



# FEDERAL NUCLEAR EMERGENCY PLAN



LIAISON Newsletter

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## INEX-3 Scheduled for October 2005

An international nuclear emergency exercise (INEX-3) has been planned by the Nuclear Energy Agency (NEA) Working Party. The exercise will focus on consequence management in the emerging phase and into recovery operations following a serious radiation contamination incident.

Health Canada will conduct the North American INEX-3, scheduled for October 18 – 19, 2005, and it will be a full exercise of the Federal Nuclear Emergency Plan (FNEP).

The Interdepartmental Committee on Radiological-Nuclear Emergency Preparedness (ICRNEP), coordinated by Health Canada's Nuclear Emergency Preparedness and Response Division (NEPRD), met June 7, 2005, to obtain concurrence on the date for the exercise and to get a commitment from all federal departments and agencies detailed in the FNEP.

Officials from the United States and from Canadian provinces are also expected to participate in the exercise.

Following the exercise, the NEA will host an international evaluation workshop in 2006 to summarize and analyze findings. For more information about NEA and INEX-3, please visit [www.nea.fr/html/rp/inex/](http://www.nea.fr/html/rp/inex/)

For more information about Canada's participation in INEX-3 and the ICRNEP, please contact Helen M. Griffiths, Head of the Coordination and Operations Preparedness Section (COPS), NEPRD. She can be reached at [helen\\_m\\_griffiths@hc-sc.gc.ca](mailto:helen_m_griffiths@hc-sc.gc.ca). A profile of the ICRNEP can be found on page 3.

# IAEA Drafts Action Plan to Strengthen International Preparedness, Response System

The International Atomic Energy Agency (IAEA) has developed a three-pronged, five-year plan to improve and extend the international emergency preparedness and response system. The action plan was approved by the IAEA Board of Governors and accepted by the IAEA General Conference in 2004.

According to the IAEA, improvements in international cooperation and advances in information technology since the Chernobyl accident have provided the Agency with opportunities to enhance the international emergency preparedness and response system. However, it says, events since September 11, 2001, have highlighted the need to improve it and extend it further. While many member states have strengthened their arrangements, the IAEA says many have not.

The IAEA action plan draws on recommendations and feedback from Competent Authorities, experience gained from responding to emergencies, drills and exercises, and international findings. It focuses on international communication, international assistance and sustainable infrastructure.

A summary of the plan follows. The complete action plan can be found on the IAEA Website: <http://www-ns.iaea.org/downloads/rw/action-plans/ers-action-plan.pdf>

## International Communication

**Goal:** To have an effective internationally harmonized communication system for nuclear and radiological emergencies.

**Issue:** Arrangements for emergency communications vary from country to country. These arrangements are only partially compatible and, in some states, multiple standards apply.

### Action items:

- Identify existing communication arrangements, define compatibility requirements for international application, identify future global needs and develop a strategy for enhancing international emergency communications.
- Strengthen the international system for secure, timely and reliable emergency notification, active transmission of identified important/urgent information and confirmation of its receipt.

- Develop compatible international arrangements that connect and enhance systems for sharing information identified by the first action item.
- Review and enhance public communication arrangements (including strategy, procedures, information formats and symbology) for harmonized and timely provision of consistent public and media information, for responding to incorrect information, rumours and requests from the public and media.
- Review and implement changes to communication arrangements between IAEA member states and the IAEA secretariat, including the Early Notification and Assistance Conventions (ENAC) protected Web site.
- Promote compatibility among arrangements for secure and reliable voice and video communications for specific intergovernmental emergency response purposes.

## International Assistance

**Goal:** To have in place effective, efficient and compatible arrangements whereby member states can confidently obtain relevant and adequate assistance, including sound and timely assessments and advice; technical products to support assessments and decision making; and coordinated practical assistance.

**Issue:** While the IAEA provides a framework for a harmonized approach, member states have developed different methods to respond to a nuclear or radiological emergency.

### Action items:

- Identify and define the requirements for assistance of different types, review existing capabilities and propose plans for enhancing the delivery of such assistance.
- Develop compatible arrangements for response to situations involving lost, stolen, damaged or discovered dangerous sources.
- Establish compatible arrangements for radiation monitoring and interpretation of results during emergencies.
- Develop, in collaboration with the World Health Organization, compatible arrangements for the medical management of radiation injuries and their diagnosis and treatment, including management of psychological consequences.



