

Canadian Nuclear Safety Commission

2005-2006 Annual Report of the Commission Tribunal



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

The Commission Members



Linda J. Keen
President and Chief Executive Officer, Canadian Nuclear Safety Commission, Ottawa, Ontario

Ms. Keen was appointed a full-time Commission member, effective November 1, 2000. She assumed duties as President and CEO of the CNSC on January 1, 2001. She was reappointed effective November 1, 2005 for a term ending on December 31, 2010.



Christopher R. Barnes
Professor, School of Earth and Ocean Sciences and Project Director for Project Neptune Canada at the University of Victoria, Victoria, British Columbia

Dr. Barnes was appointed a Commission member on January 23, 1996.



Alan R. Graham
Businessperson, Rexton, New Brunswick

Mr. Graham was appointed a Commission member on January 1, 1999.



J. Moyra J. McDill
Professor, Department of Mechanical and Aerospace Engineering, Carleton University, Ottawa, Ontario

Dr. McDill was appointed a Commission member on May 30, 2002.



James A. Dosman
Director of the Institute of Agricultural Rural and Environmental Health, University of Saskatchewan, Saskatoon, Saskatchewan

Dr. Dosman was appointed a Commission member on May 30, 2002.



Michael Taylor
Manotick, Ontario

Mr. Michael Taylor was appointed a temporary Commission member on August 26, 2004, and was reappointed to the Commission on February 26, 2005 for another period of six months. His appointment expired in August 2005.

Message from the President

The Canadian Nuclear Safety Commission is an independent federal regulatory agency and a quasi-judicial administrative tribunal that reports to Parliament through the Minister of Natural Resources. The mission of the 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. As President of the Commission, I am pleased to report on the 2005-2006 achievements of the Tribunal of the Canadian Nuclear Safety Commission (CNSC).

The Commission tribunal powers are clearly set out in the *Nuclear Safety and Control Act*, and it has all the powers of a court of record. It sets regulatory policy directions on matters relating to health, safety, security and environmental issues and establishes legally binding regulations. The tribunal makes independent decisions on the licensing of nuclear activities in Canada (including major facilities), while delegating the licensing of other materials and facilities to the CNSC staff. The Commission's operations are transparent and open to public scrutiny. Commission members are highly respected Canadians in the areas of science, engineering or business regulation whose role is to oversee the regulation of nuclear energy and materials in Canada on behalf of their fellow Canadians. The tribunal is supported by a Secretariat, which, through benchmarking, cooperation and continuous improvement activities, has helped position the Commission as one of the leading administrative tribunals in Canada.

In 2005-2006, the Commission reviewed and approved several key regulatory policies and guidance documents, including the CNSC Regulatory Policy on Nuclear Emergency Management and a new, streamlined, risk-informed approach on environmental assessments. The Commission held 29

public hearings involving significant nuclear facility licensing decisions. In some cases with significant public interest, the Commission heard from large numbers of intervenors. Decisions were rendered on these applications based on the need to protect the health, safety, and security of Canadians and the environment. In the context of the public meetings, the Commission was also actively involved in the review of more than 30 significant development reports regarding events or incidents from a wide range of nuclear activities.

During the 2005-2006 reporting period, the Commission began implementing a simplified and accelerated process on a risk-informed basis for administrative or more routine licensing matters pertaining to larger facilities. This refined process came as a result of consultations by the Commission with its stakeholder community, as well as a review of its activities to improve the efficiency and effectiveness of its regulatory framework while maintaining the objectives of effective safety and security oversight.

I believe that Canadians are fortunate to have such highly qualified, committed and dedicated Commission members to undertake this important oversight role.

Sincerely,



Linda J. Keen, M.Sc.

Canadian Nuclear Safety Commission¹

Annual Report of the Commission

Tribunal 2005-2006

The Commission is an independent, quasi-judicial administrative tribunal and court of record that regulates 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. It regulates the Canadian nuclear industry and reports to Parliament through the Minister of Natural Resources. It consists of up to seven Commission members appointed by the Governor in Council. The President is a full-time member, and other members are appointed as part-time members.

