Canadian Nuclear Safety Commission

Performance Report

For the period ending March 31, 2007

The Honourable Gary Lunn Minister Natural Resources Canada	Linda J. Keen, M.Sc. President and Chief Executive Officer Canadian Nuclear Safety Commission

Table of Contents

SECTION I: OVERVIEW 1
Message from the President and Chief Executive Officer 3
Management Representation Statement 4
Summary Information 5
Mission 5
Governance 5
Regulatory Framework 5
Funding of CNSC Operations 6
Additional Funding Resources Received for 2006-07 6
Financial Resources 7
Human Resources 7
CNSC Priorities for 2006-07 8
Program Activity by Strategic Outcome 8
Contribution to Government of Canada Outcomes 9
The CNSC's Performance 9
Priority 1 – Deliver an Effective Regulatory Program for Existing Facilities 9
Priority 2 – Effectively Manage Growth of the Regulatory Program 9
Priority 3 – Implement Improvement Initiatives 17

SECTION II: ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME ..19
Analysis by Program Activity 19
Program Activity 19
External Performance Standards 40

SECTION III: SUPPLEMENTARY INFORMATION 42
Organizational Information 42
CNSC Organization Chart 42
Mandate 42
Financial Summary Overview 44
Table 1: Comparison of Planned to Actual Spending (including Full-time Equivalents) 45
Table 2: Resources by Program Activity 45
Table 3: Voted and Statutory Items 46
Table 4: Services Received Without Charge 46
Table 5: Sources of Respendable and Non-respendable Revenue 47
Table 6-A: User Fees Act 48
Table 6–B: Policy on Service Standards for External Fees 50
Table 7: Progress Against the Department's Regulatory Plan 50
Table 8: Audited Financial Statements of the CNSC 50
Table 9: Response to Parliamentary Committees, and Audits and Evaluations 51
Table 10: Travel Policies 52

SECTION IV: OTHER ITEMS OF INTEREST 53
CNSC Locations 53
Regulatory Documents in Process During 2006-07 56
Commission Hearings 57

SECTION I: OVERVIEW

Message from the President and Chief Executive Officer

I am pleased to present the 2006-07 Performance Report of the Canadian Nuclear Safety Commission (CNSC).

This report covers my sixth year as President and Chief Executive Officer of the CNSC. It highlights the work undertaken by CNSC over the past year as it worked on behalf of Canadians to oversee the requirements for safety, security, environmental protection and non-proliferation for all nuclear installations and materials in Canada.

The Canadian nuclear industry is growing substantially in all areas, including power generation, uranium mining and milling, nuclear waste facilities and industrial and medical uses of nuclear substances — creating a significant increase in the regulatory workload of the CNSC. In its 2006 budget, the Government of Canada supported this augmented workload through additional funding of more than $93 million over a five-year period. These resources enabled the CNSC to address four key priorities: nuclear power reactor refurbishment projects; uranium mining expansion, research facilities and waste management and mitigation of risks to nuclear security. In addition the Treasury Board approved additional funding to enable the CNSC to address creation of a modern regulatory framework for construction of new nuclear reactors in Canada. The CNSC also continued preparing to meet emerging demands related to new nuclear power plants, domestic safeguards and the non-proliferation regime.

The CNSC's regulatory regime, anchored by the *Nuclear Safety and Control Act* (NSCA), is considered the most modern in the world, separating health and safety from economic and political interests. The CNSC continues to review the NSCA and to update its regulations, regulatory requirements and guidance documents to ensure rigorous compliance requirements as well as a clear regulatory direction, especially concerning new nuclear power plants.

We expect the CNSC to continue growing as the nuclear industry expands. As we focus on building the organization's capacity, we have initiated Vision 2020 to clearly outline the agency's needs and to provide a bold view of the state of the CNSC in the year 2020. Realizing the CNSC's vision of being one of the world's best nuclear regulators depends on collectively planning for what the organization will face over the longer term. We have therefore undertaken an environmental scan — our most comprehensive and far reaching to date — to identify potential changes in our operating environment and to create an evergreen document on which to base future strategic plans. We look forward to further developing Vision 2020 so we can continue to work toward becoming the foremost nuclear regulatory body in the world.

As a federal agency, the CNSC must adhere to strict and transparent governance and accountability. We are committed to meeting this requirement and have continued to cooperate with the Treasury Board Secretariat, the Office of the Auditor General and other central agencies to assure the Government of Canada of our effectiveness, efficiency and transparency to Canadians.

The CNSC has made important progress in all areas of its mandate over the past year. Although numerous challenges lie ahead of us, our accomplishments to date provide us with a strong foundation on which to build. As we move forward to meet these challenges, we pledge to remain committed to the people of Canada in our mission — to protect health, safety, security and the environment and to respect Canada's international commitments on the peaceful use of nuclear energy.

Sincerely,

Linda J. Keen, M.Sc.
President and Chief Executive Officer

Management Representation Statement

I submit, for tabling in Parliament, the 2006-2007 Performance Report for the Canadian Nuclear Safety Commission.

This document has been prepared based on the reporting principles contained in the *Guide for the Preparation of Part III of the 2006-2007 Estimates: Reports on Plans and Priorities and Departmental Performance Reports*:

- It adheres to the specific reporting requirements outlined in the Treasury Board Secretariat guidance;
- It is based on the department's approved strategic outcome and Program Activity Architecture that were approved by the Treasury Board;
- It presents consistent, comprehensive, balanced and reliable information;
- It provides a basis of accountability for the results achieved with the resources and authorities entrusted to it; and
- It reports finances based on approved numbers from the Estimates and the *Public Accounts of Canada*.

_____

Linda J. Keen, M.Sc.
President and Chief Executive Officer, Canadian Nuclear Safety Commission

Summary Information

Mission

The mission of the Canadian Nuclear Safety Commission[1] (CNSC) is to regulate the use of nuclear energy and materials to protect health, safety, security, and the environment and to respect Canada's international commitments on the peaceful use of nuclear energy.

In pursuing this mission, the CNSC is working toward realizing its vision of becoming one of the best nuclear regulators in the world. To this end, the CNSC is committed to four strategic objectives:

- ensuring the effectiveness of its regulatory regime;
- operating with a high level of transparency;
- attracting and retaining excellent staff; and
- maintaining the efficiency of its regulatory regime.

In carrying out its mandate, the CNSC upholds the values of quality, integrity, competence, dedication and respect for others.

Governance

The CNSC is an independent, quasi-judicial administrative tribunal and federal regulatory agency. As a departmental corporation under Schedule II of the *Financial Administration Act,* it reports to Parliament through the Minister of Natural Resources.

The Commission sets overarching regulatory policy, makes regulations as required, and decides on major licence applications, renewals and related requests. Members of the Commission, who are appointed by the Governor in Council at good behaviour, are separate from CNSC staff to maintain independence when making licensing and related decisions.

CNSC staff functions as expert advisors to the Commission and undertake the implementation of decisions made by the Commission and act as Designated Officers for some licences.

Regulatory Framework

The CNSC was created under, and derives its mandate from the *Nuclear Safety and Control Act* (NSCA). The CNSC regulatory framework is an evergreen framework of

[1] The Canadian Nuclear Safety Commission or CNSC refers to the total organization. The tribunal component is referred to as the Commission and the staff component as CNSC staff.

regulations and regulatory documents under the NSCA that apply to all nuclear industries including, but not limited to the following:

- nuclear power reactors;
- non-power nuclear reactors, including research reactors;
- nuclear substances and radiation devices used in industry, medicine and research;
- the nuclear fuel cycle, from uranium mining through to waste management; and
- the import and export of controlled nuclear and dual-use substances, equipment and technology identified as proliferation risks.

The CNSC also has certain functions under the *Nuclear Liability Act*, conducts environmental assessments under the *Canadian Environmental Assessment Act* (CEAA), implements reciprocal non-proliferation provisions of bilateral nuclear cooperation agreements between Canada and its nuclear trading partners, and implements Canada's bilateral agreement with the International Atomic Energy Agency (IAEA) on nuclear safeguards verification. As a model of regulatory efficiency, the CNSC oversees the entire nuclear cycle and all aspects of nuclear safety in Canada, as there are no provincial nuclear regulators.

Funding of CNSC Operations

The CNSC's operations are funded through an annual appropriation from Parliament. The organization's workload, and therefore its resource requirements, is largely driven by the demand for licensing and regulatory oversight and by Canada's international commitments. The CNSC applies to the Treasury Board Secretariat to increase its cost-recoverable expenditures or to receive new program funding when its workload increases.

The Government of Canada recovers most costs associated with the CNSC's regulatory activities from licensees, in accordance with the *Canadian Nuclear Safety Commission Cost Recovery Fees Regulations (2003)*. The CNSC collects fees and deposits them to the Consolidated Revenue Fund. Some licensees, such as hospitals and universities, are exempt from paying fees. In addition, fees are not charged for activities that result from CNSC obligations and that do not provide a direct benefit to identifiable licensees. The latter include activities with respect to Canada's international obligations (including the non-proliferation of nuclear weapons), public responsibilities such as emergency preparedness and public information programs, and the ongoing oversight of the NSCA and associated regulatory documents as appropriate.

Additional Funding Resources Received for 2006-07

In 2005, the Treasury Board Secretariat provided additional short-term funding of $14.5 million for 2006-07. For 2006-07, the CNSC's actual expenditures were $85.3 million. Fees received were approximately $58.3 million. The growth in the CNSC's regulatory oversight program, the emerging priorities and how this additional funding is being used to respond to the increased workload are discussed in greater detail in the report subsection "The CNSC's Performance".

As a result of growing activity in all areas of the nuclear sector over the past several years, the CNSC has experienced a substantial increase in its workload in most areas of its responsibility. In its 2006 budget, the Government of Canada recognized the CNSC's need to expand and allocated it additional funds of more than $93 million, the majority of which is cost-recoverable from licensees, to improve regulatory oversight over a five-year period. Of this funding, $4.5 million was allocated to the plan for 2006-07. These additional resources will enable the CNSC to fund growth of its regulatory program, including oversight of nuclear power reactor refurbishment projects, expansion of uranium mining, research facilities and waste management, and the use of nuclear substances, including health care facilities; and addressing risks to security of nuclear facilities while implementing numerous improvement initiatives. In addition, after receiving two applications for site licensing for construction of new power reactors in Canada, the CNSC requested and received incremental funding of $1.6 million for 2006-07 and of $6.1 million for 2007-08 to begin processing these applications. These funds are also required to implement a modern regulatory framework for the construction of new power reactors in Canada. The CNSC will continue to take concrete steps to meet new demands with respect to new nuclear power plants and the domestic safeguards and non-proliferation regime.

Figures 1 and 2 show a comparison of actual expenditures incurred against planed spending of the CNSC for 2006-2007

Financial Resources

2006-07 ($000s)		
Planned Spending	**Total Authorities**	**Actual Spending**
86,499	92,245	85,262

Figure 1.

Human Resources

2006-07 (Full-Time Equivalents)		
Planned	**Actual**	**Difference**
651	569	82

Figure 2.

CNSC Priorities for 2006-07

Priority	Type	Assessment of Progress
1. Deliver an effective regulatory program for existing facilities	Ongoing	Maintained effective oversight of existing facilities, including licensing reviews, renewals and amendments and compliance verification to ensure safety and security of Canadians and contribute to a safe and secure world.
2. Effectively manage growth of the regulatory program	Ongoing	Excellent progress in increasing capacity to oversee nuclear power reactor refurbishment projects, increase in use of nuclear substances and increase in nuclear security measures in Canada. Appropriate progress on oversight of new, expanding mine and waste facilities while dealing with a major demand to oversee a mining incident in an existing facility. Good progress on clarifying regulatory framework for areas of growth in the nuclear industry.
3. Implement improvement initiatives	Previously committed	Progress on improvement initiatives achieved greater focus. Infrastructure and governance were strengthened in order to ensure effective, integrated implementation of the CNSC's improvement plan.

Figure 3.

Program Activity by Strategic Outcome

Strategic Outcome:	Safe and secure nuclear installations and processes solely for peaceful purposes; and public confidence in the nuclear regulatory regime's effectiveness.				
			2007-08		**Contributes to the following priority**
Program Activity	**Expected Result**	**Performance Status**	**Planned Spending** (in $000s)	**Actual Spending** (in $000s)	
Nuclear Regulation	*A clear and pragmatic regulatory framework*	Successfully met	86,499	85,262	Priorities 1, 2 and 3
	Individuals and organizations that operate safely and conform to safeguards and non-proliferation requirements	Successfully met			
	High levels of compliance with the regulatory framework	Successfully met			
	Cooperation and integration of CNSC's activities in national/international nuclear fora.	Successfully met			
	Stakeholders' understanding of the regulatory program	Successfully met			

Figure 4.

Contribution to Government of Canada Outcomes

The Government of Canada outcome areas, as represented in the whole-of-government framework used in *Canada's Performance*, are the long-term and enduring benefits to Canadians that more than one federal department or agency is working to achieve.

The Canadian Nuclear Safety Commission's strategic outcome is mapped to the government's "Safe and Secure Communities" outcome area under its "Social Affairs" policy area.

The CNSC's Performance

Priority 1 – Deliver an Effective Regulatory Program for Existing Facilities

The CNSC's day-to-day management and operation focus principally on delivering an effective regulatory program for existing facilities. To achieve this priority, the CNSC has one core program activity: nuclear regulation.

The CNSC successfully met its performance expectations for 2006-07, despite an accelerated period of growth in both the Canadian nuclear industry and the CNSC. The performance results of the nuclear regulation program activity are discussed in greater detail in Section II – Analysis of Program Activities by Strategic Outcome.

Priority 2 – Effectively Manage Growth of the Regulatory Program

The CNSC has identified five major growth areas in its regulatory program:

1. nuclear power reactor refurbishment projects;
2. new and expanding uranium mining, research facilities and waste management;
3. increasing use of nuclear substances and prescribed equipment in industry and health care;
4. mitigation of risks to nuclear security; and
5. a modern regulatory framework for construction of new nuclear reactors in Canada.

