or potential future nuclear facilities to enhance their understanding of how the CNSC regulates the nuclear industry.

The CNSC evaluates the effectiveness of its engagement strategies and its efforts in disseminating information and makes adjustments accordingly.

Global nuclear influence: Ensure the CNSC leverages and influences global nuclear efforts that are relevant to Canadian interests and activities, to enhance international nuclear safety, security and non-proliferation.

The CNSC leverages expertise as a world-class regulator to influence global nuclear regulatory efforts in support of Canadian interests. The safety of the nuclear industry is an issue that is global in nature. In this context, the CNSC must ensure that it works internationally with other regulators, governments, industry and the public to advance regulatory issues related to nuclear safety and security of particular interest to Canada.

Improving management effectiveness: Ensure the CNSC is a dynamic, flexible and highly-skilled organization that is supported by modern management practices and tools, and responds to an evolving workforce and industry.

Parliament and Canadians expect the federal government to be well managed and to exercise sound and efficient stewardship of public funds and resources. In this context, the Government of Canada is challenging departments and agencies to find efficiencies in their programs, processes and tools to further the overall effectiveness of government operations. In addition, given the changes in the nuclear industry – both in the closing of major nuclear facilities and the delays in starting new major projects – the CNSC must adjust to and manage any impacts on the organization, such as workload increased in other areas (e.g., decommissioning), including its cost-recovery regime.

The CNSC must maintain a high level of effectiveness while balancing the realities of a changing work environment. It must create a flexible, effective workplace without compromising safety, and maintain a high level of employee engagement. The CNSC’s plans will focus on adopting modern technology, tools and practices to ensure that it remains nimble and able to adapt to Canadian nuclear industry regulatory oversight challenges and opportunities.

For more information on the CNSC’s plans, priorities and planned results, see the “Planned results” section of this report.

Raison d’être, mandate and role: Who we are and what we do

Raison d’être

The Canadian Nuclear Safety Commission (CNSC) was established on May 31, 2000, with the coming into force of the [Nuclear Safety and Control Act](#)ⁱ (NSCA). It replaced the Atomic Energy Control Board established in 1946 by the Atomic Energy Control Act.

The CNSC is a departmental corporation listed in Schedule II of the [Financial Administration Act](#)ⁱⁱ, and reports to Parliament through the Minister of Natural Resources.

Mandate and role

The CNSC regulates the use of nuclear energy and materials to protect health, safety, security and the environment; to implement Canada’s international commitments on the peaceful use of nuclear energy; and to disseminate objective scientific, technical and regulatory information to the public.

Under the NSCA, the CNSC:

- regulates the development, production and use of nuclear energy in Canada to protect health, safety and the environment
- regulates the production, possession, use and transport of nuclear substances, and the production, possession and use of prescribed equipment and prescribed information
- implements measures respecting international control of the development, production, transport and use of nuclear energy and substances, including measures respecting the non-proliferation of nuclear weapons and nuclear explosive devices
- is responsible for disseminating objective scientific, technical and regulatory information concerning the CNSC’s activities, and about how the development, production, possession, transport and use of nuclear substances affect the environment and the health and safety of persons

[Additional information](#)ⁱⁱⁱ about the CNSC is available on the [CNSC’s website](#).^{iv}

For more general information about the CNSC, see the “Supplementary information” section of this report. For more information on the Minister of Natural Resources’ mandate letter commitments, see the Minister’s mandate letter on the [Prime Minister of Canada’s website](#).^v

Operating context: Conditions affecting our work

To effectively deliver on its mandate, the CNSC continuously monitors the external environment to ensure the organization is ready to adapt to changes that may impact its priorities. Of particular focus are changes brought about by the nuclear industry, and through the domestic and international political contexts.

In Canada, in the near-term, the nuclear industry will primarily be driven by the refurbishments of the Darlington and Bruce Nuclear Generating Stations, as committed to by the Ontario government in the province's [Long-Term Energy Plan](#)^{vi}. To ensure Ontario's energy needs are met during these major projects, Ontario Power Generation (OPG) will also be looking to extend operation of the Pickering Nuclear Generating Station.

In addition to refurbishments, significant decommissioning efforts are being undertaken at Gentilly-2 in Quebec, Whiteshell Laboratories in Manitoba, and with the Nuclear Power Demonstration reactor in Ontario. There will also potentially be changes to how nuclear waste is managed in Canada. The Government of Canada is expected to make a decision on OPG's proposed deep geologic repository (DGR), while the Nuclear Waste Management Organization continues its process to identify a DGR location for Canada's high-level radioactive waste.

Other areas of change within Canada's nuclear industry are the upcoming shutdown of the National Research Universal (NRU) reactor at Chalk River, the shift to alternative means of medical isotope production, and the continued progress towards the realization of small modular reactors (SMRs). Several SMR vendors have brought their designs forward to the CNSC for an initial review.

There have also been shifts in the political landscape that may impact the CNSC's activities. In Canada, the CNSC is closely monitoring the potential impacts of the Government of Canada's efforts to address climate change and our carbon footprint, review Canada's environmental assessment processes, and renew the relationship with Indigenous Peoples. Internationally, the new U.S. administration may set a different course, with global implications in key areas such as energy policy, environmental protection, and non-proliferation.

The global push for clean and reliable energy continues forward following the 2015 Paris Agreement. On November 30, 2015, Prime Minister Trudeau announced Canada's participation in "Mission Innovation", a global initiative of countries, working together to accelerate clean energy innovation for Clean Energy Resources and Projects (CERP). which includes nuclear projects. At the same time, the International Energy Agency projects a 30 percent rise in global

energy demand to 2040. For large emerging economies such as China and India, nuclear energy will play an important role in reducing emissions.

Finally, continued vigilance is required in monitoring evolving threats to nuclear security. Both at home and abroad, efforts are being made to strengthen nuclear security systems to counter the threats of nuclear terrorism, cyberattacks, and proliferation.

Key risks: Things that could affect our ability to achieve our plans and results

The CNSC operates in a dynamic environment that is greatly influenced by shifting industry patterns and global economies. As such, the CNSC continues to make adjustments to its plans and priorities to adequately respond to the industry's ongoing evolution.

Extensive risk-management work continued over the past two years, culminating in the development of an enterprise risk management policy and enterprise risk profile (ERP). While the policy sets out at the highest level the CNSC's commitment to risk management, the ERP provides a snapshot of the organization's key risks, such as the risk of a nuclear accident, malevolent activities, and lost or stolen nuclear substances. The ERP was developed through a series of interviews, workshops and discussions with CNSC staff and managers across the organization. An assessment of the risks was undertaken and additional mitigations were put in place where deemed necessary.

Risks are discussed quarterly, with mitigation measures adjusted as needed.

Key risks

| Risks | Risk response strategy | Link to the department's programs | Link to mandate letter commitments or to government-wide and departmental priorities |
|---|---|-----------------------------------|---|
| <p>Risk of a nuclear accident</p> <p>There is a risk of an accident at a nuclear reactor caused by an unanticipated event. Power reactors apply a defence-in-depth approach that anticipates and mitigates many potential challenges caused by both internal and external events. However, the possibility remains that an event that can lead to an accident is not effectively mitigated.</p> | <ul style="list-style-type: none"> Execute baseline licensing and compliance activities for nuclear power plants Implement periodic safety reviews Undertake research projects to establish site-wide safety goals | Nuclear Reactors | This risk is related to the organizational operations of the Nuclear Reactors program. |
| <p>Malevolent activities</p> <p>There is a risk of malevolent activities and/or diversion of nuclear materials of Canadian origin. Terrorism and cyber-attacks are increasing threats throughout the world and there is a risk a Canadian nuclear facility may be the target of a malevolent act and/or Canadian</p> | <ul style="list-style-type: none"> Continue implementation of REGDOC-2.12.3, Security of Nuclear Substances: Sealed Sources Enhance regulatory control of inventories of | Nuclear Non-Proliferation | This risk is related to the organizational operations of the Nuclear Non-Proliferation program. |

| | | | |
|--|---|---|---|
| nuclear materials may be stolen. | disused and historical sources | | |
| <p>Lost or stolen nuclear substances</p> <p>There is a risk of a loss of regulatory controls over nuclear substances.</p> <p>As the use of nuclear-substances increases, there may be an increase in their loss or appropriation resulting in an incident and/or risks to public safety.</p> | <ul style="list-style-type: none"> • Complete CNSC deliverables under the Single Window Initiative • Implement CNSC action plan resulting from the recommendations of the 2015 International Physical Protection Advisory Service mission recommendations • Strengthen regulatory control of inventories of disused and historical nuclear sources | Nuclear Substances and Prescribed Equipment | This risk is related to the organizational operations of the Nuclear Substances and Prescribed Equipment program. |

Planned results: What we want to achieve this year and beyond

Information on the CNSC's lower-level programs is available on the [CNSC's website](#)^{vii} and in the [TBS InfoBase](#).^{viii}

Programs

Program 1.1: Nuclear Fuel Cycle

Description

This program aims to regulate facilities associated with the nuclear fuel cycle (nuclear processing facilities, nuclear waste management facilities, and uranium mines and mills) to protect the health, safety and security of Canadians and the environment in a manner consistent with Canada's international obligations on the peaceful uses of nuclear energy.

