CNSC Emergency Response Plan CAN2-1

Canadian Nuclear Safety Commission November 2001

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Abbreviations and Acronyms

The following terms are used within the Plan, and are presented here for easy reference.

CNSC Canadian Nuclear Safety Commission

CSIS Canadian Security Intelligence Service

EOC Emergency Operations Centre

FNEP Federal Nuclear Emergency Plan

GOC Government Operations Centre

IAEA International Atomic Energy Agency

INES International Nuclear Event Scale

MOU Memorandum of Understanding

NRU National Research Universal

NSC National Support Centre

PSEPC Public Safety and Emergency Preparedness Canada

RCMP Royal Canadian Mounted Police

SI Système Internationale

US United States (of America)

USNRC United States Nuclear Regulatory Commission

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1 Introduction

This section introduces the CNSC Emergency Response Plan.

1.1 Authority

The CNSC Emergency Response Plan is prepared under the authority of the President & Chief Executive Officer of the CNSC to address its emergency response mandate.

Under the authority of the Nuclear Safety and Control Act, the Canadian Nuclear Safety Commission (CNSC) is the Canadian regulatory body that controls the health, safety, security and environmental aspects of the development, application and use of nuclear energy and radioactive materials. The Act makes no distinction between normal and abnormal situations. The CNSC is the federal regulator before, during and after emergencies.

On January 21, 1983, the CNSC stated as a policy that the transportation of radioactive material should be conducted in general accordance with International Atomic Energy Agency (IAEA) recommendations contained in IAEA Safety Series 87 (Emergency Response Planning and Preparedness for Transport Accidents Involving Radioactive Material). Therefore, the CNSC mandate also extends to transportation events affecting Canada that involve radioactive material. The CNSC coordinates its responsibilities in transportation through a Memorandum of Agreement with Transport Canada.

1.2 Purpose

The purpose of this plan is to describe what the CNSC must be prepared to do when an emergency occurs.

The Plan is more than a reference document. It is a training tool for all CNSC personnel. It is the basis for the development of detailed implementing procedures. It is also the basis for coordination and cooperation with external organizations.

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1.3 Definitions

The following terms are key to the proper understanding of the Plan.

- An **emergency** is an abnormal situation which, to limit damage to persons, property or the environment, requires prompt action beyond normal procedures.
- A **nuclear or radiological emergency** is an emergency that involves a radiological or licensed activity.
- A **licensee** is the holder of a licence issued under the *Nuclear Safety and Control Act*.
- Appropriate responsible authority refers to a government organization or agency that is responsible for decisions related to on-site or off-site nuclear emergency response, especially protective action decisions. An appropriate responsible authority could be, for example, a local police service or a provincial government.
- On-site is the area surrounding the nuclear facility within the security perimeter, fence or other designed property marker. It can also be the controlled area around a radiography source or contaminated area. This is the area under the immediate control of the licensee or the appropriate responsible authority.
- ∃ **Off-site** is the area beyond the security perimeter or fence line.
- **Safety significance** refers to the off-site impact, on-site impact and defence in depth degradation resulting from an emergency.
- Risk refers to the probability of a specific impact on health, safety, security or the environment occurring.
- \exists **Role** refers to the purpose or mandate of an organization.
- ∃ **Objectives** are the main actions an organization as a whole must accomplish to perform its role.
- Performance objectives are assigned to positions. They describe what individual positions must accomplish to achieve the objectives of the organization.

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1.4 Relationship to other documents

The Plan is based on several regulatory and policy documents. Any changes to the documents may have an impact on this Plan. The documents are:

- (a) the *Nuclear Safety and Control Act* and Regulations;
- (b) the *Emergency Preparedness Act*,
- (c) the *Transportation of Dangerous Goods Act* and regulations (for transportation events);
- (d) the Transport Packaging of Radioactive Materials Regulations;
- (e) the Memorandum of Agreement with Transport Canada for the emergency response to transportation events;
- (f) Treasury Board guidelines for emergency expenditures; and
- (g) Treasury Board guidelines for assistance for next of kin.

The Plan is intended to complement and be compatible with emergency preparedness documents from other organizations and jurisdictions. Any changes to the documents may have an impact on the Plan and vice versa. The documents listed below are particularly important to the Plan.

- (a) licensee emergency plans and operating documents (e.g., procedures, maps);
- (b) provincial emergency plans and operating documents;
- (c) the National Emergency Arrangements for Public Information Planning and Response Guide;
- (d) the Federal Nuclear Emergency Plan;
- (e) foreign regulators' plans;
- (f) the International Nuclear Event Scale User's Manual, and
- (g) relevant service contracts.

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The Plan is the "master document" in the hierarchy of corporate emergency preparedness documents that the CNSC prepares and maintains. Additional corporate emergency preparedness documents include the following:

- (a) the CNSC Duty Officer Manual;
- (b) a CNSC emergency staff roster;
- (c) a CNSC Emergency Response Manual with implementing procedures;
- (d) CNSC emergency response contact lists (internal and external);
- (e) communications material;
- (f) emergency response equipment lists;
- (g) an emergency response training and exercise program (including attendance and participation records);
- (h) an emergency response exercise evaluation program;
- (i) related service contracts (e.g., emergency call answering service) and agreements.

The Plan must also be compatible with the CNSC's arrangements for business resumption and contingency plans.

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2 Technical Planning Basis

This section describes the emergencies for which the CNSC Emergency Response Plan may be implemented. It also describes the characteristics of the emergencies which could determine or affect the CNSC response required.

2.1 Events at Canadian power reactors

Although the definition of an "emergency" varies among power reactor operators, from a CNSC perspective, emergencies at Canadian power reactors can be divided into the following broad types:

- (a) short-term events (radiological or non-radiological), which have or have not led to consequences inside or outside the station, but which are stable (i.e., no potential for escalated impact); and
- (b) long-term events (radiological or non-radiological), which have led or could lead to consequences inside or outside the station; i.e., the situation is not stable.

In case (a), the actual emergency response is likely to occur quickly and be short-lived. The authority of the local CNSC staff would likely be sufficient to deal with the immediate emergency needs. There would be little or no time to involve the CNSC emergency organization. The participation of the CNSC <u>during</u> the emergency would therefore be limited.

In case (b), the CNSC involvement <u>during</u> the emergency is likely to be greater. Depending on the complexity of the emergency response, on the public interest generated and on the magnitude of the consequences (real or potential), the CNSC emergency organization is likely to get involved.

Therefore, the technical planning basis for the CNSC indicates the following needs:

(a) activation of local CNSC staff must be prompt in order to deal with short-lived events, and to assure proper transition into a post-emergency phase. Alternatively there must be a prompt and reliable link between the licensee and appropriate staff at CNSC Headquarters;

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- (b) the CNSC emergency organization must be activated for all events which are leading or could lead to significant on-site or off-site consequences, and where the consequences of the event will be strongly affected by the operator's actions;
- (c) in all cases, CNSC action will be required in the post-emergency phase. The ability of the CNSC to perform its regulatory function during that phase may depend on its degree of readiness during the emergency.

Other events which should be considered in this category include security threats and events involving the National Research Universal (NRU) Reactor of Chalk River Laboratories. Because of its power and containment design, an event at the NRU Reactor could lead to significant off-site consequences. The NRU Reactor should therefore be considered part of this category of potential events.