The increase in the CNSC's workload is the result of growing nuclear industry activity in four of these five areas (i, ii, iii and v). The growth in the mitigation of risks to nuclear security is the result of increased national and international assessments of the measures required for effective security at Canada's major nuclear installations.

1. Growth Area – Nuclear Power Reactor Refurbishment Projects

1.1 Regulatory Oversight

The CNSC protects the Canadian public by requiring nuclear facilities to meet both modern, high-level safety goals and regulatory requirements for secure operation. A nuclear power plant licence is evaluated and, if appropriate, amended with specific

conditions when the licensee undertakes a project to extend the life of a reactor (refurbishment). A licensee must adhere to the NSCA, the CEAA, the associated regulations and licence conditions throughout a life extension project and subsequent reactor operation. Approval to return a reactor to service is contingent upon a licensee's demonstration that it has met relevant licence conditions.

In keeping with its regulatory mandate, the CNSC expects a licensee to demonstrate that it meets the following objectives for any life extension project:

1. adequate determination of the technical scope of the project, through a safety improvement plan that considers results of an environmental assessment and an integrated safety review;
2. establishment of programs and processes that take into account any special considerations of the project; and
3. appropriate project planning and execution.

Many of Canada's nuclear power plants are nearing the end of their designated operating lives. During 2005-06, the CNSC received incremental multi-year funding from the Government of Canada to manage the increase in workload to regulate licensee refurbishments of power reactors — including those at Bruce and Point Lepreau — and to regulate aging nuclear reactors (specifically, Units 2 and 3 at Pickering A).

In May 2006, the CNSC issued the draft regulatory guide *Life Extension of Nuclear Power Plants* (G-360) for public consultation. The document includes information for licensees and other stakeholders on the licensing steps required to extend the operating life of a power reactor. In particular, the guide notes that a licensee wishing to refurbish a nuclear reactor should perform an integrated safety review based on the periodic safety review guidelines of the IAEA.

Bruce Power
Units 1 and 2 at Bruce Nuclear Power Development's Bruce A site are being refurbished. CNSC staff has reviewed the licensee's integrated safety review report and safety improvement plan and is monitoring the licensee's implementation of these plans. The CNSC is also overseeing the secure disposal of obsolete equipment and contaminated parts being generated by the refurbishment program.

Pickering Nuclear Generating Station
The Pickering Nuclear Generating Station is owned by Ontario Power Generation (OPG). Units 2 and 3 at the Pickering A Nuclear Generating Station are currently in a guaranteed shutdown state and will be placed in long-term safe storage. The licensee has decided that these units will not be refurbished. The CNSC staff reviewed the current licence to determine the nature of licence amendments required, including whether an environmental assessment (EA) is needed. Some safety requirements, such as maintenance and testing differ when units are dormant versus when operating. Subsequent to year-end, OPG submitted a project description and the CNSC determined that an EA is required.

During 2005-06, the CNSC received an application to undertake an EA for the proposed refurbishment of Pickering B's four reactors that would extend their operating lives to 2060. In 2006, as the sole responsible authority for the EA, the Commission made a decision as to the scope of the project and the assessment in accordance with the requirements of the CEAA.

Point Lepreau
In July 2006, the Commission granted a five-year licence renewal to the New Brunswick Power Nuclear (NBPN)'s Point Lepreau Generating Station. NBPN has decided to refurbish the station and therefore submitted an Integrated Safety Review Report, which CNSC staff has reviewed. NBPN is planning an outage in 2008-09 to complete the refurbishment, and the CNSC has developed its project plan for regulatory oversight of the refurbishment to coincide with this timing.

During 2006-07, the CNSC staff oversaw the start of the expansion of Point Lepreau's solid waste management facility, which will store waste generated during refurbishment and throughout the extended life of the facility.

Gentilly-2
Hydro-Québec is reviewing the possibility of refurbishing its Gentilly-2 nuclear reactor to extend its life to 2035, but has not yet made a decision to do so. The CNSC staff directed the review of Hydro-Québec's EA Screening Report for proposed modifications to the Gentilly radioactive waste management facilities and refurbishment of the generating station, as a precursor to potential licensing of the refurbishment project. The Commission accepted the screening report in November 2006. CNSC staff has also discussed with Hydro-Québec the licence amendments that would be required for any subsequent application to proceed with the refurbishment of the generating station.

2. Growth Area – New and Expanding Uranium Mining, Research Facilities and Waste Management

Canada is the world's largest producer of uranium, the demand for which continues to increase. Throughout the world, there has been an increase in the number of new reactor projects along with many refurbishments of existing reactors. This growth in activity and demand has resulted in a dramatic rise of the price of uranium on world markets and has accelerated industry plans to expand existing mines and explore for new uranium sources. Although Canadian uranium is currently mined only in Saskatchewan, there are uranium exploration activities underway in virtually every region of the country, which are expected to lead to increased uranium mine applications.

With the potential for new uranium mining projects, the Canadian Nuclear Safety Commission developed and issued *Licensing Process for New Uranium Mines and Mills in Canada* (INFO-0759) in March 2007. This document explains the major steps involved in the established regulatory process for licensing new uranium mines or mills in Canada based on requirements of the NSCA and its regulations, and it refers to the

CEAA. The document is aimed at a broad audience, encompassing those involved directly in uranium mine development as well as those with an interest in the federal regulatory regime that applies to uranium mining and milling. Probable timelines involved in the licensing process are described, as are the stages in the process where interested parties, including the public, can provide input in the decision-making process.

2.1 Nuclear Waste Management

The activities licensed by the CNSC generate the following types of waste, which are managed in various ways:

- Uranium mine waste rock and mill tailings are disposed of in above-ground facilities or in pits;
- Low- and intermediate-level radioactive wastes, which result from uranium processing plants, nuclear power plants, nuclear research facilities, and industrial and medical applications is stored in above-ground structures and in shallow in-ground structures; and
- Highly radioactive nuclear fuel waste (spent fuel) is stored in water-filled bays or in various dry storage structures (dry storage casks, above-ground and in-ground concrete canisters, and modular above-ground vaults).

Additional potential approaches to long-term waste management include surface and near-surface facilities and deep geological facilities for disposal or long-term storage.

In addition to radioactive waste generated by licensed activities, legacy and historic waste from the early days of the nuclear industry (for example, closed uranium mines) falls under CNSC regulatory oversight and is subject to CNSC licensing requirements

During the year, the CNSC provided regulatory oversight as NBPN commenced construction of a long-term storage facility to handle the waste from its upcoming refurbishment of the reactor at Point Lepreau. In addition, the CNSC reviewed the project plan for construction and operation of additional storage structures at Hydro-Québec's Gentilly Radioactive Waste Management Facility in Bécancour, Québec. CNSC staff appeared before the Commission regarding this project at a hearing in March 2007, and a licence amendment was granted shortly thereafter in April. In January 2007, the Commission also considered OPG's licence renewal application for the Western Waste Management Facility, a dry storage facility that manages OPG's and Bruce Power's waste, including used reactor fuel, at the Bruce Power site.

Port Hope Area Initiative
The EA for the Port Hope Area Initiative was approved. This is a Government of Canada initiative to clean up contaminated sites in the Port Hope Region by constructing facilities for long-term storage of historic low-level radioactive wastes.

Deep Geologic Repository
Ontario Power Generation has proposed a deep geologic repository that would be constructed within the Bruce Nuclear Power site in Kincardine, Ontario, and store low- and intermediate-level radioactive wastes. The project required a comprehensive environmental assessment, and the CNSC, as the lead agency for the assessment, conducted the study and submitted it the Commission in a hearing held in Kincardine on October 23, 2006. The Commission has announced its recommendation to the federal Minister of the Environment that the proposal be referred to a review panel. Subsequent to the CNSC's year-end, the Minister of the Environment accepted the Commission's recommendation to refer the proposal to a review panel. CNSC staff is now working with the Canadian Environmental Assessment Agency to determine the terms of reference. The CNSC consulted extensively on this project with the community, including the Saugeen Ojibway Nations.

New Regulatory Document
In December 2006, the CNSC issued a regulatory document to assist applicants for new licences and licence renewals in assessing the long-term safety of radioactive waste management. *Assessing the Long Term Safety of Radioactive Waste Management* (G-320) describes approaches to assess the potential long-term impact of radioactive waste storage and disposal methods on the environment and on the health and safety of people. The document includes discussion of assessment methodologies, structures, and approaches that the CNSC will examine when evaluating licence applications.

Monitoring the Environmental Effects of Uranium Mines

In 2002, the Government of Canada promulgated the Metal Mining Effluent Regulations (SOR/2002-22) under the *Fisheries Act*. The regulations set out requirements for mines to undertake environmental effects monitoring (EEM) to assess how mines affect fish, fish habitats and the usability of fisheries resources.

The CNSC is a member of Environment Canada's Metal Mining EEM Review Team, consisting of experts from government, industry, environmental and aboriginal communities, to undertake a review based on experiences from the first phase of monitoring. Monitoring of radionuclides and hazardous substances contaminants and their potential biological effects on the environment, has been a CNSC requirement for uranium mines since the 1990s.

Environmental monitoring experience at Canadian uranium mines was instrumental in influencing two recommendations from the national review team: the need to further investigate selenium releases in mine effluents and include selenium as a monitored effluent variable; and the importance of coordinating and linking the environmental assessment process with the design, implementation and interpretation of the *Metal Mining Effluent Regulations* EEM programs. The CNSC is one of the few regulators to have implemented such an integrated approach to environmental protection, where results of environmental assessments are used to design EEM programs and interpret their results.

In September 2006, the Ministers of the Environment and Health published the final decision on the Assessment of Releases of radionuclides From Nuclear Facilities (impact on non-human biota) in Part I of the *Canada Gazette*. The finding reported that uranium and uranium compounds, contained in effluent releases from uranium mines and mills, were entering the environment in quantities or concentrations or under conditions that have or may have an immediate or long-term harmful effect on the environment or its biological diversity. The Ministers proposed to take no further action under the *Canadian Environmental Protection Act* in respect of this substance because the *Nuclear Safety and Control Act* enabled the CNSC to protect non-human biota from such releases. A risk management process has been formalized in an annex to a memorandum of understanding between Environment Canada and the CNSC. CNSC environmental specialists have conducted numerous research studies to better understand the toxicity of uranium to aquatic organisms and to identify best available technologies for the treatment of uranium in effluent. The Commission required a condition in the Rabbit Lake Mine and Mill licence to identify and implement mitigation measures that would significantly reduce the amount of uranium discharged to the environment.

3. Growth Area – Increasing Use of Nuclear Substances and Prescribed Equipment in Health Care and Industry

The CNSC continues to address a rapidly growing number of Class II nuclear facilities, principally those for cancer treatment that use radiation therapy. The CNSC received increased resources to improve capacity for regulatory oversight of this industry sector. However, growth has been greater than projected.

The total number of radiation therapy facilities under CNSC licence increased by 15% over the preceding year. A major trend among Canadian radiation therapy centres during the past year has been the replacement of existing radiation therapy accelerators with more technologically advanced ones. An estimated 10% of existing radiation therapy accelerators were replaced in this manner (see Figure 5). In addition to a continuation of this trend, the CNSC expects a significant increase in the number of new radiation therapy facilities in the upcoming fiscal year, with about 30 facilities expected to be in various stages of construction — most of which will begin routine operation towards the end of 2007-08 or early in the subsequent year.

During 2006-07, CNSC staff employed a systematic, risk-informed approach to balance its review of new licence applications and with ongoing compliance verification activities to ensure the safety of Canadians. Rigorous safety reviews and independent verification of licensee submissions were routinely performed for all new construction applications, with on-site follow-up taking place when major projects or issues were identified. For facilities under active clinical use, a program of comprehensive bi-annual compliance audits was launched in March 2006, and 54 facilities were inspected during the 2006-07 fiscal year. Ongoing compliance of all licensed facilities was assessed using a number of methods including the review of the annual compliance reports submitted by licensees.

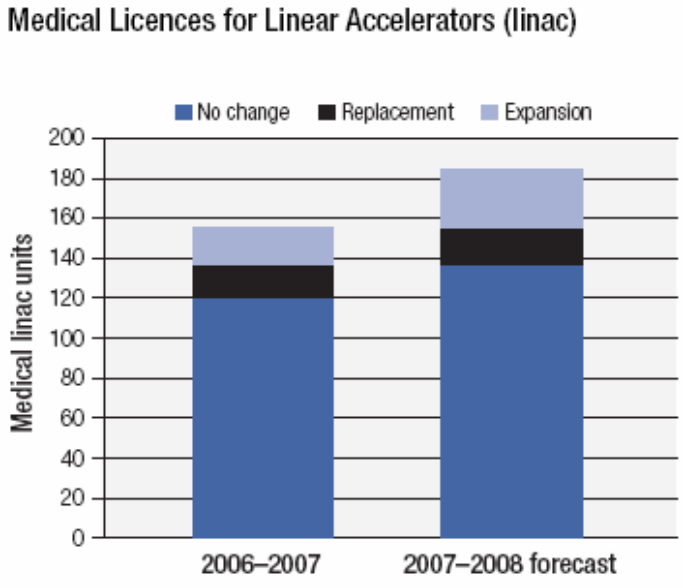


Figure 5.

4. Growth Area – Mitigating Risks to Nuclear Security

4.1 Amended *Nuclear Security Regulations*

The Commission introduced amendments to the *Nuclear Security Regulations* in Fall 2006. These amendments were based on previous documentation of best practices by the IAEA, along with CNSC consultation with licensees (through the Inter-Utility Security Working Group established in 2002), law enforcement and intelligence agencies and government. The amendments gave permanent codification to the requirements that were established after the terrorist events of September 2001, along with additional licensee security requirements. Principal security requirements resulting from the amendments, which apply to all nuclear power plants and high-risk facilities, were in areas such as tactical response, security systems, personal security, and intelligence analysis.

