



Preliminary Survey of Risk Management Audit Report

Office of Audit and Ethics
July 2010

E-DOCS-#3554504



Table of Contents

Executive Summary	i
1.0 Introduction and Purpose	1
2.0 Background	1
3.0 About the Preliminary Survey	3
Objective	3
Scope	3
Audit Criteria	3
Methodology	4
4.0 Observations	4
Context - Risk Management at CNSC	4
Inherent Risk	6
External Requirements	7
Audit-ability	7
5.0 Recommendations	7
Management Response and Action Plan	8
6.0 Challenges and Barriers for Integrated Risk Management	10
Organizational Culture	11
Appropriate Resource Levels	11
Appendix A – Application of RM Capacity Assessment Model	12

Executive Summary

The Canadian Nuclear Safety Commission's (CNSC) 2009-2010 Risk-Based Audit Plan calls for a Preliminary Survey of Risk Management (RM). The preliminary survey was conducted by consultants, in conjunction with an Audit Manager at CNSC to determine the degree in which CNSC was implementing the Treasury Board of Canada Secretariat's (TBS) *Integrated Risk Management Framework* (IRMF) and identify potential areas for management focus in moving RM forward within the organization. Based on the results of the preliminary survey along with CNSC's external requirements and audit-ability criteria, a recommendation was made on whether to conclude at this stage or to continue with a full audit.

In 2001, TBS released an *Integrated Risk Management Framework* and was accompanied in 2004 by an *Implementation Guide*. The Framework is designed to strengthen risk management practices within the Public Service by providing departments and agencies with an approach to integrating RM into an organization's decision-making process and managing risk on an aggregate basis, while allowing organizations the flexibility to develop their own approaches that meet their unique operating environment. CNSC was assessed against the expectations outlined in these guidance documents.

Overall, the audit team found that CNSC has made strong progress in the last three years in implementing a more systematic approach to integrating RM into decision-making that is consistent with the expectations set out in the IRMF. CNSC officials have demonstrated risk awareness and a willingness to respond to opportunities to improve RM across the organization. CNSC has made progress to better integrated RM into strategic priority setting through the Harmonized Plan (HP) Initiative and applied RM across operational activities with the development of risk-informed decision making (RIDM) methodologies. There are, however, opportunities identified to further develop integrated risk management throughout the organization. The five areas for improvement include:

- Reinforce and formalize management commitment by clearly articulating the roles and responsibilities including senior committees' terms of reference and senior managers' performance contracts.
- Incorporate RM into planning improvements by updating and approving the corporate risk profile (CRP) to be used to improve and align other strategic planning initiatives.
- Ensure RM is embraced in the Harmonized Plan initiatives to ensure that RM is incorporated, where appropriate, to all HP initiatives underway or in the future to ensure RM is built into new practices.
- Further the integration of strategic and operational RM activities by improving top-down communication of risks identified in the CRP impacting operations and bottom-up communication for effective sharing, transferring, and communication of risk information.
- Promote consistent risk-based operational methodologies to ensure the application of risk-informed decision making processes across Regulatory Operations Branch (ROB) directorates are consistent where appropriate.

Recommendations

Based on the results of the preliminary survey, it is recommended that an audit of risk management be scheduled for inclusion in the CNSC Risk-Based Audit Plan, but given the pace of change related to RM in CNSC, it would not be appropriate to audit RM at this time. In the meantime, it would be advantageous to the organization and the deputy head if:

- Internal audit incorporate, where appropriate, an evaluation of the effectiveness of risk management processes into the conduct of their audits;
- Strategic Planning Directorate review the risk assessment of this preliminary survey and develop an action plan to further progress the risk management function within CNSC, along the lines set out above;

- Strategic Planning Directorate work with the Directorate of Regulatory Improvements and Major Projects Management, (responsible for the Harmonization Plan) to assess how RM is being incorporated, as appropriate, into each project, within the Harmonized Plan, and periodically report on its progress; and
- After the main elements of the plan are in place, Internal Audit revisit this preliminary survey and consider the appropriate timing for an audit of RM, possibly in 2011. Possible lines of enquiry would reflect the inherent risk areas identified during this preliminary assessment, appropriately updated. Potential lines of enquiry could be:
 - IRM governance arrangements;
 - The application of IRM to CNSC business planning;
 - Risk communications and sharing; and
 - Operational risk management.

1.0 Introduction and Purpose

The Office of Audit and Ethics conducts preliminary surveys, reviews, and internal audits to provide objective, substantiated conclusions as to how well the CNSC's risk management, control, and governance processes are designed and working. The focus of internal audit activities is on all management systems, processes, and practices, including the integrity of financial and non-financial information.

The 2009-2010 Risk-Based Audit Plan calls for a Preliminary Survey of Risk Management (RM) at the Canadian Nuclear Safety Commission (CNSC). Consultants, in conjunction with an Audit Manager at CNSC, were responsible for planning, conducting, and reporting on this topic.