2.2 Events at other facilities

Non-power reactor facilities include, for example, research laboratories, research reactors, fuel facilities, mines, mills, radioisotope processing facilities, commercial irradiation facilities and various users of radioactive materials for teaching, training and radiography. The types of events which could affect such facilities are outlined in IAEA Safety Series #91 (Emergency Planning and Preparedness for Accidents Involving Radioactive Materials Used in Medicine, Industry, Research and Teaching, 1989) and include the following:

- (a) loss of containment of radioactive or non-radioactive hazardous materials;
- (b) loss of shielding or source integrity of radioactive material;
- (c) loss, abandonment or theft of radioactive material;
- (d) fire; and
- (e) natural or man-made external events, such as severe storms, floods, earthquakes, aircraft crash, releases of toxic, flammable or explosive material near the facility.

In most cases involving a radioactive release or the breach of source integrity, the consequences should be limited to the facility itself. Emergency technical actions should aim at containing the release, establishing an effective contamination control perimeter and initiating re-entry actions.

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In these cases, the initial CNSC response will be mainly local. Prompt activation will be critical to allow verification of licensee actions during the emergency. Alternatively there must be a prompt and reliable link between the licensee and appropriate staff at CNSC Headquarters. Depending on the complexity of the emergency response, on the public interest generated and on the magnitude of the consequences (real or potential), the CNSC emergency organization must be activated.

As discussed in the previous section, the NRU Reactor of Chalk River Laboratories is an exception. It is treated in accordance with the discussion for power reactors.

2.3 Transportation events

This category includes transportation events and other events involving field-use of radioactive materials outside a licensed facility environment (e.g., pipeline radiography, moisture and density measurements on construction sites).

Significant events which could involve radioactive material being transported by road, rail, air or sea are:

- (a) an event leading to severe mechanical or thermal damage to a conveyance or a radioactive material package;
- (b) apprehended disaster (e.g., sunk or capsized ship); and
- (c) the loss, theft or abandonment of the radioactive material.

Such events could be worsened by failure to properly package radioactive materials or by the loss of shielding.

In Canada, approximately 90 per cent of all shipments involve Type A packages which, by definition, present a small risk during a severe transportation event, mainly limited to the immediate surroundings of the event scene. Other less frequent situations involve the transportation of Type B packages or fissile material, which are subject to very strict packaging regulations to reduce the potential impact of events. However, in these cases, it is possible that radiological consequences may be on-site and off-site.

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All transportation events require prompt actions to assess the presence and/or extent of the consequences, confine the hazard, prevent the spread of contamination, and in the case of lost or abandoned radioactive material, prompt action is required to locate the radioactive material. In all these cases, response time by a local CNSC representative and/or the establishment of a prompt technical link between local responders and the appropriate emergency staff at CNSC Headquarters will be critical. Depending on the complexity of the emergency response, on the public interest generated and on the magnitude of the consequences (real or potential), the CNSC emergency organization must be activated.

2.4 Federal emergencies

During a radiological emergency originating in Canada or abroad and requiring a multijurisdictional, multi-departmental response, the Federal Nuclear Emergency Plan (FNEP) can be activated by the lead federal department (Health Canada) to manage and coordinate federal response activities, either in the delivery of its federal responsibilities, or in support of provincial actions in dealing with a nuclear emergency, affecting Canada or Canadians abroad.

Federal emergencies are likely to be dispersed across several geographic areas and jurisdictions. The main implication for the CNSC is the need to coordinate its emergency operations with the federal and provincial and territorial emergency operations.

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3 Emergency Response Roles and Objectives

This section outlines the emergency response roles and objectives of the CNSC and other organizations that may be involved in a nuclear emergency affecting Canada or Canadians.

3.1 Licensee or appropriate responsible authority

Within the context of this Plan, the licensee is the on-site authority, responsible for the management and implementation of on-site emergency response in accordance with emergency response plans and procedures. This means that the licensee is directly responsible for the following objectives:

- (a) notification in accordance with applicable regulations and licence conditions;
- (b) control and mitigation of the event; and
- (c) communication with off-site authorities and recommendations regarding off-site protective actions.

The licensee is the primary authority for informing the public about on-site actions and conditions (e.g., reactor status).

The exception is transportation events. For transportation events, local emergency services (e.g., local police and fire services) are normally the appropriate responsible authority for on-site actions and informing the public about on-site actions and conditions. The consignor and/or the transporter are responsible for providing technical support to the emergency responders, and are also responsible for cleanup and recovery of radioactive material, in accordance with the *Transportation of Dangerous Goods Act*, Part 14. When the consignor is unavailable, the CNSC will provide technical support.

3.2 The province, territory or local government

For events which have an off-site impact, the province, territory or local government is the appropriate responsible authority for off-site actions. The province, territory or local government is also the primary authority for informing the public about off-site actions and conditions.

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3.3 Role of the CNSC

The CNSC's regulatory role is to provide assurance that appropriate actions are taken to limit the risk to health, safety, security and the environment. Therefore, the CNSC's emergency response objectives as the federal regulator are:

- (a) to manage the CNSC emergency organization and response;
- (b) to assess the safety significance of the emergency, where safety significance refers to the on-site impact, off-site impact and defence in depth degradation;
- (c) to enforce relevant regulatory and license conditions to reduce the risk to health, safety, security and the environment;
- (d) to provide appropriate technical advice and support, as requested or required;
- (e) to coordinate and cooperate with licensee, provincial, federal and international response organizations; and
- (f) to report to the public, government and the CNSC organization on the CNSC response.

The FNEP describes how federal government departments, including the CNSC, coordinate their response and coordinate assistance to the provinces and territories. Whether the FNEP is activated or not, the CNSC maintains its regulatory role during an emergency and performance of the CNSC emergency response objectives remains under the control of the CNSC.

The FNEP specifies the how the CNSC is expected to coordinate and cooperate with other federal departments and the province(s). More precisely, the FNEP assigns the CNSC primary responsibility, shared with other federal departments in some cases, for the following performance objectives:

- (a) to provide staff, resources, and support for implementation of the FNEP and its Provincial Annexes and for maintaining operation of the National Support Centre;
- (b) to participate in maintaining a good flow of information and a coordinated response;
- (c) to establish and maintain liaison with the Canadian nuclear facility or with foreign regulators (such as the United Stated Nuclear Regulatory Commission (USNRC));
- (d) to gather on-site data from the Canadian nuclear facility or foreign regulators (such as the USNRC);

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- (e) to run or obtain from Environment Canada short-range atmospheric dispersion and dose projection model and to provide outputs to the FNEP Technical Advisory Group;
- (f) to identify departmental resources available for monitoring and sampling operations in affected areas, to contact and deploy national and regional personnel and equipment, and to provide monitoring and sampling data to the FNEP Technical Advisory Group;
- (g) to identify departmental resources available to implement protective measures under federal jurisdiction or as requested by a province in affected areas, to contact and deploy national and regional personnel and equipment;
- (h) to provide radiation protection standards for nuclear energy workers, and technical support and advice on radiation protection;
- (i) to formulate requests for assistance, to use and manage resources offered for operations within the CNSC mandate, and to provide information on their ability to provide assistance;
- (j) to assist the FNEP Public Affairs Group in disseminating and customizing the information products on protective measures to audiences within the CNSC mandate;
- (k) to provide spokespersons and support personnel as required for the operation of a media centre; and
- (l) to propose the emergency classification level with the International Nuclear Event Scale (INES).

