



ccm 2008-000007

The Honourable Gary Lunn, P.C., M.P.
Minister of Natural Resources
580 Booth Street
21st Floor
Ottawa ON K1A 0E4

Dear Minister:

Further to your attached letter of December 27, 2007, and the serious allegations contained therein, please accept this letter and the attached submission as the formal response on behalf of both myself and the Canadian Nuclear Safety Commission ("CNSC"). Any objective assessment of the facts will reveal that the allegations contained in your letter are entirely without merit. While the Narrative and Commentary – attached here as Appendix "A" – outlines our position in greater detail, I will take this opportunity to provide you with my views on the contents of your letter.

The unauthorized publication of the contents of your letter by the press, has compelled us to publicly release the CNSC's response. The severity of the allegations contained in your letter could not be left unanswered, as a failure to respond to the claims would undermine the public's trust and confidence in the CNSC as the country's independent nuclear regulator. As we have previously advised your office, upon learning of the leak we immediately notified both the Privacy Commissioner and the Royal Canadian Mounted Police ("RCMP"). It is my belief and expectation that the RCMP will undertake a review to determine the source of the breach.

Independence of Quasi-Judicial Administrative Tribunals, such as the CNSC

As the head of an independent quasi-judicial administrative tribunal, I was and remain deeply troubled by both the tone and content of your letter. The nature of the allegations which have been made, coupled with your threat to have me removed as President, seriously undermine the independence of the CNSC. The manner in which you have sought to approach these issues, absent or in advance of any formal inquiry, highlights a significant misunderstanding of the relationship between yourself, as Minister of Natural Resources, and the CNSC.

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On December 10, 2007, in response to questions posed to you in the House of Commons, you stressed that the CNSC was “absolutely independent of this government” and a “completely independent” agency of government. Your letter of December 27, 2007 suggests that there is not a full appreciation of the significance of these statements or the established legal implications of having a reporting relationship with an independent quasi-judicial administrative tribunal and regulatory agency. While the CNSC reports through you to Parliament, neither the CNSC nor its President are obliged to report to you on the status of particular licensing matters before the CNSC.

The Supreme Court of Canada has consistently held that the principles of fundamental justice require quasi-judicial administrative tribunals to be free from political influence or interference. This principle has been noted in the *Guide Book for Heads of Agencies* which states in part:

Maintaining an arm’s length relationship to Ministers is particularly important for those organizations whose mandate is to make decisions that determine or regulate the privileges, rights or benefits of Canadians. Governments delegate decision-making powers to these bodies, in part, to preserve public confidence in the fairness of the decision-making process. In turn, the exercise of these powers requires careful attention to ensure that the appropriate degree of independence is maintained.

In our view, your comments concerning the NRU reactor which were made during the December 8, 2007 telephone call with me and one of my officials – a matter with which the CNSC was and continues to be seized – and the demand noted in your letter of December 27, 2007 requiring that we, an independent quasi-judicial administrative tribunal, answer to you about this case, are examples of improper interference with both the institutional independence of the CNSC and with the administration of justice.

Another fundamental element of independence of quasi-judicial bodies like the CNSC is security of tenure for members. Courts throughout Canada have given voice to this important principle, which provides that tribunal members cannot be capriciously removed from office because of decisions made by them in the discharge of their administrative or adjudicative responsibilities.

Pursuant to subsection 10(5) of the *Nuclear Safety and Control Act*, permanent members of the Commission hold office during good behaviour and may only be removed for cause. Subsection 10(3), in turn, provides that the Governor in Council may only appoint a permanent member to hold office as President. Consequently, I am advised that a permanent member cannot be removed from the office of President without cause. And, as the Narrative and Commentary more fully describe, there are no grounds upon which an objective reviewer would conclude that cause exists in my case.

Your letter does not contain a single allegation of personal misconduct on my part or even any allegation that my actions fell below expected performance standards. Rather, the threat of removal is entirely and exclusively based on an assessment of the steps taken – or not taken – by the CNSC in respect of the extended shutdown of the NRU reactor. If you believe that I have engaged in any misconduct, or that my conduct has failed to meet any performance standard, the law requires that you provide me with specific claims that you intend to rely on to justify my removal as President. In addition, the law requires that I be provided with an opportunity to provide a full response to any such claims once presented.

In the seven years since I was first appointed President of the CNSC, no allegation has ever been made that I have failed to execute the duties of my office as outlined in the *Nuclear Safety and Control Act* and the Position Accountability Profile filed with the Privy Council Office in February 2001. Moreover, the fact that I have chaired both the international Convention on Nuclear Safety and the Heads of Administrative Tribunals Forum point to the support and respect that I have earned from my peers and colleagues both within government as well as internationally.

As a founding member and first President of the Heads of Federal Administrative Tribunals Forum, representing more than 20 federal administrative tribunals, and as both an executive member of the Heads of Federal Agencies and a director of the Board of the Canadian Council of Administrative Tribunals (“CCAT”), I believe strongly and am deeply committed to the role of and independence of administrative tribunals in the administration of justice. I would therefore ask you to carefully consider the significant chilling effect your recent actions could have on the practices and decisions of other tribunals who are responsible for important work on behalf of Canadians.

The Events and Actions of the CNSC Surrounding AECL's Shutdown of the NRU Reactor

With respect to the serious allegation that the CNSC did not act in an appropriate manner regarding the recent problems with the NRU reactor at Chalk River, I remain steadfast in my defence of the CNSC's role in this matter. While the attached written submission outlines the events and our actions in far greater detail, I wish to reiterate that the CNSC's consideration of this matter was totally consistent with our statutory mandate and our service to all Canadians under the *Nuclear Safety and Control Act*.

Upon discovering that the NRU reactor was operating outside its licensing framework, the decision to extend the shutdown of the NRU reactor at Chalk River in November was made by AECL alone and was entirely voluntary. To be clear, the CNSC did not order or force AECL to shut down, or extend the shutdown, of the NRU reactor. As AECL confirmed in its letter of November 22, 2007, the decision was made by AECL's senior management and the Site Licence Holder.

Given that the shutdown of the NRU reactor was voluntary on the part of AECL, the only outstanding issue from our perspective – as I have previously testified before both the House of Commons and Senate – was whether AECL intended to seek an amendment to its licence to operate the NRU reactor with an emergency power supply connected to only one of the two Main Heavy Water Pumps (“MHWP”).

The NRU reactor's operating licence required both MHWP P-104 and P-105 to be connected to the Emergency Power Supply (“EPS”). The EPS delivers emergency back-up power to the pumps to ensure they can continue to force coolant into the reactor in the event of an external incident or power interruption. Given the design of the NRU reactor, the uninterrupted delivery of power to P-104 and P-105 is essential for its safe operation. The licence given by CNSC to AECL in 2006 was based, in part, on assurances from AECL that it had connected the pumps to the EPS.

It was during an inspection in early November, that the CNSC staff first discovered that the two pumps might not have been connected as required. The CNSC provided an opportunity, in a graduated regulatory compliance manner, for AECL to verify this finding. Shortly thereafter, AECL provided written confirmation to CNSC that the pumps were not connected to the EPS - and in so doing confirmed that the NRU reactor was non-compliant with the conditions of its operating licence.