The purpose of this document is to present the findings of the assessment of CNSC's progress in implementing integrated risk management (IRM). The report:

- Provides an overview of the government priority for risk management;
- Considers CNSC's operating environment, including the department's many transitional and risk related initiatives;
- Outlines the objects and scope of the preliminary survey;
- Describes the methodology that was used to carry out the preliminary survey;
- Presents an overall assessment of the progress CNSC has made in implementing IRM;
- Makes recommendations on the possible timing for a future audit of risk management; and
- Outlines potential challenges and barriers for management to overcome in moving forward.

2.0 Background

Risk Management Expectations

The Treasury Board of Canada Secretariat (TBS) has provided policies and guidelines to help departments and agencies with the process of developing their risk management capacity, including:

- The 2001 *Integrated Risk Management Framework* (IRMF), which supports an environment of responsible risk-taking, while ensuring legitimate precautions are taken to protect the public interest, maintain public trust, and ensure due diligence;¹
- The 2004 *Integrated Risk Management Implementation Guide*, which provides information on getting started, assessing organizational readiness, developing the corporate risk profile (CRP), establishing the function, practicing IRM, and supporting continuous RM learning²; and
- The 2009 *Draft Framework for the Management of Risk*, which is intended to replace the 2001 Integrated Risk Management Framework, will support the integration of risk management into the decision-making processes at all levels and foster a culture of responsible risk-taking that contributes to the achievement of organizational objectives and the improvement of outcomes. It is expected that a companion Guide to Integrated Risk Management will also be issued shortly.

In an effort to embed and integrate risk management into all organizational activities, TBS has also incorporated risk management to underpin numerous other policies, directives, and guides as part of their Policy Suite Renewal Initiative. These include, but are not limited to, the *Policy on Internal*

¹ Treasury Board of Canada Secretariat. (2009). *Integrated Risk Management Framework*. Retrieved from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12254>

² Treasury Board of Canada Secretariat. (2004). *Integrated Risk Management Implementation Guide*. Retrieved from http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/riskmanagement/guide-eng.asp

*Control, Policy on Internal Audit, Policy on Evaluation, Policy on Transfer Payments, Policy on Investment Planning, and Policy on the Management of Projects.*³

As a result of recent Management Accountability Framework (MAF) assessments, there is recognition of the need for greater TBS leadership and support in the RM community. This has been apparent over the last few years, as common tools and processes were made available to departments, and stronger community sharing and communication processes were established. Government-wide attention to risk management has increased substantially in recent years and annual MAF assessments have been progressively setting the bar higher.

Internal Audit Oversight Expectations

The objective of the 2009 *Policy on Internal Audit* is to support strong and accountable public sector management by ensuring effective internal auditing within departments and across government. In particular, the 2009 policy calls for:

- Assurance that departmental internal audit and audit committees provide deputy heads with added assurance and advice, independent from line management, on risk management, control, and governance processes;
- Internal audit to add value by assessing and making recommendations on the effectiveness of mechanisms in place to ensure that the organization achieves its objectives and in a way that demonstrates informed, accountable decision-making with regard to ethics, compliance, risk, economy, and efficiency; and
- The internal audit profession to contribute to the basis by which decision-makers achieve oversight and control of their organizations, apply sound risk management, target their attention to areas in need of improvement, and demonstrate accountability.

A key requirement of the policy is that Chief Audit Executives provide an independent annual assurance report to the deputy head on the adequacy and effectiveness of risk management, control, and governance processes within the department.

CNSC's Operating Environment

Established in 2000 under the *Nuclear Safety and Control Act*, the Canadian Nuclear Safety Commission is an independent regulatory agency with powers of a quasi-judicial nature that has jurisdiction over all nuclear-related activities and substances in Canada. Specifically, CNSC's mission is to regulate the use of nuclear energy and materials to protect the health, safety, and security of Canadians as well as the environment, and respect Canada's international commitments on the peaceful use of nuclear energy.⁴

Under the *Nuclear Safety and Control Act*, CNSC's mandate involves four major areas:

- Regulate the development, production, and use of nuclear energy in Canada to protect health, safety, security, and the environment;
- Regulate the production, possession, use and transport of nuclear substances, and the production, possession, and use of prescribed equipment and prescribed information;
- Implement measures respecting international control of the development, production, transport, and use of nuclear energy and substances, including measures respecting the non-proliferation of nuclear weapons and nuclear explosive devices; and
- Disseminate objective scientific, technical, and regulatory information about the activities of CNSC and about the effects of those activities on the environment and the health and safety

³ Treasury Board of Canada Secretariat. (2009). *Policy Suite Renewal Initiative*. Retrieved from <http://www.tbs-sct.gc.ca/prp-pep/psri-irp-eng.asp>

⁴ Canadian Nuclear Safety Commission. (2009). *About CNSC*. Retrieved from <http://www.cnsccsn.gc.ca/eng/about/index.cfm>

of persons, and of the development, production, possession, transport, and use of nuclear substances.⁵

The effective management of risks associated with nuclear energy and substances is fundamental to the achievement of CNSC's mandate. CNSC practices have been built on RM concepts and principles, and CNSC has a long tradition of experience with, and excellence in, effective RM. The Commission continually improves its practices in order to reduce risks to an acceptable level through the integration of several organization-wide lessons learned or improvement initiatives in the Harmonized Plan as well as the participation in national and international fora to strengthen technical and policy expertise.