- Update, in collaboration with the World Meteorological Organization, standard meteorological products and enhance arrangements for providing associated assistance.
- Review the use of models for assessment of the impact of releases to the environment with respect to efficient provision of assistance and enhance arrangements for providing such assistance.
- Review and develop the ERNET (Emergency Response Network) concept.

### Sustainable Infrastructure

**Goal:** A sustainable, effective and efficient infrastructure for the enhancement of the international preparedness and response system.

**Issue:** The Convention on Early Notification of a Nuclear Accident (CENNA) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (CANARE) and the relevant safety standards relating to international preparedness and response have no built-in sustainable mechanisms for ensuring effectiveness and continuous improvement of practical arrangements.

#### Action items:

- Implement the action plan using a quality management system, monitoring progress against performance indicators, providing support for the work of the National Competent Authorities' Coordinating Group (NCACG), preparing and conducting biennial NCACG meetings and facilitating communication among stakeholders.
- Evaluate and, where appropriate, enhance the ability of the IAEA's Emergency Response System to fulfil its role as a facilitator and coordinator for response to a nuclear or radiological emergency.
- Review and, where appropriate, develop the mechanisms for communicating lessons identified from past events and exercises, preserving knowledge of the response to these relatively rare events for the future.
- Facilitate and promote the adoption and implementation of the updated notification, communications and assistance framework by all states and relevant international organizations; update and reissue the Early Notification and Assistance Technical Operation Manual (ENATOM); disseminate information; assist member states, upon request, with their implementation of the new arrangements; and conduct appropriate tests, drills and exercises.

## Profile

### Interdepartmental Committee on Radiological-Nuclear Emergency Preparedness

#### Mandate

The ICRNEP's mandate is to develop and implement a coordinated federal strategy and emergency management programs for radiological-nuclear (RN) emergencies among the various federal government agencies and departments.

#### Mission

It ensures adequate and coordinated federal RN emergency management programs by:

- sharing knowledge and information,
- collaborating on preparedness activities and response capabilities,
- developing joint products,
- providing advice and assistance to authorities responsible for RN mitigation/prevention, preparedness, response and recovery.

#### Membership

The committee's permanent members are drawn from federal agencies, departments and organizations that have significant responsibilities in preparedness or response to a radiological-nuclear emergency.

The Director, Radiation Protection Bureau (RPB), is the chair of the committee and federal representatives include departments and agencies listed in the FNEP.



# MDDEP's Emergency Plan – Training and Exercise

By: David Duchesne

Coordonnateur aux urgences environnementales

Bureau de la coordination des urgences

Ministère du Développement durable, de l'Environnement et des Parcs

The third annual Nuclear Emergency Plan training exercise, organized by Quebec's ministère du Développement durable, de l'Environnement et des Parcs (MDDEP<sup>1</sup>) du Québec, was held May 16 – 20 in the Trois-Rivières region.

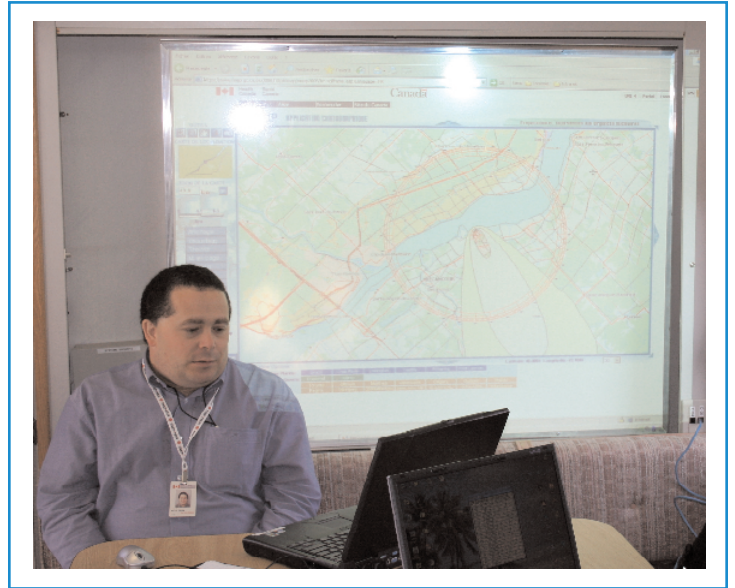
Led by the Bureau de la coordination des urgences<sup>2</sup> and held over five days, the training was aimed at preparing members of Urgence-Environnement<sup>3</sup> for an on-site response to a radiological incident. In addition to Urgence-Environnement, partners participating in the training included the Service de protection contre l'incendie de la ville de Québec<sup>4</sup>, the ministère des Transports du Québec<sup>5</sup> and Health Canada.