5. Growth Area – Creation of a Modern Regulatory Framework for Construction of New Nuclear Reactors in Canada

Given the two applications from Bruce Power and Ontario Power Generation for licences to prepare sites to build new power reactors, the CNSC was allocated funding to establish a New Reactor Licensing Division in 2006. These resources will enable the CNSC to develop a modern regulatory framework for licensing new reactors. In February 2006, the CNSC issued *Licensing Process for New Nuclear Power Plants in Canada* (INFO-0756) to explain the key steps in licensing a new reactor, taking into consideration the requirements of the NSCA and its regulations. In March 2007, a supplementary document was published to elaborate upon the review of reactor designs within the licensing and environmental assessment processes for new nuclear power plants in Canada. Staff commenced preparation of the necessary framework and are documenting licensing requirements and guidelines to meet these requirements. Also under development are the design and siting requirements for new reactors, which will be issued for public comment in 2007. This material builds upon the NSCA regulatory framework, licensing and compliance experience with Canada's current reactors and on international guidelines and experience in such areas as design, acceptable dose levels, failure processes and shutdown systems.

Environmental assessments (EAs) in the coming years will be conducted as a requirement of applications to construct new nuclear power reactors. When the CNSC receives an application to prepare a site, this will trigger an EA under the CEAA to determine if the project may cause significant, adverse environmental effects, taking into account available mitigating measures. The Commission will not consider any licence application until an EA is complete and has reached a decision. The EA will include consideration of potential environmental effects throughout the plant's life cycle. If an EA results in a decision of likelihood of adverse environmental effects that cannot be justified, the licensing process for that project will not proceed.

Bruce Power submitted a project description in January 2007, which the CNSC is reviewing. OPG submitted its project description shortly after year-end in April 2007.

The EAs that triggered these applications to prepare sites for new reactors will require several years to complete. Site preparation will not commence before 2009, contingent upon assessment results.

5.1 International Cooperation on Power Reactors

The CNSC is participating in the Multinational Design Evaluation Program, under which 12 national regulatory bodies cooperate in evaluating reactor designs. This is a pilot project comparing the regulatory requirements from each of the participating countries and the regulatory activities that would be undertaken to verify these requirements have been met. The program's long-term goal is to harmonize regulatory requirements and regulatory practices. The group is set up under the Nuclear Energy Agency.

Linda Keen, CNSC President and current President of the *Convention on Nuclear Safety*, met with the Governing Board of the World Association of Nuclear Operators (WANO) during its meeting in Québec City, Québec, in October 2006. This invitation from WANO, an industry organization created to improve safety at nuclear power plants around the world, was significant, as regulatory authorities do not attend the organization's events. It afforded an exchange on the importance of considering safety in the operation of existing nuclear power plants and of modern regulatory frameworks in considering new nuclear power plants.

Through its continued role with the IAEA's Commission on Safety Standards, the CNSC's Executive Vice-President advised on the finalization of the IAEA's Safety Fundamentals document that sets the umbrella framework for the IAEA's suite of safety standards and documentation. In September 2006, the IAEA's General Conference approved this publication, which will be significant to all of the world's regulators, including the CNSC, which has a commitment to adopting and adapting its regulatory framework to international standards. This commitment is in line with the Government of Canada's policy on regulatory streamlining.

Priority 3 – Implement Improvement Initiatives

In September 2005, the CNSC committed to implementing a management system based on IAEA management system standards for nuclear regulatory bodies, but that would also conform to Government of Canada requirements. The management system, when fully implemented, will provide further assurance that integrated, standardized and consistent practices, principles and processes are in place to support the CNSC in achieving its regulatory mandate and objectives.

In May 2006, the CNSC underwent a self-assessment completed by a Canadian team composed of members from outside the CNSC, which was against the IAEA standards. This resulted in a number of recommendations and suggestions for possible improvement. In response to this and in line with the recommendations from related reports of the Office of the Auditor General, the IAEA broadened the scope of existing initiated new projects to

support further improvements in key CNSC regulatory processes and to implement integrated information technology to support these processes.

These projects were integrated in November 2006 under the umbrella of the Integrated Improvement Initiatives Program (I3P), an overriding program comprising improvement initiatives/ projects in five key areas:

1. management system implementation;
2. integrated planning and performance management;
3. compliance;
4. licensing; and
5. leadership development.

The I3P made progress during 2006-07 and by the end of the fiscal year, program preparation activities and objectives were complete. Among these were the creation of a formal program to manage the projects in an integrated fashion; the hiring of a program director and project manager for the Integrated Systems Project; approval of the I3P integrated program charter, which included a revised governance structure; approval of a change management strategy; the development of level-1 and -2 process maps for re-engineering the licensing and compliance processes within the CNSC; and integration of project management of the planning and performance measurement modules of the Integrated Planning and Performance Management Initiative.

Current and expected growth at the CNSC and the need for excellence in leadership capabilities necessitate a strategic, cohesive approach to leadership development. The CNSC has established several elements that support the development of leadership skills and provide management and staff with information on various courses, symposia, tests and other means. During the 2006-07 fiscal year, the CNSC began updating its Leadership Development Program, which will ensure that current and future CNSC leaders have competencies, behaviours and attitudes consistent with the organization's values and commitment to excellence. The CNSC Executive Committee approved a Leadership Development Charter and the first of three new phases will be implemented by January 2008.

SECTION II: ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME

Analysis by Program Activity

Program Activity

The Canadian Nuclear Safety Commission has one strategic outcome that affects the daily lives of all people in Canada: to ensure safe and secure nuclear installations and processes that are used solely for peaceful purposes; and public confidence in the nuclear regulatory regime's effectiveness. To fulfill this outcome, the CNSC operates one program activity as defined by the Treasury Board Secretariat's Program Activity Architecture: nuclear regulation.

The Nuclear Regulation program activity is described as regulation of the use of nuclear energy and materials to protect health, safety, security and the environment and to respect Canada's international commitments on the peaceful use of nuclear energy. From an operational planning and performance management perspective, all of CNSC 2006-07 priorities align directly with this program activity.

Activities carried out under the nuclear regulation program activity allow achievement of the following:

- a low frequency of incidents, accidents and precursors in the use of nuclear substances and processes;
- low levels of exposure, to humans and to the environment, to any harmful substances as a result of nuclear installations and processes;
- a commitment and full engagement of the regulated community to sustain a strong culture of safety and security in the use of nuclear installations and processes;
- that transfers of nuclear goods and technology in Canada and from Canada are solely for peaceful purposes; and
- that Canadians have knowledge of and confidence in the CNSC as a strong, independent regulator.

Within the nuclear regulation program activity, the CNSC has five program sub-activities, each with a distinct expected result. These program sub-activities represent key program areas for the CNSC in achieving its priorities identified in Section I, the expected results of its program activity, and its strategic outcome These sub-activities are in accordance with the CNSC's Program Activity Architecture. The program sub-activities, their expected results and the resource expenditure for each are articulated in Figure 6.

Program Sub-Activities	Expected Result	Planned Spending (in $000s)	Actual Spending (in $000s)
Regulatory Framework	A clear and pragmatic regulatory framework	6,432	9,213
Licensing and Certification	Individuals and organizations that operate safely and conform to safeguards and non-proliferation requirements	20,033	14,897
Compliance	High levels of compliance with the regulatory framework	35,803	34,245
Cooperative Undertakings	Cooperation and integration of CNSC's activities in national/international nuclear fora	17,784	20,367
Stakeholder Relations	Stakeholders' understanding of the regulatory program	6,447	6,540
	Totals:	**86,499**	**85,262**

Figure 6.

The CNSC's 2006-07 *Report on Plans and Priorities* outlined plans for the year for key programs within each program sub-activity. Therefore, the following sections describe the expected results, performance measures and actual performance using the same approach.

1. Regulatory Framework

The CNSC's regulatory framework is composed of the following elements:

- The *Nuclear Safety and Control Act* (NSCA), regulations and regulatory documents;
- The *Safeguards Agreement and Additional Protocol* between Canada and the IAEA, and Canada's bilateral and multilateral nuclear cooperation agreements;
- Bilateral nuclear cooperation agreements between Canada and its nuclear trading partners;
- The *Canadian Environmental Assessment Act*; and
- The *Nuclear Liability Act.*

The program area encompasses development of a modern, evergreen Canadian regulatory regime that considers all available science as well as operating experience and input of Canadian operators, other stakeholders and the international community– to develop new and amend existing CNSC regulations and to create regulatory policies, standards and guides that set out the CNSC's regulatory criteria and expectations.

The expected result is a clear and pragmatic regulatory framework for Canadians. Achievement is measured as indicated in Figure 7.

Expected Result	Outcome Measure	Target 2006-07	Performance 2005-06	Performance 2006-07
A clear and pragmatic regulatory framework	Percentage of regulations under review/revision in each to ensure a complete rolling review over five years	20%	27% (3 of 11)*	36 % (4 of 11)* In addition development work on one new regulation
	Number of regulations published in the *Canada Gazette*	3	1	1**
	Number of regulatory documents finalized and published	15	5	3***

Figure 7.

* In 2006-07, there were 11 regulations pursuant to the NSCA.
** CNSC experienced delays in the approval process for certain regulations. These were subsequently published in the *Canada Gazette* in May 2007.
*** The CNSC has reviewed its targets for publication of regulatory documents and has prioritized them for future years. The CNSC's regulatory policy committee will ensure that higher-priority documents are published as required.

1.1 2006-07 Regulatory Program

During 2006-07, the CNSC made further progress in refining its regulatory framework under the NSCA. The government approved new security regulations, and three more regulations were amended and are to be submitted for approval. A Regulatory Policy Committee, chaired by the Secretary of the Commission, has been established with the CNSC staff to provide strategic-level direction and to coordinate the identification, development and implementation of a revised CNSC regulatory policy framework. Throughout 2006-07, the committee examined policies to provide broader consultation with stakeholders and greater consistency to the regulatory process, from concept to approval, for the Commission.

The regulatory program consists of regulations and regulatory documents. Work on regulatory documents was in accordance with plans stated in the *Report on Plans and Priorities 2006-07,* except as noted above. The following (see Figure 8.) summarizes changes in CNSC regulations, and work on the regulatory documents is described in detail in Section IV – Other Items of Interest.

• ***Nuclear Security Regulations***	The updated *Nuclear Security Regulations*, which introduced heightened safety measures for nuclear facilities, came into force in November 2006.
• ***Nuclear Substances and Radiation Devices Regulations*** • ***Class II Nuclear Facilities and Prescribed Equipment Regulations*** • ***Nuclear Non-Proliferation Import and Export Control Regulations***	Amendments for these three sets of regulations have been prepared and will be published early in the Canada Gazette in 2007-08. This is later than planned by a few months and may delay the finalization of these amendments beyond the plan for the end of 2007-08.
• ***Canadian Nuclear Safety Commission Rules of Procedure*** • ***Canadian Nuclear Safety Commission By-laws***	Scheduled work to amend the *Canadian Nuclear Safety Commission Rules of Procedure* and the *Canadian Nuclear Safety Commission By-laws* is a continuous improvement initiative. This project continued to move forward, although progress over the past year was slower than anticipated due to an increased Commission workload.
• **New *Nuclear Safeguards Regulations***	The CNSC staff continued to work on new *Nuclear Safeguards Regulations* to clarify and consolidate measures to be undertaken by licensees to meet the requirements of the NSCA and the *Safeguards Agreement and Additional Protocol* between Canada and the IAEA.

Figure 8.

1.2 Towards a Modernized Safeguards Framework

The CNSC, in cooperation with the IAEA, has been actively preparing for the implementation of a state-level integrated safeguards program to meet Canada's increased international safeguards obligations, while enhancing the efficiency of IAEA safeguards implementation. During 2006-07, agreement was reached with the IAEA on the transition to implementation of the State-level Integrated Safeguards Approach (SLA) for Canada, based upon agreed priorities and available resources. On January 1, 2007, implementation of the SLA was achieved for that sector of the nuclear program, which includes research reactors and static dry storage facilities. Following this, the SLA was applied to the transfer of spent fuel to dry storage facilities at multi-unit CANDU reactors on March 1, 2007. The latter achievement was the culmination of over two years of intensive effort on the part of the IAEA, the CNSC, and affected licensees to address an issue that was consuming a significant portion of the IAEA safeguards resources under the traditional approach.

In addition, the CNSC continued to work towards developing an effective national nuclear verification program focused on regulatory compliance with domestic

requirements for nuclear material control. The program will also complement the CNSC's efforts to discharge its responsibilities for implementing the safeguards agreements between Canada and the IAEA. To that end, the CNSC initiated interdepartmental discussions on the rationale for this initiative and began work on defining the requirements for a national verification authority.

2. Licensing and Certification

This program sub-activity area covers issuance of licences or certification of persons to conduct nuclear-related activities in Canada and the certification of prescribed equipment. To issue a licence or a certificate, the CNSC must obtain evidence of the applicant's ability to operate safely and conform to safeguards and non-proliferation obligations.

The result is that licences or certificates will be issued only to individuals and organizations that operate safely and conform to safeguards and non-proliferation requirements, or to those who demonstrate that prescribed equipment will be safe for use.

Achievement of this result is measured by the following criteria:

- The number of delays in implementing effective regulatory control (licensing action) pursuant to the NSCA; and
- The number and significance of Significant Development Reports

The data capture methodology for these measures is under development.

2.1 Licensing

In 2006-07, the Commission conducted 49 hearings, where it duly considered submissions from applicants and input from CNSC expert staff and interested stakeholders and documented them in detailed records of proceedings. This represented a 69% increase in the number of hearings over the past year as compared to those that took place in 2005-06. The average 18-day period to release a decision this year was significantly better than the performance standard of 30 business days, and 36 decisions were released within this 30-day standard — representing turnaround time that surpass best practices of the Canadian administrative tribunal community. In instances where performance standards were not met, reasons for delay included the Commission's greatly increased workload, a higher number of complex hearings, and the conduct of several hearings in affected communities.

