

**Canadian Nuclear Safety Commission Action Plan**  
**Report of the Auditor General of Canada**  
**Power Reactor Regulation**

*The December 2000 Report of the Auditor General of Canada, tabled in the House of Commons on February 6, 2001, includes reviews of federal health and safety regulatory programs (Chapter 24) and the Canadian Nuclear Safety Commission's activities related to the licensing and regulation of nuclear power reactors (Chapter 27). The CNSC agrees with the recommendations of the Office of the Auditor General and is taking the following actions to address them.*

## **Risk Analysis and Performance Assessment**

### **27.23 OAG Recommendation**

The Canadian Nuclear Safety Commission (CNSC) should implement a quantifiable rating of safety performance, taking into account the safety-related portion of other systems used in the industry, and should use this rating, along with a more rigorous and integrated risk assessment and other qualitative information, to systematically determine the level and type of regulatory effort required.

#### **27.23 CNSC response included in OAG Report**

The CNSC undertakes the regulation of safety performance by committing to a comprehensive program of regulatory oversight activities. The CNSC agrees that quantifiable ratings of licensee performance could, as part of an integrated risk assessment process, support the determination of priorities, and the level and type of regulatory effort that is deployed for different regulatory activities. The CNSC will evaluate options for such approaches.

#### **27.23 CNSC Action Plan**

The CNSC has exercised effective regulatory oversight of its licensees for many years. However, regulatory principles demand the use of a systematic and transparent system of resource allocation and that such a system should be risk based. Over the last few years, the CNSC's planning and budgeting processes have been improved and by 2003, they will be more closely integrated, with resource allocation based on risk. To further improve our resource allocation, the CNSC has initiated a pilot project for systematic management of regulatory effort that includes priority setting, risk management, and focusing on achieving results. By 2003, the experience gained from that pilot project will be used to establish a systematic corporate approach to resource allocation. We are also evaluating management reporting systems that will provide CNSC management with planning and accountability information more efficiently and effectively.

As part of an improved reporting of safety, we will consider the use of quantifiable safety ratings in the overall risk assessment. By early 2002, we will have completed a review of work being done by other nuclear regulators to establish quantitative indicators of safe operation of nuclear power plants, and we will also seek improvements in the clarity and

utility of the qualitative indicators that are being currently being used. We will use this information to ensure that the overall performance of each licensee is clearly communicated; that the specific licensing plans for each reactor facility clearly reflect priority areas of regulatory oversight, and to improve the CNSC's annual reports on overall safety performance of the nuclear power reactor industry in Canada

#### **Actions and Timelines**

- ?? CNSC will have completed its investigation on quantitative and qualitative safety indicators and improved its use of all indicators.  
*March 2003*
- ?? CNSC planning and budgeting processes will be integrated and resource allocation will be risk-based.  
*End of 2003*

### **27.23 OAG Recommendation**

CNSC should also clarify the meaning of its performance ratings ("acceptable", "conditionally acceptable" and "unacceptable") and better integrate its findings to ensure that a licensee's overall performance is clearly understood and communicated.

#### **27.23 CNSC response included in OAG Report**

The CNSC agrees that rankings of "acceptable", "conditionally acceptable" and "unacceptable" need to be clarified to enable consistent application and effective communication of licensees' overall safety performance. A review of the use of these rankings has already been initiated with a target for completion by fall 2000.

#### **27.23 CNSC Action Plan**

The review of the CNSC's current approach to communicating its rating of safety performance is intended to produce clearer and more objective terminology that reflects the overall safety perspective and is therefore more useful in decision-making and more understandable by all stakeholders. It is anticipated that an improved rating system will be presented to the Commission by August 2001 and will be in use by the end of 2001.

#### **Actions and Timelines**

- ?? An improved performance rating system for nuclear power plant safety in Canada will be in use.  
*End of 2001*

## Compliance and Enforcement Framework

### 27.28 OAG Recommendation

To ensure that its regulations are transparent and predictable to staff, licensees and the public, the CNSC should, with all due haste, finish developing the regulatory documents that set out the requirements by which licensees will be assessed.