CNSC is an independent voice in science-informed risk discussions and demonstrates an open and transparent approach to the assessment, management, and communication of risk matters. CNSC must continue to communicate effectively with Canadians and stakeholders about emerging risks.

CNSC, like many science-based, regulatory organizations, operates in a complex and dynamic environment, and is responsible for the delivery of highly sophisticated, extremely visible, high profile services. Organizations of this nature need to be agile, adaptable, and professional, and rely heavily on the proper functioning of internal relationships and culture to ensure that the systematic application of professional judgement is applied to risk management problem solving and decision-making within the organization.

3.0 About the Preliminary Survey

Objective

The objective of this preliminary survey of risk management is to determine the degree of progress within CNSC in implementing the Treasury Board of Canada Secretariat's *Integrated Risk Management Framework*. Additionally, the preliminary survey provides insight into key areas for management focus and the challenges and barriers to overcome in moving forward. The preliminary survey concludes with a recommendation on whether a full audit of risk management at CNSC is appropriate at this time.

Scope

The scope of the preliminary survey of risk management at CNSC encompassed all of CNSC's risk management activities at the operational and strategic levels in place between January and May of 2010.

Note: as part of this preliminary assessment, regional operational staff were not interviewed and the observations that follow do not encompass their views. Approach and Methodology

Audit Criteria

To determine whether an audit of risk management is appropriate at this time, the analysis focused on the following three key considerations:

- Inherent risk associated with RM in CNSC;
- External requirements, such as legislation, TBS policies or best practices, that would establish an expectation for an audit of risk management; and
- Audit-ability, which provides a measure of the stability or complexity of this area.

The sum of these three considerations culminated in the determination of the whether an audit should be conducted at this time.

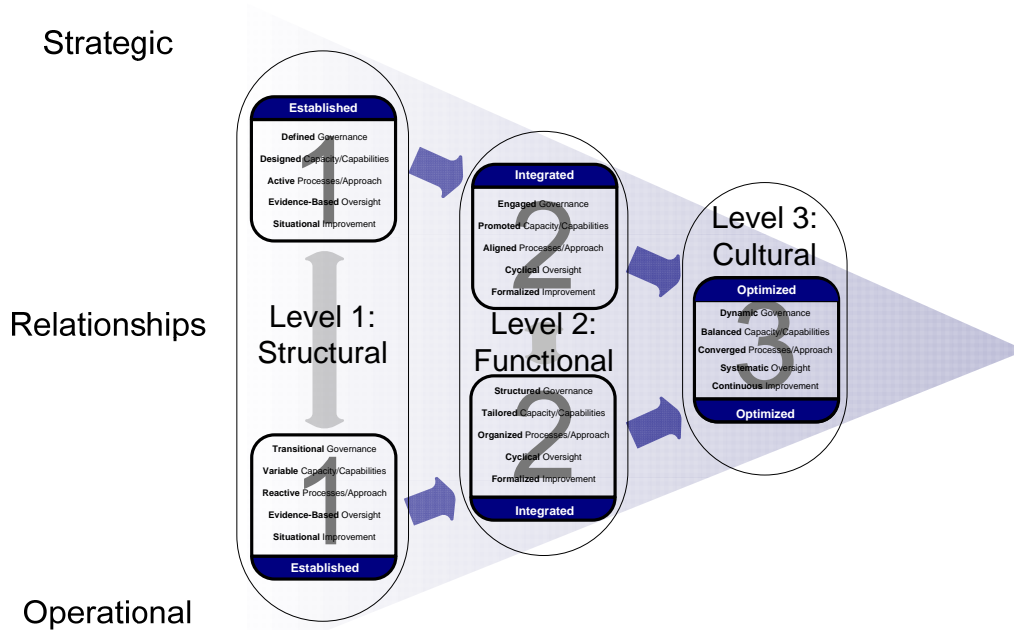
⁵ Canadian Nuclear Safety Commission. (2009). *About CNSC*. Retrieved from <http://www.cnsccsn.gc.ca/eng/about/index.cfm>

Methodology

The methodology employed to determine CNSC’s progress in implementing IRM was based on a review of related documents to identify instances of CNSC progress in implementing IRM, including key strengths, initiatives underway, and opportunities to improve the Commission’s current IRM capacity. This was followed by interviews with the senior CNSC headquarters officials both at the Vice-President and Director General levels. An interview was also conducted with the President to obtain his views on the organization’s IRM process and to validate observations.