It was this discovery that prompted AECL to extend a planned shutdown of the reactor pending the connection of the pumps to the EPS. In response, the CNSC prepared a Significant Development Report which was forwarded to members of your staff as well as other departmental officials on November 29, 2007.

At the regularly scheduled Meeting of the CNSC tribunal members (the “Commission”) on December 6, 2007, AECL reconfirmed that they would be extending the shutdown until they were able to connect the two pumps. The Commission therefore concluded that the one pump connection option was no longer being considered by AECL.

On December 7, 2007, however, AECL informed me that it wished to pursue the one pump connection option and requested a reply on the process before December 11, 2007. As it is now known, the issuance of the Directive and the introduction of C-38 overtook this option. Following their letter of December 7, 2007, AECL was informed by the CNSC staff that a complete safety case was required to support the licence amendment application and that one had not yet been received.

Following the CNSC letter of December 10, 2007, with respect to the process, there was no specific request from AECL asking the Secretariat to schedule a hearing nor any indication of a completed safety case in support of an amendment application. Throughout this period, and to this day, CNSC has worked cooperatively with AECL to deal with the issues relating to the NRU reactor. In addition, during that same time, the Commission was ready to vary its rules in order to expedite a hearing to consider any licence amendment application that was supported by the requisite information.

CNSC's Purported Failure to Modify its Approach in Light of the Directive

A related, and similarly baseless, allegation contained in your letter is that it was the CNSC's purported failure to modify its approach in light of the Directive which led Parliament to adopt C-38. The first time that I, or anyone at the CNSC became aware of the Directive, was when a copy of the Directive was sent to the CNSC on the morning of December 11, 2007. As you are well aware, the CNSC was not consulted about the Directive before it was drafted and tabled in the House of Commons.

C-38, in turn, was introduced in the House of Commons in the afternoon of December 11, 2007 – only hours after the Directive was tabled in the House of Commons by Minister Hearn. Indeed, notice of *An Act to permit the resumption and continuation of the generation of the National Research Universal Reactor at Chalk River* was included on the Order Paper before the Directive was sent to the CNSC. Clearly, the introduction of C-38 eclipsed the need for CNSC staff or Commission to have regard to the contents of the Directive in respect of that facility after C-38 was passed.

Even before the Directive was issued, however, the CNSC recognized the importance of medical isotopes. As I mentioned in my appearances before both the House of Commons and Senate, the CNSC was already working with its hospital licensees to facilitate access to medical isotopes, again demonstrating its concern about the health issues flowing from the extended shutdown of the NRU reactor.

In fact, on December 7, 2007, AECL wrote a letter to the CNSC which included the following passage: “We believe that the health care community and the public at large have been reassured by the CNSC’s demonstrated sensitivity to the importance of the beneficial use of radioisotopes and the assurance that [CNSC] staff are available on a 24/7 basis to respond immediately to AECL submissions related to the resumption of operations.” This letter further confirms that the CNSC had already taken into account the vital importance of medical isotopes, entirely within its mandate, before the Governor in Council even issued its Directive on December 11, 2007.

International Expectations and Canada’s Reputation as a Leader in Nuclear Regulation

Since becoming its President, I have charted a vision for the CNSC to “be one of the best nuclear regulators in the world.” To this end, I have regularly submitted to Parliament, through Ministers of Natural Resources, Reports on Plans and Priorities and Annual Reports outlining our efforts to achieve this vision. I believe this has been reflected in the CNSC’s application of the *Nuclear Safety and Control Act*, the implementation of our international obligations including non-proliferation, and the effective response to crises such as the terrorist attacks of 9/11 and the North American blackout of 2003.

An important obligation to which the Government of Canada has agreed is the Convention on Nuclear Safety, which extends to cover the safety of all nuclear power plants in the world. Every three years, the CNSC takes a leadership role in the compilation of Canada’s national reporting requirements under this Convention. In 2004, I was elected, and, then in April 2005, I became the first Canadian to become President of this international peer review process.

Of particular note, Article 8.2 of the Convention on Nuclear Safety requires “appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy.” The events and actions outlined in the attachment, as well as your current course of action, will bring into question Canada’s adherence to this established principle of nuclear regulation. Moreover, this separation of regulatory and promotional function within the Natural Resources portfolio was, as you are aware, the subject of previous private members bills in the House of Commons.

Non-partisan, Impartial and Fair Execution of Duties of the Office of President

Recent comments made by Prime Minister Harper, Minister Clement and yourself have cast serious doubt on whether I could possibly receive a fair and impartial review of the events in question by the Cabinet. The Courts have made clear that the Governor in Council must act in good faith and in an impartial manner when considering whether to remove a GIC appointee. As a fair and objective review of my performance by the government does not seem possible, I would therefore request that the government not take any steps along the lines suggested in your letter until the circumstances of this matter have been fairly and independently reviewed.

I first joined the federal public service in 1986, and have served all successive governments in a non-partisan fashion. I have performed my duties to the best of my ability, and my actions have never been coloured by an affiliation or allegiance to any political party. To suggest otherwise is both deeply offensive to me personally and is grossly unfair to the impartiality and independence of quasi-judicial decision-makers throughout Canada – especially those at the CNSC.

Your letter of December 27, 2007, concludes that “the measures taken by Parliament to adopt Bill C-38 also suggests a lack of confidence by all parties in [my] judgment.” Given the various public comments made in the media since the passage of C-38, I would question whether Members of Parliament and Senators are aware of this allegation and support your interpretation. The allegation itself further suggests that you have pre-judged my performance and that you are unable to fairly assess the role I played in the events involving the NRU reactor.

Recommendation: Referral to Public Inquiry or International Review

Taking into account the concerns I have raised above, alongside the matters raised in the attached Narrative and Commentary, I would strongly recommend that the issue of my performance as the President of the CNSC be referred to some form of public inquiry, Parliamentary committee or independent international review. I would welcome public scrutiny of my performance over the last seven years and, in particular, the events leading up to the shutdown of the NRU reactor.

In addition, I fervently believe that such a public process would benefit not only the CNSC, but also the Government of Canada, affected stakeholders, the Canadian nuclear industry and, most of all, the people of Canada. Canadians deserve and demand excellence in both nuclear safety and nuclear regulation. I am confident that a public inquiry into this matter would give them the requisite assurances that their nuclear regulator, the CNSC, has always acted in their collective best interests.

In closing, I wish to reiterate that I remain fully committed to the underlying pillars, principles and purposes of the CNSC. The issues that it will face in the months and years ahead will require that it be allowed to base its decisions on scientific expertise and sound administrative law principles. To that end, it is my intention and expectation that I will continue to serve as President until my term expires in November 2010.

I await your reply.

Yours truly,

A handwritten signature in black ink, appearing to read 'L. Keen', with a long horizontal flourish extending to the right.

Linda J. Keen, M.Sc

Attachment(s)



Ottawa, Canada K1A 0E4

CNSC

CCSN



3188556

PROTECTED B - SENSITIVE
PERSONAL INFORMATION

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

DEC 27 2007

FILE DOSSIER	2.14 26-1-54-0-0
REFERRED TO RÉFÉRÉ À	Cameron, J.K.