The FNEP designates the CNSC as a supporting department for the following performance objectives when the FNEP is implemented:

- (a) to provide support, as required, for liaison with international agencies including advice on existing plans and arrangements;
- (b) to provide field monitoring units and emergency personnel and resources for survey and control of contamination and exposure;
- (c) to provide standby resources and facilities for laboratory analysis;
- (d) to provide support in the analysis of technical data and response trends;

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- (e) (for an emergency involving a nuclear powered vessel) to provide technical support, equipment, and facilities for the treatment of contaminated and/or overexposed casualties;
- (f) to provide technical radiation protection support for the shipment of radioactive material and the disposal of contaminated soil, equipment, etc.;
- (g) to provide support as required for liaison with international agencies;
- (h) to provide assistance in disseminating and customizing the information products on protective measures to target and specialized audiences;
- (i) (for an emergency involving a nuclear facility in Canada) to allow use of the CNSC media centre by the FNEP Public Affairs Group until an alternate location is established and operating;
- (j) to provide available communications material on relevant emergency plans, nuclear safety, radiation and regulatory matters;
- (k) to provide information and personnel to staff public inquiries systems; and
- (l) to provide technical and operational advice on the appropriateness of deactivating the FNEP.

3.4 Role of other federal departments

Other federal departments have jurisdictions over areas that could be directly affected by the off-site consequences of a nuclear emergency. For example, Transport Canada is responsible for air and marine traffic in or near the affected areas. Health Canada is responsible for regulatory aspects of the assessment and control of contaminated food stuff (Canadian Guidelines for Restriction of Radioactively Contaminated Food and Water Following a Nuclear Emergency). Health Canada is also the point of contact and competent authority for the IAEA *Convention on Early Notification of a Nuclear Accident* and the IAEA *Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency*. Therefore, other departments have a direct role to play in the response to a nuclear emergency with off-site consequences.

Furthermore, those departments are responsible to manage and coordinate their response activities with other federal departments and with provincial organizations in accordance with the FNEP.

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4 CNSC Emergency Organization

This section shows the positions in the CNSC emergency organization. It also outlines how the CNSC's emergency response objectives break down to performance objectives.

4.1 Organizational structure

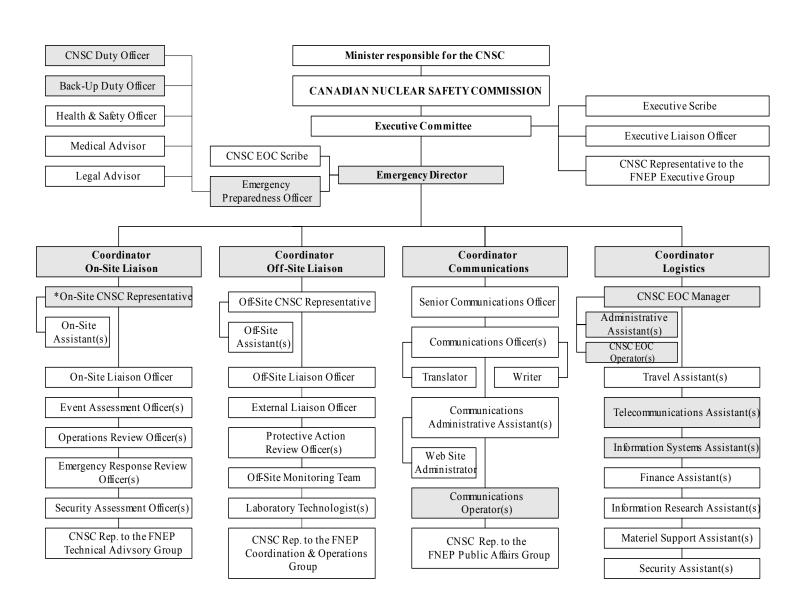
The full CNSC emergency organization is shown in Figure 4.1. Not all events will require activation of the full organization.

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Figure 4.1: CNSC emergency organization

Legend: * Mimimum staff for emergencies involving Power Reactor or Chalk River Labs

Minimum Staffing



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4.2 Performance objectives

Table 4.1 presents the performance objectives for each CNSC emergency response objective. The CNSC emergency response procedures assign responsibility for the performance objectives to CNSC emergency organization positions.

Table 4.1: Objectives and performance objectives

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Objective: manage the CNSC emergency organization and response.

Performance objective: change (upgrade or downgrade) the CNSC response level.

Performance objective: activate appropriate CNSC emergency staff.

Performance objective: establish a CNSC emergency operations centre at the primary or alternate location.

Performance objective: set the aim and actions for the CNSC emergency response.

Performance objective: set the operating cycle (time for CNSC EOC briefing) for the CNSC emergency organization.

Performance objective: assign emergency response actions to emergency staff and monitor the progress and results.

Performance objective: brief CNSC emergency staff on the event and the CNSC response (aim, actions, operating cycle).

Performance objective: establish and maintain intra- and inter-organization communication links.

Performance objective: provide documents from CNSC libraries and document collections.

Performance objective: provide data from CNSC databases.

Performance objective: provide corporate security at the CNSC emergency operations centre.

Performance objective: arrange operating locations, transportation, accommodation and any other necessary support for emergency staff at CNSC Headquarters and all other CNSC operating locations.

Performance objective: assure the health, safety and well-being of CNSC employees.

Performance objective: record, display and distribute information gathered or produced as part of the CNSC response.

Performance objective: maintain a communication and actions log.

Performance objective: maintain a record of CNSC expenditures.

Objective: assess the safety significance of the emergency.

Performance objective: gather on-site information.

Performance objective: gather off-site information.

Performance objective: gather meteorological data (on-site and off-site).

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Performance objective: set the INES level (on-site and off-site safety significance) for nuclear or radiological events.

Objective: enforce relevant regulatory and licence conditions to limit the risk to health, safety, security and the environment.

Performance objective: identify and track technical issues that affect the risk to health, safety, security and the environment (on-site and off-site).

Performance objective: identify the legislation, regulations and license conditions that relate to the technical issues.

Performance objective: verify if the licensee is complying with the relevant legislation, regulations and licence conditions.

Performance objective: verify if the CNSC is complying with the relevant legislation, regulations, policies, plans and agreements.

Performance objective: identify and implement actions that the CNSC must take as federal regulator to enforce legislation, regulations and licence conditions.

Performance objective: identify and implement actions that the CNSC must take to comply with the relevant legislation, regulations, policies, plans and agreements.

Objective: to provide appropriate technical advice and support, as requested or required;

Performance objective: formulate appropriate advice on technical issues that affect the risk to health, safety, security and the environment (on-site and off-site).

Performance objective: deliver advice on matters that affect the risk to health, safety, security and the environment to the responsible authority.

Objective: to coordinate and cooperate with licensee, provincial, federal and international response organizations.

Performance objective: notify appropriate external organizations about the emergency situation.