The Commission sets regulatory policy direction on the protection of health, safety, security and the environment for the Canadian nuclear industry. The Commission also establishes legally binding regulations and makes independent licensing decisions. When doing so, the Commission takes into account the views of interested parties.

To promote openness and transparency, the business of the Commission—to the greatest extent possible—is conducted in public hearings and meetings. Interested stakeholders, including members of the public, can observe and even participate in key proceedings. With respect to licensing matters, the Commission hears applicants' proposals, considers views and recommendations of CNSC staff, and listens to the views of other interested parties (intervenor) before making a decision. To increase transparency and accessibility, and to facilitate and encourage public involvement in its proceedings,

the Commission continues to improve the public hearing and meeting process. This is accomplished by standardizing its processes, holding hearings in affected communities when possible, and utilizing telecommunication and other electronic media technologies to provide better access to Commission proceedings and documentation.

The Commission is supported by a Secretariat that manages the business of the Commission and provides communications, technical and administrative support to the President and other Commission members.

As with the CNSC staff organization, the Commission tribunal strives to achieve the following five immediate outcomes:

1. A clear and pragmatic regulatory framework.
2. Individuals and organizations that operate safely and conform to safeguards and non-proliferation requirements.
3. High levels of compliance with the regulatory framework.
4. CNSC cooperates and integrates its activities in national/international nuclear fora.
5. Stakeholders' understanding of the regulatory program.

The following provides information on the activities of the CNSC tribunal and the Secretariat in support of each of the desired immediate outcomes of the CNSC.

¹The Canadian Nuclear Safety Commission is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

Outcome 1: A clear and pragmatic regulatory framework

As a public body created in 2000, the Commission's mission is clear: to regulate the use of nuclear energy and materials to protect health, safety, security and the environment and to respect Canada's international commitment on the peaceful use of nuclear energy. To that aim, the Commission has steadfastly taken concrete measures to ensure the safety and security of Canadians by coherently and transparently exercising those powers granted by its enabling statute. The principal source of the Commission's authority is the *Nuclear Safety and Control Act* (NSCA). Under the NSCA, the Commission has the authority to make regulations. Twelve regulations are in place, including the *CNSC Rules of Procedure and By-laws* which govern tribunal proceedings. Secondary sources of authority are the *Canadian Environmental Assessment Act* (CEAA) and the *Nuclear Liability Act* (NLA).

Even though the regulatory framework is robust, the Commission has been consulting its stakeholder constituency about possible improvements to its regulatory framework. The Commission has responded by implementing a simplified and accelerated process for less significant licensing matters pertaining to larger facilities. This accelerated process provides regulatory scrutiny that is proportional to the lower level of risks related to matters meeting specified criteria. Decisions are released and published, together with news releases, on the Web site of the Commission within days. This new approach will be fully documented in 2006.

A benchmarking analysis of CNSC tribunal processes against other leading Canadian tribunals has demonstrated that the Commission is a leader in many important areas such as turnaround times for decision, completeness of decisions, transparency, participation by members of the public, etc. The Commission is also a leader in the areas of official languages and access to information. These are all areas that are important to Canadians. But the Commission is not resting on its laurels; it

seeks to further improve its regulatory framework. In this vein, based on pre-consultation with industry and non-governmental organization stakeholders, and the benchmarking analysis of CNSC tribunal processes against other leading Canadian tribunals, the Commission continued its review of the *CNSC Rules of Procedure and By-laws* to make them as clear and user-friendly as possible. The Commission plans to proceed with a wider and more formal consultation of proposed changes to the *Rules of Procedure* in 2006-2007.

Beyond the Act and regulations, stakeholders seek clarity and guidance. The Commission developed two guidance documents during 2005-2006 which are intended to clarify regulatory requirements and expectations. The first document provides step-by-step guidance regarding a new, simplified and accelerated licensing process for public hearings on licence amendments for Class I nuclear facilities and uranium mines and mills, an area where the Commission's workload is expected to double in 2006-2007. This will result in consistent and transparent decision-making within accelerated timelines. The second guidance document sets out the CNSC's new risk-informed approach to hearings on matters related to the *Canadian Environmental Assessment Act*. These initiatives set out an improved and pragmatic regulatory response based on criteria such as public interest, compliance records, technological innovations, impact on health or environment, etc. They also provide clarity by setting out clearly and objectively the Commission's requirements and expectations.