Dear Ms. Keen:

Re: Shut down of National Research Universal (NRU) reactor at Chalk River

I am writing to convey to you my deep concern with respect to the actions of the Canadian Nuclear Safety Commission (the "Commission"), of which you are President, that resulted in the continued shutdown of the NRU reactor at Chalk River, Ontario. My concern extends to the failure of the Commission to facilitate the return to operation of the NRU reactor in a timely manner, considering that it is the primary source of medical isotopes necessary for the critical health care of Canadians.

Health Minister Clement and I raised this issue in our letter to you of December 10, 2007, which references our prior conversations on this matter.

Under your leadership, the Commission did not initiate the process to permit the return to operation of the NRU reactor, despite the issuance on December 10, 2007 of the *Directive to the Canadian Nuclear Safety Commission Regarding the Health of Canadians*. The failure of the Commission to modify its approach in light of the Directive led all parties in Parliament to take the extraordinary measure of adopting Bill C-38 to allow for the resumption of operations of the NRU reactor so that the production of medical isotopes could resume.

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These events have cast doubt on whether you possess the fundamental good judgement required by the incumbent of the office of President of the Commission, and whether you are duly executing the requirements of the office. Serious questions have arisen about whether the Commission, under your leadership, could have dealt more appropriately with the risk management of the situation.

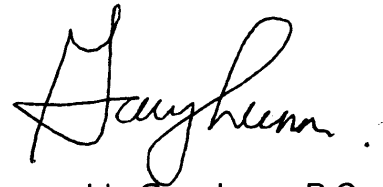
I am concerned that the Commission, in the exercise of its statutory mandate, may not have appropriately considered relevant evidence regarding the impact of the continuing shutdown of the NRU reactor on the health of Canadians. Further, I require an explanation of why the Commission, under your leadership, persisted in its refusal to consider this relevant evidence even after it was brought to your attention, including by the letter sent by Minister Clement and myself and by the December 10th Directive. The continuing refusal of the Commission, under your leadership, to prevent unreasonable risk to the health of Canadians potentially undermines public confidence in the regulation of the nuclear industry in Canada.

These doubts have led me to question whether you should continue to serve as President of the Commission. The measure taken by Parliament to adopt Bill C-38 also suggests a lack of confidence by all parties in your judgement.

The purpose of this letter is to provide you with an opportunity to make any submissions that you believe should be taken into account before a decision is made regarding your continued role as President of the Commission. Please ensure that I receive your written submissions by the close of business on January 10, 2008.

You should be aware that I am considering making a recommendation to the Governor in Council that your designation as President of the Commission be terminated while maintaining your status as a full-time member of the Commission. However, before I decide whether or not to make that recommendation, I am prepared to hear from you as indicated above. If the matter of your continued designation as President proceeds to the Governor in Council, your submissions will be considered in order to assist in making a final determination.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Gary Lunn". The signature is fluid and cursive, with a large initial "G" and a long, sweeping tail.

Honourable Gary Lunn, P.C., M.P.
Minister of Natural Resources

Narrative and Commentary on Events and Actions by the Canadian Nuclear Safety Commission relevant to Atomic Energy of Canada's National Research Universal (NRU) Reactor

1.0 Purpose of the Narrative and Commentary

This document accompanies a letter by the President of the Canadian Nuclear Safety Commission ("CNSC"), dated January 8, 2008 in response to a letter from the Minister of Natural Resources, dated December 27, 2007. It provides a detailed account of the events surrounding Atomic Energy of Canada Limited's ("AECL") shutdown of the National Research Universal ("NRU") reactor and the actions taken by the CNSC, which were consistent with statutory obligations under the *Nuclear Safety and Control Act* ("NSCA").

2.0 Introduction

The CNSC is Canada's independent nuclear regulator. It is comprised of a quasi-judicial administrative tribunal (hereinafter referred to as the "Commission") and its scientific-based staff organization (hereinafter referred to as "CNSC staff"). The CNSC is a Departmental Corporation under Schedule II of the *Financial Administration Act* and reports to Parliament through the Minister of Natural Resources.

As an adjudicative tribunal, the Commission, consisting of up to seven permanent Members, one of which is the President, sets overarching regulatory policy, makes regulations as required, decides on major licence applications and delegates appropriate matters to the CNSC staff.



3.0 Concerns About Government Interference with the Independence of the CNSC

Before turning to the summary of events leading up to the implementation of the Directive tabled in the House on December 11, 2007 and the passing of Bill C-38 on December 12, 2007, a commentary is required about the government's interference with the independence of the CNSC in respect of these matters.

As the Minister of Natural Resources acknowledged in response to questions in the House of Commons, the CNSC is a "completely independent agenc[y] of government". The CNSC is, in other words, at arm's length from the government, whether at the departmental or political level. As a creation of statute, the CNSC can only apply the relevant laws and regulations in place at the time a matter is under consideration.

Decisions must be based on the facts and law applicable to a particular matter. The CNSC processes – and the decisions it makes – are required by law to be free from political interference and improper departmental involvement. This is a fundamental, and judicially recognized, principle of institutional independence. Without respect for this principle, the administration of justice is impaired and the integrity of the quasi-judicial process of the CNSC is brought into question.

The nature of the relationship that should characterize dealings between Ministers and agencies within his/her portfolio is best described by the Government of Canada itself in the *Guide Book for Heads of Agencies* where it states:

Ministers exercise varying degrees of control and responsibility for the agencies which are part of their portfolio. The degree of independence from government varies with the type of organization in question, and it is important that Ministers and the officers of each organization understand and respect the relationship defined by the relevant legislation. **Maintaining an arm's length relationship to Ministers is particularly important for those organizations whose mandate is to make**



decisions that determine or regulate the privileges, rights or benefits of Canadians. Governments delegate decision-making powers to these bodies, in part, to preserve public confidence in the fairness of the decision-making process. In turn, the exercise of these powers requires careful attention to ensure that the appropriate degree of independence is maintained.

The nature of the relationship between a Minister and an agency is a particularly sensitive issue for administrative tribunals or other independent decision-making organizations carrying out quasi-judicial functions. These are statutory bodies responsible for administering, determining, establishing, controlling or regulating an economic or business activity, or adjudicating cases that affect individual rights and benefits.

Such organizations must exercise their statutory authority in accordance with government policies and in the public interest. However, because they are called upon to arbitrate among conflicting interests or to settle claims for various benefits, their independence is key to their effectiveness. Normally, Ministers are responsible for the policies governing such organizations, but cannot intervene in specific decisions. Thus, the Minister is answerable in general to Parliament for the activities of the organization, but maintains an arm's length relationship with it. [emphasis added]

Unfortunately, serious questions about the government's respect for the CNSC's independence have arisen in this matter.

For example, in a telephone call from the Minister of Natural Resources on Saturday, December 8, 2007 to the President of the CNSC, the President was told that she needed to immediately convene a hearing by the Commission that afternoon in order to get the NRU back in operation. The President explained to the Minister that, for a variety of reasons, including the incomplete state of the request by AECL for permission to start the reactor with only one pump rather than two, it would not be possible for the Commission to hear and decide the matter in the timeframe demanded.