Streamlining

Hearings were also conducted by panels of the Commission with the aim of increasing efficiency of the Commission's operations and maintaining their effectiveness. The CNSC President established several panels of one or more members to exercise Commission functions throughout the past year. This practical use of the Commission tribunal's resources demonstrates commitment towards good governance while delivering

the CNSC's mandate through timely licensing decisions. Under the NSCA, the presence of all Commission Members is not required each time the Commission acts, because a smaller panel of members may exercise certain Commission powers. This use of panels is in line with the practices of other Canadian administrative tribunals.

Abridged Hearings
The Commission has moved toward holding more hearings as abridged hearings so it can operate more efficiently. Based on circumstances and the nature of the matter at hand, an abridged hearing can be held before a panel within a shorter-than-usual time frame. An abridged hearing may be appropriate if certain criteria are met — for example, if the issue is administrative, does not involve new or unproven technology, would not compromise safety, or has not generated high levels of public interest.

Nuclear Reactors
The Commission granted five-year licence renewals to New Brunswick Power Nuclear's Point Lepreau Generating Station and to Hydro-Québec's Gentilly-2 reactor in Bécancour, Québec.

In July 2006, the CNSC announced its decision to renew the nuclear research and test establishment operating licence for Chalk River Laboratories until October 31, 2011. In 2006, the CNSC received two applications, one from Bruce Power and one from Ontario Power Generation, to prepare sites for new reactors.

The CNSC has begun the regulatory work associated with oversight of the renewal of the operating licences for the reactors at Pickering and Darlington, which will expire in 2008.

Nuclear Substances and Radiation Devices
Through risk-informed licensing of nuclear substances and radiation devices, CNSC staff ensured effective regulatory control over the activities of all applicants and licensees. With this approach, CNSC staff continued to consistently apply regulatory requirements to the more than 2,500 licensees of this type across Canada. CNSC also provided ongoing written and verbal information about the CNSC's expectations of applicants and licensees to ensure transparency and to promote understanding of regulatory obligations.

In July 2006, CNSC staff implemented a new licence format for nuclear substances and radiation devices and Class II facilities that standardized the layout and presentation of information in the licence. In addition to revising some licence conditions to increase clarity, new features were added, including the ability to reference licensee commitments as part of the licence itself. This change allowed licensees to propose alternate methods of achieving compliance with the regulatory framework and provided the basis for assessing compliance. Other changes were carried out to enhance security of information and changes to annual compliance reports, including their incorporation as part of the licence, further streamlining the reporting process for all licensees. Licensees have generally embraced these changes and have taken the opportunity to include specific procedures as part of their licences.

The number of each type of CNSC licence varies slightly from year to year. Since the end of the 2005 fiscal year, the total number of licences issued through the CNSC's Directorate of Nuclear Substance Regulation has increased more than 7%. This licensing work is directly influenced by changes and advances in various fields, such as medical diagnosis and therapy.

Export and Import Licences of Sealed Sources
Canada is one of the world's largest suppliers of sealed sources and is one of 88 countries that have committed to the IAEA to work toward full implementation of the *Code of Conduct on the Safety and Security of Radioactive Sources*. At the end of 2006-07, the CNSC launched a strengthened export and import licensing and control program for risk-significant sealed sources. The program requires licensees wishing to export certain sealed sources to obtain transaction-specific export licences from the CNSC.

The new export and import control program for risk-significant sealed sources completed the second of two initiatives to adopt the IAEA *Code of Conduct on the Safety and Security of Radioactive Sources* and its supplementary *Guidance on the Import and Export of Radioactive Sources.* The implementation of the new control program, together with the enhanced National Sealed Source Registry (described further under "Sealed Source Tracking System" in sub-section 3.3) will assure Canadians and the international community that international transfers of risk-significant sealed sources are conducted in a safe and secure manner.

2.2 Certification

Certification of Radiation Safety Officers and Exposure Device Operators
Amendments were introduced to the *Class II Nuclear Facilities and Prescribed Equipment Regulations,* which will impose certification requirements for radiation safety officers in Class II nuclear facilities. The majority of these facilities are cancer clinics that use a wide variety of radioactive nuclear substances to treat cancer.

The CNSC staff initiated a comprehensive review of the processes for certification of exposure device operators. Following meetings with the radiography industry and Natural Resources Canada, a CNSC working group prepared a report containing numerous recommendations to improve the certification process for these operators, who had previously been granted lifetime certification.

Examination Transfer Project
The CNSC currently reviews and approves examination packages that licensees prepare pursuant to the certification of nuclear power plant operators, but is planning to transfer the responsibility of examination preparation and conduct entirely to licensees. In the future, the CNSC will continue to certify individuals in designated nuclear power plant operations positions, but will no longer be involved in approving the written and simulator-based examinations. Consequently, the CNSC is in the process of developing a compliance program to support an effective regulatory regime post-exam transfer.

3. Compliance

Achieving high levels of compliance with the nuclear regulatory framework is critical to the CNSC's work and assuring the safety of nuclear installations and processes. The CNSC's compliance work also involves making sure that Canada complies with its international commitments.

The expected result is a high level of compliance with the regulatory framework, assessed through the measures stated in the following table (see Figure 9.)

Expected Result	Outcome Measure	Target 2006-07	Performance 2005-06	Performance 2006-07
High levels of compliance with the regulatory framework	The CNSC publishes an annual report on the performance of nuclear power plants in established safety areas. Level of licensee performance ratings are assessed by the CNSC for each of the power reactors, as per the CNSC Report Card on Nuclear Power Plant Performance. The CNSC uses separate measures to evaluate the quality of the existing safety program and its implementation. The 2006 report can be found on the CNSC Web site at www.nuclearsafety.gc.ca.	B ratings	Available on CNSC's web site	See section IV
	Levels of performance of non-power reactor licensees as measured by the CNSC through inspections, events, assessments, and evaluations of compliance with licence requirements. Performance ratings are recorded in formal licensing documents.		Reporting under development	
	Annual IAEA statement concluding that Canada is in compliance with its commitments pursuant to the Canada/IAEA safeguards agreements.	Achievement	Achieved	Achieved
	Provision by the CNSC of nuclear transfer notifications and reports pursuant to bilateral administrative arrangements.	100%	Achieved	Achieved

Figure 9.

3.1 Monitoring Compliance

Achieving high levels of compliance with the nuclear regulatory framework is critical to the CNSC's work and to assuring the safety of nuclear installations and processes. The Commission regularly receives information on licensee performance and compliance with regulatory requirements through various public reporting formats. These include annual reports on the safety performance of the power industry, mid-term performance reports for the majority of the facilities licensed by the CNSC, and Significant Development Reports.

Through a rigorous reporting process on significant developments in the industry, CNSC staff apprised the Commission of events of existing or potential safety concern. Meetings were open to the public and the transcripts and meeting minutes are published on the CNSC Web site. Public reporting provides openness and transparency of the CNSC's ongoing regulatory oversight and ensures that licensees remain accountable and take necessary actions to resolve issues.

Chalk River Laboratories

The Atomic Energy of Canada Ltd. (AECL) Chalk River Laboratories site is Canada's oldest and most complex nuclear facility. To effectively monitor activities at this facility, the CNSC established an on-site office at Chalk River with four CNSC staff to oversee licensee compliance and to communicate with licensee staff to improve their understanding of regulatory requirements. A full-time Safeguards Officer has also been assigned to this site office to assist with implementing safeguards at this facility.

During the year, licensing staff reviewed and prepared recommendations to the Commission on matters that included the handling of legacy waste and the decommissioning of certain facilities. In addition, CNSC staff presented its midterm report on AECL's MAPLE (Multipurpose Applied Physics Lattice Experiment) reactors to the Commission. CNSC staff paid specific attention to two areas: monitoring licensee progress in addressing weaknesses in the implementation of programs concerning operational performance, performance assurance and environmental protection; and evaluating progress in commissioning and resolving issues outstanding at the time of licence renewal.

Uranium Mines

A major flood occurred in October 2006 at Cameco's Cigar Lake uranium mine in northern Saskatchewan. CNSC staff responded quickly during the incident to provide regulatory oversight while the licensee managed the flood. CNSC staff has since been reviewing the circumstances surrounding the flood, and Cameco presented an initial report to the Commission in November 2006. Analysis of the root cause is ongoing.

Also in 2006, the Commission determined, based on evidence provided by the licensee and CNSC staff, that selenium, a contaminant in the effluent from Cameco's Key Lake Mill in Saskatchewan, was being released in concentrations and quantities that posed an unreasonable risk to the environment. Through a scientific study, CNSC environmental science experts determined that cumulative releases of selenium exceeded those predicted in the licensing environmental assessment and posed an unreasonable risk to the environment. This finding stopped a proposed expansion of the Key Lake facility. Based on recommendations by CNSC staff, Cameco applied for a licence amendment, and the Commission issued an amended licence that set out mitigating measures to control environmental impacts of the selenium. The CNSC scientific study on selenium was peer reviewed in the U.S. and in Canada, and its results will affect the uranium mining industry as a whole as well as future regulation of the Canadian uranium mining industry.

Compliance Among Industrial Radiography Licensees
Industrial radiography is a non-destructive technique used to examine the integrity of welds, the quality of castings and the adequacy of pressure vessels by remote manipulation of high-risk radioactive sources to expose photographic film. The CNSC licenses radiographers in all provinces, and 70% of these licensees are based in Western Canada, where they work predominantly in the oil and gas sector. While the number of industrial radiography licences has remained relatively stable, the need for regulatory oversight for this high-risk group continues to demand significant CNSC resources. The CNSC has a strategy for ensuring continued effective regulatory control in the industrial radiography industry. An important aim of this strategy is to help industry members understand the importance of adherence to regulatory requirements, to ensure the health and safety of workers and the public. CNSC has seen a decrease in the number of incidents and an associated reduction in radiation doses to workers.

Performance Measures in Nuclear Substance Regulation
The CNSC implemented a new standard regarding inspections (results presented in Figure 10) whereby an inspector will produce a report, for issue to the licensee within 60 business days of an inspection. This condition was met in 90% of type II[2] inspections of high-risk licensees during 2006-07.

Type I inspections have presented a challenge because of rapid expansion at nuclear medicine facilities at Canadian hospitals and an associated increase in regulatory work. Some provinces have seen a consolidation of cancer clinics, which used to be managed by individual licensees and are now being controlled by central boards or provincial agencies. Although the number of licensees has slightly decreased, the rapid expansion of nuclear medicine facilities and cancer clinics has increased the overall workload for CNSC staff.

Mitigating strategies have been put in place, enabling the CNSC to identify potential risks early in the process and to ensure the safety of the Canadian public despite limited resources. As cancer clinics go through construction, commissioning and operation stages, regulatory verifications are made to identify potential risks. Once a discrepancy is identified, an inspection is automatically triggered to ensure compliance.

[2] Type I inspections are on-site audits and evaluations of a licensee's programs, processes and practices. Type II inspections are routine (item-by-item) checks and rounds that typically focus on the outputs, or performance of licensee programs, processes and practices. Findings from Type II inspections play a key role in identifying where a Type I inspection may be required to determine systemic problems in licensee programs, processes or practices.

2006-07 Performance Standard Report				
	Type I Inspections	**Assessments**	**Type II Inspections**	**Annual Compliance Reports**
Risk Category				
High	45	104	408	314
Medium	20	525	779	1448
Low	0	46	4	370
Total	65	675	1191	2132
Percentage Within Standard	46.15%	93.48%	88.33%	72.51%

Figure 10.

3.2 Orders Issued

The Commission was involved in a larger number of reviews of orders in 2006-07 than during previous reporting periods. The Commission reinforced its commitment to the safety of Canadians through its orders against licensees found to be non-compliant with the NSCA or conditions of their licences. Through its orders against licensees such as Enviropac, SRB Technologies (Canada) Inc., and ESI Resources Limited, the Commission ensured that facilities operated without unreasonable risk, demonstrating a more vigorous compliance/enforcement approach.

Enviropac

In September 2006, a CNSC Designated Officer issued an Order to Enviropac Inc. to immediately cease activities relating to the use, transfer, import, export and servicing of nuclear substances and prescribed equipment. The Order was issued based on CNSC staff concerns regarding Enviropac's qualifications and commitment to make adequate provision for the health and safety of persons and protection of the environment.

In accordance with the NSCA and Regulations, the Order was referred to the Commission for review. In December 2006, the Commission confirmed the Order requiring Enviropac to cease all activities under its CNSC licence. CNSC staff inspected the site a number of times in the interim to verify compliance with the Designated Officer Order and to ensure that appropriate security measures were taken.

In February 2007, the Commission resumed the hearing to consider amending the Designated Officer Order, based on recommendations from CNSC staff and the licensee. Following the February hearing, CNSC staff received a report of the discovery of an orphaned sealed source containing a nuclear substance. The investigation carried out by CNSC staff showed that the sealed source was last in the possession of Enviropac. Based on the potential risk due to loss of control, CNSC staff issued further recommendations to the Commission on regulatory actions to be taken, for consideration in its deliberations. The commission decision on the matter is expected in 2007-08.

SRB Technologies

In August 2006, a CNSC Designated Officer issued an order to SRB Technologies (Canada) Inc. (SRBT) to cease and desist the processing and use of tritium, to prevent

further damage to the environment, which had been detected in the land near the SRBT facility. Later that month, SRBT was provided with an opportunity to be heard, after which the Commission amended the order and allowed the company to resume limited production. The Commission informed SRBT that it would have to demonstrate at its licence renewal hearings in Fall 2006 that it was qualified to continue operations and was making adequate provisions to protect the health, safety, and security of Canadians and the environment. The Commission also requested a detailed report describing the actions and measures SRBT would take to identify and contain all impacts on the environment, to prevent or mitigate any further impact on the environment, and to remediate impacts on the environment.

In October 2006, the Commission held a public hearing on SRBT's application to renew its operating licence. CNSC staff reported that SRBT had not yet responded with the actions and measures specified earlier by the Commission. The Commission heard 93 interventions on the second day of the hearing in late November 2006, confirming a high level of public interest and concern.

The Commission considered all information presented and, in January 2007, decided not to renew SRBT's nuclear substance processing facility operating licence. Instead, it issued a new class of licence that allowed the company to possess tritium, but not to process it.