In 2005-2006, the CNSC addressed issues raised by the Standing Joint Committee on the Scrutiny of Regulations (SJCSR) regarding the *CNSC Rules of Procedure*. The SJCSR makes technical recommendations to departments and agencies on ways to improve the interpretation and consistency of regulations. The CNSC's response proposes a series of technical amendments to improve the clarity of the *CNSC Rules of Procedure*.

The mission of the Commission is safety and security. In order to further clarify the CNSC's regulatory requirements and expectations regarding the safety of Canadians in the event of a nuclear incident, the Commission approved the CNSC Regulatory Policy on *Nuclear Emergency Management* (P-325) in 2005-2006. This regulatory policy outlines the high-level elements of the CNSC's emergency program and provides the broad parameters of the CNSC's authority during a nuclear emergency, while specific elements are addressed in the CNSC's Nuclear Emergency Response Plan and Procedures.

Outcome 2: Individuals and organizations that operate safely and conform to safeguards and non-proliferation requirements

The Commission's tribunal is the most visible component of the CNSC. It conducts public hearings on licensing matters of considerable interest to affected communities, and delivers presentations of significant development reports and licensee performance reports at public meetings. In 2005-2006, the Commission conducted 29 public hearings, where submissions from applicants and input from CNSC expert staff and interested stakeholders were duly considered by the Commission and documented in detailed records of proceedings. This is an increase of 93% over 2004-2005. Twenty-three decisions were released within the 30-business-days standard, whereas the other six were released within 35 business days. These turnaround times are, by far, best practice within the Canadian administrative tribunal community.

Various initiatives were undertaken in 2005-2006 which have improved the effectiveness of the Commission's licensing role. As indicated earlier, the Commission has determined that licence amendments and CEEA proceedings relating to Class I facilities and uranium mines and mills would now be decided by the Commission in either closed or public hearings. This removes the confusion of authority that previously existed, where some decisions were made by the Commission and others by Designated Officers of

the CNSC. While this initiative has significantly increased the workload of the Commission, it provides more procedural certainty and makes the decision-making process for significant facilities more rigorous and transparent. Guidance documents related to this particular initiative were developed in 2005-2006 for publication in 2006.

In 2005-2006, the Commission streamlined the CEEA process to make it more efficient and effective. Decisions on Environmental Assessment (EA) Guidelines for Class I facilities and uranium mines and mills are now made by the Commission via an abridged process in closed sessions. Depending on the complexity of the issue, the possible impacts on the environment and the level of public interest, hearings for EA Screening Reports are either conducted through the abridged process or via the one-day public hearing process. The abridged process varies the rules to shorten the notification and filing periods, limits participation to licensees and CNSC staff, and in some cases, relies only on written submissions. Members of the public still have many opportunities to present their views, both at the EA stage during consultations led by CNSC staff or the proponent, and at the licensing stage. It should be noted that all EA screenings for facilities other than Class I or uranium mines and mills are conducted by Designated Officers in a more streamlined process, given the lower complexity and nature of these facilities. The changes to the Commission's role in holding hearings to approve EA Guidelines and Screening Reports has resulted in a more focused execution of CEEA responsibilities by the Commission and CNSC staff. The lines of authority between the Commission and the Designated Officers are no longer ambiguous, and the process has been streamlined to account for a proper balance of public consultation, regulatory effectiveness and risk-informed decision-making.

Federal Environment Assessments at the CNSC

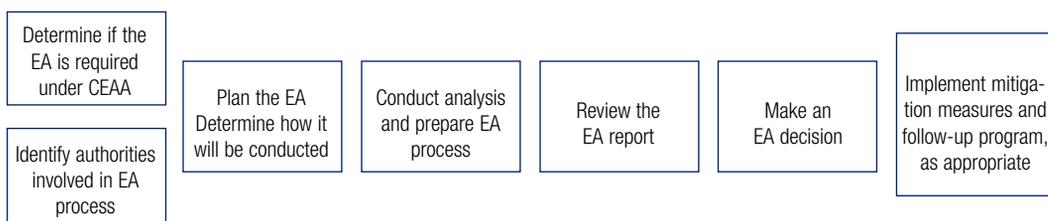
When making certain licensing decisions, the CNSC is subject to environmental assessment obligations and responsibilities under the *Canadian Environmental Assessment Act* (CEAA), which is the basis for federal environmental assessments (EA) in Canada.