The program regulates all the lifecycle stages for these facilities – from site preparation through construction and operation, to decommissioning (or long-term management, in the case of some nuclear waste facilities). The licensing and compliance activities associated with this program are all managed through a risk-informed and performance-based approach. Compliance verification is conducted against established criteria consistent with the licensing basis of the facility. The results of regulatory activities associated with this program are communicated to the public on a regular basis. The program is guided by a management system, and is based on fundamental safety principles for continuous improvement.

Planning highlights

- Strengthen our risk-informed approach to regulating nuclear fuel cycle facilities, taking into account the relative risks of the regulated activities (2017–18)
- Assess the application for construction of the Canadian Nuclear Laboratories (CNL) Near Surface Disposal Facility and the revitalization of the Chalk River Laboratories site (2017–18)
- Provide regulatory oversight, including any related environmental assessment work, for Near Surface Disposal Facility, Whiteshell, and Nuclear Power Demonstration (2017–18)
- Assess Ontario Power Generation's submission and technical documentation for the Deep Geologic Repository for Low- and Intermediate Level Waste (2017–18)
- Assess proposed licence renewals for:
 - McClean Lake licence renewal (2017–18)
 - Pickering Waste Management Facility licence renewal (2017–18)
 - Western Waste Management Facility licence renewal (2017–18)
- Develop the regulatory framework around waste and decommissioning (2017–18)

Of the CNSC’s financial resources, 7.4 percent are allocated to this program. The work undertaken in this program supports the decommissioning and nuclear waste management priorities.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear processing facilities, nuclear waste management facilities, and uranium mines and mills are regulated to protect the health, safety and security of Canadians and the environment | Number of radiation exposures over the allowable dose limits for nuclear energy workers and members of the public | 0 | March 31, 2018 | 0 | 0 | 0 |
| | Number of radiological releases to the environment above regulatory limits | 0 | March 31, 2018 | 0 | 0 | 0 |

Budgetary financial resources (dollars)

| 2017–18 main Estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|------------------------|--------------------------|--------------------------|--------------------------|
| 10,096,285 | 10,891,883 | 11,113,660 | 11,304,342 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 Planned FTEs | 2019–20 Planned FTEs |
|----------------------|----------------------|----------------------|
| 68 | 68 | 68 |

Sub-program 1.1.1: Uranium Mines and Mills

Description

This sub-program regulates all phases of uranium mining and milling in Canada (including site preparation, from construction and operation to decommissioning). The CNSC’s licensing of uranium mines and mills is comprehensive and covers 14 separate topics referred to as “safety and control areas” such as design, safety analysis, radiation protection, emergency preparedness, environmental protection and equipment fitness for service. The licensing process follows the stages laid out in the Uranium Mines and Mills Regulations. At each licensing stage, the CNSC determines whether the licence applicant is qualified and has made adequate provisions for the health, safety and security of Canadians and the environment. Compliance activities are applied to operating and decommissioned mines and mills. These activities include facility inspections, review of licensee reports, and environmental, radiation and conventional health and safety data analysis.

The stakeholders associated with this sub-program are primarily uranium mines and mills licensees. Currently, operating uranium mines and mills are predominantly located in Saskatchewan due to the geological composition of the province’s terrain.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 Actual results | 2014–15 Actual results | 2015–16 Actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Uranium mines and mills are regulated to protect the health, safety and security of Canadians | Percentage of uranium mines and mills facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 3,171,371 | 3,235,945 | 3,291,465 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 19 | 19 | 19 |

Sub-program 1.1.2: Nuclear Processing Facilities

Description

This sub-program regulates all phases of nuclear processing in Canada (including site preparation, from construction and operation to decommissioning). Nuclear processing facilities process nuclear material – either as part of the nuclear fuel cycle, or for other industrial or medical uses. The licensing process follows the stages laid out in the Class I Nuclear Facilities Regulations, and covers the 14 separate topics referred to as “safety and control areas”. At each licensing stage, the CNSC determines whether the licence applicant is qualified and has made adequate provisions for the health, safety and security of Canadians and the environment. Compliance activities are applied to operating and decommissioned processing facilities. These activities include facility inspections, review of licensee reports, and environmental, radiation and conventional health and safety data analysis.

The stakeholders associated with this sub-program are primarily licensees associated with uranium refineries, uranium conversion facilities, nuclear fuel fabrication facilities, tritium processing facilities and medical radioisotope processing facilities.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear processing facilities are regulated to protect the health, safety and security of Canadians and the environment | Percentage of nuclear processing facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 3,716,224 | 3,791,893 | 3,856,952 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 24 | 24 | 24 |

Sub-program 1.1.3: Nuclear Waste Management Facilities

Description

This sub-program regulates all phases of nuclear waste management facilities in Canada which process, store or dispose of nuclear waste (including site preparation, from construction and operation to decommissioning and long-term storage). Nuclear waste is defined as any material (liquid, gas or solid) that contains a radioactive nuclear substance (defined in the Nuclear Safety and Control Act) and that the owner has determined to be waste (per regulatory policy P290, Managing Radioactive Waste). Nuclear waste management is regulated through the policies, legislation and responsible organizations set in place to govern the management of radioactive waste in Canada, and outlined in the Government of Canada’s Radioactive Waste Policy Framework.

At each licensing stage, the CNSC determines whether the licence applicant is qualified and has made adequate provisions for the health, safety and security of Canadians and the environment. Compliance activities are applied to operating and decommissioned processing facilities. Compliance activities include facility inspections, review of licensee reports, and environmental, radiation and conventional health and safety data analysis.

The stakeholders associated with this sub-program are primarily licensees associated with the management of low-, intermediate- or high-level nuclear waste.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear waste management facilities are regulated to protect the health, safety and security of Canadians and the environment | Percentage of nuclear waste management facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 4,004,288 | 4,085,822 | 4,155,925 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 25 | 25 | 25 |

Program 1.2: Nuclear Reactors

Description

This program aims to regulate facilities associated with nuclear energy (nuclear power plants and research reactors) to protect the health, safety and security of Canadians and the environment in a manner consistent with Canada’s international obligations on the peaceful uses of nuclear energy.

The program regulates all the lifecycle stages for nuclear reactors (specifically, nuclear power plants and research reactors), from site preparation, construction and operation, to the decommissioning of the facility and abandoning the site (once operations are ended). The licensing and compliance activities associated with this program are all managed through a risk-informed and performance-based approach. Compliance verification is conducted against established criteria consistent with the licensing basis of the facility. The results of all the regulatory activities associated with this program are communicated to the public on a regular basis. The program is guided by a management system and is based on fundamental safety principles for continuous improvement.