Performance objective: coordinate CNSC response with organizations that have similar or overlapping functions.

Performance objective: provide CNSC resources, expertise and support for other authorities.

Objective: to report to the public, the government and the CNSC organization on the CNSC response.

Performance objective: identify public concerns, rumours and misinformation that relate to the CNSC role and response objectives.

Performance objective: decide on the CNSC communications strategy.

Performance objective: prepare and disseminate communications products in accordance with the CNSC communications strategy.

Performance objective: organize news conferences.

Performance objective: receive and respond to inquiries from the media and the public.

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Performance objective: provide regular information to the Minister responsible for the CNSC.

Performance objective: provide regular information to the Government Emergency Operations Coordination Centre (GEOCC).

Performance objective: answer inquiries from Members of Parliament and their representatives.

Performance objective: provide regular (at least daily) information on the CNSC findings and response to Commission Members.

Performance objective: answer inquiries from Commission Members.

Performance objective: provide regular information on the CNSC findings and response to all CNSC employees.

Performance objective: answer inquiries from CNSC employees and their families.

Performance objective: provide timely information and support for the next of kin of a CNSC employee whose health or safety is affected during an emergency response.

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5 CNSC Response Levels

This section describes the response levels for the CNSC emergency organization.

5.1 Response levels

Response levels define the degree of readiness of the CNSC emergency organization. The CNSC uses four response levels:

- (a) normal mode;
- (b) monitoring mode;
- (c) standby mode; and
- (d) activated mode.

5.1.1 Normal mode

In normal mode, the CNSC plans, trains and maintains its emergency preparedness. The CNSC must be ready to carry out the following performance objectives:

- (a) change the CNSC response level;
- (b) activate appropriate CNSC emergency staff; and
- (c) gather on-site information.

5.1.2 Monitoring mode

In monitoring mode, CNSC staff members are activated to report to the CNSC EOC to discuss a particular development. There is no need to activate the Plan.

5.1.3 Standby mode

In standby mode, only the minimum staff for the CNSC emergency organization are activated. The minimum staff report to the CNSC EOC and carry out appropriate performance objectives.

The standby mode can be maintained until the state of emergency has been terminated by the competent authority, or until expanded activation of the CNSC emergency organization is required.

5.1.4 Activated mode

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In activated mode, minimum staff and additional staff required for the response are activated. The CNSC must be ready to carry out any of its emergency response objectives and related performance objectives.

5.2 Criteria for response levels

Table 5.1 defines the general criteria for each response level. These criteria are guides, not rules. The situation at the time of an event may dictate variations from these criteria.

Table 5.1: Response level criteria

RESPONSE LEVEL	CRITERIA
Normal mode	∃ No event that requires prompt action beyond normal CNSC procedures.
Monitoring mode	∃ An event which requires discussions in order to obtain a better understanding of the situation.
Standby mode	∃ An event with limited impact, or potential impact which may require prompt action beyond normal CNSC procedures; and
	∃ the situation is understood to be stable (no potential for escalated impact).
Activated mode	An event with actual, or potential on-site or off-site impact which requires prompt action beyond normal CNSC procedures; and
	∃ the situation is understood to be unstable (there is potential for escalated impact).

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6 Concept of Operations

This section provides a general description of how the CNSC plans to operate during an emergency. This section is the basis for detailed procedures to implement the Plan.

6.1 General

6.1.1 Operating languages

Internal CNSC communication is conducted in English or French, as desired. External communication is conducted in English or French, as requested. The following positions are primarily involved in external communication:

- (a) Back-Up Duty Officer;
- (b) CNSC Duty Officer;
- (c) CNSC EOC Operator;
- (d) Communications Operator;
- (e) Executive Liaison Officer;
- (f) External Liaison Officer;
- (g) Off-Site Assistant;
- (h) Off-Site CNSC Representative;
- (i) Off-Site Liaison Officer;
- (i) On-Site Assistant;
- (k) On-Site CNSC Representative;
- (1) On-Site Liaison Officer; and
- (m) Senior Communications Officer.

The need to have bilingual persons in these positions is considered when activating emergency staff.

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6.1.2 Units of measurement and response terms

The CNSC uses units of measurement that are consistent with the units used by the licensee involved in the emergency. This means that the CNSC is prepared to use both the Système Internationale (SI) units and the old radiation terms, as some licensees still communicate in the old system.

The CNSC also uses emergency response terminology (e.g., response levels and notification classifications) that is consistent with the terms used by the licensee and the appropriate responsible authorities that are involved in the emergency.

6.1.3 Simultaneous emergencies

In the event of simultaneous nuclear emergencies, the CNSC manages all events from its single CNSC EOC. The structure of the CNSC EOC does not change (e.g., a single Emergency Director and the normal CNSC EOC staff manage all events). Staffing for other emergency organization positions is augmented as required and as possible. Protection of the health, safety and well-being of CNSC employees is not jeopardized to accomplish this (e.g., the length of shifts should not exceed the recommended eight-hour maximum). As much as possible, emergency staff outside the CNSC EOC are assigned to only one emergency event. This is to avoid confusion and errors in the CNSC emergency response.

Additional telecommunications capability is added as required. At the CNSC EOC, separate facsimiles and e-mail addresses are assigned for each emergency event.

6.2 Objectives and performance objectives

6.2.1 Manage the CNSC emergency organization and response

6.2.1.1 Change the CNSC response level

The CNSC Duty Officer is available 24 hours/seven days to receive reports of emergencies. Licensees notify the CNSC Duty Officer (in Ottawa) in accordance with licence conditions. If someone else is contacted at the CNSC, they notify the CNSC Duty Officer immediately.

For emergencies involving power reactors or the Chalk River Labs, the CNSC Duty Officer contacts the relevant Senior Project Officer first (or delegate) and a CNSC responder second. For other nuclear emergencies, the CNSC Duty Officer notifies the CNSC responder first. In both cases, the responder decides on the response level.

In both cases, the decision on the response level should normally be made within 30 minutes of the initial report to the CNSC. It should be made in consultation with the Senior Project Officer and/or other appropriate CNSC staff as the situation allows. The responder informs the CNSC Duty Officer who informs the licensee or the appropriate responsible authority.

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As a minimum response for any reported emergency, the CNSC maintains a link between the CNSC Duty Officer and the responsible authority (the licensee or competent authority) until the emergency situation is declared terminated. For emergencies involving power reactors or Chalk River Labs, the CNSC Duty Officer also immediately notifies the Director, Communications Division (or delegate). The President, Director General Reactor Regulation, and Emergency Preparedness Officer are notified at the earliest reasonable opportunity and within 12 hours.

For other emergencies, the following are notified of the decision in a timely manner: relevant CNSC regional officer, designated CNSC provincial inspector (if applicable), Coordinator On-Site Liaison, Coordinator Communications, Emergency Preparedness Officer, relevant Director General, and the President.

6.2.1.2 Activate appropriate CNSC emergency staff

For monitoring mode, expert CNSC emergency staff are called upon to discuss the development. There is no minimum emergency staff required.