An EA is a planning tool used by federal authorities—ministers, departments, departmental corporations and agencies of the Government of Canada—to ensure that the environmental effects of a proposed initiative are identified and evaluated, as well as to provide the public an opportunity to participate in the process. The CNSC ensures that the required EAs are conducted prior to the Commission issuing or amending a licence that enables a project to proceed. EAs are beneficial on many levels. Beyond ensuring government accountability, EAs often result in increased protection of human health and safety, sustainable use of natural resources and minimized risks of environmental disasters.

Under the CEAA, there are two different types of EAs: screenings (including class screenings) and comprehensive studies. Both of these can be directed to the Minister of the Environment for referral to a mediator or review panel if public concerns warrant, or if it is determined that the project will have significant adverse environmental effects.

Even though the majority of federal projects are assessed through screenings, others require a comprehensive study. These tend to be large projects that generate public concerns and have the potential for significant adverse environmental effects, such as nuclear power plants, other Class I nuclear facilities and uranium mines and mills.

The following is an illustration of the main steps in the EA process:



Based on the findings of the EA report, the CNSC decides whether adverse environmental effects are likely to be significant—a decision which is taken into account when determining whether the proposed project should proceed or not. If the proposal is to be carried out, the mitigation measures identified in the report are incorporated into the project's design plans and implemented. Where required or appropriate, a follow-up program is also designed and implemented to verify that the predictions of the EA were accurate and the mitigation measures are effective. If it is deemed that a project will likely have significant adverse environmental effects, a mediator or a review panel may be appointed by the federal Minister of the Environment to impartially review and assess the proposal and its projected effects.

Public participation is an essential element of the EA process. As the regulator of the Canadian nuclear industry, the CNSC continually strives to be an effective regulator while operating in an open and transparent fashion. The CNSC's approach to public involvement in the EA process fully meets CEAA requirements. It is also consistent with our public consultation and risk-management policies, and with the Commission's expectations for facilitating transparency and openness in decision-making. In 2005-2006, the Commission conducted eight EA-related hearings where guidelines identifying the parameters of environment assessments or EA screening reports on significant projects were approved. The CNSC expects increased EA activity in 2006-2007, in light of expected announcements regarding Ontario's future energy plans.

Outcome 3: High levels of compliance with the regulatory framework

Commission proceedings contribute significantly to the dissemination of licensee performance and compliance data to stakeholders and the Canadian public. For instance, the Commission requires that CNSC staff present information such as licensee compliance performance reports and annual reports for nuclear power plants during the term of a licence. This information is required in addition to performance information provided in the context of licensing hearings. The Commission also requires that any significant developments at licensed sites be reported by CNSC staff at public hearings.

In this regard, the Commission conducted several public hearings in 2005-2006 on licensing applications where past compliance performance of the licensee was a significant assessment factor. The Commission also considered interim reports on licensee performance, and heard more than 30 significant development reports related to events at licensed sites. Subjecting performance reports and significant development reports to the scrutiny of the Commission tribunal in the context of public proceedings is a very effective means of discussing key matters and seeking resolution of issues in a transparent public forum. The Commission derives some of its regulatory framework priorities from issues or subjects raised in the context of public proceedings.

Providing this information in a public forum leads to a high level of transparency, since it allows stakeholders to consult the information provided by CNSC staff and scrutinized by the Commission. Transcripts of these proceedings are available to the public, as are Records of Proceedings (including Reasons for Decision) and minutes of meetings.