Planning highlights

- Strengthen the CNSC’s risk-informed approach in power reactors, taking into account the relative risks of the regulated activity (2017–18)
- Understand implications of whole facility impacts (site-wide safety goals) (2017–18)
- Assess the application for the licence renewal of Point Lepreau Generating Station (2017–18)
- Provide regulatory oversight of Canadian Nuclear Laboratories’ Chalk River licence renewal (2017–18)
- Undertake periodic safety review for the Bruce Nuclear Generating Station (2017–18)
- Provide regulatory oversight of the Pickering Nuclear Generating Station licence renewal – multi-unit probabilistic safety assessment (2017–18)
- Carry out the nuclear emergency preparedness multi-unit severe accident exercise for Pickering Nuclear Generating Station (2017–18)
- Provide regulatory oversight of the refurbishment of Darlington Nuclear Generating Station (2017–18)
- Continue reviews of small modular reactor vendor design (i.e., an assessment of designs based on a vendor’s reactor technology) (2017–18)

Of the CNSC’s financial resources, 29 percent are allocated to this program. The work undertaken in this program supports the refurbishment, decommissioning and new technologies priorities. The identified risk of a nuclear accident is mitigated through this program. Refer to the “Risk response strategy” column of the table in the “Key Risks” section for further details.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear power reactors and research reactors are regulated to protect the health, safety and security of Canadians and the environment | Number of radiation exposures over the allowable dose limits for nuclear energy workers and members of the public | 0 | March 31, 2018 | 0 | 0 | 0 |
| | Number of radiological releases to the environment above regulatory limits | 0 | March 31, 2018 | 0 | 0 | 0 |

Budgetary financial resources (dollars)

| 2017–18 main estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|------------------------|--------------------------|--------------------------|--------------------------|
| 39,698,384 | 42,826,661 | 43,698,681 | 44,448,440 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 Planned FTEs | 2019–20 planned FTEs |
|----------------------|----------------------|----------------------|
| 273 | 273 | 273 |

Sub-program 1.2.1: Nuclear Power Plants

Description

This sub-program regulates all the lifecycle stages for nuclear power plants in Canada (from site preparation, construction and operation, to decommissioning and abandonment, once operations are ended). Nuclear power plants generate electricity for public and industrial consumption. The CNSC’s licensing of nuclear power plants is comprehensive and covers 14 separate topics referred to as “safety and control areas”, such as design, safety analysis, radiation protection, emergency preparedness, environmental protection and equipment fitness for service. The CNSC assesses licence applications to ensure that safety measures are technically and scientifically sound, that all requirements are met, and that the appropriate safety systems are in place to protect people and the environment. After a licence is issued, the CNSC stringently evaluates compliance. In addition to having a team of onsite inspectors, CNSC staff with specific technical expertise regularly visit the plants, to verify that operators are meeting the regulatory requirements and licence conditions.

The stakeholders associated with this sub-program are primarily power plant licensees: Bruce Power, Ontario Power Generation, New Brunswick Power and Hydro-Québec.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear power plants are regulated to protect the health, safety and security of Canadians and the environment | Percentage of nuclear power plant facilities that receive a rating of satisfactory or above | 100 | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 36,339,296 | 37,079,223 | 37,715,408 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 230 | 230 | 230 |

Sub-program 1.2.2: Research Reactors

Description

This sub-program regulates all the lifecycle stages for research reactors in Canada (from site preparation, construction and operation, to decommissioning and abandonment, once operations are ended). Research reactors help scientific research, conduct non-destructive testing and produce radioactive substances for medical, industrial and scientific use. The CNSC’s graded approach to the licensing of research reactors is comprehensive and covers 14 separate topics referred to as “safety and control areas”, such as radiation protection, emergency preparedness, environmental protection and equipment fitness for service. The CNSC assesses licence applications to ensure that safety and control measures are technically and scientifically sound, that all requirements are met, and that the appropriate safety systems are in place to protect people and the environment. After a licence is issued, the CNSC stringently evaluates compliance. In addition to having a team of onsite inspectors, CNSC staff with specific technical expertise regularly visit the plants, to verify that operators are meeting the regulatory requirements and licence conditions.

The stakeholders associated with this sub-program are primarily research reactor licensees: Canadian Nuclear Laboratories (the NRU reactor at Chalk River Laboratories), McMaster University (the McMaster Nuclear Reactor), and the University of Alberta and École Polytechnique (SLOWPOKE reactors).

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|--------|------------------------|------------------------|------------------------|------------------------|
| Research reactors are regulated to protect the health, safety and security of Canadians and the environment | Percentage of research reactor facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 6,487,365 | 6,619,458 | 6,733,032 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 43 | 43 | 43 |

Program 1.3: Nuclear Substances and Prescribed Equipment

Description

This program aims to provide assurance to the Canadian public that nuclear substances and prescribed equipment are regulated to protect the health, safety and security of Canadians and the environment, in a manner consistent with Canada’s international obligations on the peaceful uses of nuclear energy.

The CNSC issues certificates for the design of radiation devices and prescribed equipment to ensure their safe use and issues licences for the safe handling and use of nuclear substances, radiation devices and prescribed equipment. In addition, the CNSC certifies radiography device operators who must be certified to use exposure devices, as well as certain radiation safety officers. The CNSC monitors the regulated activities to ensure the safety of workers and the general public, and to protect the environment. The licences issued are categorized into various use types, depending on the type of licensed activity, nuclear substances and prescribed equipment being used, as well as the risk posed by these use types. The regulated activities for which these licences are issued are related to four distinct stakeholder groups: medical, industrial, commercial, and academic and research. Each of these groups uses nuclear substances and prescribed equipment in its work. The CNSC conducts compliance activities to ensure licensees are in compliance with regulatory requirements.

The licensing and compliance activities associated with this program are all managed through a risk-informed and performance-based approach. Compliance verification is conducted against established criteria consistent with the licensing basis of the activity being regulated. The results of regulatory activities associated with this program are communicated to the public and other stakeholders on a regular basis. The program is guided by a management system, and is based on fundamental safety principles for continuous improvement.

Planning highlights

- Continue implementation of the mobile inspection kit capabilities (2017–18)
- Prepare guidance for potential applicants of proton therapy facilities (2017–18)
- Strengthen regulatory control of inventories of disused and historical nuclear sources (2017–18)
- Continue the comprehensive outreach program for all licensees under this program (2017–18)

Of the CNSC’s financial resources, 10 percent are allocated to this program. The identified risk of lost or stolen nuclear substances is mitigated through this program. Refer to the “Risk response strategy” column of the table in the “Key risks” section for further details.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances and prescribed equipment are regulated to protect the health, safety and security of Canadians and the environment | Number of radiation exposures over the allowable dose limits for nuclear energy workers and members of the public | 0 | March 31, 2018 | 14* | 1** | 0 |
| | Number of radiological releases to the environment above regulatory limits | 0 | March 31, 2018 | 0 | 0 | 0 |

* In terms of doses resulting from the use of nuclear devices in 2013–14, only one nuclear energy worker (NEW) in the industrial sector received a dose above the regulatory dose limit of 50 millisieverts (mSv) per year. Also in the industrial sector, there was an event in March 2014 in which 10 non-nuclear workers received radiation doses above the annual regulatory dose limit for members of the public of 1 mSv. During the same year, three non-nuclear hospital workers received doses above the regulatory dose limit for a member of the public of 1 mSv per year. No immediate health effects were observed or expected as a result of any of these events. Each case was individually reviewed by CNSC staff. CNSC staff followed up with the licensees to ensure that the applicable requirements of section 16 of the Radiation Protection Regulations, for situations in which a dose limit is exceeded, were met.

**There was one radiation exposure that led to a NEW dose limit exceedance during 2014–15. The exposure occurred at the Montreal Neurological Institute (MNI) to a worker's left hand, which exceeded the CNSC's annual extremity dose limit of 500 mSv. No health effects were observed or expected as a result of this dose. The worker received this dose from incorrect handling of fluorine-18. The worker was removed from work, and investigations were carried out by the MNI and CNSC staff. The incident was presented at a Commission public meeting on June 17, 2015 and additional steps by the MNI were proposed to improve the situation, including a review of its radiation safety rules and retraining of its personnel.

In 2014–15, in the medical, industrial, academic and research, and commercial sectors that use nuclear substances, 99.9 percent of the 60,407 NEWs and other workers combined received less than the annual radiation dose limit for members of the public of 1 mSv per year. All NEWs, except the one reported in the table above, received radiation doses below the annual limit 50 mSv per year that applies to NEWs.

Budgetary financial resources (dollars)

| 2017–18 main Estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|
| 13,824,249 | 14,913,615 | 15,217,281 | 15,478,371 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 88 | 88 | 88 |

Sub-program 1.3.1: Medical Sector

Description

This sub-program aims to regulate the production, possession and use of nuclear substances, radiation devices and other prescribed equipment in Canada as it relates to the medical sector.

The medical sector uses nuclear substances and nuclear energy for diagnostic and therapeutic purposes. Medical applications using radiopharmaceuticals are designed to target specific tissues and organs, delivering nuclear substances to specific areas of the body. Radiopharmaceuticals are widely used in the diagnosis of heart disease and cancer. Nuclear energy (produced by nuclear substances and particle accelerators) is used for radiation therapy, to treat various types of cancers and other diseases.