The theoretical and practical concepts of radioactivity, the use of detection equipment, the operation of the Gentilly-2 nuclear generation station, worker radioprotection, field deployment and the regulation and transportation of radioactive materials were taught. The response plan, the emergency workers' command post and MDDEP emergency procedures were also tested.

Thursday May 19 was devoted to a field exercise that was prepared by the Bureau de la coordination des urgences, in collaboration with the Direction régionale du Centre de contrôle environnemental de la Mauricie et du Centre-du-Québec du MDDEP<sup>6</sup> and the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ)<sup>7</sup>. Responders from the Sûreté du Québec, the ministère des Transports and the Service de protection incendie de la municipalité de Bécancour<sup>8</sup> joined the more than 50 participants from Urgence-Environnement and MAPAQ deployed in field teams.



MDDEP's mobile command post.



Eric R. Pellerin, Acting Head of the Technical Assessment and Coordination Section, NEPRD, with an image generated by Health Canada's E-MAP system.

The exercise validated the Québec government's RENIR communication system and the new telecommunication tools employed by MDDEP's Poste de coordination mobile (PCM)<sup>9</sup> — the cornerstone for the on-site deployment of Urgence-Environnement responders. Specifically, this year's objective for the exercise was to validate the use of Health Canada's E-MAP system through the PCM's Internet satellite link. E-MAP is a Web-enabled geographic information system developed by Health Canada to assist in the management of nuclear emergencies.

1. Formerly known as the Quebec Department of Environment
2. MDDEP's Emergency Coordination Bureau
3. MDDEP's Environmental Emergency Group
4. Québec City's Fire Department
5. Quebec's Department of Transport
6. MDDEP's regional office
7. Quebec's Department of Agriculture, Fisheries and Food Inspection
8. Bécancour's Fire Department
9. Mobile Coordination Post



The results were very positive as E-MAP allowed the participants, the decision-makers in Trois-Rivières and the different participating departments and agencies to gather and disseminate strategic information among themselves. As well, the data generated by ARGOS — Health Canada’s Accident Reporting and Guidance Operating System — permitted the collection of supplementary information that was very useful when recommending possible actions for the population.

According to the organizers, the exercise was a success and the feedback from the participants was very positive. A fourth exercise is planned for next year.

### We Want to Hear From You!

Do you have news and information that you would like to share with your colleagues in the nuclear emergency preparedness and response field?

If you do, let us know!

Just send us an e-mail to [liaison@hc-sc.gc.ca](mailto:liaison@hc-sc.gc.ca), with your news, as well as your comments and suggestions for future issues of LIAISON. Submission Guidelines can be found on page 8.

### Fun With Jumbles



1) aodespitoroi

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2) gnaierniitdost

\_\_\_\_\_

3) ntcadomnioaeint

\_\_\_\_\_

4) eculrebqe

\_\_\_\_\_

All terms can be found in our glossary:  
[http://www.hc-sc.gc.ca/ed-ud/event-incident/radiolog/info/glossary-glosaire\\_e.html](http://www.hc-sc.gc.ca/ed-ud/event-incident/radiolog/info/glossary-glosaire_e.html)

## Halifax Exercise Tests NER Teams

By: **Debora Quayle**  
Field Team Officer  
COPS, NEPRD

When nuclear-powered vessels (NPV) from the United States or the United Kingdom call at Canadian ports, the Department of National Defence’s (DND) Nuclear Emergency Response (NER) teams are ready.

NER teams are part of DND’s nuclear safety program for the three sites authorized for NPV visits: Halifax, Nova Scotia, on the east coast, and Esquimalt and Nanoose, British Columbia, on the west. Team members are actively engaged in ongoing radio-nuclear emergency training and exercises, including annual full-scale exercises in which the team from one coast observes and evaluates the response capabilities of the team from the other coast.