The Minister's message was clear though: he wanted the Commission to approve the startup of the reactor at the NRU with one pump rather than the two required by the licence held at the time by AECL, even though to do so would require a licence amendment; something that can only be dealt with – according to law – by the Commission after conducting an adjudicative process in which the relevant facts and law are considered. But, given the Minister's comments, there was no doubt in the mind of the President that he was asking that the CNSC allow AECL permission to restart the NRU irrespective of what the Commission determined would be appropriate given the circumstances of the case. More details of this conversation and the meaning the President took from it are discussed later in this Submission.

While there may be some flexibility about the extent to which a government can involve itself in the affairs of administrative tribunals, one thing is beyond doubt: Ministers cannot interfere with a quasi-judicial tribunal by telling it how to hear and decide a case that is, or is expected to be, before that independent decision-making body.

This obligation is made clear to Ministers by the *Accountable Government – A Guide for Ministers and Secretaries of State 2007*, which states that: "Ministers and their staff are also expected not to intervene, or appear to intervene, on behalf of anyone, including constituents, with quasi-judicial tribunals on any matter before them that requires a decision in their quasi-judicial capacity."

Serious concerns about improper interference did not however end with that conversation. In the December 27, 2007 letter from the Minister to the President he states:

"I am concerned that the Commission, in the exercise of its statutory mandate, may not have appropriately considered relevant evidence regarding the impact of the continuing shutdown of the NRU reactor on the health of Canadians. Further, **I require an explanation of why the Commission, under your leadership, persisted in its refusal to consider this relevant evidence even after it was brought to your attention, including the letter sent by Minister Clement and myself** and by the December 10th Directive." [emphasis added]



Here the Minister criticizes - without any factual basis at all - the President and the Commission generally for failing to take into account “relevant evidence” in a matter that was, or was expected to be, subject to an adjudicative process before the Commission. As Courts have repeatedly said, independent decision-makers, such as the Commission members, are required to make decisions based only on the evidence and law before them. Leaving aside the Minister’s lack of clarity and specificity about the nature and content of the “relevant evidence” that he claims was ignored, the letter is an admission that the Minister of Natural Resources had attempted to influence the CNSC in a matter with which it was, or expected to be, seized.

Compounding this disregard for the arm’s length relationship, the Minister has now demanded an explanation about how the CNSC was discharging its statutory and adjudicative responsibilities. While quasi-judicial agencies are not required to answer to Ministers in the manner demanded in this case, it is clear that the allegations cannot go unanswered.

The following record of action over the relevant period shows that the CNSC and its President were, as the regulator of nuclear facilities in Canada, acting prudently and in accordance with the laws in place at the time. It also shows that they were acting expeditiously in an effort to help Canadians who might be affected by the extended shutdown.

Put plainly, the behaviour of both the CNSC and President will withstand the scrutiny of any objective and well-informed assessment.

In order to provide the necessary background and context to explain the events that led to the decision by AECL to shut down the NRU and its decision to keep it in an extended shutdown state, and to the steps taken by Parliament respecting the NRU along with the follow-up by the CNSC once those legislative and regulatory initiatives were undertaken, it is necessary to explain the background and sequence of events.

Once again, this explanation is given without prejudice to the position of the CNSC that neither it, nor the President, are required to provide an explanation to a Minister on matters before the Commission.



4.0 Commission's Decision to License NRU Life Extension

AECL operates the NRU reactor within the conditions contained in the Nuclear Research and Test Establishment Operating Licence for the Chalk River Laboratories ("CRL"). CRL is a nuclear research and test establishment located on the south shore of the Ottawa River near Pembroke, Ontario. The site is comprised of many nuclear facilities, including the NRU reactor that is currently used for research purposes and radioisotope production. The site also comprises shielded facilities for materials handling, a Molybdenum-99 production facility, nuclear fuel fabrication facilities and many radioactive waste management facilities.

The NRU reactor was commissioned in 1957. In 1996, after forty years of operation, AECL informed the CNSC (then known as the Atomic Energy Control Board) that operation of the NRU reactor would not continue beyond December 31, 2005. It was expected that the Canadian Neutron Facility ("CNF") would replace the research capability of NRU and the so-called Dedicated Isotope Facilities ("DIF") including the MAPLE reactors would replace the isotope production capabilities of the NRU. However, because neither the CNF nor the MAPLE reactors were ready to replace the NRU, in 2003 AECL advised the CNSC that it intended to continue operation of the NRU reactor beyond December 2005.

In June 2005, AECL submitted an application to continue operation of the NRU reactor beyond December 31, 2005. The Commission held a public hearing on this matter on October 18, 2005. The purpose of the application was to consider a request for a seven-month licence extension to permit continued operations while detailed analysis and regulatory reviews were completed in respect of AECL's application for a longer NRU life extension until the year 2012. The Commission granted the seven-month extension in its *Record of Proceedings, including Reasons for Decision*, that was issued on November 24, 2005.

Then, on December 16, 2005, AECL submitted its application to the Commission to renew the Nuclear Research and Test Establishment



Operating Licence for Chalk River Laboratories. The application was compiled taking into account discussions with CNSC staff and the most relevant and recent licensing documentation since the previous renewal in 2003. The application requested a 63-month licence period, including the continued operation and life extension of the NRU reactor.

The Commission considered information presented in a public hearing held on April 26, 2006, and June 28, 2006, in Ottawa, Ontario. This public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*. During this two-day public hearing, the Commission received written and heard oral presentations from CNSC staff and AECL as well as oral and written submissions from 37 intervenors.

On July 28, 2006, the Commission released its *Record of Proceedings, including Reasons for Decision* in the matter of the application by AECL for the renewal of the Nuclear Research and Test Establishment Operating Licence for Chalk River Laboratories. Based on the evidence provided in the public hearings, the Commission, pursuant to section 24 of the NSCA, issued the licence renewal to AECL for the CRL facilities. The licence issued is valid from August 1, 2006 to October 31, 2011.

It is important to note that in coming to the decision that the licence should be extended, the Commission had expressed concerns and expectations regarding the design adequacy and continued operation of the NRU reactor. These concerns were, in part, found in paragraphs 98-104 of the Record of Proceedings, including Reasons for Decision.

In particular, paragraph 99 notes that “A comparison of the NRU design and new research reactors showed that the NRU design fell below current standards and practices, particularly in the design of defense-in-depth barriers such as shutdowns, emergency core cooling and confinement.” However, paragraph 102 noted that “AECL’s [updated Safety Analysis Report (SAR)] indicated that the present NRU design, including the **recently completed safety upgrades**, provided adequate protection. [...] The upgraded NRU would not pose an unacceptable risk to the public [...]” [Emphasis added.]



The Commission's decision to extend the operating licence for the NRU reactor was therefore based on the upgrades being essential and in-service at the time of its decision. In turn, the Commission relied on assurances given by AECL that those upgrades had been completed.

5.0 Seven Safety Upgrades, including Emergency Power Supply to Two Heavy Water Pumps

As referred to above, the decision by the Commission to extend the licence was based upon assurances from AECL that upgrades deemed by the CNSC to be essential to meet modern nuclear safety standards had been completed and were in service at the NRU. Those assurances came from AECL who, in written correspondence dated December 23, 2005, confirmed that all seven safety upgrades were completed. A copy of this letter is attached. (See Attachment 1.)