In January 2007, the Commission directed CNSC staff to conduct research studies examining the health effects of tritium and how tritium moves through the environment, to enhance information available to guide regulatory oversight of tritium releases in Canada.

ESI Resources Limited

In February 2006, ESI Resources Limited filed a licence renewal application for its Calgary standby uranium recovery facility that did not include necessary prescribed information. CNSC staff notified the licensee of the deficiencies in its application and requested a revised submission by March 15, 2006. This information was not submitted in time, despite several subsequent requests from CNSC staff.

On June 26, 2006, CNSC staff conducted an inspection of the licensee's facility. Samples taken and analyzed revealed uranium contamination inside the dryer room and evaporation ponds. On July 31, 2006, the company's licence expired, rendering the licensee unauthorized to process and store uranium-contaminated materials. CNSC staff issued an Order in August 2006 that ESI Resources take specified actions and measures to protect the environment from continued presence of uranium-contaminated material at the unlicensed site. The Commission is in the process of reviewing the Order, and a decision is expected in 2007-08.

3.3 Canada's Compliance with International Commitments

Maintaining a Positive IAEA Conclusion

In its *Safeguards Implementation Report* for 2006, the IAEA again concluded that all nuclear material in Canada remained in peaceful activities. It is based on the provision of credible assurance that all declared nuclear material in the country is for peaceful, non-explosive uses, and that there is no undeclared nuclear material or activity. Canada is 1 of only 24 states (of 162 countries) that has received and maintained this conclusion.

The Canada-Agency Safeguards Implementation Consultation (CASIC) mechanism is an essential element for ensuring compliance with the Canada-IAEA safeguards agreements. As the designated authority for implementing these agreements the CNSC is the lead participant for Canada. A CASIC meeting was held in November 2006, and several working-level meetings were held with the IAEA to discuss specific implementation issues.

Sealed Source Tracking System

In January 2004, Canada has committed to implementing the IAEA's *Code of Conduct on the Safety and Security of Radioactive Sources*. In 2006, Canada was among the first countries to announce its commitment to full implementation of the Code.

The Code of Conduct was created to address growing international concern over the safety of radiation sources, including the potential that sources could be used as radioactive dispersal devices or "dirty bombs". It outlines the need for participating countries to address five basic and mutually agreed upon requirements: a legislative framework, an independent regulator, a regulatory system for authorizations, trained and qualified personnel, and controls on the import and export of risk-significant radioactive sources.

Two major regulatory improvements initiatives were needed for the Canadian regulatory framework to meet the provisions of the Code in full: a sealed source tracking system conceived as part of an updated national registry for all radioactive sources, and enhanced import and export controls on risk-significant sources.

The CNSC regulates storage, use and disposal of radioactive sealed sources. Thousands of radioactive sealed sources are licensed for use across Canada for medical and industrial purposes and the sources vary widely in radiological risk. The highest-risk sources are used in radiation therapy, commercial sterilization and industrial radiography. In 2006, CNSC implemented the Sealed Source Tracking System and National Sealed Source Registry and took steps to implement enhanced import and export controls on radioactive sealed sources.

The Sealed Source Tracking System strengthens control over high-risk radioactive sources by requiring licensees to report to the CNSC all imports, exports, receipts and transfers of high-risk sources. In July 2006, the CNSC introduced secure, Web-based source tracking using the Government of Canada's "epass" technology.

Throughout 2006-07, approximately 90% of the tracking system's more than 30,000 transactions were reported by fax or e-mail, but more licensees are expected to use the Web-based system in the future. Resources were allocated during the year to train licensees in its use. The number of sources in the new National Sealed Source Registry grew as the registry was populated throughout 2006-07 and now exceeds 7,000. Canada is the first country with such robust inventory tracking controls. Several countries are choosing to learn from the Canadian experience.

The enhancement of the Sealed Source Tracking System and the National Sealed Source Registry and the implementation of import and export controls (See "Export and Import Licences of Sealed Sources" under sub-section 2.1) provides assurance to Canadians and the global community that transfers of risk-significant sealed sources within and outside Canada are conducted and regulated appropriately for safety and security.

4. Cooperative Undertakings

Expected Result	Outcome Measure	Performance 2005-06	Performance 2006-07
CNSC cooperates and integrates its activities in national/international nuclear fora	100% verification by the CNSC of bilateral nuclear material inventory reports, annually	Achieved	Achieved

Figure 11.

One outcome area of the Government of Canada's Whole of Government Framework for Results is a safe and secure world through international cooperation. The CNSC participates in domestic and international fora to advance nuclear safety and security both at home and abroad. Its international participation is a significant undertaking for the CNSC given the number, complexity and potential impact of nuclear-related issues worldwide.

Achievement of this result is presented in Figure 11.

Domestically, the CNSC is working increasingly with other federal departments and agencies and with provincial and territorial governments due to the growth in all nuclear sectors. For example, proposals for new reactors and uranium mines in provinces where there are currently none has led to the need for high levels of consultation and cooperation with First Nations and others in Alberta and Nunavut.

4.1 International Cooperation to Advance Nuclear Safety

Convention on Nuclear Safety

At the third review meeting of the *Convention on Nuclear Safety* (CNS), held in Vienna in April 2005, Canada presented its report to an audience of more than 34 participants representing 18 countries. Canada committed to numerous follow-up actions. The CNSC provided a status update on each of these elements in the first anniversary report on the CNS, which it issued in April 2006. Concrete steps have been taken to implement these

follow-up actions. Canada has instituted these reports to monitor progress over the subsequent three years in a public manner.

CNSC President Linda Keen continued her role as President of the third review meeting of the CNS, which will continue until the organizational meeting in September 2007.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

The *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management* (Joint Convention) aims to ensure worldwide safety of spent fuel and radioactive waste management, including the use of protective measures and mitigation. These objectives are achieved through peer review of the contracting parties' national programs for spent fuel and radioactive waste management. The Government of Canada has delegated responsibility for the Joint Convention to the CNSC.

The second review meeting of the Joint Convention took place at the IAEA headquarters in Vienna, Austria, from May 15 to 24, 2006. Forty-one contracting parties participated in the peer review process. Canada was recognized as having the following good practices:

- safe management of a wide variety of waste types;
- excellent stakeholder consultation supported by policies that promote openness and transparency;
- competent regulatory system with clear responsibilities;
- mechanisms in place to secure funding for long term liabilities; and
- implementation of the Sealed Source Tracking System.

Canada was recognized for its inclusive, balanced approach to field a delegation comprising the regulator, government and industry and was seen to have demonstrated an integrated waste management approach. The feedback Canada received also pointed out opportunities for improvement, including continued attention to regulatory documents and demonstration of progress on major initiatives.

Bilateral Relations With Nuclear Regulatory Counterparts

The CNSC maintains a network of memoranda of understanding with nuclear regulatory counterparts around the world with the objective of strengthening nuclear safety standards with respect to nuclear facilities and activities through technical cooperation and information exchanges in nuclear regulatory matters. An important milestone was achieved in 2006-2007 in this regard when the CNSC renewed its memorandum of understanding with the United States Nuclear Regulatory Commission (USNRC), for implementation in April 2007. The renewal of this umbrella agreement with the USNRC created a foundation for the two organizations to engage in a host of regulatory cooperation initiatives, including nuclear safety of existing and new nuclear facilities, nuclear security and emergency preparedness. A second agreement between the CNSC

and USNRC will allow exchange of information on the import and export of radioactive sources.

In August 2006, the CNSC President hosted an official delegation from the Autorité de sûreté nucléaire (ASN), the CNSC's nuclear regulatory counterpart agency in France. The delegation was visiting the CNSC to learn about the implementation of the NSCA as part of their preparations to implement their new legislation, "Transparency and Security in the Nuclear Field," which was enacted on June 13, 2006. The new legislation, which considered the NSCA in its drafting, modernizes France's nuclear regulatory framework. The exchange of information between the CNSC and the ASN focused on regulating nuclear power plants and other nuclear fuel cycle facilities as well as the implementation of Commission and public hearing processes.

The CNSC also routinely met with regulatory counterparts to exchange information. In 2006-07, meetings were held with regulatory counterparts from the Republic of Korea on the management of aging nuclear reactors. The CNSC also conducted workshops involving regulatory counterparts from the United States and Sweden regarding robustness of nuclear facilities and loss of coolant accident scenarios.

4.2 Multilateral Relations and International Cooperation

The CNSC continued to closely manage its engagement with international organizations in multilateral environments to advance nuclear safety and security as well as safeguards and non-proliferation objectives.

International Nuclear Regulators Association
The CNSC continued its involvement in the International Nuclear Regulators Association (INRA) in 2006-2007. The focus of the 2006-07 meetings included the exchange of best practices on waste management and improvement strategies for the *Convention on Nuclear Safety*. The INRA, established to influence and enhance nuclear safety from a regulatory perspective among its members, is comprised of the most senior regulatory authorities from Canada, France, Germany, Japan, Spain, Sweden, the United Kingdom and the United States. In 2006-2007, the association expanded its membership to include the Republic of Korea, a move that was strongly supported by the CNSC.

CANDU Senior Regulators Meeting
Canada continued to play a key role in the CANDU Senior Regulators organization established under the umbrella of the IAEA. This group is comprised of regulatory authorities from countries operating CANDU reactors including Argentina, Canada, China, India, Pakistan, Romania, and South Korea. The CNSC participated in the meeting of the CANDU Senior Regulators held in Karachi, Pakistan, in November 2006, and is making arrangements to host the next meeting in November 2007.

International Commission on Radiological Protection
Over the past several years, the International Commission on Radiological Protection (ICRP) has been conducting worldwide public consultations on its new fundamental recommendations. In August 2006, the CNSC held a workshop to discuss the draft ICRP recommendations, recognizing the need to bring together the views of various Canadian stakeholders. The objective was to develop an overall Canadian statement on key sections of the draft recommendations. The results influenced regional and international discussions on the ICRP recommendations, allowing the collective Canadian viewpoint to be represented, rather than just that of a single individual or organization. The Canadian position covered many detailed technical issues. One significant focus was the concept of dose and risk constraints, both with respect to clearly defining their role in the system of radiation protection and on how to implement them.

The ICRP Main Commission approved its 2007 Fundamental Recommendations on Radiological Protection on March 21, 2007, and expects to publish them in the Fall 2007 issue of the *Annals of the ICRP*. This will mark the first publication of ICRP fundamental recommendations since 1990. The new recommendations consider new biological and physical information and trends in setting radiation standards. They also feature an improved and streamlined presentation, give more emphasis to environmental protection, and provide a platform for developing an updated strategy to handle emergencies and situations of pre-existing radiation exposure. The CNSC will analyze the final recommendations for their applicability to the Canadian regulatory framework.

OECD Nuclear Energy Agency
The CNSC continued its involvement with the OECD Nuclear Energy Agency (NEA) Committee's on the Safety of Nuclear Installations and on Nuclear Regulatory Activities. It also provided representation to the Committee on Radiation Protection and Public Health, an international forum to address issues related to enhancing radiation protection regulation and implementation. The CNSC also participated in the Multinational Design Evaluation Program under the NEA, as outlined in Section I of this report.

International Atomic Energy Agency
The CNSC continued supporting the IAEA, which will mark its 50th anniversary in 2007. In 2006-07, the CNSC provided expertise to Canada's Permanent Mission in Vienna and assisted in Canadian delegations to IAEA Board of Governors meetings and the agency's general conference, held in September 2006. The CNSC also provides expertise to three important advisory committees under the IAEA: the Commission on Safety Standards and its sub-committees; the Standing Advisory Group on Safeguards Implementation; and the Advisory Committee on Security.

Commission on Safety Standards
The CNSC provides Canada's representative to the IAEA Director General's Commission on Safety Standards (CSS), which has a special overview role with regard to the Agency's safety standards and provides advice to the Director General on the overall program on regulatory aspects of safety. The CSS provides guidance on the strategy for establishing the Agency's safety standards, particularly in order to ensure coherence and

consistency between standards. It also endeavours to provide general advice and guidance on safety standards issues, relevant regulatory issues and the Agency's safety standards activities and related programs, including those to promote worldwide application of the standards. The CSS achieved a major milestone in September 2006 with the approval of its *Safety Fundamentals Principles*. With its commitment to adopt and adapt international standards, where applicable, in developing the necessary modern regulatory framework for Canada, the CNSC attaches great importance to the Commission on Safety Standards and its sub-committees, covering safety standards, radiation safety, transport safety and waste safety.

IAEA Standing Advisory Group on Safeguards Implementation
The CNSC provides Canada's representative to the IAEA Director General's Standing Advisory Group on Safeguards Implementation (SAGSI), which provides advice on the technical objectives and implementation parameters of IAEA safeguards and on the effectiveness and efficiency of specific implementation practices. A particular focus for SAGSI is further development of the state-level approach to safeguards implementation and evaluation. SAGSI examined issues that included the evaluation of safeguards effectiveness and performance, guidelines for state systems of accounting for and control of nuclear material, and the safeguards research and development program. The IAEA Director General appointed the Canadian representative to this group as the SAGSI chair, as of January 1, 2007.

IAEA Advisory Committee on Security
The CNSC provides Canada's representative to the Advisory Committee on Nuclear Security (AdSec), which advises the Agency on its role regarding nuclear security, nuclear security priorities, and the Agency's nuclear security program.

Over the past year, the AdSec has provided recommendations on the balance of devoting resources to technical support to improve nuclear security in developing countries, versus investing in technical development, versus development of the international legal framework. The Committee also reviewed the need for updated guidelines from the Agency in areas such as physical security, security fundamentals and security culture, and it discussed the Agency's role in security information sharing, particularly with respect to illegal trade and cross-border movement of nuclear substances. It also reviewed the Agency's current security program and associated priorities.

Canadian Safeguards Support Program
The Canadians Safeguards Support Program, managed and funded by the CNSC, provides assistance to the IAEA to enhance its safeguards regime. During the year, the program assisted the IAEA in developing a secure electronic mailbox, building on the public key infrastructure activities that the CSSP had initiated with the IAEA in the previous year. The mailbox process is one that the IAEA can use with other countries and that will play a role in the state-level safeguards approach for Canada.