Licences are issued for the safe handling and use of nuclear substances, radiation devices and other prescribed equipment in this area. Compliance activities are conducted to monitor safety and compliance with regulatory requirements.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances and prescribed equipment used in the medical sector are regulated to protect the health, safety and security of Canadians and the environment | Percentage of medical facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 99% ** |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

** This result reflects select instances where inspection results did not meet the threshold of satisfactory or above.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 3,678,728 | 3,753,633 | 3,818,036 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 21 | 21 | 21 |

Sub-program 1.3.2: Industrial Sector

Description

This sub-program aims to regulate the production, possession and use of nuclear substances, radiation devices and prescribed equipment in Canada, as it relates to the industrial sector.

The industrial sector uses nuclear substances for various purposes, ranging from civil engineering work, measurement and control, to the delivery of services such as industrial radiography and oil well logging. These nuclear substances are found in radiation devices such as fixed nuclear gauges (that monitor production processes in the pulp and paper industry), portable nuclear gauges (that measure moisture and density in soil and the compaction of asphalt in road construction) and in radiography devices (used for materials analysis). The production of several day-to-day commodities (such as smoke detectors) also requires the aid of nuclear substances, whose use is regulated by the CNSC.

Licences are issued for the safe handling and use of nuclear substances, radiation devices and other prescribed equipment in this area. Compliance activities are conducted to monitor the safety and compliance with regulatory requirements.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances and prescribed equipment used in the industrial sector are regulated to protect the health, safety and security of Canadians and the environment | Percentage of industrial facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 99% ** |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

** This result reflects select instances where inspection results did not meet the threshold of satisfactory or above.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 6,029,723 | 6,152,498 | 6,258,060 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 36 | 36 | 36 |

Sub-program 1.3.3 : Commercial Sector

Description

This sub-program aims to regulate the production, possession and use of nuclear substances, radiation devices and prescribed equipment in Canada, as it relates to the commercial sector.

The commercial sector focuses primarily on the production and sale of nuclear substances and the third-party servicing and distribution of radiation devices and other prescribed equipment (such as particle accelerators). Nuclear substances are found in many products used to protect the health and safety of Canadians (including smoke detectors, self-lighting exit signs and security-screening equipment). Such devices may not require a licence for possession by the end-user; however, their manufacturing and initial distribution in Canada are licensed by the CNSC.

Licences are issued for the safe handling and use of nuclear substances, radiation devices and other prescribed equipment in this area. Compliance activities are conducted to monitor the safety and compliance with regulatory requirements.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances and prescribed equipment used in the commercial sector are regulated to protect the health, safety and security of Canadians and the environment | Percentage of commercial facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 99%** |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

** This result reflects select instances where inspection results did not meet the threshold of satisfactory or above.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 1,548,122 | 1,579,644 | 1,606,747 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 10 | 10 | 10 |

Sub-program 1.3.4: Academic and Research Sector

Description

This sub-program aims to regulate the production, possession and use of nuclear substances, radiation devices and other prescribed equipment in Canada, as it relates to the academic and research sector.

The academic and research sector focuses primarily on biological and biomedical research with open-source radioisotopes. The sector also employs research particle accelerators and research irradiators. Nuclear substances found in the academic field include those used in irradiators (which irradiate cells or samples in research laboratories). Particle accelerators are used for research in the fields of subatomic physics, materials and biomedicine and may also generate some nuclear materials for medical and research facilities. Nuclear substances are used in teaching and research laboratories for diverse activities such as gas chromatography, which analyzes environmental samples.

Licences are issued for the safe handling and use of nuclear substances, radiation devices and other prescribed equipment in this area. Compliance activities are conducted to monitor the safety and compliance with regulatory requirements.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances and prescribed equipment used in the academic and research sector are regulated to protect the health, safety and security of Canadians and the environment. | Percentage of academic and research facilities that receive a rating of satisfactory or above | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 1,319,028 | 1,345,886 | 1,368,978 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 7 | 7 | 7 |

Sub-program 1.3.5: Packaging and Transport

Description

This sub-program aims to regulate the packaging and transport of nuclear substances in Canada. The CNSC's packaging and transport regulations are based on international transport regulations published by the International Atomic Energy Agency (IAEA), ensuring a high level of safety of persons and of the environment.

The CNSC certifies package designs requiring competent authority approval in Canada and worldwide, and requires the registration of the package user prior to their use in Canada, as a way of ensuring the safe packaging and transport of nuclear substances. Other regulatory requirements (such as labelling, documentation, quality assurance program and radiation protection program for carriers) exist to further strengthen transport safety.

The CNSC issues transport licences for specific circumstances, however transport activities are generally exempt from CNSC licensing. Compliance activities are conducted to monitor the safety and compliance with regulatory requirements.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear substances are packaged and transported safely to protect the health, safety and security of Canadians and the environment | Number of incidents in transport resulting in an individual receiving a dose above the limit for members of the public of one millisievert per year | 0 | March 31, 2018 | Not applicable* | Not applicable* | 0 |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 2,102,576 | 2,145,388 | 2,182,197 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 13 | 13 | 13 |

Sub-program 1.3.6: Dosimetry Services

Description

This sub-program licenses dosimetry service providers under the Nuclear Safety and Control Act (NSCA) and the CNSC Radiation Protection Regulations. Each dosimetry service provider must meet the technical and quality assurance requirements outlined in the CNSC’s Technical and Quality Assurance Standards for Dosimetry Services. Compliance activities are conducted to monitor the safety and compliance with regulatory requirements.

Dosimetry service providers are either commercial service providers (which service external clients) or in-house service providers (which are nuclear licensees with the capability of providing dosimetry services for their own employees and visitors).

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|---|
| Dosimetry services are regulated to protect the health and safety of nuclear energy workers | Percentage of independent tests passed by licensees | 100% | March 31, 2018 | Not applicable* | Not applicable* | External radiation: 100% Internal radiation: 98% Radon progeny: 100% **See notes for definitions |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, through regulatory oversight, the CNSC has historically ensured compliance in this area.

**External radiation - independent test for dosimeters that are used to measure doses associated with external exposure to radiation.

Internal radiation - independent test for in vitro and in vivo measurements associated with internal exposure to radiation.

Radon progeny - independent test for instruments that measure exposure to radon progeny.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 235,438 | 240,232 | 244,353 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 1 | 1 | 1 |

Program 1.4: Nuclear Non-Proliferation

Description

This program aims to provide assurance to both the Canadian public and the international community that the development, production and use of nuclear energy and nuclear substances, prescribed equipment and prescribed information is safe and conforms with every control measure and international obligations to which Canada has agreed, including those under the Treaty on the Non-Proliferation of Nuclear Weapons. Under its mandate, the CNSC implements measures of control respecting nuclear non-proliferation, including domestic and international arrangements, International Atomic Energy Agency (IAEA) safeguards, and import-export of nuclear substances, prescribed equipment and prescribed information.

Planning highlights

- Strengthen global expertise on priority topics to the CNSC by leveraging international partnerships with other nuclear regulators (2017–18)
- Enhance collaboration with Global Affairs Canada (GAC) in support of the enhancement of the security of radioactive sources worldwide (2017–18)
- Implement compliance verification interface with Canada Border Services Agency under Single Window Initiative (2017–18)
- Continue developing Canada’s nuclear forensics capability, including leading and collaborating with Canadian partners on establishing a national network of nuclear forensics laboratories, a national nuclear forensics library, and a research and development program (2020–2021)
- Strengthen engagement on regulatory and technical topics of mutual interest with CANDU states (2017–18)
- Take a more strategic approach to peer review mission participation to increase accountability and transparency (2017–18)

Of the CNSC’s financial resources, 4.5 percent are allocated to this program. This program is largely concerned with the movement of nuclear materials, solely for peaceful purposes, into and out of Canada. For example, in 2015–16, the CNSC issued 805 export licences and 162 import licences. The identified risk of malevolent activities is mitigated through this program. Refer to the “Risk response strategy” column of the table in the “Key risks” section for further details.