Every year, the teams alternate roles as exercise players and evaluators, ensuring that each is evaluated every two years and that both have a venue in which to share best practices and lessons learned. This year, the west coast NER team travelled to Halifax to watch the east coast team in action. A team of firefighters from the Halifax Regional Municipality and an ambulance crew from Nova Scotia Emergency Health Services also participated. Staff from NEPRD participated as observers.

The scenario for the exercise involved simulated releases of radioactive materials from a fictitious NPV anchored in Halifax Harbour. The releases and subsequent contamination were simulated using proprietary exercise software developed by International Safety Research.

The NER team was activated late in the evening and worked through a long and chilly April night to:

- detect and confirm the nuclear event;
- help to mitigate the situation on the fictitious vessel;
- perform hazard assessment including deploying ground- and water-based survey teams to “measure” plume deposition in Halifax;
- provide advice regarding protective actions on- and off-base;
- perform decontamination of individuals and vehicles; and
- deal with the public and the media.



## ConvEx-3 Tests International Coordination, Information Exchange

Health Canada's NEPRD participated in ConvEx-3, a two-day exercise coordinated by the IAEA.

More than 50 IAEA member states and eight international organizations took part in the exercise, held May 11 – 12, 2005. Canadian participants included Health Canada, the Canadian Nuclear Safety Commission, Environment Canada, Foreign Affairs Canada (FAC), and Public Safety and Emergency Preparedness Canada.

The exercise scenario for ConvEx-3 centred on a simulated accident at the Cernavoda nuclear power station in eastern Romania. During the first hour of the exercise, a release occurred after containment isolation failure. Approximately 27 – 30 hours later, a controlled depressurization through the stack took place and lasted four hours.

One exercise objective was to test the IAEA's Joint Radiation Emergency Management Plan. The plan provides for a coordinated, appropriate and timely response to United Nations' agencies, to a nuclear or radiological emergency in order to minimize the consequences to people, property and the environment. Canadian participants were testing basic communications and drilling response personnel under ENAC.

The results of the exercise were evaluated and reviewed at a meeting of National Competent Authorities, held in Vienna, in July.

For more information, contact the IAEA's Division of Public Information at 43-1-2600-21270.

### Fun With Jumbles – Answers

- 1) radiisotope
- 2) disintegration
- 3) decontamination
- 4) becquerel

## Changes and New Faces

**JoAnne Ford** has joined NEPRD's Technical Information and Coordination Section (TICS) as a Planning and Policy Advisor. She will be responsible for developing plans, information products and other tools to facilitate communications with the public and media during an emergency.

JoAnne returns to Health Canada following a five-year assignment with the IAEA's Division of Public Information. She worked closely with the agency's Incident and Emergency Centre to strengthen public information response preparedness and she contributed to development of public information best practices and risk, and plain language communication.

JoAnne can be reached at [joanne\\_ford@hc-sc.gc.ca](mailto:joanne_ford@hc-sc.gc.ca)

**Leslie Still** has been seconded to Health Canada's IM/KM Policy Section, Information Management Services Directorate, as a Policy Lead. Leslie had been with TICS, NEPRD as a Scientific Information Officer since December 2001.

**Dr. Slavica Vlahovich** has joined the Canadian Forces Health Services Group, Directorate Health Services Operations, as Physician – Operational Medicine. Her area of work is medical countermeasures. Previously, Dr. Vlahovich was with the Office of the Medical Advisor, RPB, as the Medical Advisor.

**Edith Prescott** was named Communications Manager, Global Partnership Program, FAC. The Program's mission is to reduce the threat posed by weapons and materials of mass destruction to Canadians and the international community by implementing projects in Russia and other countries of the former Soviet Union.

Previously, Edith was a Health Canada Senior Communications Advisor, assigned to NEPRD. Edith can be reached at [edith.prescott@international.gc.ca](mailto:edith.prescott@international.gc.ca)



## CRTI Holds 3rd Annual Summer Symposium

The CRTI held its third annual summer symposium June 20 – 24, 2005, and 227 participants attended.