Outcome 4: CNSC coordinates and integrates its activities in national/international nuclear fora

The President of the Commission was active in a number of international nuclear fora during the reporting period, including the Third Review Meeting of the Convention on Nuclear Safety and the International Atomic Energy Agency (IAEA) General Conference in Vienna, the International Conference of Women Engineers and Scientists in Seoul, a meeting of the International Nuclear Regulators' Association in Munich, the Women's Forum for the Economy and Society Conference in Paris, and the Carnegie Non-Proliferation Conference in Washington (D.C.).

Involvement in high-profile fora such as these provides the CNSC an opportunity to influence the international agenda and to learn from other leaders in the field.

The President of the Commission is also an active member of Tribunal Heads (a group consisting of 22 federal tribunals), a member of the Heads of Agencies steering committee, co-chair of the Heads of Agencies Governance sub-committee, as well as a member of the Council of Canadian Administrative Tribunals. This work has enhanced the visibility of the Commission and its image as a leader among Canadian administrative tribunals.

Outcome 5: Stakeholders' understanding of the regulatory program

Commission public hearings and meetings are a key element of the CNSC's outreach activities. The Commission publishes *Records of Proceedings, including Reasons for Decision*, to explain the basis of licensing decisions. These Records of Proceedings, and information about the Commission's proceedings and processes, are available through many means, including the CNSC's Web site. The CNSC's Web site was significantly improved in 2005-2006 to respond to suggestions from interested stakeholders. It now features a more user-friendly search capacity that allows interested persons to search by name or type of facility, by licensee name, by hearing or meeting date, and by document type (agenda, notice, transcript and record of proceedings (decision)). The Commission also provides on its Web site, at no cost to users, complete transcripts of all public proceedings within days of the proceedings, another best practice confirmed through the benchmarking analysis conducted by the Commission. Pamphlets and other documentation also provide the public with useful and clear information on the Commission and how the public can participate in Commission hearings.

In 2005-06, 192 intervenors participated—through written and/or oral submissions—in the 29 public hearings of the Commission. Intervenors included, among others, non-governmental organizations, environmental protection organizations, First Nations, citizens' groups, municipalities, unions, members of the public and other government departments. The views of many other stakeholders were communicated to the Commission through CNSC staff submissions, where staff reported on pre-consultations conducted on draft Environmental Assessment Guidelines or Screening Reports.

The Commission continued to make a number of improvements to facilitate access to public hearings and meetings during the reporting period, including more opportunities to participate in the proceedings through teleconference and videoconference. Although most proceedings are held in Ottawa, more and more affected communities are using videoconferencing as a cost-effective way to participate in public hearings. Pilot testing of the Web casting of Commission proceedings continued in 2005-2006.

The Commission periodically holds hearings in communities where the concerned nuclear facility or activities are located, in an effort to increase public participation in its proceedings. During 2005-2006, hearings which were scheduled to be held away from the CNSC's headquarters in Ottawa were cancelled or postponed by licensees. All public hearings are advertised well in advance in the local media and on the Commission's Web site through the publication of notices. The Commission Secretariat is also in frequent contact with media representatives to ensure accurate reporting of Commission tribunal activities to affected communities.

Public Hearing, Commission Licensing and Regulatory Proceedings

April 1, 2005 – March 31, 2006

Commission documentation is available on the CNSC Web site at www.nuclearsafety.gc.ca.

April 6 and 7, 2005

- **COGEMA Resources Inc.:** Decision to renew the Operating Licence for the McClean Lake Uranium Mine and Mill, with amendments.
- **Hydro-Québec:** Decision to amend the Power Reactor Operating Licence for the Gently-2 Nuclear Generating Station to extend the date for compliance with CNSC Security Standard S-298.

May 19 and 20, 2005

- **Bruce Power:** Decision to accept the Environmental Assessment Guidelines for the Proposed Refurbishment for Life Extension and Continued Operation of the Bruce A Nuclear Generating Station.
- **Atomic Energy of Canada Limited:** Decision to accept the financial guarantee for the decommissioning of the Chalk River Laboratories site.
- **Ontario Power Generation:** Decision to renew the Power Reactor Operating Licence for the Pickering A Nuclear Generating Station.

June 29 and 30, 2005

- **Atomic Energy of Canada Limited:** Decision to accept the Environmental Assessment for the Proposed continued operation of the National Research Universal Reactor at the Chalk River Laboratories.
- **COGEMA Resources Inc.:** Decision to accept the Environmental Assessment for the McClean Lake Operation Sue E Project.