The upgrades were designed to improve the safety of the reactor by providing systems aimed at preventing accidents or, in the event of an accident, mitigating its consequences. The focus of the upgrades was on the critical safety functions needed by a nuclear reactor, that is: the ability to be shut down and to remain shut down; the ability to cool the nuclear fuel and to maintain cooling over the long term; and, to confine any fission products that could be released during an accident.

These safety upgrades include the following:

- Second Trip System (STS) – to provide a second, independent trip system separate from the existing trip and control system;
- Qualified Emergency Response Centre (QUERC) – to provide, in the event of control room unavailability, an alternate, hazards-qualified location for the initiation and monitoring of all special safety systems;
- Liquid Confinement/Vented Confinement (LCVC) – to provide a defined boundary around the reactor and the primary coolant system to confine liquid and gaseous releases under accident conditions;
- Main Pump Flood Protection (MPFP) – to protect the main heavy water pumps from flooding due to major secondary coolant leaks;



- New Emergency Core Cooling (NECC) – to provide seismically-qualified, closed-circuit, long-term cooling of the reactor core after a loss of coolant accident (LOCA);
- Qualified Emergency Water Supply (QEWS) – to provide a back-up source of secondary cooling in the event of a loss of the primary heat-sink; and
- Emergency Power Supply (EPS) – to provide dedicated, seismically-qualified emergency back-up AC and DC power to the upgrades systems.

Each upgrade has a specific purpose; however, it is the integrated operation of all the upgrades that allows the critical safety functions to be delivered. In particular, the emergency power system (EPS) delivers emergency back-up power to all the upgrades systems such that each system can perform its desired function. Of specific note is the unique need for the NRU reactor to have forced (i.e., pumped) cooling at all times (even in non-accident conditions) as opposed to other reactor systems that can be cooled by thermo-siphoning if their cooling pumps become unavailable. Thus, the uninterrupted delivery of power to the Main Heavy Water Pumps P-104 and P-105, as provided by the EPS, was deemed to be essential for the safe operation of the NRU reactor.

6.0 Events and CNSC Actions Surrounding Discovery of the Non-Compliance with Operating Licence

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| October 26, 2007 | During a routine CNSC – AECL NRU facility meeting, CNSC staff inquired about the exact status of non-qualified Class 1 battery back-up systems. |
| November 5, 2007 | As part of follow-up activities, CNSC staff, located on the CRL site, discovered a statement in the NRU electrical system operating manual indicating that pumps P-104 and P-105 were not connected to the EPS. This was a surprise to CNSC staff as they were under the impression, given assurances by AECL to this effect, that the pumps were connected. |



The initial assumption by CNSC staff was that the manual was out-of-date so confirmation on the status was sought from AECL. CNSC therefore followed this matter up with AECL.

- November 7, 2007 AECL confirmed in writing that the pumps were not connected to the EPS.
- November 8, 2007 During a routine CNSC – AECL monthly meeting in Deep River, a specific agenda item was added to discuss the issues relating to the pumps. At the meeting, AECL confirmed that the pumps were not connected to the EPS. CNSC staff reminded AECL that the connections of P-104 and P-105 to the EPS were part of the licensing basis for the facility and that they were deeply concerned that there was a disconnect between the physical condition of the facility and the licensing and safety basis for the facility. CNSC staff requested that AECL conduct an assessment to ensure itself and the CNSC that it was safe to operate the reactor. CNSC staff also informed AECL staff that this matter would be reportable as a licence violation according to the CNSC's S-99 reporting procedures.
- November 14, 2007 AECL made a verbal report to the CNSC and indicated that OPG's Technical Operability Evaluation (TOE) process would be used and a root cause analysis would be completed to determine the causes of this event.
- November 15, 2007 CNSC staff formally documents the verbal report made by AECL under licence condition 10.7 (S-99 reporting requirements).
- November 15, 2007 CNSC staff sent a letter to AECL requesting a description of the TOE process and daily updates on the inputs and outputs of the process.



- November 16, 2007 AECL informed CNSC staff of the initial conclusions from the TOE process indicated that they were operating “within their safety envelope” and that AECL planned to restart the reactor later that day following a shutdown due to a reactor trip. The reactor was restarted later that evening but was scheduled for its routine maintenance on November 19, 2007.
- November 19, 2007 The NRU reactor was shutdown by AECL for its regular four-day maintenance activities.
- November 19, 2007 AECL submitted to the CNSC the inputs to the TOE process and its ImpAct report which confirmed CNSC staff’s concerns regarding the disconnect between the licensing basis and the physical condition of the facility.
- November 21, 2007 CNSC and AECL held a teleconference where the CNSC staff’s concerns were explained. AECL informed CNSC verbally of their decision to keep the reactor shutdown in order to investigate the matter further.
- November 22, 2007 AECL informed the CNSC in writing that the reactor would not be restarted and that it would remain in extended shutdown to continue the installation of qualified motor starters for P-104 and P-105.

At this point, CNSC staff initiated routine internal processes to present a so-called “Significant Development Report” (SDR) for the Commission’s attention and consideration at a public meeting that was scheduled for December 6, 2007.

To be clear on this point, the decision to keep the NRU in an extended



shutdown was made by AECL, and AECL alone. Meanwhile, CNSC staff and AECL were working closely on timelines for installation of both pumps.

November 27, 2007 CNSC and AECL Senior Management met to discuss the issue. At the meeting, AECL introduced an option to operate the NRU reactor with only one pump (P-105) for a period of time until parts for the P-104 arrived. The option involved staging the second pump connection during regular shutdowns.

As AECL understood, connection of one pump rather than two would be a deviation from its licensing conditions and would therefore require a licence amendment. In order to amend a licence under the NSCA, applicants are required to present information to support that request including, in this instance, a comprehensive safety case.

CNSC and AECL determined that working-level staff would continue to meet on the safety case and that senior management would meet to discuss compliance of the proposed configuration with the licensing basis.

CNSC staff sent a letter to AECL requesting the schedule of work to be completed in the extended shutdown and, if the scope of the work did not include the full-scope tie-in of both pump connections to EPS, the supporting safety case for the proposed facility configuration to restart the reactor and how the licensing basis would be met for that new configuration.

In light of the above, CNSC staff submitted the SDR CMD 07-M38.A regarding "Atomic Energy of Canada Limited: NRU Reactor in an extended shutdown state due to facility not matching the safety analysis report" for the Commission meeting of December 6,



2007.