This preliminary survey assessed the risk areas associated with CNSC’s implementation of risk management using a RM Capacity Assessment Model (Figure 1) that was designed to show the progressive levels within risk management at the strategic and operational/functional levels using five assessment factors. Complete details of the assessment model can be found in Appendix A.

Figure 1: Risk Management Capacity Assessment Model



4.0 Observations

Context - Risk Management at CNSC

In 2006, the Treasury Board Secretariat conducted a MAF Assessment on CNSC, which included an assessment of the effectiveness of corporate risk management. The four assessment indicators for corporate risk management were:

- Level of engagement of senior executives in corporate risk management;
- Current levels of corporate risk assessments and profiles;
- Extent to which corporate planning is risk-informed; and
- Risk mitigation strategies currently in place for key program and corporate risks.

Based on these indicators, the MAF Assessment concluded CNSC had an “opportunity for improvement” in the area of effective corporate risk management. TBS recommended that CNSC engage in a process to identify, assess, and report risk areas in the form of a corporate risk profile (CRP) and to integrate risk information into the organizational planning process.

CNSC has responded to the MAF Assessment with efforts to develop a Draft Corporate Risk Profile in 2007 with a process to gather systematically, qualitative and quantitative information on internal and external risks that would add value to the planning process. However, the Draft CRP has yet to be approved by senior management and has not materialized as a tool that would serve as the foundation of senior management discussions regarding organizational risk, and would inform planning organization-wide, and, in particular, Management Committee strategic planning.

Subsequent to the MAF Assessment, and following recent high profile events, CNSC, along with Atomic Energy of Canada Limited (AECL) commissioned Talisman International, LLC to examine the performance of CNSC and AECL, and produce a lessons learned report that would identify the underlying causes of past events. The 2008 Talisman Report concluded “the regulatory effectiveness of both organizations would be significantly improved by developing and implementing formal processes, to be used for establishing and complying with regulatory requirements.”⁶ Shortly after, CNSC voluntarily participated in the International Atomic Energy Agency’s Integrated Regulatory Review Service, which reviewed CNSC’s regulatory framework and its effectiveness. This review identified a number of recommendations, suggestions, and good practices for CNSC to consider.

The recommendations from these assessments along with others identified by the Office of the Auditor General and Internal Audit were combined in a Harmonized Plan to integrate and align all cross-functional improvement initiatives, leverage pockets of strength, and apply a risk-based prioritization discipline in addressing common issues and opportunities. In the last four years, CNSC has made significant progress on implementing several initiatives to push forward in integrating risk management throughout the organization, including, but not limited to those identified in the Harmonized Plan. Some of these recent achievements include the following:

- Development of an Action Tracking Tool that will act as a central registry of regulatory actions, risk significance and regulatory priority;
- Application of risk-informed decision-making (RIDM) methodologies across CNSC operational activities;
- Implementation of a Legal Risk Management Policy that aims to provide sound legal risk management advice to support organizational decision-making; and
- Embedding risk management activities within project management practices, in order to ensure that risks identified within the project environment will be documented, prioritized, and addressed.

In the latter part of 2009, a MAF Assessment was carried out, which included an assessment of the effectiveness of corporate risk management at CNSC. The overall findings of the MAF Assessment remain generally consistent with the findings in this preliminary survey and have recognized CNSC’s progress in furthering integrated risk management over the last three years. In particular, TBS has noted CNSC’s accomplishments in areas that were identified as key opportunities for improvement during the previous assessment in which the organization has improved and that we’ve identified above. However, TBS has identified continued opportunities for CNSC to provide stronger central leadership and guidance through improved communication and training to bridge the gap to better integrate corporate and operational risk management.

⁶ Talisman International, LLC. (2008). *Atomic Energy of Canada Limited, National Research Universal Reactor Safety System Upgrades and the Canadian Nuclear Safety Commission’s Licensing and Oversight Process: A Lessons Learned Report*. Retrieved from <http://www.cnsccsn.gc.ca/eng/readingroom/reports/lessonslearned/toc.cfm>

The observations that follow have been organized around the three key considerations for the purposes of determining whether CNSC internal audit should carry out an audit of CNSC's progress in implementing integrated risk management: inherent risk, external requirements and audit-ability.

Inherent Risk

Several initiatives have been implemented or are underway to progress risk management practices within CNSC. These were briefly summarized in the previous section. CNSC managers view risk management as a critical component of CNSC's management framework.

Overall, CNSC officials are risk aware and constantly responsive to opportunities to improve the integration of RM into strategic and operational activities. Recent high profile events and reviews have highlighted opportunities to improve risk management practice in a number of areas. CNSC management has embraced these recommendations, has initiated significant improvement initiatives, and has captured them in an aggressive Harmonized Plan. There are, however, a few areas identified as potential risk areas where additional opportunities exist to update and further develop IRM cornerstones.