Info Box – nuclear forensics

- The CNSC is leading two national projects through the support of the Canadian Safety and Security Program, and in partnership with other Government of Canada departments and agencies, to continue to expand and enhance Canada’s national nuclear forensics capabilities.
- Nuclear forensics allows for the assessment and analysis of radioactive and nuclear (RN) materials, or evidence contaminated with RN materials, for the purposes of supporting the broader investigation and subsequent prosecution (as applicable) of a nuclear security event.
- In the unlikely event that RN materials are found outside of regulatory control, nuclear forensics can provide insights into their provenance, thereby supporting the mitigation and prevention of their use in criminal activities.
- Canada’s nuclear forensics activities draw upon resources and expertise from across the Government of Canada’s RN scientific and technical communities of practice, which include: regulatory, environmental and health protection, operational, policy, and national security and law enforcement.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Assurance to the Canadian public and international community that nuclear energy, nuclear substances, prescribed equipment and prescribed information are used for peaceful purposes, and do not contribute to threats to nuclear non-proliferation and radiological safety or security | Maintain IAEA safeguards broader conclusion (the IAEA concludes that there was no diversion of declared nuclear material, and no indication of undeclared nuclear material or nuclear activity) | 100%* | March 31, 2018 | 100% | 100% | 100% |

* 100% refers to the IAEA broader conclusion being maintained for that year.

Budgetary financial resources (dollars)

| 2017–18 main estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|
| 5,937,337 | 6,405,206 | 6,535,626 | 6,647,761 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned full-time equivalents | 2018–19 planned full-time equivalents | 2019–20 planned full-time equivalents |
|--|--|--|
| 40 | 40 | 40 |

Sub-program 1.4.1: Domestic and International Arrangements

Description

This sub-program aims to establish and maintain domestic and international arrangements – in collaboration with other organizations within Canada and abroad – to implement measures of control and international obligations to which Canada has agreed.

The CNSC negotiates administrative arrangements with domestic and international organizations to align regulatory systems and processes, to comply with and maintain international commitments, and to implement measures pursuant to Canada’s nuclear non-proliferation policy. These measures include bilateral nuclear cooperation agreements with Canada’s nuclear trading partners. The CNSC is also responsible for the administration and implementation of the nuclear security programs, and other supporting nuclear security requirements and guidance related to domestic and international activities.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Establish, maintain and implement domestic and international arrangements concerning the control of nuclear energy, including those pertaining to the non-proliferation of nuclear weapons, the international transfer of nuclear goods, and regulatory cooperation on nuclear safety | Percentage of annual inventory reports of Canadian obligated nuclear goods and technology that are confirmed as meeting CNSC requirements | 100% | March 31, 2018 | Not applicable* | Not applicable* | 100% |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, the CNSC has historically ensured these requirements were met.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 1,297,004 | 1,323,413 | 1,346,119 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 7 | 7 | 7 |

Sub-program 1.4.2: Safeguards

Description

This sub-program activity area aims to maintain the IAEA’s broader conclusion for Canada, by ensuring that Canada’s obligations under the Canada–IAEA safeguards agreements are met. The broader conclusion is a statement by the IAEA that over a given year there was no diversion of declared nuclear material and no indication of undeclared nuclear material or nuclear activity. The Safeguards Agreement (1972) and the Additional Protocol (2000) are treaty-level instruments between the Government of Canada and the IAEA requiring Canada to accept and facilitate IAEA safeguards on all nuclear material and certain specific nuclear activities. The signing of the Safeguards Agreement with the IAEA was required by the Treaty on the Non-Proliferation of Nuclear Weapons, while the Additional Protocol is a voluntary safeguards-strengthening instrument signed by nearly all major nuclear states.

The CNSC maintains the IAEA broader conclusion for Canada – achieved annually since 2005 – to provide assurances to Canadians and the world community of the absence of undeclared nuclear materials and activities in Canada. The annual statement of the broader safeguards conclusion allows the IAEA to adjust their technical objectives for Canada, reducing the national overall inspection effort while also maintaining effective safeguards implementation. This, in turn, frees up IAEA resources for use in areas of greater proliferation concern.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 Actual results | 2014–15 Actual results | 2015–16 Actual results |
|--|---|--------|------------------------|------------------------|------------------------|------------------------|
| Assure Canadians and the international community on the absence of declared nuclear material diversion and the absence of undeclared nuclear material and activities in Canada | Percentage of nuclear material reports submitted that are confirmed as meeting requirements with Canada’s international commitments | 100% | March 31, 2018 | Not applicable* | Not applicable* | 99%** |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, the CNSC has historically ensured these requirements were met.

**All required reports to the IAEA were submitted; however, nine such reports were delayed. To improve performance, steps are being taken to ensure that licensees submit their reports on time. Improvements to the electronic nuclear material reporting and accounting systems and to internal processes are also being undertaken.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 1,454,598 | 1,484,216 | 1,509,681 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 7 | 7 | 7 |

Sub-program 1.4.3: Import and Export

Description

This sub-program activity area establishes controls on the exports and imports of nuclear substances, equipment and information through licensing, compliance and counter-proliferation measures. The objective is to assure that nuclear goods and technology are transferred internationally solely for peaceful purposes, and do not contribute to non-proliferation or radiological security threats. Controls are implemented consistent with requirements under the Nuclear Safety and Control Act, other relevant national legislation, international standards and guidelines to which Canada adheres (e.g., Nuclear Suppliers Group Guidelines, IAEA codes of conduct) and Canadian nuclear non-proliferation policy (e.g., Nuclear Cooperation Agreement provisions).

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|--------|------------------------|------------------------|------------------------|------------------------|
| Nuclear goods are exported solely for peaceful purposes | Percentage of goods exported solely for peaceful purposes | 100% | March 31, 2018 | 100% | 100% | 100% |

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|--------------------------|--------------------------|--------------------------|
| 3,653,604 | 3,727,997 | 3,791,961 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|----------------------|----------------------|----------------------|
| 26 | 26 | 26 |

Program 1.5: Scientific, Technical, Regulatory and Public Information

Description

This program aims to inform the Canadian public – including Canadian nuclear licensees, vendors, academic community, special interest groups, Indigenous groups, other government departments, other jurisdictions and international organizations – that nuclear facilities and activities are being used safely, in adherence to regulatory requirements and best available scientific and technical information. This program is realized through the processes of generating scientific and technical information, institutionalizing the information within the regulatory framework, and disseminating the information through a variety of channels and engagement practices.

Planning highlights

- Assess the five-year regulatory framework plan, taking into account feedback from key internal and external stakeholders, and revise as needed (2017–18)
- Continue implementing a robust regulatory framework structure through the publication of regulatory documents as per the five-year regulatory framework plan (2018–19)
- Undertake strategic review of CNSC’s suite of regulations to support the Regulatory Modernization Initiative (2018–19)
- Submit, for the Commission’s review, regulatory document REGDOC-2.2.4, Fitness for Duty, which proposes requiring licensees of high-security sites to implement random and pre-placement alcohol and drug testing programs for those workers for whom impaired performance could result in a significant incident affecting the environment, the public, the health and safety of workers and others at the site, or the safety and security of the facility (2017–18)
- Review the CNSC 101 Program to ensure alignment with the CNSC’s modernized regulatory approach and evolving societal expectations (2017–18)
- Assess current expertise and research infrastructure, internal and external to the CNSC, to identify and assess required capabilities, potential gaps and remedial steps (2017-18 to 2018-19)
- Broaden perspective on environmental protection considerations (e.g., GHG, cumulative effects, traditional ecological knowledge) (2017–18)
- Develop strategy to make licensee data, such as environmental releases, available through open source (2017–18)
- Develop policy on using science in a regulatory environment (2017–18)
- Identify and recommend improvements to the Commission proceedings process (2017–18)

- Improve transparency of CNSC regulatory oversight by continuing to post information on CNSC compliance oversight to the website (e.g., Independent Environmental Monitoring Program data, desktop reviews) (2017–18)

Of the CNSC's financial resources, 19.4 percent are allocated to this program. The work undertaken in this program supports the CNSC's priorities for the dissemination of information and engagement on major projects.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|------------------|------------------------|------------------------|------------------------|------------------------|
| Scientific, technical and regulatory information is delivered to inform the Canadian public on the effectiveness of Canada’s nuclear regulatory regime | Number of views of CNSC Web pages related to this program | To be determined | To be determined | Not applicable* | Not applicable* | 5,247,516 |
| | Number of public requests for information (non-Access to Information and Privacy) or outreach support | To be determined | To be determined | Not applicable* | Not applicable* | 1521 |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16.