- November 29, 2007 According to the usual practice, the SDR CMD 07-M38.A was communicated to both staff in the Minister's Office and officials at Natural Resources Canada.
- November 29, 2007 AECL submitted an incomplete safety case for the one pump option to the CNSC. However, upon immediate review of that safety case, CNSC staff did not feel that it was sufficiently complete and that it contained material informational deficiencies.
- November 30, 2007 Two meetings were subsequently held between the CNSC and AECL. A morning meeting was held to discuss the safety case for the one pump option. A list of actions was raised at the meeting for AECL to submit additional information to support the safety case. An afternoon meeting was held to explain the licensing basis. The CNSC confirmed with AECL that connection of both pumps was part of the licensing basis. AECL now disagreed stating that the connection was not part of the upgrades contained in the licensing basis and considered it an "enhancement" to the upgrades. AECL also then undertook to perform a gap analysis to determine if there were any other inconsistencies between the safety case / licensing basis and the status of the facility.
- December 2, 2007 AECL reversed itself on whether it would pursue the one pump option. It informed the CNSC in writing that AECL had decided not to continue to pursue the one pump option and that the reactor would remain shutdown while every effort was placed to "complete the full conversion to the seismically qualified EPS system" as AECL's intention was "to start up fully within the documented Design Basis (safety



analysis) and Licensing Basis.” AECL informed the CNSC of this decision so as not to “waste any resources” on the one pump option and requested that CNSC not release further information on their decision until they had the opportunity to communicate their decision to affected stakeholders.

December 4, 2007

A press release was subsequently issued by AECL, entitled “AECL Provides Status Report on NRU Reactor”. This clearly stated that “A decision was made to remain in shutdown and make the modifications required...” and “AECL recognizes the important role NRU plays in the supply and delivery of medical isotopes...” and “ We understand that patients will be impacted by this development” . This clearly shows that AECL accepted responsibility for this incident.

December 5, 2007

The Minister of Natural Resources requested a teleconference with President Keen to discuss the issue. Participants for the CNSC included Executive Vice-President and Chief Regulatory Officer as well as the Secretary of the Commission. Participants with the Minister included his Chief of Staff and the Deputy Minister. The Minister explained that he understood that “AECL had dropped the ball” on this issue and asked what the Commission and CNSC were doing to help resolve the issue. President Keen informed the Minister that the Commission was receiving its update on the matter at its public meeting being held on December 6, 2007. However, she explained that the CNSC staff were working with AECL on the issue and that the staff were also working on amendments to licences for hospitals for alternate supplies of isotopes. She also reiterated that resources were prioritized to respond to this issue. She, and the CNSC, were mindful of the health consequences arising out of the extended



shutdown of the NRU and were doing what they could, within their legislative and regulatory powers to address this concern. According to follow-up call with staff in the Minister's Office, the call was deemed "useful". It was determined that staff from the Minister's Office and the Department would attend the public meeting.

7.0 Commission Meeting of December 6, 2007

On December 6, 2007, at a regularly scheduled public meeting of the Commission, the CNSC staff presented its SDR CMD 07-M38.A to the Commission. Staff from the Minister's Office and the Department attended the Commission's public meeting, which also received much media attention. The meeting was not a hearing to consider licence amendments. Rather, it was intended that the Commission would receive information relevant to the SDR.

During the Commission meeting, CNSC staff informed the Commission that it agreed with AECL's extension of the shutdown and that a high-priority had been assigned to having sufficient resources needed to respond to AECL's submissions. AECL informed the Commission that it had kept the reactor in shutdown state and was developing a way forward to put the NRU reactor back in service safely and as quickly as possible with both connections in place in order to be in full compliance with the licensing basis for the facility.

Specifically, AECL representatives at the meeting stated that "We've examined a number of those options and we believe that the most expeditious route to us right now and the most prudent, from a safety perspective, is to perform the upgrades to both those pumps at this time."

The Commission queried both CNSC staff on their findings and AECL on their timetables and understanding of the licensing basis. For their part, AECL indicated it was undertaking a root cause investigation in order to examine the organizational issues that led to the disconnect between the physical condition of the facility and the licensing basis of the facility. The



CNSC staff undertook to complete a lessons learned in order to “examine the performance of CNSC staff over the period leading up to and pursuant to the Commission decision to renew the NRU licence (thus allowing the NRU to remain operational), as well as the subsequent period leading up to AECL’s decision to shut down the NRU; and identify recommendations for improvements in CNSC performance.”

At the conclusion of the meeting, the Commission understood that AECL was committed to implementation of the option of both pump connections in order to bring the NRU reactor into compliance with its licensing basis. Were AECL to have done so, the restart of the reactor was within the authority delegated to designated CNSC staff to approve.

There was no request for an amendment to the operating licence at the meeting on December 6, 2007, to allow for the operation of the facility with only one pump connected to the EPS. The transcripts of the Commission’s meeting are a matter of public record and are available on the CNSC’s external website.

8.0 Resurrection of the One Pump Option

On December 7, 2007, AECL senior management reversed itself again. On that date, it verbally informed the CNSC of its intention to operate the NRU reactor with only one pump. This route was selected despite reminders from CNSC staff that the information identified on November 30, 2007 for the supporting safety case had not yet been completed. Later that same day, a letter was sent by AECL to the President of the CNSC requesting a response before December 11, 2007, to proceed with an amendment to the existing operating licence for the Nuclear Research and Test Establishment Operating Licence for Chalk River Laboratories in order to reference a revised safety case for one pump operation of the NRU reactor.

The information was incomplete and insufficient to either request a hearing with the Secretariat of the Commission or to support a licence amendment. Despite the absence of a complete licence amendment request, it was clear that AECL intended to pursue a request for a licence amendment and to have it heard by the Commission on an expedited basis.



Consequently, during the ensuing weekend of December 8-9, 2007, CNSC staff worked with AECL to reaffirm the scope of the outstanding information, which had previously been discussed at the meeting held on November 30, 2007, in order to complete the new safety case. The table of information requirements was exchanged with AECL on Sunday December 9, 2007. At that time, AECL indicated that the required information could be submitted to the CNSC by close of business on Thursday December 13, 2007.

In the afternoon of December 8, 2007, the Minister's Office requested a written brief on the status of the NRU reactor. This was provided and then followed by a request from the Minister's Office for a conference call between the Minister of Natural Resources Canada and the President of the CNSC along with officials. This conference call proceeded with the President and the responsible CNSC Director General. Several officials participated with the Minister including his Chief of Staff, the Deputy Minister and the Assistant Deputy Minister of the Energy Sector as well as other officials from the department.

The Minister, whose manner was abrupt and demanding, started the call by requesting that the Commission immediately convene in order to permit the restart of the NRU reactor. The President informed the Minister that the CNSC was still awaiting a licence amendment application and accompanying safety case from AECL in order to allow the Commission members to properly assess the merits of the amendment application.

The Minister stated that the process "could take weeks" but the President and CNSC staff reiterated that effective communications were underway between AECL and CNSC to confirm scope of the information and that the Commission was prepared to undertake expedited processes once necessary information was available. The Minister then requested information on the safety of the reactor and why the upgrades were necessary. The President and participating CNSC official explained the integrated nature of the safety upgrades. The Minister was clearly frustrated with the responses given by the CNSC official and the President.

There was no question in the minds of the President and the CNSC official with her on the call that the Minister wanted CNSC to immediately approve



restarting of the reactor. The Minister then abruptly left the call, leaving his officials to continue a series of questions along similar lines. Like the Minister, their questions were aggressive and showed significant frustration for the answers being provided by the President and her accompanying official.

Daily written updates were then provided from December 8-10, 2007, through the Minister's Office and the Privy Council Office.