#### 27.28 CNSC response included in OAG Report

The CNSC agrees that there is a need to accelerate the development of a number of regulatory policies, standards and guides. Specific objectives for this work are set out in the CNSC's Strategic Plan 2000. To achieve ordered progress in this area, senior staff members have been taken off-line and assigned full-time to the development of the regulatory framework, and a committee has been set up to establish the priorities for work on regulatory documents.

#### 27.28 CNSC Action Plan

We have made progress in producing regulatory documents setting out the requirements by which licensees will be assessed. These regulatory policies, standards and guides aim to make CNSC regulations and requirements transparent and predictable to staff, licensees and the public. Current regulatory documents as well as those in the consultation stage are available on the CNSC website at [www.nuclearsafety.gc.ca](http://www.nuclearsafety.gc.ca). The website also provides a full list of titles and description of regulatory documents which are under development but not yet available for public consultation. All key regulatory policies and standards will be in place and all key regulatory guides will be out for public comment by 2003.

The requirement for further development and continued improvement of regulatory documents is fundamental to the regulatory environment. To support this, by March 2001, we will complete a regulatory framework which defines the basic elements of our regulatory regime and the fundamental policies which underpin them. The framework will provide a logical and organized structure which will help us identify and develop regulatory documents consistently and coherently across all areas of regulatory responsibility and set priorities for their production.

#### Actions and Timelines

- ?? CNSC regulatory framework and fundamental policies will be complete and requirements and priorities for associated policies, standards and guides will be identified.  
*September 2001*
- ?? All key regulatory policies and standards will be in place.  
*March 2003*

- ?? All key regulatory guides will be issued for public comment.  
*March 2003*

### **27.28 OAG Recommendation**

It should also implement its compliance and enforcement policy.

#### **27.28 CNSC response included in OAG Report**

Among the activities that are already in progress is a comprehensive program that is dedicated to the implementation of the compliance and enforcement policy.

#### **27.28 CNSC Action Plan**

Building on the compliance activities carried out by the Atomic Energy Control Board over its long history of regulatory activity, the CNSC Compliance Program introduces a more modern, transparent and predictable way of carrying out our compliance function. The CNSC Compliance Policy was issued for public comment in May 2000; the final version will be published shortly. An overview of the CNSC Compliance Program was also published in May 2000; a program manual for CNSC is now being completed. Implementation of the compliance and enforcement policy and program is now underway in all areas of regulatory responsibility.

#### **Actions and Timelines**

- ?? The CNSC Compliance Policy will be published and a period of trial use of the Compliance Program Manual will be completed.  
*March, 2002*
- ?? All involved staff will have received training on the Compliance Program and relevant documentation will be complete.  
*End of 2002*

## **Human Resource Management**

### **27.40 OAG Recommendation**

The CNSC should develop a human resource planning process that profiles present internal resources and forecasted needs, identifies historical, present and potential attrition rates, and assesses the implications of various policies on the distribution and movement of employees. It should update the human resource plan regularly, and link it to the maintenance and administration of a formal plan for recruitment.

#### **27.40 CNSC response included in OAG Report**

The CNSC recognizes that in the past, human resources planning may not have been

conducted as rigorously as it should have been. The CNSC agrees with the intent of the recommendation and has already put into place a human resources planning process. The CNSC believes that its Strategic Plan has been very clear on this point, and it will endeavour to strengthen linkages between the strategic, corporate and budget planning processes and the human resources plan.

#### **27.40 CNSC Action Plan**

The CNSC will continue to improve its human resources planning, building on the extensive work that has been carried out over the last two years. As is the case with other health and safety regulatory agencies, the CNSC is experiencing staffing shortages due to its inability to meet private sector salaries for the specialized resources it needs to regulate, an aging workforce jeopardizing long term sustainability, and limited funding to aggressively redress these problems rapidly.