The program has also continued its subprogram of equipment development for the IAEA and has made several advances. The software for irradiated fuel monitoring equipment,

(for example, core discharge monitors and bundle counters used in safeguarding CANDU reactors) has been upgraded to include remote monitoring, whereby data is transmitted securely to the IAEA from facilities. This system offers increased efficiency for the IAEA and more timely evaluation of data. At the request of the IAEA, the Canadian Safeguards Support Program made numerous improvements to the Digital Cerenkov Viewing Device — a device that is used to verify spent nuclear fuel — that will increase its usability. The program also assisted the IAEA with the installing the core discharge monitor for Unit 2 at the Bruce A Nuclear Generating Station, as a result of the decision to restart this reactor.

5. Stakeholder Relations

This program sub-activity focuses on the commitment to develop and maintain public confidence in Canada's nuclear regulatory regime through working openly and transparently with stakeholders to achieve this goal. The following measures evaluate the achievement of the expected outcome of "stakeholder understanding of the regulatory program":

- level of stakeholder confidence in the CNSC's ability to regulate the use of nuclear energy and materials, through a survey that will be conducted every three years; and
- level of stakeholder participation in the CNSC's decision-making process (measure under development).

The CNSC achieved a high level of performance against its 2006-07 plans. As interest and participation in the nuclear regulation process has been increasing, CNSC successfully met the changing and growing demands.

5.1. Strategic Communications Plan

The CNSC strategic communication plan provides a detailed approach of how to communicate and consult with stakeholders on the CNSC regulatory polices and program.

The plan involves a three-year phased approach. During 2006-07, the CNSC focused its outreach activities on heightening public awareness and understanding of its role and in regulating nuclear activities. The last year saw enhanced engagement with diverse stakeholders, including municipal governments in the region of major facilities, media, provincial officials, professional associations and non-governmental organizations (NGOs).

The CNSC meets periodically with representatives from the Canadian Nuclear Association through the Canadian Nuclear Association Regulatory Affairs Committee, which enables industry representatives to provide input and advice to the CNSC on broader issues relating to nuclear regulation in Canada. The committee also provides a forum for the industry association and the CNSC to indicate priorities, directions being taken, or factors that are influencing their respective operations.

In November 2006, CNSC staff established a Non-Governmental Organization Regulatory Affairs Committee to serve as a mechanism for the CNSC to communicate and consult with NGOs on nuclear regulatory and policy matters within the mandate of the CNSC. Co-chaired by a member of the NGO community, the committee is a forum for exchanging and clarifying information to promote common understanding of issues, allowing the CNSC to better respond to the information needs of the NGO community. It also enables NGO members to provide input and advice to the CNSC on broader issues relating to nuclear regulation in Canada.

5.2 Reaching Out to Communities

The Commission continued to focus on outreach and community engagement during 2006-07. Demonstrating its commitment to openness and accessibility, the Commission heard presentations and considered written submissions from more than 600 intervenors — whose voices are a key element in making informed decisions — with an interest in Commission business.

In addition to First Nations, a vast and varied audience of stakeholders — including the general public, unions, academics, special interest groups and other government bodies, all with differing interests — had the opportunity to participate in public hearings. A number of intervenors voiced their support for the licence applications being considered by the Commission. Several concerns were also brought forward, covering various aspects of the industry, from environmental protection, emergency preparedness and the length of licensing periods to anti-terrorism security measures. The Commission reinforced to intervenors that safety and security are its most important priorities: It does not have an economic mandate, nor are its decisions based on the economic impact of a facility or on a decision's potential impact on a facility.

The Commission heard concerns from several interveners regarding its move towards issuing longer licences where a licensee's performance warranted such action. The Commission aimed to assure the public that longer licences would allow CNSC staff and licensees to concentrate their efforts on ensuring safe operations on a daily basis and through longer-term planning. If it is determined at any time that a licensee is not adhering to its licence conditions, the CNSC can and will take a range of possible actions, from review or revocation of a licence to prosecution.

As part of licensing and compliance monitoring of closed uranium mines in the Northwest Territories, CNSC staff maintains regular communications with government, aboriginal and community representatives. CNSC staff also meets periodically with communities potentially affected by the historic transportation of uranium ore from the northern mines to processing facilities in the south. In February 2007, CNSC representatives engaged representatives from approximately 13 regulatory boards and agencies of the Northwest Territories by participating in a workshop on uranium and the North. The CNSC used this opportunity to share information on what environmental assessment and regulatory reviews might be expected if uranium development activities occurred and to provide information on the CNSC's role in regulating uranium mines in

Canada. Workshop attendees agreed on the importance of learning more about the CNSC and establishing better connections with it. The CNSC will follow up with participants to maintain open, transparent and effective relationships with representatives from the Northwest Territories.

6. Other CNSC Programs

The CNSC's *Report on Plans and Priorities* for 2006-07 included plans to improve elements of the management and enabling infrastructure. Most of these activities have been discussed in Section I of this report under the priority of "Implement Improvement Initiatives". The CNSC was challenged to implement its published plans in this area because of the growth in workload across all areas and the competing demands for resources. The following points summarize the results:

- CNSC recruitment and retention initiatives were significant as it sought to integrate new resources to meet its growth in workload and to fill the positions vacated by retirees;

- CNSC's plan to develop a corporate risk framework as a component of strategic planning and management processes was not completed as planned by the end of 2006-07. Work commenced late in the second half of the year and a plan is in place and resources have been allocated to complete this in 2007-08;

- Implementation of corporate performance measurement frameworks has taken more time than anticipated. This is an important initiative that has required extensive internal consultations across operational and non-operational directorates. Work will continue in 2007-08 and improvements will be ongoing in 2008-09 as part of the Integrated Planning and Performance Management project under the I3P; and

- Electronic records-management was completed as planned and is in use for 2007-08.

The CNSC entered into a first collective agreement with its represented employees for the period June 14, 2006 to March 31, 2008. An arbitration award took effect November 20, 2006.

External Performance Standards

Performance standards have been developed for interactions with both external and internal stakeholders. In line with the *User Fees Act* (2004) and the *Treasury Board Policy on Service Standards for External Fees,* a list of performance standards focusing on the needs and expectations of external stakeholders has been developed in consultation with stakeholders. Work to implement these standards continues to progress, and reporting commenced in the CNSC's 2005-06 Annual Report. The following table reports the 2006-07 performance compared to that of 2005-06.

Activity	Performance standard	Performance 2005-06	Target 2006-07	Performance 2006-07
Compliance[1]				
Verification: upon completion of the verification activity, the CNSC will:				
Issue Type I Inspection Report[2] [3]	Within 60 business days	50%	80%	58%
Issue Type II Inspection Report[4]	Within 40 business days	86%	80%	90%
Issue Desktop Review Report[2]	Within 60 business days	70%	90%	79%
Enforcement: upon an Order being made, the CNSC will:				
Confirm, amend, revoke or replace the Order (see Regulatory Guide G-273)	Within 10 business days	100%	100%	100%
Licensing – for requests pertaining to an existing licence the CNSC will:				
Screen the request for completeness and issue notification that the licensing request is / is not complete	Within 20 business days	100%	90%	97%
Issue a licensing decision when a public hearing is not required (assuming an environmental assessment under the CEAA is not required)	Within 80 business days	97%	80%	98%
Issue a licensing decision when a public hearing is required (assuming an environmental assessment under the CEAA is not required) (see INFO-0715)[5] [6]	Within 160 business days	100%	90%	83%
Publish the Records of Proceedings, including Reasons for Decisions, upon conclusion of the public hearing	Within 30 business days	78%	90%	73%
Access to Information				
Respond to requests under the *Access to Information Act* and *Privacy Act*	Within legislated time periods as stated in the Acts	94%	90%	Access to Information – 82% Privacy –

[1] Compliance and licensing results are based on a subset of the performance data available.
[2] Using the CNSC's risk-informed approach to regulation, initial priority was given to the completion of reports whose results were of greater significance.
[3] CNSC workload increases were observed as a result of the rapid expansion of nuclear medicine facilities in Canadian hospitals
[4] For power reactors, unless major issues arise, findings from field inspections and control room inspections will be reported on a quarterly basis, within 40 business days of end of quarter.
[5] The screening and hearing processes do not apply to operations of the Directorate of Nuclear Substances Regulation.
[6] The magnitude of public interventions in some licensing decisions required an extension of the time to complete the hearing process.

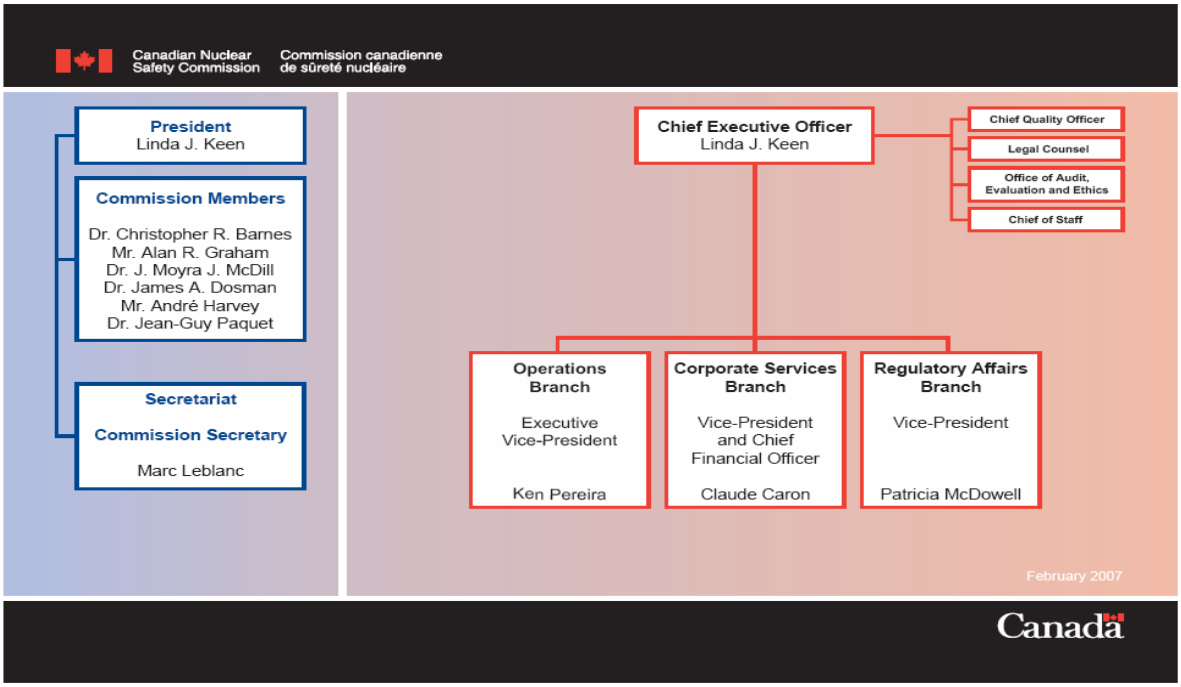
				100%
External Communications				
Place public hearings advertisements	Within deadlines stipulated in the regulations	95%	100%	100%
Response time to public inquiries				
Acknowledge request		100%	100%	100%
Complete request – low complexity	Same day	100%	100%	100%
Complete request – medium complexity	Within 5 business days	95%	100%	95%
Complete request – high complexity	Within 10 business days	80%	100%	75%
External Reporting to Central Agencies				
File annual *Report on Plans and Priorities* and *Departmental Performance Report* (Annual Report on Performance)	Within required timelines	100%	100%	100%[1]

[1] All reports experienced delays of a few days due to delays in final approvals and in document production. All delays were pre-cleared and were acceptable to the Treasury Board Secretariat.

SECTION III: SUPPLEMENTARY INFORMATION

Organizational Information

CNSC Organization Chart



Mandate

Under legislation enacted by Parliament, policies and international commitments of the federal government, the CNSC performs the following functions:

- regulates the development, production and use of nuclear energy in Canada;
- 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 nuclear substances, including measures respecting the non-proliferation of nuclear weapons and nuclear explosive devices; and
- disseminates scientific, technical and regulatory information concerning the activities of the CNSC and the effects on the environment and on the health and safety of persons, of the development, production, possession, transport and use of nuclear substances.

The CNSC consists of two independent organizations:

(i) Commission

The Commission, supported by the Secretariat, is a quasi-judicial administrative tribunal. It sets regulatory policy direction on matters relating to health, safety, security and environmental issues affecting the Canadian nuclear industry; makes independent decisions on the licensing of nuclear-related activities in Canada; and establishes legally binding regulations. The Commission takes into account the views, concerns and opinions of interested stakeholders. The Commission also assigns to Designated Officers the authority to render licensing decisions for certain categories of nuclear facilities and activities in accordance with the requirements of the NSCA and its associated regulations.

The NSCA provides for the appointment of up to seven Commission members by the Governor in Council serving at good behaviour. Six members serve as permanent members for a term not exceeding five years. One member of the Commission is designated as the President of the Commission. This position is currently held by Linda J. Keen.

(ii) CNSC Staff

The CNSC staff consists of a headquarters in Ottawa, site offices located at each of the five nuclear generating stations in Canada, a site office at Atomic Energy of Canada's Chalk River Laboratories and five regional offices. CNSC staff is permanently located at each nuclear generating station in Canada and at Chalk River to assess performance against regulations and specific conditions of operating licences. Regional offices conduct compliance activities for nuclear substances, transportation, radiation devices and equipment containing nuclear substances. They also respond to unusual events involving nuclear substances.

CNSC staff supports the Commission by developing proposals for regulatory development and recommending regulatory policies, carrying out licensing, certification, compliance inspections and enforcement actions, coordinating the CNSC's international undertakings, developing CNSC-wide programs in support of regulatory effectiveness, maintaining relations with stakeholders and providing administrative support to the organization.

In addition, staff prepares recommendations on licensing decisions, presents them to the Commission for consideration during public hearings and subsequently administers the Commission's decisions. Where authority has been given, staff who are Designated Officers render licensing decisions.