On December 9, 2007, AECL and CNSC confirmed a table of information that would complete the safety case for the one pump option. Initial projections from AECL were that it would take them until close of business on Thursday December 13, 2007, to supply the necessary information.

A telephone call was also held between President of the CNSC and Deputy Minister of Natural Resources Canada in the evening on December 9, 2007. The Deputy Minister informed the President that she would receive a letter from the Minister of Natural Resources and the Minister of Health requesting the CNSC to "show flexibility" and to balance reactor safety and patient impact. While the term "show flexibility" was never fully explained by the Deputy Minister, the President took this to mean that the Commission should do what was needed to get the NRU reactor started again. The President also requested clarification of what was meant by "patient impact". The Deputy Minister explained that surveys needed to provide this information were still under preparation within Health Canada. To date, there has been nothing presented to CNSC in respect of that matter.

The Deputy Minister was reminded by the President of the legal mandate of the CNSC and the process by which licence amendments are dealt with. The Deputy Minister also expressed her concern about the slowness of this process. Finally, the President also suggested that a joint meeting between CNSC and AECL along with Departmental officials and government representatives would be beneficial. Nothing was done with this proposal.

In the updates to both the Minister and the Deputy Minister of Natural Resources Canada, the President stressed that the CNSC placed a high-priority on the assignment of resources to address the NRU reactor issue. She stressed that information was incomplete to support the new safety



case for one pump operation and that Commission approval would have to be sought and received for the new approach.

On December 10, 2007, communications were sent in writing to AECL from senior management of the CNSC informing AECL that:

- a) The CNSC had not yet received the required information and supporting complete safety case;
- b) Until such time as this evidence was received, the CNSC staff and Commission would not be in a position to consider the matter under section 24 of the NSCA;
- c) The Secretariat of the Commission was prepared to receive a submission and the Commission would vary its rules of procedure in order to hear the matter as expeditiously as possible.

Also on December 10, 2007, a joint letter was received by the President from the Minister of Natural Resources and the Minister of Health expressing “concern” over the continued shutdown of the NRU reactor and recognizing that “the best solution for Canadians would be to have the NRU up and running again as expeditiously and safely as possible.” In a separate letter to AECL, the Ministers recognized that “[AECL] has submitted a safety case to the CNSC and understand that further information is required. We need you to work constructively with the regulator on an urgent basis to provide this information to allow an expedited review by the regulator.” The government therefore acknowledged that a fully complete licence amendment request had not yet been received and the Commission could not properly consider such an application until that had been submitted.

In the early evening of that same day, December 10, 2007, the President of the CNSC responded to both Ministers as follows:

- Assuring that the CNSC was acutely aware of the importance of the beneficial use of radioisotopes;
- Indicating actions within mandate of the CNSC to assist health sector to deal with current situation including assistance to the hospitals and clinics which use radioisotopes with licence amendments to use



alternate supplies where available and measures taken to facilitate the import of isotopes into Canada to increase the supply;

- Noting the Commission's serious concerns regarding the safety of the 50 year-old NRU reactor when its former licence was due to expire but recalled the issuance of the new licence in respect of the NRU based on specific assurances from AECL that its safety case was complete and that the seven safety upgrades were completed;
- Summarizing the meeting of the Commission on December 6, 2007;
- Clarifying that the CNSC had not received a complete safety case for the single pump option and that both AECL and CNSC staff were working on the material necessary to evaluate this safety case;
- Committing that the Commission would immediately convene a hearing to rule on the application once AECL submitted a request to amend its licence with a complete safety case and CNSC staff had submitted their assessment of the application; and
- Offering, in order to ensure effective communication on this important issue, for CNSC staff to meet government officials and AECL in one room to clarify matters on this issue.

9.0 Withdrawal of Legal Services from the CNSC

Following a routine executive meeting of the CNSC, on the morning of Monday December 10, 2007, the acting General Counsel of the Legal Services Unit of the CNSC verbally informed the President and the executives of the CNSC of the withdrawal of legal services by the Department of Justice from the CNSC on the AECL file. This action was subsequently confirmed by e-mail from the President to the acting General Counsel.

On December 11, 2007, the President of the CNSC informed the Department of Justice that the withdrawal of legal services, without notice, from the CNSC was restraining the ability of the Commission to perform its quasi-judicial administrative functions as mandated under the NSCA. It was communicated that there would be an impact on the Commission's and the CNSC staff's abilities to respond to issues pertaining to the NRU issue.



Later that same day, the Deputy Minister of the Department of Justice responded indicating that “there is a potential conflict, real or perceived, between the interests of the Commission and those of the Government, and hence that it is essential for the Commission to have independent legal advice in respect of all matters pertaining to the shutdown of the NRU reactor.”

Subsequent correspondence was received from the Department of Justice on December 13, 2007, indicating that the Department of Justice was “doing its utmost to provide the CNSC with legal services in a manner that respects the independence of the CNSC and the professional obligations of legal counsel.” Furthermore, the letter stated: “The Department of Justice is currently advising the Government of Canada in relation to [the NRU shutdown] and we are therefore not in a position to provide the CNSC with legal advice to the same matter.”

In order to provide it with advice on these matters, the CNSC retained independent counsel on December 10, 2007. As can be surmised, independent counsel was not familiar with the particular issues being dealt with, although every effort was made by them to provide advice on the rapidly changing events at that time.

10.0 Issuance of the Directive

On December 11, 2007 the government tabled in the House of Commons the *Directive to the Canadian Nuclear Safety Commission Regarding the Health of Canadians*.

The Directive was issued pursuant to s. 19 of the NSCA and stated:

DIRECTIVE TO THE CANADIAN NUCLEAR SAFETY
COMMISSION REGARDING THE HEALTH OF
CANADIANS

1. In regulating the production, possession and use of nuclear substances in order to prevent unreasonable risk to health of persons, the Canadian Nuclear Safety Commission shall take into account the health of



Canadians who, for medical purposes, depend on nuclear substances produced by nuclear reactors.

2. This Directive comes into force on the day on which it is registered.

There was no prior consultation or discussion with the CNSC regarding the content of the Directive nor that one was even being considered. This was the first time that any Directive under s. 19 had been issued pursuant to the NSCA.

Despite being taken totally by surprise by the issuance and substance of the Directive, once it was received at approximately 11h00 on December 11, 2007, the President undertook immediate steps to understand what it meant to the CNSC's mandate and how it might be taken into account when dealing with licensing issues. For example, she immediately requested a legal opinion about the meaning and scope of the Directive from the CNSC's independent counsel.

The President also tentatively planned to have a special public meeting of the Commission on Thursday December 13, 2007, to review and discuss the Directive.

However, even before the special meeting of the Commission could be arranged, early in the afternoon of December 11, 2007, the CNSC was *informed* that draft legislation was being readied for introduction into the House later that day. An informal copy of the legislation was received in the afternoon.

Since the introduction of the Directive, independent counsel has met with CNSC officials to discuss the meaning and scope of the Directive and to provide some guidance on how it can be interpreted and applied to its licensing activities. As well, independent counsel has met with the CNSC's Legal Services Unit to discuss issues related to the Directive given that its impact reaches beyond the circumstances involving the NRU reactor alone.