In standby and activated modes, the minimum emergency staff required for the CNSC emergency organization are the following (in alphabetical order):

- (a) Administrative Assistants (two);
- (b) Back-Up Duty Officer;
- (c) CNSC EOC Manager;
- (d) CNSC EOC Operator;
- (e) Communications Operator;
- (f) Coordinator Communications;
- (g) Coordinator Logistics;
- (h) Coordinator Off-Site Liaison;
- (i) Coordinator On-Site Liaison;
- (i) Emergency Director;
- (k) Emergency Preparedness Officer;
- (l) Executive Committee (one member with the authority of the President);
- (m) Information Systems Assistant;

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- (n) On-Site CNSC Representative (for emergencies involving power reactors or the Chalk River Labs); and
- (o) Telecommunications Assistant.

In standby mode, only the minimum staff are activated. In activated mode, the minimum staff are activated first. Additional positions are activated as required. When activated, all emergency staff go to their planned emergency operating locations if it is safe to do so, and begin operations. Persons for minimum staffing positions are normally contacted within one hour of the response level decision and are at the emergency operating locations one hour after that.

Emergency response shifts do not exceed eight hours. A relief schedule is organized as soon as it becomes apparent that the emergency response will extend beyond eight hours. Relief staff are notified at least three hours prior to the shift handover.

Shift handovers are structured to ensure continuity of operations. At CNSC Headquarters, the incoming relief staff assemble for a general briefing on the event and CNSC response. Following the briefing, the Emergency Director and Coordinators go to the CNSC EOC and shadow the outgoing staff for a brief period (not more than 30 minutes) and to receive the handover information for their specific position. Other incoming relief staff follow the same routine once the Emergency Director and Coordinators are in position. Outgoing staff assemble for a briefing before they leave.

The CNSC response level is downgraded at the appropriate time. The CNSC normally goes from activated mode to standby mode. In standby mode, minimum staff remain at the CNSC operating locations. If the organization goes directly to normal mode from activated mode, emergency operating locations are closed.

Table 6.1 shows the planned emergency operating locations for the CNSC emergency organization. The actual operating locations are subject to change based on emergency conditions.

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GROUP/POSITION (in alphabetical order)	LOCATION	REPORTS
Administrative Assistant(s)	CNSC Headquarters	EOC 3 rd floor
Back-Up Duty Officer	CNSC Headquarters	EOC 3 rd floor
CNSC Duty Officer	Not specified	EOC 3 rd floor
CNSC EOC Manager	CNSC Headquarters	EOC 3 rd floor
CNSC EOC Operator	CNSC Headquarters	EOC 3 rd floor
CNSC EOC Scribe	CNSC Headquarters	EOC 3 rd floor
Canadian Nuclear Safety Commission Members	Not specified	Commission Members are not required to attend the CNSC EOC or Headquarters.
CNSC Representative to the FNEP Coordination and Operations Group	National Support Centre	Location to be specified by the Lead Federal Department for the FNEP
CNSC Representative to the FNEP Executive Group	National Support Centre	Location to be specified by the Lead Federal Department for the FNEP
CNSC Representative to the FNEP Public Affairs Group	National Support Centre	Location to be specified by the Lead Federal Department for the FNEP
CNSC Representative to the FNEP Technical Advisory Group	National Support Centre	Location to be specified by the Lead Federal Department for the FNEP
Communications Administrative Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Communications Officer	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Communications Operator	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Coordinator Communications	CNSC Headquarters	EOC 3 rd floor
Coordinator Logistics	CNSC Headquarters	EOC 3 rd floor
Coordinator Off-Site Liaison	CNSC Headquarters	EOC 3 rd floor
Coordinator On-Site Liaison	CNSC Headquarters	EOC 3 rd floor
Emergency Director	CNSC Headquarters	EOC 3 rd floor
Emergency Preparedness Officer	CNSC Headquarters	EOC 3 rd floor

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Emergency Response Review Officer	CNSC Headquarters	EOC 3 rd floor
Event Assessment Officer	CNSC Headquarters	EOC 3 rd floor
Executive Committee	CNSC Headquarters	12 th Floor Conference Room
Executive Liaison Officer	CNSC Headquarters	12 th Floor Conference Room
Executive Scribe	CNSC Headquarters	12 th Floor Conference Room
External Liaison Officer	CNSC Headquarters	3 rd floor
Finance Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Health and Safety Officer	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Information Research Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Information Systems Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Laboratory Technologist(s)	CNSC Laboratory Tunneys Pasture	
Legal Advisor	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Materiel Support Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Medical Advisor	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Off-Site Assistant	Same location as Off-Site CNSC Representative	
Off-Site CNSC Representative	Provincial operations centre or as instructed by the Coordinator Off-Site Liaison	
Off-Site Monitoring Team	Not specified	Location to be specified by the agency requesting the support
Off-Site Liaison Officer	CNSC EOC	EOC 3 rd floor
On-Site Assistant	Same location as On-Site CNSC Representative	
On-Site CNSC Representative	Emergency site	Command post of the licensee or appropriate responsible authority
On-Site Liaison Officer	CNSC Headquarters	EOC 3 rd floor
Operations Review Officer	CNSC Headquarters	EOC 3 rd floor

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Protective Action Review Officer	CNSC Headquarters	EOC 3 rd floor
Security Assessment Officer	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Security Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Senior Communications Officer	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Telecommunications Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Translator / Writer	Not specified	
Travel Assistant	CNSC Headquarters	EOC 3 rd floor and return to regular work station
Web Site Administrator	CNSC Headquarters	EOC 3 rd floor and return to regular work station

6.2.1.3 Establish a CNSC emergency operations centre

The CNSC emergency operations centre (EOC) is the master coordination point for the CNSC emergency response. It is the place where the CNSC emergency response priorities are set, information is collected and stored, and support for other CNSC operating locations is organized. The CNSC EOC is also where the CNSC communications strategy is set. Establishing and maintaining effective communication links between the CNSC EOC and other emergency operating locations is a priority for emergency response.

The CNSC EOC is set-up in the designated facility at CNSC Headquarters or an alternate site. The alternate sites and alternate systems (e.g., communication systems) are based on the *Business Resumption Planning Program or Contingency Plans*.

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6.2.1.4 Establish and maintain intra- and inter-organization communication links

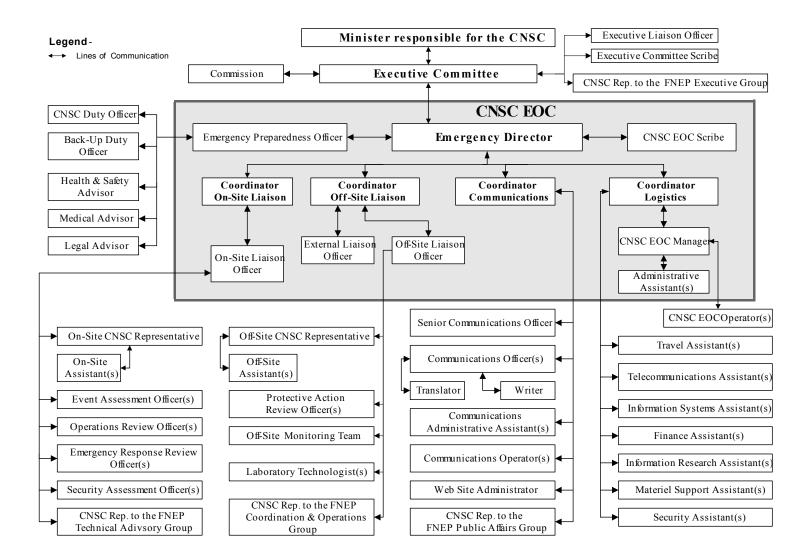
Establishing the CNSC EOC includes, but is not limited to, establishing the intra- and interorganization communication links that may be needed for the CNSC emergency response. Figure 6.1 shows the intra-organization links that are required for activated mode. Figure 6.2 shows the inter-organization communication links that may be required for activated mode. The exact links depend on the nature and location of the emergency.