Often, however, in preliminary surveys and risk assessments of this nature, there can be a tendency to focus on the things to "fix." Although the risk areas identified below highlight areas CNSC may wish to consider improving, this should be taken into consideration within the context of the strong progress CNSC has made thus far. Furthermore, in our discussions with senior management, several individuals emphasized the organization's strong tone at the top towards implementing risk management and the need to continue efforts to progress towards implementing IRM improvement initiatives.

The preliminary survey found the following five areas as having an opportunity for improvement.

i) Reinforce and Formalize Management Commitment.

There is a very strong tone at the top and acceptance of the value of risk management principles to priority setting, resource allocation, and continuous improvement, as evidenced by a number of ongoing improvement initiatives identified in the Harmonized Plan. Over time, opportunities exist to formalize responsibilities for RM in senior committees' terms of reference (e.g., Management Committee and Operations Management Committee), in senior managers' performance management contracts (PMCs), and ultimately in an approved RM policy. Senior managers and senior committees could define those matters that should, by any reasonable measure, be supported by risk assessments (e.g., key transition initiatives, project proposals, regulation proposals, and business cases). Updates for environmental scans and Corporate Risk Profiles should occur annually and be approved by a senior committee.

ii) Incorporate RM into Planning Improvements.

The Harmonized Plan includes commitments to improve strategic planning as indicated by the following initiatives: the Research Program – Strategic Research Plan initiative; Planning, Monitoring and Reporting initiative; and Review of Management System initiative. It is critical that an updated and approved Corporate Risk Profile (CRP) and RM processes be imbedded into the strategic planning process. CNSC has engaged in a number of periodic environmental scans and CRP activities that collectively inform CNSC on current and future context, particularly relating to developments in the nuclear industry. This information is gathered from all directorates of the organization but requires systematic documentation and analysis for collective consideration at the corporate level for long term strategic planning.

iii) Ensure RM is Embraced in the Harmonized Plan Initiatives.

Given the scope, importance, and long-term implications of the Harmonized Plan (HP), it would be appropriate to ensure RM is separately considered and properly designed into all

the HP initiatives. For example, for each HP initiative, consideration could be given to how risk management would be built into new practices.

iv) Integration of Strategic and Operational RM Activities.

Opportunities exist to better align strategic-level risk management initiatives with operational activities through improved and formalized top-down and bottom-up risk communication. This could include communicating the practical implications of the CRP for staff, to ensure the identified corporate risks are integrated into operational plans and to promote increased risk awareness in the day-to-day activities. Alternatively, bottom-up communication should also be encouraged to promote the effective sharing, transferring, and communication of risk information between branches and where necessary, escalating important issues to senior management that may present risk to health, safety, or the environment. This will allow risks at the operational level to be analyzed in a horizontal and holistic manner to identify emerging trends that could then be considered at the corporate level.

v) Promote Consistent Risk-based Operational Methodologies.

The International Atomic Energy Agency, in their Integrated Regulatory Review Service Report, recognizes the development and implementation of CNSC's risk-informed decision-making process and tools as good practice. The RIDM process, as it is applied across the CNSC service lines, is consistent with the Canadian Standards Association's Risk Management Guideline (CAN/CSA-Q850). However, the methodologies that underpin the risk-informed decision-making process adopted by each service line remain distinct and diverse, and opportunities exist to better align risk management methodologies across the service lines.

External Requirements

The TB Policy on Internal Audit sets out important expectations for deputy heads and Audit Committees related to assurance on RM. Audit Committees generally expect sufficient auditing of RM on a regular basis to support their core responsibilities to provide "the deputy head with advice and recommendations on the sufficiency, quality and results of assurances respecting departmental risk management, control, and governance frameworks and processes."⁷

Given the government-wide priority for risk management and the expectations set out for the deputy head and audit committee, it can be expected that at some time in the future, CNSC's RM practices will be audited either internally under the direction of the Office of Audit and Ethics or by an external party such as the Office of the Auditor General or the Office of the Comptroller General.

Audit-ability

CNSC is undertaking a major transition effort with several, significant improvement initiatives captured in the Harmonized Plan. The improvement initiatives have been derived from recent organizational reviews and assessments and have been prioritized based on importance, do-ability, and likelihood of implementation to determine how best to focus management attention and resources. The implementation of these initiatives will impact risk management practices and many have identified a target completion date by late mid-year or late 2010 and as a result, it would be difficult to audit risk management at this time.