The Directive was subsequently published in the December 26, 2007, version of the Canada Gazette, with an explanatory note. There was no consultation or discussion with CNSC with respect to this explanatory note.



In fact, as previously stated, it was not part of the Directive delivered to CNSC on December 11, 2007, nor part of the Directive tabled with the House of Commons on December 11, 2007.

11.0 Introduction of the Legislation and the COWs

Throughout the afternoon of December 11, 2007, the CNSC received conflicting informal information on possible motions and activities in Parliament. Noteworthy is that an appearance by the CNSC in the Natural Resources Committee of the House of Commons had tentatively been scheduled for Thursday December 13, 2007.

In mid-afternoon, CNSC staff received a draft copy of Bill C-38 respecting *“An Act to permit the resumption and continuation of operation of the National Research Universal Reactor at Chalk River.”* Upon receipt of the draft legislation, a preliminary review was undertaken by the CNSC and its independent counsel. As in the case of the Directive, given the withdrawal of the CNSC’s Legal Services Unit, the CNSC and the President were unable to take advantage of their historical and subject matter expertise.

The CNSC was neither consulted in advance nor given an opportunity to provide comments on the contents of the Bill. It was clear though that the Bill, as drafted, would eclipse any need for the Commission to consider a licence amendment from AECL allowing it to operate the NRU reactor with only one pump for 120 days.

At approximately 16h00 on December 11, 2007, the President of the CNSC received a telephone call from the Deputy Minister of Natural Resources Canada requesting that she appear at a special meeting of the Committee of the Whole (COW) of the House of Commons later that evening.

The House began its sitting as the Committee of the Whole at 19h33 and adjourned at 23h35 on December 11, 2007. The exchanges and outcomes are a matter of public record, with copies of the transcripts available in the Hansard for that date.



In the morning of December 12, 2007, CNSC staff then attempted to confirm the possibility of a similar Senate Committee of the Whole, which was confirmed mid-morning for later that afternoon.

The Senate began its consideration of Bill C-38 by a Committee of the Whole at 16h00 and discussed the matter until 20h10 on December 12, 2007. The exchanges and outcomes are a matter of public record, with copies of the transcripts available in the Hansard for December 12, 2007.

Given the timelines indicated above, it is patently clear that the CNSC could not have done anything in respect of the Directive in regards to any potential licence application, including one involving the NRU reactor in the timeframe suggested by the Minister in his letter of December 27, 2007. It was only a matter of hours from the time the Directive was tabled on December 11, 2007 until Bill C-38 was introduced in the House.

Despite the impossibility of taking the Directive into account in relation to the NRU reactor before the introduction of Bill C-38, the CNSC and Commission will have due regard to its contents in the future when dealing with licensing matters, irrespective of who the licence holder may be.

12.0 Follow-up Actions by the CNSC

Following the passage of the legislation, relevant CNSC staff, especially those staff located on the CRL site, were provided direction on how to continue to perform regulatory oversight function of the CRL facilities, including the NRU reactor with the exception of the one pump connection pursuant to C-38.

The Minister of Natural Resources sent a letter to the President of the CNSC on December 12, 2007, indicating that the length of time it took for the CNSC and AECL to inform the Government of Canada was “unacceptable” and that steps should be taken to avoid this in future. Given that CNSC had communicated information to the Minister’s office about the extended shutdown of the NRU reactor on November 29, 2007, the Minister’s criticism was, once again, baseless. Nevertheless, and in a spirit of portfolio cooperation, the President offered in her response of December



14, 2007, to develop new protocols for communicating information with his office, but, to date, no response to this offer has been received. Several reports were filed by the CNSC after December 12, 2007, and acknowledged by the Minister's office, on issues including a reactor trip causing a shutdown and two earthquakes in the region.

At the suggestion of the President of the CNSC, weekly meetings between CNSC and AECL senior management have been agreed to and scheduled. The first meeting occurred on December 21, 2007, at AECL CRL, but the follow-up meeting of December 28, 2007 was mutually cancelled. A second meeting was held on January 4, 2008, by conference call. The President of the CNSC wrote to the new Chair of the Board and incoming new President of AECL on December 17, 2007, offering to meet with them to discuss AECL licensing matters. No response has been received.

When appearing before the House and Senate COWs, the President committed to undertake a lessons learned process. The purpose of this review process is to examine the performance of CNSC staff over the period leading up to and pursuant to the Commission Tribunal decision to renew the NRU licence (thus allowing the NRU to remain operational), as well as the subsequent period leading up to AECL's decision to shut down the NRU; and identify recommendations for improvements in CNSC performance.

The scope of the review is intended to:

- Clearly identify the current regulatory basis for licensing the NRU, CNSC staff recommendations to the Commission, and the approved safety case as it relates to the two-pump backup configuration. This review should include how the licensing basis was determined;
- Review elements of the 2006 NRU licence renewal: Commission Member Documents and supporting information (including safety system upgrade documentation), transcripts, minutes and Records of Decision, and other applicable documentation;
- Investigate how compliance was enforced regarding the emergency power supply and other safety system upgrades;
- Identify the nature, frequency and quality of communication among CNSC staff, AECL, and any other stakeholders on NRU safety



upgrade requirements and progress of work from 2005 and beyond;
and

- Ascertain the nature and extent of consultations between AECL and CNSC staff on the workplan (including timelines) to carry out these upgrades, with emphasis on the emergency power system.

A team of CNSC staff is being assembled and will be led by an external resource expert in the field of regulatory operations. It is expected that the team will review all pertinent background documents including, but not limited to:

- technical documents related to NRU licensing matters, including licence amendments allowing for extended NRU operations, and CNSC staff follow-up on required AECL actions;
- information submitted in support of the licence application as issued August 2006, including safety cases submitted by AECL and the results of CNSC staff reviews of this material;
- Commission hearing transcripts, Records of Decision and Commission Member Documents;
- meeting notes or correspondence, specifically with respect to the requirement and planning for connection/commissioning of the two main heavy water pumps to the NRU's emergency power system;
and
- information and compliance findings in support of the NRU's continued operation.

The terms of reference for the lessons learned process are available on the CNSC's external website. The results of this lessons learned process will be made public by the CNSC.

13.0 Follow-up Actions by the Commission

The President of the CNSC and the Secretary of the Commission briefed Commission Members, individually and collectively, during the period from December 10-12, 2007, and has since instituted weekly telephone calls to keep them apprised of all relevant details, including briefings on the Directive and the new legislation as well as on-going actions of the CNSC



staff. They have also been kept apprised of correspondence with the Government and media attention on this issue.

The Commission will receive a formal update from CNSC staff on this issue by means of an updated Significant Development Report during a public meeting to be held during its hearings in Oshawa, Ontario, on January 9, 2008.

The original Significant Development Report for the NRU discussion at the Commission Meeting of December 6, 2007 as well as its updated version for the January 9, 2008, Commission meeting are both attached to this document. (See Attachments 2 and 3.)

As of January 8, 2008, there have been no contacts with the President of the CNSC requested by either the Chair of the AECL Board or the President of AECL.

* * *

Attachments Follow

* * *

End of Narrative Document