Financial Summary Overview

The following financial summary tables represent an overview of the CNSC's financial performance for 2006-07. The financial information presented incorporates the following:

- **Main Estimates**, which represents the reference level in CNSC's 2006-2007 Main Estimates;

- **Planned Spending**, which represents the CNSC's appropriations on April 1, 2006, plus any anticipated funding adjustments;

- **Total Authorities,** which represents total resources approved for the year. These include, the Main Estimates approved by Parliament, additional funding received from Treasury Board through Supplementary Estimates and Vote Transfers, and proceeds from the disposal of surplus crown assets; and

- **Actual Spending,** which represents the total expenditures incurred by the CNSC for the year and published in the *Public Accounts of Canada* for 2006-07.

The CNSC's planned spending for 2006-07 was $86.5 million, which comprised an operating budget of $86.3 million, (including statutory employee benefits of $8.4 million), and a transfer payment budget (grants and contributions) of $0.2 million.

In 2006-07, the CNSC's Total Authorities of $92.2 million was comprised of the Main Estimates of $78.7 million and supplementary funding received from the Treasury Board of $13.5 million, (inclusive of a reduction in statutory employee benefits of $0.3 million). The supplementary funding was comprised of: $3.8 million for increased workload pressures; $3.3 million for the Advanced CANDU Reactor Project; $3.0 million for compensation; $2.5 million carry forward from fiscal year 2005-06; $1.3 million for new nuclear power plants; and a reduction of $0.4 million for the PWGSC procurement cut.

The CNSC recovered $60.0 million in non-respendable revenue in 2006-07. This revenue represents 62% of the $96.3 million of full cost expenditures. Full cost expenditures include costs directly incurred by the CNSC and the cost of services provided without charge by other government departments. The statement of operations within the audited financial statements provides further details of the Commission's revenue and expenditures.

Table 1: Comparison of Planned to Actual Spending (including Full-time Equivalents)

($ millions)	2004-05 Actual	2005-06 Actual	2006-07			
			Main Estimates	Planned Spending	Total Authorities	Total Actual
Nuclear Regulation	73.2	75.5	78.7	86.5	92.2	85.3
Total	**73.2**	**75.5**	**78.7**	**86.5**	**92.2**	**85.3**
Less: Non-respendable revenue	(48.8)	(52.6)	N/A	(61.6)	N/A	(60.0)
Plus: Cost of services received without charge	8.1	8.2	N/A	8.0	N/A	8.6
Total Departmental Spending *	**32.5**	**31.2**	**N/A**	**32.9**	**N/A**	**33.9**
Full-Time Equivalents	516.8	516.8	N/A	651	N/A	569

* may not balance due to rounding

Table 2: Resources by Program Activity

2006-07								
($ millions)								
	Budgetary						**Plus: Non-budgetary**	
Program Activity	**Operating**	**Grants**	**Contributions and Other Transfer Payments**	**Total: Gross Budgetary Expenditures**	**Less: Respendable Revenue**	**Total: Net Budgetary Expenditures**	**Loans, Investments, and Advances**	**Total**
Nuclear regulation								
Main Estimates	78.5	0.1	0.1	78.7	0	78.7	0	78.7
Planned Spending	86.3	0.1	0.1	86.5	0	86.5	0	86.5
Total Authorities	92.0	0.1	0.1	92.2	0	92.2	0	92.2
Actual Spending	**85.1**	**0.1**	**0.1**	**85.3**	**0**	**85.3**	**0**	**85.3**

Table 3: Voted and Statutory Items

($ millions)

Vote or Statutory Item	Truncated Vote or Statutory Wording	2006-07			
		Main Estimates	Planned Spending	Total Authorities	Total Actual
20	Program expenditures	70.1	77.9	83.8	76.9
20	Grants and contributions	0.2	0.2	0.2	0.2
(S)Statutory	Contributions to employee benefit plans	8.4	8.4	8.2	8.2
	Total	**78.7**	**86.5**	**92.2**	**85.3**

In 2006-07, the CNSC's Total Authorities of $92.2 million was comprised of the Main Estimates of $78.7 million and supplementary funding received from the Treasury Board of $13.5 million, (inclusive of a reduction in statutory employee benefits of $0.3 million). The supplementary funding was comprised of: $3.8 million for increased workload pressures; $3.3 million for the Advanced CANDU Reactor Project; $3.0 million for compensation; $2.5 million carry forward from fiscal year 2005-06; $1.3 million for new nuclear power plants; and a reduction of $0.4 million for expenditure review procurement savings.

Due to the timing of funding approval, the CNSC did not expend approximately $2.9 million of the funding for workload pressures and received approval to re-profile these funds into 2007-08. The Advanced CANDU Reactor Project was terminated, resulting in approximately $2.0 million of unused funding. Initial delays in commencing the project for new nuclear power plants resulted in the CNSC not utilizing approximately $1.0 million.

Table 4: Services Received Without Charge

	2006-07 Actual Spending ($ millions)
Accommodation provided by Public Works and Government Services Canada	4.6
Contributions covering the employer's share of employees' insurance premiums and expenditures paid by the Treasury Board of Canada Secretariat (excluding revolving funds); employer's contribution to employees' insured benefits plans and associated expenditures paid by the Treasury Board of Canada Secretariat	3.8
Salary and associated expenditures provided by the Department of Justice Canada, audit services provided by the Auditor General of Canada and others.	0.2
Total 2006-07 Services Received Without Charge	**8.6**

Table 5: Sources of Respendable and Non-respendable Revenue

Respendable Revenue

n/a

Non-respendable Revenue ($ millions)

	Actual 2004-05	Actual 2005-06	2006-07			
			Main Estimates	Planned Revenue	Total Authorities	Actual
Nuclear Regulation						
Licence Fees						
- Regulatory Plan Activity Fees	40.6	45.1	0	53.5	0	53.6
- Formula Fees	3.4	3.8	0	4.0	0	4.1
- Fixed Fees	0.3	0.4	0	0.4	0	0.6
Special Projects	4.5	3.2	0	3.7	0	1.7
Total Non-respendable Revenue*	**48.8**	**52.6**	**0**	**61.6**	**0**	**60.0**

* may not balance due to rounding

Table 6-A: User Fees Act

				2006-07					Planning Years		
A. User Fee	**Fee Type**	**Fee-setting Authority**	**Date Last Modified**	**Forecast Revenue ($000)**	**Actual Revenue ($000)**	**Full Cost ($000)****	**Performance Standard**	**Performance Results**	**Fiscal Year**	**Forecast Revenue ($000)**	**Estimated Full Cost ($000) *****
CNSC *Cost Recovery Fees Regulations** - regulate the use of nuclear energy and substances in Canada	Regulatory Services (R)	*Nuclear Safety and Control Act* *CNSC Cost Recovery Fees Regulations*	July 1, 2003	61,618	59,980	96,285	See Section II – External Performance Standards	See Section II – External Performance Standards	2007-08 2008-09 2009-10	61,415 56,208 56,208	104,267 95,003 95,003
Fees charged for the processing of access requests filled under the *Access to Information Act* (ATIA)	Other products and services (O)	*Access to Information Act*	1992	0	3	3	Response provided within 30 days following receipt of request; the response time may be extended pursuant to section 9 of the ATIA. Notice of extension to be sent within 30 days after receipt of request. The ATIA provides fuller details: http://laws.justice.gc.ca./en/A-1/218072.html	84% of ATIA requests closed during the reporting period were closed within the legislated time lines. 100% of *Privacy Act* requests closed during the reporting period were closed within the legislated time lines			
				Sub-total (R) 61,618 Subtotal (O) 0 Total 61,618	Sub-total (R) 59,980 Subtotal (O) 3 Total 59,983	Sub-total (R) 96,285 Subtotal (O) 3 Total 96,288			Subtotal Subtotal Subtotal	2007-08 61,415 2008-09 56,208 2009-10 56,208 Total 173,831	2007-08 104,267 2008-09 95,003 2009-10 95,003 Total 294,273

B. Date Last Modified

Extensive consultations with licensees and other key stakeholders took place prior to publication of the new CNSC *Cost Recovery Fees Regulations* in the *Canada Gazette*. On July 1, 2003, new CNSC *Cost Recovery Fees Regulations* were implemented, which replaced the former AECB *Cost Recovery Fees Regulations* (1996). The Cost Recovery Advisory Group (CRAG) met in October 2003 to discuss the CNSC's Cost Recovery Program. CRAG members viewed the forum as a positive mechanism for information sharing. The agenda and minutes of the meeting are available on the CNSC's Web site at www.nuclearsafety.gc.ca.

C. Other Information

* Additional information may be found at www.nuclearsafety.gc.ca

** Calculation of full cost is based on CNSC audited financial statements

*** Includes services provided without charge from other government departments

Please refer to the CNSC audited financial statements for additional detailed information as follows:

1. Auditors report: This report states that the CNSC has complied with the CNSC *Cost Recovery Fees Regulations* for 2006-07.
2. Details on revenue charged and the associated cost of operations by fee category.

The CNSC has established two internal dispute resolution mechanisms. The first addresses disputes over the administration of fees and the other over regulatory activity assignments. Details regarding the process and contact information are available on the CNSC Web site. During the 2006-07 fiscal year, two disputes over the administration of fees were brought forward by licensees. All complaints were resolved at the first level of grievance through the dispute resolution mechanism for fee administration.

Table 6–B: Policy on Service Standards for External Fees

Supplementary information on Service Standards for External Fees can be found at: http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp

Table 7: Progress Against the Department's Regulatory Plan

Supplementary information on the Progress Against the Department's Regulatory Plan can be found at http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp

Table 8: Audited Financial Statements of the CNSC

Financial statements are prepared in accordance with accrual accounting principles. The unaudited supplementary information presented in the financial tables in this report is prepared on a modified cash basis of accounting in order to be consistent with appropriations-based reporting.

Financial statements are available online:
http://www.nuclearsafety.gc.ca/eng/resource/reports/cnsc/annual_reports/Ar06-07.cfm

Table 9: Response to Parliamentary Committees, and Audits and Evaluations

Response to Parliamentary Committees

No responses, audits or evaluations for 2006-07 were provided to Parliamentary Committees by the Office of Audit, Evaluation and Ethics.

Response to the Auditor General (including the Commissioner of the Environment and Sustainable Development)

The Office of the Auditor General (OAG) performed its annual audit of the CNSC's financial statements. The OAG concluded that the CNSC's "financial statements present fairly, in all material respects, the financial position of the Commission as at March 31, 2007 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles." Further, OAG stated that the Commission "has complied, in all significant respects with the *Canadian Nuclear Safety Commission Cost Recovery Fees Regulations* pursuant to the *Nuclear Safety and Control Act*."

External Audits (Note: These refer to other external audits conducted by the Public Service Commission of Canada or the Office of the Commissioner of Official Languages)

No external audits were conducted during 2006-07.

Internal Audit

The CNSC's Office of Audit, Evaluation and Ethics (OAEE) completed an Internal Audit of CNSC hospitality expenses for official and work-related events and approved the final report in January 2007. The audit assessed whether hospitality expenses were incurred in accordance with the *CNSC Directive – Hospitality for Official and Work Related Events* and whether they were being reviewed and recorded consistently and appropriately. The audit concluded that the controls supporting the implementation of the CNSC hospitality directive were generally adequate and effective in ensuring the appropriateness, proper authorization and accurate recording of hospitality expenses. Some opportunities to strengthen controls were noted. Management agreed with the recommendations and developed an action plan to implement improvements.

Internal Audit

The OAEE completed an internal audit of the CNSC Uranium Mines and Mills Division and approved the final report in June 2007. The audit assessed the adequacy and effectiveness of division's management control framework. The audit concluded that the framework was generally adequate and identified some opportunities for improvement. Management agreed with the recommendations and developed an action plan to implement improvements.

Evaluation

The OAEE completed an evaluation of the Nuclear Emergency Management (NEM) Program and approved the final report in June 2007. The evaluation was designed to provide information and analysis for the future management of the NEM Program, as well as to satisfy reporting commitments under the Public Security and Anti-Terrorism initiatives. The evaluation found that the program supports the CNSC's corporate mission and desired outcomes, that there is a continued need for a focus on nuclear emergency management, and that the program was effective and efficient. Recommendations for improvements were made. Management agreed with the recommendations and developed an action plan to implement improvements.

Evaluation

The OAEE completed an evaluation of the Nuclear Security Program (NSP). The final report was approved by the Audit and Evaluation Committee in June 2007. The objectives of the evaluation were to determine the following:

- the ongoing relevance of the NSP in the current environment;
- the extent to which the NSP's objectives are being met;
- the effectiveness of the program's management structures and processes, including governance, accountability and funding; and
- the nature and extent of opportunities that exist to improve NSP efficiency and effectiveness.

The evaluation concluded that the basic regime for effective nuclear security is now largely in place. Moreover, that regime is significantly stronger, both in scope and depth, than that which existed before September 11, 2001. The evaluation also concluded that though much has been done and achieved in the past four years, more remains to be done. Management agreed with the recommendations and developed an action plan to implement improvements.

Internal Audits or Evaluations

The OAEE is developing a three-year risk-based audit and evaluation plan for the CNSC. The plan will address CNSC and Government of Canada (GoC) priorities. Audits and evaluations that were previously planned, but not yet started, will be reassessed to determine if they still address CNSC and GoC priorities.

The following audit and evaluation projects that were planned for 2006-07 were not conducted due to other CNSC priorities. These projects will be reassessed as part of the development of the three-year audit and evaluation plan:

- audit of domestic safeguards; and
- evaluation of the CNSC's outreach program.

Table 10: Travel Policies

Supplementary information on travel policies can be found at http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp.