5.0 Recommendations

⁷ Treasury Board of Canada Secretariat. (2009). *Policy on Internal Audit*. Retrieved from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16484§ion=text>

The audit of risk management should be scheduled for inclusion in the CNSC Risk-Based Audit Plan but given the pace of change related to RM in CNSC, it would not be appropriate to audit RM at this time. In the meantime, it would be advantageous to the organization and the deputy head if:

- a) Internal audit incorporate, where appropriate, an evaluation of the effectiveness of risk management processes into the conduct of their audits;
- b) Strategic Planning Directorate review the risk assessment of this preliminary survey and develop an action plan to further progress the risk management function within CNSC, along the lines set out above in Sections 4.0 i) to v);
- c) Strategic Planning Directorate work with the Directorate of Regulatory Improvements and Major Projects Management, (responsible for the Harmonization Plan) to assess how RM is periodically report on its progress; and being incorporated, as appropriate, into each project, within the Harmonized Plan, and
- d) After the main elements of the plan are in place, Internal Audit revisit this preliminary survey and consider the appropriate timing for an audit of RM, possibly in 2011/12. Possible lines of enquiry would reflect the inherent risk areas identified during this preliminary assessment, appropriately updated. Potential lines of enquiry could be:
 - o IRM governance arrangements;
 - o The application of IRM to CNSC business planning;
 - o Risk communications and sharing; and
 - o Operational risk management.

Management Response and Action Plan

- a) In accordance with the International Professional Practices Framework (IPPF), all future audits will include an evaluation of the effectiveness of risk management processes to ensure significant risks are identified and assessed and that these are monitored and addressed by management.

Accountable Authority: Chief Audit Executive **Timeline:** Ongoing

b) i) Reinforce and Formalize Management Commitment

The CNSC accepts this recommendation. Currently the Management Committee is responsible for reviewing risks and ensuring mitigation strategies are in place. Risk management is used as a planning tool to inform the planning and priority setting exercise each fall, and the CNSC continues each year to improve the process. Directors General are consulted and lead the development of the enterprise risk profile at the CNSC. An updated risk profile will be presented in the Fall as part of the 2011-12 Planning process.

Since Summer 2009, the Centre of Excellence on Risk Management at TBS has been developing a new Framework for the Management of Risk, which articulates a government-wide, principles-based approach to risk management. This Framework was approved by Treasury Board Ministers on May 27, 2010, and will come into force at the end of August. The CNSC intends to utilize this new Framework to reinforce and continue to integrate the risk management process within the organization.

Risks identified and included in the RPP will be monitored by senior management throughout the fiscal year at the regular Quarterly Reviews.

Accountable Authority: DG, Strategic Planning Directorate **Timeline:** March 31, 2011

ii) Incorporate RM into Planning Improvements

The CNSC accepts this recommendation. Currently an integrated risk management approach is being implemented horizontally across the organization and vertically through its

ranks. Risk information is integrated into the annual planning process. To support the 2010-11 planning cycle, guidance for risk management was included in the CNSC Priorities and Planning Guide (PPG), the organization's guidance tool to annual planning. Risk information was integrated in the management discussion informing priority-setting in the Fall of 2009. Some mitigation strategies for key corporate risks were developed and will be monitored by senior management throughout the fiscal year at the regular Quarterly Reviews.

The CNSC intends to utilize the new TBS Framework for the Management of Risk, to reinforce and formalize the risk process within the organization. The organization is also finalizing its draft Strategic Plan which will include the key risks the organization currently faces along with appropriate mitigation strategies.

Accountable Authority: DG, Strategic Planning Directorate **Timeline:** March 31, 2011

iii) Ensure RM is Embraced in the Harmonized Plan Initiatives

The CNSC accepts this recommendation and will continue to take steps to strengthen risk management within the CNSC Harmonized Plan. Currently risk management is designed into all Harmonized Plan projects. Project Authorities are required to identify risks and provide mitigation strategies, where necessary, as part of their development of a project scoping document

At the program level, risk management plays an important role in the prioritization of all proposed improvement initiatives where strategic importance, do-ability, and likelihood of implementation are addressed. The supporting governance structure, regular reporting on progress at all levels, and frequent focused communications all serve to identify, address and mitigate risk.

Furthermore, at the initiative level, risk management is currently designed into all projects, albeit not always explicitly referenced. For example, all HP initiatives are thoroughly scoped at the outset, regularly monitored and reported throughout to ensure agreement on:

- Current state of affairs including strengths and opportunities for improvement
- what the project entails and does not cover
- planned deliverables, outcomes and associated performance measures
- planned activities and progress against such
- participating divisions/directorates
- impacted groups, processes and other initiatives
- estimated timelines for achieving milestones
- impacts/risks to the organization should the initiative not go forward
- specific considerations and assumptions to be raised for additional clarity of expectations
- Management oversight including responsibilities and authorities
- Project close-out and lessons learned

This action is **completed**. Nevertheless, as part of continuous improvement, opportunities will be pursued to make risk management more explicit as we further deploy, improve and refresh supporting HP tools and templates.