The equipment and system requirements are specified in the CNSC emergency response procedures and the equipment lists for emergency staff positions.

The CNSC maintains internal and external emergency contact lists. The internal list includes contact information for the CNSC EOC and CNSC emergency staff at other operating locations (e.g., On-Site CNSC Representative at a site management centre). This list is not shared outside the CNSC. External organizations receive the contact information for their point of contact only The external list includes contact information for known responsible authorities (e.g., provincial Duty Officers) and emergency operating locations (e.g., provincial emergency operations centres). Both lists are verified and updated during the emergency.

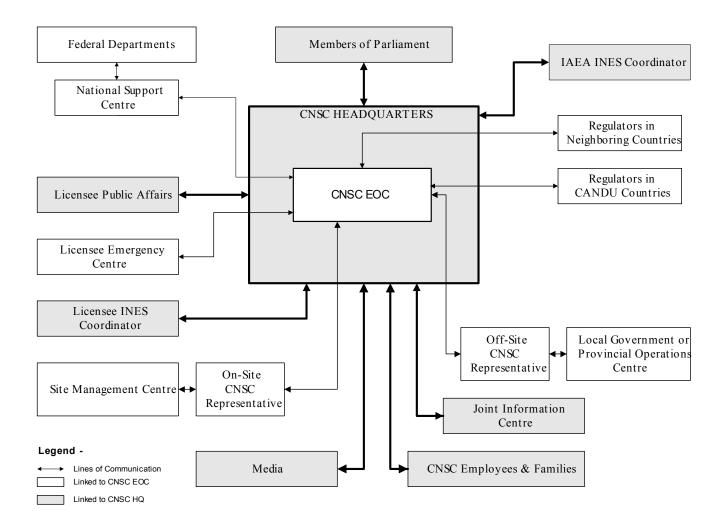
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Figure 6.1: Intra-organization communication links



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Figure 6.2: Inter-organization communication links



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6.2.1.5 Set the operating cycle for the CNSC emergency organization

Table 6.2 shows the normal operating cycle items and timings for the CNSC emergency organization. When setting the exact timings, it is important to ensure that the CNSC EOC briefings do not conflict with those at the site(s) and provincial operations centre(s).

Table 6.2: CNSC Emergency operating cycle and schedule for activated mode

SCHEDULE	ACTIONS
40 - 60 minutes before CNSC EOC briefing	 ∃ CNSC emergency staff send written situation reports to Coordinators. ∃ Coordinators prepare situation reports. ∃ On-Site and Off-Site Liaison Officers ensure that the On-Site and Off-Site CNSC Representatives are on standby for the CNSC EOC briefing. ∃ Telecommunications Assistant arranges conference calls, if required.
20 minutes before the CNSC EOC briefing	∃ Coordinators submit situation reports and update status boards.
10 minutes before the CNSC EOC briefing	 ∃ CNSC EOC Manager ensures all CNSC EOC phones are call-forwarded to the CNSC EOC operator. ∃ CNSC EOC Manager ensures all CNSC EOC staff are in position for the CNSC EOC briefing. ∃ CNSC EOC Manager ensures all status boards are updated. ∃ CNSC EOC Manager ensures the On-Site and Off-Site CNSC Representatives are standing by on conference telephone lines for the CNSC EOC briefing.
CNSC EOC briefing	 Emergency Director chairs the briefing for all CNSC EOC staff and the On-Site and Off-Site CNSC Representatives. CNSC EOC Scribe takes notes. Coordinators present their situation reports (other CNSC EOC staff and CNSC Representatives provide input only if there is new information or clarification is required). Emergency Director states the aim of the CNSC emergency organization and sets and assigns CNSC response actions. Updates the CNSC operating cycle status board. Emergency Director sets the time of the next CNSC EOC briefing.
Immediately following the CNSC EOC briefing	 ∃ Emergency Director briefs the Executive Committee. ∃ Coordinators brief their emergency staff and assign actions based on the CNSC emergency response actions.
Between briefings	 ∃ CNSC emergency staff carry out performance objectives and assigned actions. ∃ New information that may affect the CNSC actions is immediately reported to the Emergency Director (through the appropriate lines of communication).
Once per day or as required	∃ The Emergency Director (or delegate) conducts a general briefing for all CNSC staff (including staff at all region offices and CNSC Headquarters).

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6.2.1.6 Record, display and distribute information

All written information that the CNSC emergency organization receives and sends during the response is recorded (logged) first and then distributed and displayed as appropriate. The official records for CNSC emergency response are:

- (a) original facsimiles;
- (b) original notes recorded by the official scribe with the Executive Committee;
- (c) original notes recorded by the CNSC EOC Scribe at the CNSC EOC;
- (d) original electronic mail messages and attachments;
- (e) original communication and action logs;
- (f) the actual reference documents used (e.g., emergency response plans); and
- (g) original documents produced during the emergency response (e.g., written notices to licensees, communications products, registration sheets).

Scribes are assigned to the CNSC EOC and the Executive Committee to keep a global record of: staff present, critical issues and actions (planned and completed). Persons in select emergency positions keep individual logs. The logs must be complete and legible because they are passed on to relief staff. All records are collected at the end of the emergency.

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Table 6.2 outlines the CNSC EOC status boards and the information they display. The information on the status boards is for use during the emergency. It is not an official record.

Table 6.2: CNSC EOC status boards and information

STATUS BOARD	INFORMATION
Event board	∃ Location, time of initiating event, nature of the event, on-site authority, on-site response level, off-site notification level, off-site authority, off-site response level, time of report to the CNSC, CNSC response level, INES level and FNEP response level.
CNSC operating cycle	∃ Time of next CNSC EOC briefing, actions for current operating cycle, actions for the next 12 hours, actions for the next 24 hours.
Communications issues	∃ Issues and recommended actions for CNSC communications response.
On-site issues	∃ Issues and recommended actions for CNSC on-site response.
Off-site issues	∃ Issues and recommended actions for CNSC off-site response.
Logistics issues	∃ Issues and recommended actions for CNSC logistics response.
CNSC response issues	∃ Health and safety, emergency preparedness and legal issues and recommended actions.

6.2.1.7 Assure the health, safety and well-being of CNSC employees

Assuring the health, safety and well-being of CNSC employees is a first priority for emergency response. CNSC staff do not take actions which may jeopardize their safety or the safety of others. Furthermore, those emergency staff who assign actions to other staff, assisted by the Health and Safety Officer:

- (a) identify potential hazards and hazardous situations for CNSC staff involved in or affected by the emergency;
- (b) ensure that the health and safety of the CNSC staff involved in or affected by the emergency is maintained as a first priority;
- (c) ensure personal protection and exposure information for CNSC staff involved in or affected by the emergency is obtained and recorded;
- (d) respect CNSC health and safety policies and procedures; and
- (e) provide advice to CNSC emergency staff as requested or appropriate.