Budgetary financial resources (dollars)

| 2017–18 main estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|------------------------|--------------------------|--------------------------|--------------------------|
| 26,494,116 | 28,581,883 | 29,163,856 | 29,664,234 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|----------------------|----------------------|----------------------|
| 154 | 154 | 154 |

Sub-program 1.5.1: Regulatory Framework

Description

This sub-program develops and makes improvements to the CNSC’s regulatory framework. The regulatory framework includes the Nuclear Safety and Control Act and its associated regulations, the Nuclear Liability and Compensation Act, federal environmental legislation, regulatory documents outlining requirements and guidance, and nuclear standards developed by the CSA Group (formerly the Canadian Standards Association). The framework also takes into account Government of Canada regulatory policy guidance, as well as the views of stakeholders and the general public.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|---|------------------|------------------------|------------------------|------------------------|------------------------------|
| Regulatory requirements and guidance support nuclear safety | Licensee views on clarity of the regulatory framework Percentage of licensees, broken down by service line and sub-program, agreeing that the regulatory framework is clear (based on survey focus group of individuals responsible for license submissions) | To be determined | To be determined | Not applicable* | Not applicable* | Data not yet being collected |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 12,629,803 | 12,886,966 | 13,108,074 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 83 | 83 | 83 |

Sub-program 1.5.2: Scientific and Technical Information

Description

This sub-program explains the scientific knowledge basis for the CNSC's regulatory positions. This sub-program is related to the research sub-program by using scientific and technical information generated from outside sources (contracts, contribution agreements and grants) as well as inside sources (CNSC staff research and analysis) to provide a reasonable base to systematically review existing and new scientific information supporting the regulatory decision-making by the Commission and its delegated authorities. The assessment of scientific information and the explanation thereof is adapted, customized and translated to stakeholders, including the nuclear technical community (nuclear safety experts and academia), nuclear licensees, vendors, special interest groups, Indigenous groups, other government departments, other jurisdictions, international organizations (such as the International Atomic Energy Agency and the Nuclear Energy Agency) and the general public.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|------------------|------------------------|------------------------|------------------------|------------------------|
| Scientific and technical information supports regulatory decision making | Number of papers and conference presentations by CNSC staff | To be determined | To be determined | Not applicable* | Not applicable* | 29 |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|--------------------------|--------------------------|--------------------------|
| 8,605,186 | 8,780,401 | 8,931,051 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 50 | 50 | 50 |

Sub-program 1.5.3: Research

Description

This sub-program conducts research to generate objective, scientific and technical information to enhance regulatory decisions based on new research and the CNSC's knowledge base, through the administration of contracts, contribution agreements and grants. CNSC staff and management attain direct benefits from the conduct of this research. Other beneficiaries include the nuclear technical community (nuclear safety experts, academic community, research laboratories), nuclear licensees, other government departments, other jurisdictions, international organizations (such as the International Atomic Energy Agency and the Nuclear Energy Agency) and the general public.

This program administers funding from the following transfer payments program: Class Grants and Contributions Program.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|--|---|------------------|------------------------|------------------------|------------------------|--|
| Address gaps and uncertainties in the CNSC's regulatory knowledge base | Percentage of research projects completed that were used in: <ul style="list-style-type: none"> - the regulatory framework (including standards development) - Commission hearings - other technical assessments by CNSC staff | To be determined | To be determined | No applicable* | 11% (total) | 33% (6 projects) 0% (0 projects) 66% (12 projects) |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16. However, 11 completed research projects were noted in the previous year's (2014–15) departmental performance report

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 5,649,772 | 5,764,811 | 5,863,720 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 13 | 13 | 13 |

Sub-program 1.5.4: Public Engagement and Outreach

Description

This sub-program develops and implements strategies that identify existing and emerging key stakeholder groups, and then develops tools and tactics to reach these specific stakeholders (including the formal duty to consult with Aboriginal groups). The information provided is credible, easily understood and tailored to stakeholder information needs. Stakeholders include the Canadian public, Canadian nuclear licensees, vendors, the academic community, special interest groups, other government departments, other jurisdictions, international organizations and Aboriginal groups.

This program administers funding from the following transfer payments program: Participant Funding Program.

Planned results

| Expected results | Performance indicators | Target | Date to achieve target | 2013–14 actual results | 2014–15 actual results | 2015–16 actual results |
|---|--|------------------|------------------------|------------------------|------------------------|------------------------|
| The Canadian public has access to credible and understandable information across multiple media | Percentage of outreach program participants agreeing that the outreach activity positively influenced their understanding of nuclear safety and security etc. Measure: % of participants surveyed that agree outreach program positively impacted their understanding of nuclear safety issues (after and outreach event) | To be determined | To be determined | Not applicable* | Not applicable* | Indicator under review |

* Following a PAA and performance measurement framework (PMF) review, this indicator was added to the PMF for 2015–16.

Budgetary financial resources (dollars)

| 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|-----------------------------|-----------------------------|-----------------------------|
| 1,697,122 | 1,731,678 | 1,761,389 |

Human resources (full-time equivalents [FTEs])

| 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|-------------------------|-------------------------|-------------------------|
| 8 | 8 | 8 |

Internal Services

Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct service categories that support program delivery in the organization, regardless of the Internal Services delivery model in a department. The 10 service categories are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; and Acquisition Services.

Planning highlights

- Continue improvements to workforce planning and implementation of the 2016–19 workforce/workplace strategy (2017–18)
- Support recruitment of new hires and internal movement of staff (via assignments, appointments, transfers and special projects) arising from anticipated departures (2017–18)
- Develop and implement a career partnership model to assist management and employees in having effective discussions around career planning and talent management discussions (2017–18)
- Enhance digital recordkeeping and information use and sharing practices across the CNSC and support ongoing compliance with Government of Canada information management policy and directives (2017–18)
- Continue to work with Shared Services Canada and other government departments toward centralized information management and IT service delivery of mandated capabilities (2016–19)
- Expand strategy to support e-business (2016–19)
- Replace the current enterprise planning application used for the CNSC planning and cost allocation processes (2017–18)
- Continue strengthening strategic planning, including implementing the Government of Canada’s new Policy on Results (2017–18)
- Continue to implement enhancements to the CNSC Participant Funding Program (2017–18)

Of the CNSC’s financial resources, 30 percent are allocated to Internal Services.

Budgetary financial resources (dollars)

| 2017–18 main Estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|
| 40,870,088 | 44,090,697 | 44,988,454 | 45,760,343 |

Human resources (full-time equivalents [FTEs])

| 2017–18 FTEs | 2018–19 FTEs | 2019–20 FTEs |
|-----------------|-----------------|-----------------|
| 234 | 234 | 234 |

Funds allocated to experimentation

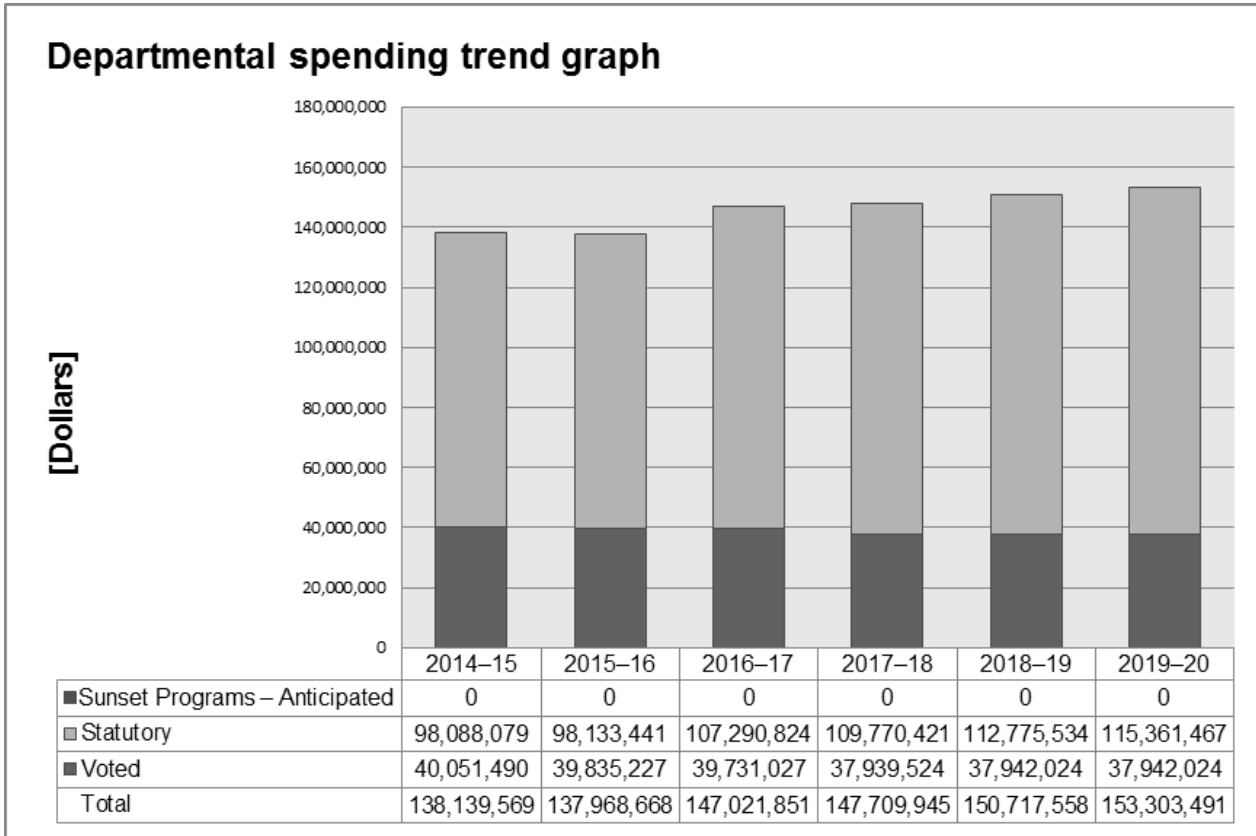
The CNSC is developing an organization-wide Case Management system for the delivery of licensing and compliance core functionality.