July 13, 2005

- **COGEMA Resources Inc.:** Decision to conduct weather-sensitive surface preparation activities at the proposed Sue E pit Uranium Mine.

August 17 and 18, 2005

- **MDS Nordion:** Decision to renew the Operating Licence for MDS Nordion's Nuclear Substance Processing Facility in Ottawa, Ontario.

September 14 and 15, 2005

- **Hydro-Québec:** Decision to accept the redetermination of the Environmental Assessment Guidelines for the proposed Modifications to the Gently Radioactive Waste Management Facilities and the Refurbishment of the Gently-2 Nuclear Generating Station.

October 18 and 19, 2005

- **Atomic Energy of Canada Limited:** Decision to renew the Operating Licence for the MAPLE reactors at the Chalk River Laboratories.
- **Atomic Energy of Canada Limited:** Decision to renew the Operating Licence for the New Processing Facility at Chalk River Laboratories.
- **Atomic Energy of Canada Limited:** Decision to continue operation of the National Research Universal Reactor beyond December 31, 2005.
- **COGEMA Resources Inc.:** Decision to permit open-pit mining and milling of the Sue E ore-body at COGEMA's McClean Lake Operation.

- **Rio Algom Limited:** Decision to renew the Operating Licence for Rio Algom Limited's Radioactive Waste Management Facilities in Elliot Lake, Ontario.

November 4, 2005 – Panel Hearing

- Decision on the Official Consolidation of Nuclear Installations Designated Under the *Nuclear Liability Act* and the Terms and Amounts of Basic Insurance Required.

November 16, 2005 – Panel Hearing

- Decision on licence amendments to Strengthen Regulatory Controls on Radioactive Sealed Sources.

November 30 and December 1, 2005

- **ESI Resources Ltd./ Earth Sciences Extraction Company:** Decision to renew the licence for ESI Resources Ltd.'s (Earth Sciences Extraction Company) Nuclear Fuel Facility in Calgary, Alberta.
- **SRB Technologies (Canada) Inc.:** Decision to renew the operating licence for SRB Technologies (Canada) Inc.'s Gaseous Tritium Light Source Facility in Pembroke, Ontario.
- **General Electric Canada Company:** Decision to renew the Operating Licence for General Electric Canada Company's Nuclear Fuel Facility in Peterborough, Ontario.
- **General Electric Canada Company:** Decision to renew the Operating Licence for General Electric Canada Company's Nuclear Fuel Facility in Toronto, Ontario.

March 16, 2006 – Panel Hearing

- **Ontario Power Generation Inc.:** Decision to accept a temporary change to Darlington Nuclear Generating Station Operating Policies and Principles.

March 17, 2006 – Panel Hearing

- **Ontario Power Generation Inc.:** Decision to accept licence amendments to permit the construction of two Refurbishment Storage Buildings and Low Level Storage Building #10 at the Western Waste Management Facility at the Bruce Nuclear Site, in the Municipality of Kincardine.

March 30, 2006 – Panel Hearings

- **Rio Algom Limited:** Decision to accept the Environmental Assessment Guidelines for the Proposed Replacement of the Stanleigh Effluent Treatment Plant.
- **COGEMA Resources Inc.:** Decision to accept the Environmental Assessment Guidelines for the Proposed Ferric-Sulphate Production at McClean Lake.
- **Mississauga Metals and Alloys Inc.:** Decision to accept the Environmental Assessment Guidelines for the Installation and Operation of an Incinerator and the Continued Operation of a Recycling Facility.
- **Atomic Energy of Canada Limited:** Decision to accept the Environmental Assessment Screening Report regarding the Proposal to Construct and Operate a Liquid Waste Storage Facility at Chalk River Laboratories.

March 30, 2006

- **COGEMA Resources Inc.:** Decision to extend the scope of its Mining Equipment Development Program at the McClean Lake Uranium Mine and Mill Operation in Northern Saskatchewan.
- **Canadian Light Source Inc.:** Decision to renew its Particle Accelerator Operating Licence.