Most of CNSC's emergency staff would not be exposed to any radiation hazard. However, onsite and environmental monitoring staff may be exposed to radiation above normal levels. In those cases, regulatory limits and approval mechanisms for exposure in emergency situations

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apply.

CNSC employees at a nuclear generating station should consider adopting the same protective measures as station personnel (i.e., re-location, sheltering, stable iodine tablets). CNSC employees who have to work in a contaminated environment should take appropriate protective measures to reduce their dose as much as possible.

CNSC emergency staff are required to take regular rest and meal breaks during their shift. Rest breaks are recommended at least every two hours. Meal breaks are recommended at least every four hours. Both are taken away from emergency operating locations. Back-up for persons who are taking breaks is organized to ensure continuity of operations.

6.2.2 Assess the safety significance

The CNSC assesses the safety significance of nuclear events and radiological events using the International Nuclear Event Scale (INES). The purpose of the assessment is to establish a common understanding of the event between the regulator, the nuclear industry, the media and the public. Safety significance includes on-site impact, off-site impact and defence in depth degradation.

Events are classified on the INES at seven levels. The upper levels (4-7) are termed accidents and the lower levels (1-3) are termed incidents. Events that have no safety significance are classified below scale at level 0 and are termed deviations. Events that have no safety relevance are termed out of scale.

The information the CNSC needs to assess the INES level is collected by CNSC emergency staff from the responsible authorities. The INES level is set within 24 hours (less if possible) of the initiating event. It is accepted that it may be necessary to assign a tentative or provisional level on the scale. As the result of further information and assessment the event may be reclassified.

6.2.3 Enforce regulatory and licence conditions

The CNSC enforces the regulatory and licence conditions which are designed to reduce the risk (probability and severity) of the assessed impact on health, safety, security and the environment.

First, the CNSC identifies and tracks operating, emergency response and protective action issues that affect the risk to health, safety, security and the environment. Second, the CNSC identifies relevant regulatory and licence conditions. Third, the CNSC verifies whether or not the licensee is complying with those conditions.

If the licensee is compliant the CNSC normally does not intervene. However, if the licensee is not compliant, the CNSC will advise the licensee to take appropriate action to address certain issues and concerns.

During an emergency, the licensee may request regulatory approval from the CNSC. The CNSC provides a response as soon as possible and in a time frame that allows the licensee to decide on

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and implement alternate actions or arrangements if regulatory approval is not given. This is consistent with the CNSC's role to provide assurance that appropriate actions are taken to limit the risk to health, safety, security and the environment.

CNSC emergency staff provide recommendations and authorizations within their normal authority and qualifications or defer the item to the appropriate authority. Critical information about the recommendation or authorization is logged at the time it is made. All recommendations and authorizations are communicated to the CNSC EOC as soon as possible.

At all times, the CNSC must itself comply with the relevant Nuclear Safety and Control Act and Regulations, CNSC policies and CNSC agreements.

6.2.4 Provide technical advice

The CNSC provides appropriate technical advice and support, as requested or required. Requests for technical advice from on-site licensee staff or the off-site authority are directed to the On-Site and Off-Site CNSC Representatives. The Representative provides the advice or obtains it from the CNSC EOC.

Requests for technical advice from the licensee's corporate staff (staff who are not on-site), are directed to the CNSC EOC. Staff at that location provide the advice. However, the On-Site and Off-Site CNSC Representatives are informed of the request when it is received and the response before it is provided to the licensee. This is to ensure that they have the opportunity to contribute relevant information or comments.

If required, the CNSC provides appropriate advice to other organizations (licensee, provincial, federal or international organizations) without being asked. This happens only when the CNSC has serious concerns about the risk to health, safety, security and the environment. The advice is always provided to the organization that is responsible for the issue or action about which the CNSC is concerned. For example, if the CNSC is concerned about a licensee's recommendation to the off-site authorities, the CNSC provides advice to the licensee, not the off-site authority. Appropriate advice means making the other organization(s) aware of the CNSC's assessment and its concerns.

6.2.5 Coordinate and cooperate with external organizations

Response to a nuclear emergency affecting Canada or Canadians will involve multiple government and non-government organizations at the local, regional, provincial and national level. It will be of interest to involve international organizations. Therefore, coordination and cooperation with external organizations is a priority. For the CNSC, this involves: notifying others, coordinating similar or overlapping functions with others, and providing resources, expertise and support for others.

In monitoring, standby and activated modes, and when the FNEP is not implemented, the CNSC notifies relevant provincial, federal and international organizations as soon as possible and within the CNSC EOC's first operating cycle if applicable. Updated notification messages are

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provided at least every two hours during the first 12 hours of the emergency and on a regular basis as long as the CNSC is in standby or activated mode. A final notification message is sent when the CNSC returns to normal mode.

The purpose of the CNSC notification message is to alert others to the situation, share basic information on the event, communicate the CNSC's assessment of the safety significance, and provide emergency contact information for the CNSC.

Table 6.3 shows the standard list of organizations that the CNSC notifies before and after the FNEP is activated. Organizations may be added based on the actual emergency situation.

Table 6.3: External notification

ORGANIZATION		CNSC POINT OF	COMMENTS
Before and after FNEP is activated	Only before FNEP is activated	CONTACT	
Provincial organizations			
Province where the emergency is located		Off-Site CNSC Representative (or the External Liaison Officer if the Representative is not available)	Except provincial public affairs staff, for whom the CNSC point of contact is the Senior Communications Officer.
	Provinces with similar nuclear facilities	External Liaison Officer	
	Provinces which may be affected by the off-site impact or emergency response	External Liaison Officer	
Federal organizations			
	Public Safety and Emergency Preparedness - Government Operations Centre (GOC)	External Liaison Officer	
	Environment Canada - National Environmental Emergency Centre (NEEC)	External Liaison Officer	
	Environment Canada - Atmospheric Environment Service	External Liaison Officer	
	Health Canada - Health Protection Branch Duty	External Liaison Officer	

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	Officer		
	Transport Canada - CANUTEC	External Liaison Officer	
International organizations	3		
International Atomic Energy Agency - INES Co-ordinator		Event Analysis Officer	To submit the INES event rating form.
Foreign nuclear regulators		External Liaison Officer	In particular, regulators in the Aneighbour countries≅ of Denmark, France, and the United States
Designated contacts in accordance with agreements and MOU's		External Liaison Officer	In particular, foreign countries with CANDU reactors

The CNSC provides resources, expertise and support for others as long as it does not interfere with the CNSC's ability to fulfil its emergency response role and its related objectives. Three areas where the CNSC is specifically prepared to provide assistance are: environmental monitoring, laboratory analysis and the FNEP National Support Centre.