The initiative is expected to have impacts on several groups of stakeholders:

- CNSC staff – simplified and automated work interfaces
- CNSC management – better reporting and better use of staff time with less duplication
- CNSC – overall improved management of work, time, information, costs and quality of records through integrated systems
- Licensees/industry – improved timelines of submissions and information to CNSC

Spending and human resources

Planned spending



Budgetary planning summary for Programs and Internal Services (dollars)

| Programs and Internal Services | 2014–15 expenditures | 2015–16 expenditures | 2016–17 forecast spending | 2017–18 main estimates | 2017–18 planned spending | 2018–19 planned spending | 2019–20 planned spending |
|--|----------------------|----------------------|---------------------------|------------------------|--------------------------|--------------------------|--------------------------|
| Nuclear Fuel Cycle | | 10,173,578 | 10,841,145 | 10,096,285 | 10,891,883 | 11,113,660 | 11,304,342 |
| Nuclear Reactors | | 40,002,299 | 42,627,157 | 39,698,384 | 42,826,661 | 43,698,681 | 44,448,440 |
| Nuclear Substances and Prescribed Equipment | | 13,930,082 | 14,844,142 | 13,824,249 | 14,913,615 | 15,217,281 | 15,478,371 |
| Nuclear Non-Proliferation | | 5,982,791 | 6,375,368 | 5,937,337 | 6,405,206 | 6,535,626 | 6,647,761 |
| Scientific, Technical, Regulatory and Public Information | | 26,696,945 | 28,448,735 | 26,494,116 | 28,581,883 | 29,163,856 | 29,664,234 |
| Subtotal | | 96,785,695 | 103,136,547 | 96,050,371 | 103,619,248 | 105,729,104 | 107,543,148 |
| Internal Services | | 41,182,973 | 43,885,304 | 40,870,088 | 44,090,697 | 44,988,454 | 45,760,343 |
| Total | | 137,968,668 | 147,021,851 | 136,920,459 | 147,709,945 | 150,717,558 | 153,303,491 |
| Regulatory Framework | 28,509,322 | | | | | | |
| Licensing and Certification | 21,355,025 | | | | | | |
| Compliance | 45,872,668 | | | | | | |
| Subtotal | 95,737,015 | | | | | | |
| Internal Services | 42,402,554 | | | | | | |
| Total | 138,139,569 | | | | | | |

The marginal decrease in expenditures from \$138,139,569 in 2014–15 to \$137,968,668 in 2015–16 is attributable to a one-time transition payment in 2014–15 for the implementation of salary payments in arrears by the Government of Canada. This decrease was offset by costs related to the workforce renewal initiative, which is part of the CNSC’s comprehensive workforce strategy to ensure workforce sustainability by addressing the potential impact of attrition and ensuring an effective knowledge transfer.

The CNSC’s increase in forecast spending to \$147,021,851 in 2016–17 (from \$137,968,668 in 2015–16) is attributable to cost-of-living adjustments, including salaries and wages as well as

costs related to the workforce renewal initiative and retroactive salary payments. The CNSC's overall spending plans indicate no significant changes in resources over the 2017–18 to 2019–20 periods. The marginal increases in planned spending from 2017–18 to 2018–19 and from 2018–19 to 2019–20 are primarily due to cost-of-living adjustments, including salaries and wages.

The difference between the 2017–18 main estimates amount (\$136,920,459) and planned spending for 2017–18 (\$147,709,945), 2018–19 (\$150,717,558) and 2019–20 (\$153,303,491) is explained mainly by the inclusion of statutory benefit contributions related to personnel expenditures recovered from applicants and licensees through fees, that are not included in the main estimates.

Fees collected by the CNSC represent approximately 70 percent of planned spending.

The changes discussed above affect all program activities. The impacts are reflected in the trends for each program.

Planned human resources

Human resources planning summary for programs and internal services (full-time equivalents [FTEs])

| Programs and Internal Services | 2014–15 FTEs | 2015–16 FTEs | 2016–17 forecast FTEs | 2017–18 planned FTEs | 2018–19 planned FTEs | 2019–20 planned FTEs |
|--|-----------------|-----------------|-----------------------------|----------------------------|----------------------------|----------------------------|
| Nuclear Fuel Cycle | | 64 | 66 | 68 | 68 | 68 |
| Nuclear Reactors | | 257 | 266 | 273 | 273 | 273 |
| Nuclear Substances and Prescribed Equipment | | 83 | 86 | 88 | 88 | 88 |
| Nuclear Non-Proliferation | | 38 | 40 | 40 | 40 | 40 |
| Scientific, Technical, Regulatory and Public Information | | 145 | 150 | 154 | 154 | 154 |
| Subtotal | | 587 | 608 | 623 | 623 | 623 |
| Internal Services | | 221 | 229 | 234 | 234 | 234 |
| Total | | 808 | 837 | 857 | 857 | 857 |
| Regulatory Framework | 146 | | | | | |
| Licensing and Certification | 157 | | | | | |
| Compliance | 263 | | | | | |
| Subtotal | 566 | | | | | |
| Internal Services | 222 | | | | | |
| Total | 788 | | | | | |

The increase from 788 full-time equivalents (FTEs) in 2014–15 to 808 FTEs in 2015–16 is primarily due to the launch of the workforce renewal initiative, part of the CNSC’s comprehensive workforce strategy to ensure workforce sustainability by addressing the potential impact of attrition and ensuring an effective knowledge transfer.

The increase from 808 actual FTEs in 2015–16 to 837 forecasted FTEs in 2016–17 is primarily attributable to the workforce renewal initiative, which replaced higher-salaried FTEs with an increased number of lower-salaried FTEs. This increase is also attributable to the staffing of full-time positions for which the work was previously performed through temporary help services.

The increase from 837 forecasted FTEs in 2016–17 to 857 planned FTEs for 2017–18 is due to the ongoing implementation of the workforce renewal initiative.

No changes to planned FTEs are anticipated from 2017–18 to 2019–20 unless unforeseen developments in the nuclear industry should arise during this time period.

Estimates by vote

For information on the CNSC’s organizational appropriations, consult the [2017–18 main estimates](#).^{ix}

Future-oriented condensed statement of operations

The future-oriented condensed statement of operations provides a general overview of the CNSC's operations. The forecast of financial information on expenses and revenues is prepared on an accrual accounting basis to strengthen accountability and to improve transparency and financial management.