SECTION IV: OTHER ITEMS OF INTEREST

CNSC Locations

Report Card on Nuclear Power Plant Performance as of January 2007

CNSC staff assesses licensee programs ("P") and their implementation ("I") separately, according to five ratings:

A = Exceeds requirements
B = Meets requirements
C = Below requirements
D = Significantly below requirements
E = Unacceptable

Safety Area/Program	P	Bruce		Darlington	Pickering		Gentilly-2	Point Lepreau
	I	A	B		A	B		
Operating Performance	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Organization and Plant Management	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**A**	**A**	**B**	**C**	**B**	**B**	**B**
Operations	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Occupational Health and Safety (non-radiological)	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**A**	**B**	**B**	**B**	**B**	**B**	**B**
Performance Assurance	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Quality Management	P	**C**	**C**	**B**	**B**	**B**	**B**	**B**
	I	**C**	**B**	**B**	**B**	**B**	**B**	**B**
Human Factors	P	**B**	**B**	**B**	**B**	**B**	**B**	**C**
	I	**B**	**B**	**B**	**C**	**B**	**B**	**C**
Training, Examination, and Certification	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Design and Analysis	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Safety Analysis	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Safety Issues	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Design	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**C**	**B**	**B**

Safety Area/Program	P	Bruce		Darlington	Pickering		Gentilly-2	Point Lepreau
	I	A	B		A	B		
Equipment Fitness for Service	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Maintenance	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**C**	**B**	**B**	**B**	**C**	**B**	**B**
Structural Integrity	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Reliability	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Equipment Qualification	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**C**	**B**	**B**	**B**	**B**
Emergency Preparedness	P	**A**	**A**	**A**	**A**	**A**	**A**	**A**
	I	**A**	**A**	**A**	**A**	**A**	**B**	**B**
Environmental Protection	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**
Radiation Protection	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**A**	**B**	**B**	**B**	**B**
Site Security	P				**Secret**			
	I				**Secret**			
Safeguards	P	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	I	**B**	**B**	**B**	**B**	**B**	**B**	**B**

Note: “C” grades are highlighted.

Regulatory Documents in Process During 2006-07

S-337, *Design Requirements for Nuclear Power Plants*	This document provides new design categorization information based on years of regulatory experience and international information. The contents of this document were a priority in 2006-07, and the document will be released for consultation in the first quarter of 2007-08.
S-336, *CNSC Safeguards and Nuclear Non-Proliferation Reporting Requirements*	This document describes the reporting requirements to attain uniformity of licensee accounting records and reports of controlled nuclear substances, including special fissionable and source material, equipment and information. This draft regulatory standard was issued in September 2006 for public comment, and the comment period closed in December 2006. Issuance is planned for early 2008.
G-320, *Assessing the Long-Term Safety of Radioactive Waste Management*	This document was issued in 2006 and assists applicants for new licences and for licence renewals in assessing the long-term safety of radioactive waste management on the environment and on the health and safety of people. The document addresses long-term care and maintenance considerations, post-decommissioning objectives, assessment criteria, assessment strategies and level of detail, the selection of time frames and definition of assessment scenarios, and identification of receptors and critical groups.
G-144, *Trip Parameter Acceptance Criteria for Safety Analysis of CANDU Nuclear Power Plants*	This document was issued in May 2006. It provides guidance to licensees who operate CANDU nuclear power plants regarding reactor trip parameters to preclude direct or consequential failures of reactor fuel or reactor pressure tubes.
G-306, *Severe Accident Management Program for Nuclear Reactors*	This document was issued in May 2006 and provides guidance to licensees on the development and implementation of a severe accident management program.
G-360, *Life Extension of Nuclear Power Plants*	This document informs licensees about the steps and phases to consider when undertaking a project to extend the life of a nuclear power plant. The document addresses key considerations for establishing project scope, as well as managing and executing the project. It was issued for public comment in May 2006 and the comment period closed in July 2006. The document is scheduled for issuance in late 2007.
G–341, *Control Of The Export And Import Of Risk-Significant Sealed Sources*	The CNSC implemented an enhanced export and import control program for risk-significant sealed sources at the end of 2006-07. The CNSC issued this regulatory document in February 2007 for consultation and will accept comments until December 2007. The document is scheduled for publication by the end of 2007-08.
P-325, *Nuclear Emergency Management*	This regulatory policy was issued in May 2006. It provides guiding principles and direction for CNSC staff activities relating to nuclear emergency management.

Commission Hearings
April 1, 2006-March 31, 2007
Commission documentation is available on the CNSC Web site at www.nuclearsafety.gc.ca

CLASS IA NUCLEAR FACILITIES

Atomic Energy of Canada Limited:

- Decision to accept the screening environmental assessment for the proposed construction and operation of a shielded modular above-ground storage facility at the Chalk River Laboratories. ***Abridged hearing (April 27, 2006)***

- Decision to renew the Chalk River Laboratories nuclear research and test establishment operating licence. ***Two-day public hearing (April 26 and June 28, 2006)***

- Decision to accept the screening environmental assessment for the proposed decommissioning of the fuel storage and handling bays at the Chalk River Laboratories. ***Abridged hearing (October 25, 2006)***

- Decision to accept exemptions sought from the *Regulations Amending the Nuclear Security Regulations*. ***Closed hearing (December 14, 2006)***

- Decision to accept the screening environmental assessment for the proposed decommissioning of the pool test reactor at the Chalk River Laboratories. ***Abridged hearing (February 7, 2007)***

Bruce Power Inc.:

- Decision to accept the screening environmental assessment for the proposed refurbishment for life extension and continued operations of the Bruce A Nuclear Generating Station. ***One-day public hearing (May 19, 2006)***

- Decision to permit the demonstration irradiation phase of the Bruce B new fuel project. ***Abridged hearing (May 19, 2006)***

- Decision to amend the Bruce A and Bruce B Nuclear Generating Stations power reactor operating licences to reflect updates in documentation. ***Abridged hearing (July 14, 2006)***

- Decision to accept exemptions sought from the *Regulations Amending the Nuclear Security Regulations*. ***Closed hearing (December 14, 2006)***

- Decision to amend the Bruce Nuclear Generating Station A power reactor operating licence. ***Abridged hearing (March 9, 2007)***

- Decision to amend the Bruce Nuclear Generating Station B power reactor operating licence. ***Abridged hearing (March 9, 2007)***

Hydro-Québec:

- Decision to amend the Gentilly-2 Nuclear Generating Station power reactor operating licence for the temporary amendment to the operating policies and principles. ***Abridged hearing (August 3, 2006)***

- Decision to amend the Gentilly-2 Nuclear Generating Station operating licence with respect to the implementation of re-qualification testing of certified shift personnel. ***Abridged hearing (September 14, 2006)***

- Decision to renew the Gentilly-2 Nuclear Generating Station operating licence. ***Two-day public hearing (August 16 and November 7, 2006)***

- Decision to accept the screening environmental assessment for the proposed modifications to the Gentilly Radioactive Waste Management Facilities and the refurbishment and continued operation of the Gentilly-2 Nuclear Generating Station until 2035. ***One-day public hearing (November 7 and 8, 2006)***

- Decision to grant the exemptions sought from the *Regulations Amending the Nuclear Security Regulations*. ***Closed hearing (December 14, 2006)***

La Corporation de l'École Polytechnique:

- Decision to renew the sub-critical nuclear assembly operating licence for the facility located in Montréal, Québec. ***One-day public hearing (May 18, 2006)***

New Brunswick Power Nuclear Corporation:

- Decision to renew the Point Lepreau Nuclear Generating Station operating licence. ***Two-day public hearing (February 16 and May 18, 2006)***

- Decision to amend the Point Lepreau Nuclear Generating Station operating licence to reflect updates in documentation and increase quantity limit of a sealed source. ***Abridged hearing (October 5, 2006)***

- Decision to grant exemptions sought from the *Regulations Amending the Nuclear Security Regulations.* ***Closed hearing (December 14, 2006)***

- Decision to amend the Point Lepreau Nuclear Generating Station operating licence to reflect updates in documentation. ***Abridged hearing (February 16, 2007)***

Ontario Power Generation Inc.:

- Decision to amend the Darlington Nuclear Generating Station power reactor operating licence to reflect updates in documentation. ***Abridged hearing (July 14, 2006)***

- Decision to amend the Pickering Nuclear Generating Station A power reactor operating licence to reflect updates in documentation. ***Abridged hearing (July 14, 2006)***

- Decision to amend the Pickering Nuclear Generating Station B power reactor operating licence to reflect updates in documentation. ***Abridged hearing (July 14, 2006)***

- Decision to amend the Darlington Nuclear Generating Station operating licence with respect to the implementation of re-qualification testing of certified shift personnel. ***Abridged hearing (September 14, 2006)***

- Decision to amend the Pickering Nuclear Generating Station A operating licence with respect to the implementation of re-qualification testing of certified shift personnel. ***Abridged hearing (September 14, 2006)***

- Decision to amend the Pickering Nuclear Generating Station B operating licence with respect to the implementation of re-qualification testing of certified shift personnel. ***Abridged hearing (September 14, 2006)***

- Decision to grant exemptions sought from the *Regulations Amending the Nuclear Security Regulations*. ***Closed hearing (December 14, 2006)***

- Decision to accept environmental assessment guidelines (scope of project and assessment) for the proposed refurbishment and continued operation of Pickering B reactors at the Pickering B Nuclear Generating Station. ***One-day public hearing (January 24, 2007)***

- Decision to amend the Darlington Nuclear Generating Station power reactor operating licence to reflect updates in documentation. ***Abridged hearing (February 16, 2007)***

- Decision to amend the Pickering Nuclear Generating Station A power reactor operating licence to reflect updates in documentation. ***Abridged hearing (February 16, 2007)***

- Decision to amend the Pickering Nuclear Generating Station B power reactor operating licence to reflect updates in documentation. ***Abridged hearing (February 16, 2007)***

CLASS IB NUCLEAR FACILITIES

Cameco Corporation:

- Decision to renew the nuclear fuel facility operating licence for the conversion facility located in Port Hope, Ontario. ***Two-day public hearing (October 5 and November 28 and 29, 2006)***

- Decision to renew the nuclear fuel facility operating licence for the refinery located in Blind River, Ontario. ***Two-day public hearing (October 5 and December 13, 2006)***

- Decision to accept the screening environmental assessment for the proposed modification to the operation of the Blind River refinery incinerator. ***Abridged hearing (December 7, 2006***)

588972 Alberta Limited, operated as Enviropac:

- Decision to confirm the Designated Officer Order issued to 588972 Alberta Limited on September 15, 2006. ***Opportunity to be heard (December 14, 2006)***

MDS Nordion:

- Decision to accept the financial guarantee for the future decommissioning of the nuclear substance processing facility. ***Abridged hearing (June 29, 2006)***

SRB Technologies (Canada) Inc.:

- Decision to modify reporting requirements for the nuclear substance processing facility located in Pembroke, Ontario. ***Abridged hearing (July 14, 2006)***

- Decision to amend the Designated Officer Order issued to SRBT on August 15, 2006. ***Opportunity to be heard (August 28, 2006)***

- Decision not to renew the operating licence for the gaseous tritium light source facility located in Pembroke, Ontario. ***Two-day public hearing (October 25 and November 27, 2006)***

Zircatec Precision Industries Inc.:

- Decision to renew the Class IB nuclear fuel facility operating licence for the nuclear fuel bundle fabricating facility located in Port Hope, Ontario. ***Two-day public hearing (October 4 and November 30, 2006)***

TRIUMF Accelerators Inc.:

- Decision to renew the operating licence for the TRIUMF particle accelerator facility located in Vancouver, British Columbia. ***Two-day public hearing (December 13 and March 7, 2007)***

URANIUM MINES AND MILLS

AREVA Resources Canada Inc.:

- Decision to accept screening environmental assessment for the proposed ferric sulphate production at the McClean Lake Operation. ***Abridged hearing (October 25, 2006)***

Cameco Corporation:

- Decision to amend the Key Lake Operation uranium mill operating licence. ***One-day public hearing (January 25, 2007)***

COGEMA Resources Inc.:

- Decision to amend licences to reflect the name change from COGEMA Resources Inc. to AREVA Resources Canada Inc. ***Abridged hearing (May 19, 2006)***

Rio Algom Limited:

- Decision to amend the financial guarantee for the historic closed mine sites in Elliot Lake, Ontario. ***Abridged hearing (September 14, 2006)***

- Decision to accept screening environmental assessment for the proposed replacement of the Stanleigh Effluent Treatment Plant. ***Abridged hearing (March 7, 2007)***

WASTE MANAGEMENT FACILITIES

Cameco Corporation:

- Decision to amend the Beaver Lodge Waste Facility operating licence to extend the expiry date. ***One-day public hearing (January 25, 2007)***

Hydro-Québec:

- Decision to amend the radioactive waste facility operating licence for the facility located in Bécancour, Québec. ***One-day public hearing (March 7, 2007)***

Low-Level Radioactive Waste Management Office:

- Decision to accept screening environmental assessment for the proposed Port Hope long-term low-level radioactive waste management project. ***Abridged hearing (January 24, 2007)***

Ontario Power Generation Inc.:

- Decision on the report and recommendation to the federal Minister of the Environment for the environmental assessment regarding the proposal to construct and operate a deep geologic repository within the Bruce Nuclear Site in Kincardine, Ontario. ***One-day public hearing (October 23, 2006)***

Information Sources

For further information or to request publications, contact:

Canadian Nuclear Safety Commission
Office of Communications and Regulatory Affairs
280 Slater Street, P.O. Box 1046, Station B
Ottawa, Ontario K1P 5S9
Telephone: 613-995-5894 or 1-800-668-5284 (within Canada) Fax: 613-995-5086
e-mail: info@cnsc-ccsn.gc.ca

The following information is available on the CNSC Web site at www.nuclearsafety.gc.ca

Information on the plans, priorities, and activities of the CNSC may be found in:

Canadian Nuclear Safety Commission, *Annual Report*
Canadian Nuclear Safety Commission, *Report on Plans and Priorities*
Canadian Nuclear Safety Commission, *Departmental Performance Report*

The CNSC administers the following Acts and associated regulations:
Nuclear Safety and Control Act, 1997, c.9
Nuclear Liability Act, 1985, c. N-28

For further information you may also consult the CNSC Web site at www.nuclearsafety.gc.ca