Accountable Authority: DG, Directorate of Regulatory Improvement and Major Projects Management

iv) Integration of Strategic and Operational RM Activities

The CNSC accepts this recommendation and continues to strengthen corporate risk management. In the Fall of 2009 the CNSC conducted a risk assessment as part of its strategic planning session. Risks were identified and assessed along the CNSC Program Activity Architecture and where warranted mitigation measures were put in place where risks

could not simply be accepted. These risks were then included in the Agency Report on Plans and Priorities and were communicated to all staff. The CNSC has a strong culture of risk management as it is at the core of what we do; we must continue to assess and deal with both operational and strategic risk management activities in an integrated fashion. This will largely be accomplished at Quarterly Reviews.

Accountable Authority: DG, Strategic Planning Directorate **Timeline:** November 30, 2010

v) Promote Consistent Risk-based Operational Methodologies

The CNSC accepts this recommendation. The methodologies that underpin the risk-informed decision-making process within and across each service line are 'diverse' by design. It is acknowledged that perhaps we can do a better job at communicating to staff and management alike the similarities, differences and alignment of the various risk management methodologies. With risk-informed decision-making being a fundamental element of our raison d'être we regularly report on our approach(es) and their effectiveness in all formal communications concerning organizational performance, including the CNSC Annual Report, Reports on Plans and Priorities, Departmental Performance Report, MAF Assessments, IRRS Mission, etc. Risk management and risk-informed decision-making are also clearly identified and appropriately situated within the CNSC Management System Manual, the document which provides a high level summary of the policies, principles, and processes by which the CNSC achieves its goals and objectives.

It is acknowledged that increased awareness of the various (diverse) approaches on the part of staff and management may lead to more appropriate and more effective application of the methodologies and hence may allow CNSC to be more effective.

This action is **completed**. Nevertheless, as part of continuous improvement, opportunities will be pursued to strengthen the effectiveness of communications on the approaches to risk management by focusing on ensuring all staff and management have a common understanding of the various risk-management and risk-informed decision-making tools available, where, when and how to use them, etc. The effectiveness of our approaches will be reported through internal communiqués in addition to the traditional external communications.

Accountable Authority: DG, Directorate of Regulatory Improvement and Major Projects Management

- c) See response to b) iii)
- d) Risk management is part of OAE's audit universe and RM will be considered during the 2011-12 risk-based audit planning exercise.

Accountable Authority: Director OAE **Timeline:** April 2011

6.0 Challenges and Barriers for Integrated Risk Management

There are several challenges that all organizations, including CNSC, may encounter in their efforts to fully integrate risk management within the organization, in particular, those related to culture and resources.

Organizational Culture

Often, in science-based, regulatory organizations such as CNSC, organizational activity centres around the application of professional judgement by highly qualified staff, to deliver the core business. In this case, the core business comprises the licensing and compliance activities that ultimately ensure the safety and protection of Canadians. Employees identify closely with risk management because their day-to-day operations focus heavily on the treatment and mitigation of risks that have been identified through the application of professional, and internationally accepted, practices. It may be a challenge within this environment to ensure an appropriate balance of strategic risk management activities (i.e., establishing the context through environmental scanning and identifying emerging risks) and the operational and project risk management activities involved with licensing and compliance activities of nuclear facilities and substances.

To ensure that an appropriate balance of strategic, operational, and project risk management activities exists, tone at the top and communication will be particularly important. Strong leadership from the President and Vice-Presidents will be essential to ensure both strategic and operational/project risk management are appropriately addressed. It is important that RM is viewed as an enabler and not as an “add-on” to core responsibilities, delivered by one function of the organization.

There is often a false belief that if a process for risk management is in place in an organization, risks are under control. For risk management to fully function, it is important to have a culture in which risk management is ingrained in how people set priorities, make decisions, do their jobs, and assess performance.

Appropriate Resource Levels

It is recognized that CNSC operates in a highly visible environment and that operational priority must first be to deliver on core day-to-day compliance and licensing activities that focus on the safety and protection of Canadians. One incident poorly managed, regardless of the magnitude of safety implications, would significantly impact the long-term reputation of CNSC. In a context where resources are limited, choices between longer-term and immediate requirements are particularly difficult. That said, RM is a key preventative control within the organizational framework that, when appropriately implemented and resourced, has cross-functional and organization-wide benefits.

Appropriate resources are a fundamental underpinning of the RM concept. Without the requisite infrastructure, skills, processes, and governance arrangements, several challenges can arise, such as:

- Extended time for learning about risk management and adopting RM practices;
- Lack of appropriate information for identifying risks;
- Difficulty in measuring risk management outcomes;
- Dealing effectively with external factors; and
- Establishing appropriate accountability for risk identification, assessment, and mitigation.

Most RM leaders in government identify the need for a “lean but effective” resourcing strategy for RM.