Because this statement is prepared on an accrual accounting basis, and the forecast and planned spending amounts presented in other sections of the Departmental Plan are prepared on an expenditure basis, amounts may differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, are available on the [CNSC's website](#).^x

Future-oriented condensed statement of operations for the year ended March 31, 2018 (dollars)

| Financial information | 2016–17 forecast results | 2017–18 planned results | Difference (2017–18 planned results minus 2016–17 forecast results) |
|--|-----------------------------|----------------------------|--|
| Total expenses | 157,972,000 | 162,414,000 | 4,442,000 |
| Total revenues | 110,872,000 | 115,199,000 | 4,327,000 |
| Net cost of operations before government funding and transfers | 47,100,000 | 47,215,000 | 115,000 |

The CNSC's net cost of operations is expected to increase by \$0.1 million (0.2%) in 2017–18 when compared with 2016–17 forecasted results. The increase in the net cost of operations is a result of an increase in total expenses of \$4.4 million (or 2.8%), offset by an increase in total revenues of \$4.3 million (or 3.9%).

The increase in total expenses for 2017–18 is due primarily to cost-of-living adjustments, including salary and wages, as well as additional costs related to the workforce renewal initiative.

As regulatory fee revenues fund most of the CNSC expenses, the increase in total revenues is mainly a result of the increase in planned expenses. The balance of the increase is due to an increase in revenues from special projects for vendor design reviews, in addition to a phased-in

review of formula fees. An outcome of the review of formula fees will be to better align costs with regulatory activities for the various licence types under the CNSC Cost Recovery Fees Regulations.

Supplementary information

Corporate information

Organizational profile

Appropriate minister: Jim Carr

Institutional head: Michael Binder

Ministerial portfolio: [Natural Resources Canada](#)^{xi}

Enabling instrument(s): [Nuclear Safety and Control Act](#)^{xii}

Year of incorporation / commencement: 2000

Reporting framework

The CNSC's Strategic Outcome and Program Alignment Architecture (PAA) of record for 2017–18 are shown below:

- **1. Strategic outcome:** Safe and secure nuclear installations and processes used solely for peaceful purposes and an informed public on the effectiveness of Canada's nuclear regulatory regime.
 - **1.1 Program:** Nuclear Fuel Cycle
 - **1.1.1 Sub-program:** Uranium Mines and Mills
 - **1.1.2 Sub-program:** Nuclear Processing Facilities
 - **1.1.3 Sub-program:** Nuclear Waste Management Facilities
 - **1.2 Program:** Nuclear Reactors
 - **1.2.1 Sub-program:** Nuclear Power Plants
 - **1.2.2 Sub-program:** Research Reactors
 - **1.3 Program:** Nuclear Substances and Prescribed Equipment
 - **1.3.1 Sub-program:** Medical Sector
 - **1.3.2 Sub-program:** Industrial Sector
 - **1.3.3 Sub-program:** Commercial Sector
 - **1.3.4 Sub-program:** Academic and Research Sector
 - **1.3.5 Sub-program:** Packaging and Transport
 - **1.3.6 Sub-program:** Dosimetry Services
 - **1.4 Program:** Nuclear Non-Proliferation
 - **1.4.1 Sub-program:** Domestic and International Arrangements
 - **1.4.2 Sub-program:** Safeguards
 - **1.4.3 Sub-program:** Import and Export
 - **1.5 Program: Scientific:** Technical, Regulatory and Public Information
 - **1.5.1 Sub-program:** Regulatory Framework
 - **1.5.2 Sub-program:** Scientific and Technical Information

- **1.5.3 Sub-program:** Research
- **1.5.4 Sub-program:** Public Engagement and Outreach
- **Internal Services**

Supporting information on lower-level programs

Supporting information on lower-level programs is available on the [CNSC's website^{xiii}](#) and in the [TBS InfoBase^{xiv}](#).

Supplementary information tables

The following supplementary information tables are available on the [CNSC's website](#).^{xv}

- ▶ Disclosure of transfer payment programs under \$5 million
- ▶ Upcoming evaluations over the next five fiscal years
- ▶ Upcoming internal audits for the coming fiscal year

Federal tax expenditures

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures each year in the [Report on Federal Tax Expenditures](#).^{xvi} This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs. The tax measures presented in this report are the responsibility of the Minister of Finance.

Organizational contact information

Head office

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P.O. Box 1046, Station B
Ottawa Ontario K1P 5S9
Canada

Telephone: 613-995-5894
Toll free: 1-800-668-5284
Fax: 613-995-5086

Email: cnscc.information@canada.ca

Website: nuclearsafety.gc.ca^{xvii}

Appendix [A]: Definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Core Responsibility (responsabilité essentielle)

An enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

Departmental Plan (Plan ministériel)

Provides information on the plans and expected performance of appropriated departments over a three-year period. Departmental Plans are tabled in Parliament each spring.

Departmental Result (résultat ministériel)

A Departmental Result represents the change or changes that the department seeks to influence. A Departmental Result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

Departmental Result Indicator (indicateur de résultat ministériel)

A factor or variable that provides a valid and reliable means to measure or describe progress on a Departmental Result.

Departmental Results Framework (cadre ministériel des résultats)

Consists of the department's Core Responsibilities, Departmental Results and Departmental Result Indicators.

Departmental Results Report (Rapport sur les résultats ministériels)

Provides information on the actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2017–18 Departmental Plan, government-wide priorities refers to those high-level themes outlining the government’s agenda in the 2015 Speech from the Throne, namely: Growth for the Middle Class; Open and Transparent Government; A Clean Environment and a Strong Economy; Diversity is Canada’s Strength; and Security and Opportunity.

horizontal initiatives (initiative horizontale)

A horizontal initiative is one in which two or more federal organizations, through an approved funding agreement, work toward achieving clearly defined shared outcomes, and which has been designated (e.g. by Cabinet, a central agency, etc.) as a horizontal initiative for managing and reporting purposes.

Management, Resources and Results Structure (Structure de la gestion, des ressources et des résultats)

A comprehensive framework that consists of an organization’s inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

Performance indicator (indicateur de rendement)

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

Performance reporting (production de rapports sur le rendement)

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

plans (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

Priorities (priorité)

Plans or projects that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s).

program (programme)

A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture (architecture d'alignement des programmes)

A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

results (résultat)

An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

Strategic Outcome (résultat stratégique)

A long-term and enduring benefit to Canadians that is linked to the organization’s mandate, vision and core functions.

sunset program (programme temporisé)

A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target (cible)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

Endnotes

- i Nuclear Safety and Control Act, <http://laws-lois.justice.gc.ca/eng/acts/N-28.3/>
- ii Financial Administration Act, <http://laws-lois.justice.gc.ca/eng/acts/F-11/>
- iii About the CNSC, <http://nuclearsafety.gc.ca/eng/about-us/index.cfm>
- iv Canadian Nuclear Safety Commission, The Commission, <http://nuclearsafety.gc.ca/eng/the-commission/index.cfm>
- v The Minister’s Mandate Letter, <http://pm.gc.ca/eng/mandate-letters>
- vi Ontario’s Long-Term Energy Plan, <http://www.energy.gov.on.ca/en/ltep/>
- vii Canadian Nuclear Safety Commission, List of CNSC Reports on Plans and Priorities and Departmental Plans, <http://nuclearsafety.gc.ca/eng/resources/publications/reports/rpp/index.cfm>
- viii TBS InfoBase, <https://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start>
- ix Government Expenditure Plan and Main Estimates (Parts I and II), <http://www.tbs-sct.gc.ca/hgw-cgf/finances/pgs-pdg/gepme-pdgbpd/index-eng.asp>
- x Canadian Nuclear Safety Commission, Future-Oriented Financial Statements, <http://nuclearsafety.gc.ca/eng/resources/publications/reports/future-oriented-financial-statements/index.cfm>
- xi Natural Resources Canada, <http://www.nrcan.gc.ca/home>
- xii Justice Laws Website, Nuclear Safety and Control Act, <http://laws-lois.justice.gc.ca/eng/acts/N-28.3/>
- xiii Canadian Nuclear Safety Commission, List of CNSC Reports on Plans and Priorities and Departmental Plans, <http://nuclearsafety.gc.ca/eng/resources/publications/reports/rpp/index.cfm>
- xiv Treasury Board Secretariat InfoBase, <https://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start>
- xv Canadian Nuclear Safety Commission, Plans and Priorities, <http://nuclearsafety.gc.ca/eng/resources/publications/reports/rpp/index.cfm>
- xvi Report on Federal Tax Expenditures, <http://www.fin.gc.ca/purl/taxexp-eng.asp>
- xvii Canadian Nuclear Safety Commission, <http://www.nuclearsafety.gc.ca/>