CNSC regional offices provide Off-Site Monitoring Teams with radiological survey capability. The CNSC normally deploys an Off-Site Monitoring Team when it receives a request and full coordinating instructions from the off-site authority or the licensee. The CNSC may also mobilize a team when it needs environmental data to assess the off-site impact or upon request through the FNEP. In all cases, the Off-Site Monitoring Team needs coordinating instructions. The instructions will include: the measurement capability that is required; the field command structure; the known and potential health and safety hazards; and the maps and units to be used. The Off-Site Monitoring Team follows the coordinating instructions and, using best practices, conducts survey/sampling activities in assigned areas. All results are transmitted in a timely manner to the requesting organization and the CNSC EOC.

The CNSC makes its laboratory facility and staff available as required.

All other technical support is provided by emergency staff under the direction of the CNSC EOC. Therefore, requests for all other assistance (e.g., radiation protection advice) are directed to the CNSC EOC. When the Off-Site CNSC Representative is located at the off-site authority's emergency operation centre, that person is the single window for requests to the CNSC EOC. This continues if the FNEP is activated. In that case, the Off-Site CNSC Representative keeps the Federal Coordination Officer in the region informed on the CNSC response.

When the FNEP is activated, the CNSC dispatches representatives to join the following groups

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at the National Support Centre: Executive Group, Coordination and Operations Group, Technical Advisory Group, and Public Affairs Group. Those persons provide links between the CNSC EOC and the National Support Centre and contribute to group activities as directed by the group chairperson. The CNSC Representative to the Technical Advisory Group acts as the chairperson of that group until relieved by an official from the lead federal department for nuclear emergency response.

6.2.6 Report on CNSC response

The CNSC's objective is to report to the public, the government and the CNSC organization on the CNSC response. In this context, the public means Canadian citizens and special interest groups. The government means the Minister responsible for the CNSC, the Privy Council Office and Members of Parliament. The CNSC organization means Commission Members, CNSC employees and their families.

The CNSC's target audience for communications is Canadian citizens and special interest groups, not foreign citizens, groups or governments. This is consistent with the CNSC's mandate as federal regulator. The CNSC will provide information to the public through the media and its Web site for the emergency event. The CNSC does not plan to operate public inquiry lines.

In Canada, the division of responsibility for reporting to the public during a nuclear emergency is clear. The licensee is the primary authority for information about on-site actions and conditions. The off-site authority is the primary authority for information about off-site actions and conditions. The CNSC informs the public about:

- (a) the CNSC emergency response role;
- (b) CNSC emergency response operating locations and actions,
- (c) CNSC emergency response findings, as appropriate (normally the INES level and the issues that the CNSC is monitoring);
- (d) background information on legislation, regulations and licences; and
- (e) background information on the development, application and use of nuclear energy and radioactive materials.

The precise CNSC communications strategy is decided at the time of an event. It may include: communications products, news conferences and a Web site for the emergency event.

All communications products are produced in French and English. Information products include:

- (a) news announcements;
- (b) media lines;

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- (c) Q and A's; and
- (d) backgrounders.

There will be a spokesperson in Ottawa and/or near the emergency site to speak for the CNSC at news conferences. The spokesperson may also be available to answer inquiries received from the media by telephone. However, if the volume of inquiries interferes with the CNSC's ability to prepare information products in a timely manner, the CNSC will provide information to the media only through news announcements and news conferences. This is to ensure that the CNSC reaches the widest possible audience and the largest possible number of media outlets. News announcements will be posted on a CNSC Web site for the emergency event.

Coordination of communications with the provinces, territories and the licensee is critical. Failure to properly coordinate may lead to the release of wrong or outdated information and, in the worst cases, may lead to a loss of confidence on the part of the public in the organizations dealing with the emergency, including the CNSC.

When the FNEP is activated, the FNEP Public Affairs Group is the authority for information on the federal response. CNSC communications activities are coordinated with that group.

The Minister is briefed at the beginning of the emergency, after any significant change in status of the emergency situation; and daily for emergencies which last more than one day. When the FNEP is activated, Ministerial briefings are coordinated with the National Support Centre.

The CNSC emergency operating cycle includes briefings for emergency staff. However, the expectation is that all CNSC staff will be interested in the emergency response. Therefore, there is an all-staff briefing at least once on each business day. Staff and their families can also access the CNSC Web site for the emergency event. Emergency staff will be available to answer inquiries from and send messages to families of CNSC emergency staff.

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7 Resources

This section describes, in general terms, the human resources, facilities, documents, tools and equipment required to implement the Plan.

7.1 Human resources

There is a roster for CNSC emergency staff. It usually contains a minimum of four names for each position without duplication between positions. Designated persons have appropriate authority, knowledge and skills for their assigned position. All persons on the roster are informed of their designated position and they agree that they may be requested to work outside normal working hours, with appropriate compensation and protection, in the event of an emergency.

The CNSC Emergency Preparedness Officer updates the roster at least every three months, or whenever significant staff changes take place.

7.2 Facilities

There is a primary CNSC EOC at CNSC Headquarters in Ottawa. It is kept in a ready-state at all times. The required documents and equipment are in position in the CNSC EOC. There are security and building management arrangements to ensure the CNSC EOC is accessible and operational at all times, except when the CNSC Headquarters is inaccessible or inoperable (e.g., major fire). In that case, an alternate CNSC EOC location is arranged in accordance with the CNSC Business Resumption Program or Contingency Plans. Duplicates of essential operating documents are stored off-site for this contingency.

Some CNSC emergency staff operate from remote locations (e.g., in the case of transportation incidents), or from other emergency operations centres (i.e., on-site emergency operations centre, provincial operations centre). There are advance arrangements with some host organizations (e.g., power reactor operators and provinces) to ensure that CNSC emergency staff will have adequate and appropriate operating locations and access to communications.

7.3 Documents

There is a catalogued collection of documents for CNSC emergency response. Some, but not all documents are stored in the CNSC EOC. The collection contains documents from the CNSC, licensees, provinces, other federal departments, and international organizations.

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7.4 Tools

There are analysis and information tools available for CNSC emergency staff to carry out and optimize their performance objectives.

7.5 Equipment

There is an equipment list for each position. The equipment is available within the CNSC for emergency response, or there are arrangements to acquire the equipment in a timely manner. As much as possible, the emergency equipment is identical to equipment used during non-emergency situations. The equipment tested and calibrated in accordance with supplier specifications. There are arrangements to ensure that the equipment that is available within the CNSC is not re-assigned, taken out of service or broken without an appropriate replacement being available.

Equipment includes the telecommunication equipment and systems to establish and maintain intra- and inter-organization communication links.

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8 Emergency Preparedness

8.1 Responsibility for emergency preparedness

The CNSC President and Chief Executive Officer is responsible for the maintenance and promotion of an effective emergency preparedness program and state for the CNSC. The President and Chief Executive Officer has delegated the authority for planning and coordination to the Technical and Emergency Programs Division in the Directorate of Nuclear Substance Regulation. The Director, Technical and Emergency Programs Division is responsible for:

- (a) ensuring that the corporate emergency preparedness documents are kept current;
- (b) ensuring that persons on the emergency roster are trained and experienced in their designated roles;
- (c) ensuring that CNSC emergency preparedness arrangements are coordinated with appropriate external organizations; and
- (d) ensuring that there is an ER budget line.

The Director, Technical and Emergency Programs Division, reports at least annually to the President and Chief Executive Officer on CNSC emergency preparedness.