Appendix A – Application of RM Capacity Assessment Model

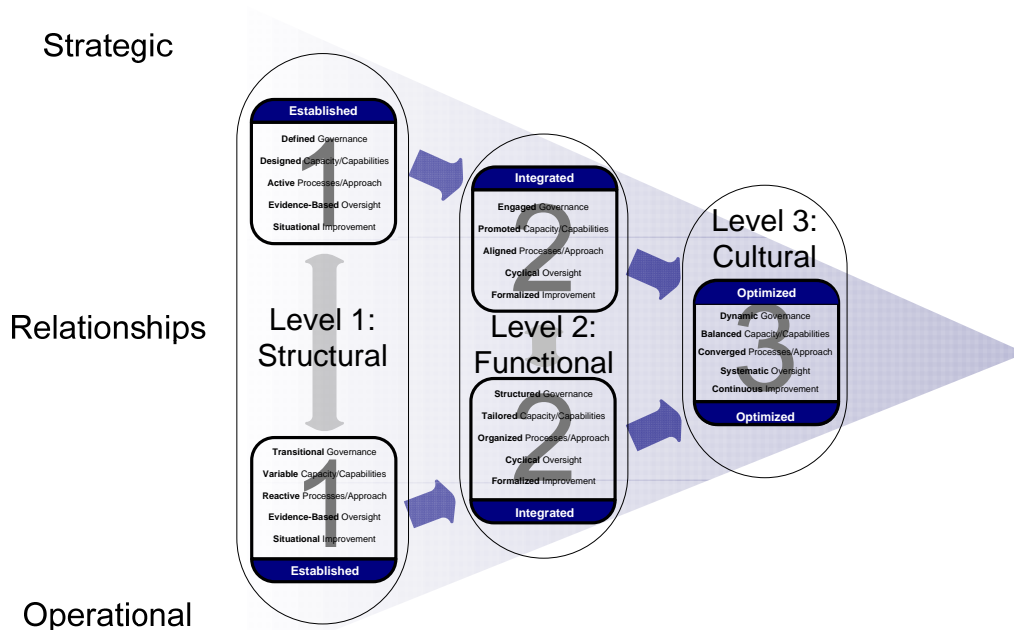
This preliminary survey assessed the risk areas associated with CNSC’s implementation of risk management using an assessment model that was designed to show the progressive levels within risk management at the strategic and operational/functional levels.

The risk management capacity assessment model is based on five assessment factors, which are supported by criteria and sub-criteria that are consistent with RM assessment frameworks used in Canada and other jurisdictions, including the UK and Australia, as well as the standards set by the International Standards Organizations (ISO), the Canadian Institute of Chartered Accountants (CICA), and other standard setting bodies. The model comprises the Management Accountability Framework (MAF) expectations set out by TBS for RM and the Departmental Audit Committee responsibilities described in the *TBS Guidebook for Departmental Audit Committees*. It also encompasses the 10 elements within the MAF framework as they might apply to RM.⁸ The five assessment factors are:

- RM Governance;
- RM Capacity/Capabilities;
- RM Process/Approach;
- Ongoing or Periodic Assessment of RM; and
- RM Continuous Improvement.

These five assessment factors are assessed against expectations on three progressive levels. Figure 2 below is the RM Capacity Assessment Model utilized for the preliminary survey to assess the risk areas associated with CNSC’s implementation of integrated risk management and illustrates the five assessment factors and three progressive levels.

Figure 2: Risk Management Capacity Assessment Model



⁸ The Risk Management Capacity Assessment Model has been provided to Internal Audit as a separately prepared document.

Strategic Level (Top-Down)

For strategic risk management, the five assessment factors (equivalent to the ten MAF elements) are assessed at two levels:

- **Strategic Level 1** is based on defining risk management expectations and processes. At this level, management is taking the initiative to define RM and develop the capacity and core products (e.g., CRPs, risk registers, common RM tools, etc) that are mentioned in the TBS IRMF.
- **Strategic Level 2** is based on promoting risk management capacity and practices at the strategic level and developing outreach and governance arrangements to promote risk management throughout an organization. At this level, RM principles are being supported across the organization.

Operational/Functional Level (Bottom-Up)

For operational/functional risk management, the five factors (equivalent to the ten MAF elements) are also assessed at two different levels:

- **Operational/Functional Level 1** is based on the management of operational risks in response to situational events. At this level, risk management is applied as required to respond to specific threats and opportunities.
- **Operational/Functional Level 2** is based on formalized application of RM at the operational/functional levels. RM is more systematically used on a day-to-day basis and risk-informed decision-making is built into the management cycle. Many organizations that are geared towards public health, safety, etc. operate effectively at this level.

Combination of Strategic and Operational/Functional levels

The **Cultural Level 3** is achieved when the O/F levels and the strategic level work together effectively. This would be characterized by effective ongoing communications, sharing and cooperation across these levels, and a common overall approach to risk management appropriately tailored to meet the organization's unique requirements.