While these problems are not unique to the CNSC, the issue of a limited pool of qualified recruits is particularly acute in the nuclear field. More specifically, the lack of new nuclear facilities increases the perception of the industry as one with no future. As a result, students do not see a future for themselves in the nuclear industry, and universities no longer offer programs aimed at graduating students specialized in the nuclear field. The lack of a graduate pool, tightly controlled public service salaries, and fierce competition from private sector nuclear employers and agencies render the CNSC's recruitment, rejuvenation, and retention challenges very difficult. Given Canada's commitment under the Nuclear Safety Convention to maintain an adequately resourced nuclear regulator, the CNSC is resorting to an increased effort and resource investment in training as it cannot attract fully qualified specialists in sufficient numbers.

During the next two years, the CNSC will focus its efforts on three areas it can influence with its limited resources. First, the CNSC will seek and leverage partnerships with academia and industry to support strengthening of nuclear education programs through a sharing of our knowledge and documentation. Secondly, the CNSC will continue to work with Treasury Board to stabilize its funding at a level commensurate with its responsibilities under the Nuclear Safety and Control Act. Thirdly, the CNSC will continue to establish human resources strategies which promote workforce sustainability through improvements to recruitment, retention, and succession planning.

CNSC has already improved vacancy and staffing reporting to executive management, completed demographic analysis of the executive cadre and completed a process for identifying successors for executive level positions. It has also developed and approved a pilot internship program for regulation of power reactors.

### **Actions and Timelines**

- ?? A newly developed Orientation Program will be launched.  
*April 2001*
- ?? Identification of successors for first line technical management positions will be complete.  
*August 2001*
- ?? A comprehensive Human Resources Plan integrating various workforce sustainability initiatives will be in place.  
*September 2001*
- ?? A second round in the process of identifying successors for executive level positions will be completed.  
*December 2001*
- ?? Demographic and attrition analysis of CNSC staff will be completed (starting with first line technical management positions).  
*December 2001*
- ?? A pilot project to provide in-depth training to new graduates will be completed.  
*April 2003*
- ?? We will continue to seek ways to stabilize CNSC funding at the necessary level.  
*Ongoing*

### **27.45 OAG Recommendation**

The CNSC should clarify the roles and accountabilities for planning and integrating licensee performance, and communicate them internally and to licensees.

#### **27.45 CNSC response included in OAG Report**

The CNSC agrees that, to improve accountability and regulatory effectiveness, effort is needed to improve the implementation of the roles and responsibilities for planning and integrating regulatory activities and reporting on licensee performance. A review of roles and responsibilities has been planned. It will be followed by action to communicate and manage implementation of the resultant responsibility framework.

#### **27.45 CNSC Action Plan**

We are now reviewing the specific roles and accountabilities of the operational divisions to identify where adjustments can improve assessment of licensee performance. These adjustments will be made and communicated to staff and licensees. To improve regulatory effectiveness and planning, a procedures manual is being developed for use by all CNSC

staff involved in nuclear power reactor regulation. It will clarify the roles and responsibilities of those involved in power reactor regulation and the interactions between them. The manual will be used by all power reactor licensing staff in Ottawa and CNSC on-site offices and will also be included in training materials for new staff joining the CNSC.

#### **Actions and Timelines**

- Roles and responsibilities of all operational CSNC divisions will be reviewed, fully documented and communicated to staff and licensees.  
*September 2001*
- A procedures manual will be in use by all CNSC staff involved in nuclear power reactor licensing.  
*March 2003*

#### **27.45 OAG Recommendation**

In addition, it should consider separating the role of chair from that of chief executive officer.

##### **27.45 CNSC response included in OAG Report**

The separation of chair and CEO is not our preferred solution to some of the issues raised. However, we will take it into consideration in addition to other options

##### **27.45 CNSC Action Plan**

A review of the current responsibilities of the CEO and President was completed for development of the NSC Act. The newly appointed President and CEO took up her duties on January 1, 2001. No changes are currently foreseen.