The symposium was an opportunity for CRTI and the broader CBRN community to share their knowledge and to learn about the progress of CRTI projects as well as the Initiative's future plans.

The first three days of the symposium were organized as a scientific conference that featured oral and poster presentations. Keynote speakers included Dr. Lawrence Kerr, Assistant Director for Homeland Security for the Office of Science and Technology Policy in the Executive Office of the President; Dr. David Butler-Jones, Chief Public Health Officer, Public Health Agency of Canada; and William G. Rhodes III, Manager, International Physical Protection Program, Sandia National Laboratories.

The final two days were devoted to a First Responder and Technology Demonstration Workshop. Case studies, table top discussions, poster sessions and demonstrations of CRTI projects were featured.

Planning for next year's symposium, to be held June 12 – 16, 2006, is well underway.

## New Web Site!



Check out our new Web site at:  
[http://www.hc-sc.gc.ca/ed-ud/index\\_e.html](http://www.hc-sc.gc.ca/ed-ud/index_e.html)

## VIMS Participating in System-Wide Performance Test

RPB's Verification and Incident Monitoring Section (VIMS) completed the operational phase of an intercomparison and full system test of the Comprehensive Test Ban Treaty Organization's (CTBTO's) international monitoring system (IMS).

The IMS comprises 321 monitoring stations worldwide that are capable of registering vibrations from a possible nuclear explosion underground, in the seas and in the air, as well as detecting radioactive contamination released into the atmosphere.

The performance test provides access to timely, good quality data for the assessment of any major nuclear incident worldwide, and uses high performance applications for data analysis that are being incorporated directly into Canada's nuclear emergency response capabilities.

VIMS performed a national data centre (NDC) inter-comparison of results with the International Data Centre (IDC). Also participating were NDCs in China, Finland, Germany and New Zealand.

The test included:

- an automatic analysis of over 1,900 particulate sample spectra and 1,900 quality control spectra;
- full reviewed analysis of over 500 particulate sample spectra;
- full reporting to an intercomparison database operated by the United Nations;
- specific event modelling by Canadian Meteorological Centre partners at Environment Canada.

The completed and shared database will contain over 30,000 individual analyses available for intercomparison and benchmarking of NDCs against the IDC, along with numerous other performance metrics.

A full analysis of the results and lessons learned will take approximately a year, with contributions from individual countries, including Canada, and the CTBTO. Key tracking and reporting of progress on the analysis will take place at the CTBTO Working Group meeting, to be held at end of August 2005, and at a dedicated workshop to be held in Rome, in October 2005.

For more information, please contact Kurt Ungar, at [kurt\\_ungar@hc-sc.gc.ca](mailto:kurt_ungar@hc-sc.gc.ca)



## CRTI Issues Call for Proposals

The Chemical Biological Radiological Nuclear (CBRN) Research and Technology Initiative (CRTI) has announced its fifth call for proposals.

Proposals are sought from industry, academia, non-governmental organizations and government institutions.

CRTI says it is particularly interested in receiving submissions in the areas of criminal investigation capabilities, science and technology dimensions of risk assessment; and public confidence and psycho social factors.

### Proposal Deadlines

Applicants must submit electronically synopses of their proposals to CRTI by September 14, 2005.

CRTI's selection committee will then evaluate each submission to ensure it is relevant to the Initiative's investment priorities and it will also try to identify opportunities for collaboration between submissions.

Selected applicants will then be invited to submit detailed proposals, due November 23, 2005.

Project funding will be awarded January 6, 2006.

For more information, please visit the CRTI Web site:  
[http://www.crti.drdc-rddc.gc.ca/proposals/submit\\_e.html](http://www.crti.drdc-rddc.gc.ca/proposals/submit_e.html)

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*Health Canada*

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### LIAISON Submission Guidelines

LIAISON is published three times a year by Health Canada's Nuclear Emergency Preparedness and Response Division.

LIAISON is an electronic newsletter dedicated to promoting a broad and open exchange of information relating to nuclear emergency preparedness and response in Canada, by objectively sharing news and information among stakeholders. Our vision is to foster a dedicated, visible and collaborative relationship among all stakeholders involved in radiological and nuclear emergency planning, preparedness and response for the benefit of all Canadians.

Articles submitted for publication:

- are welcome in either French or English;
- should focus on issues relating to nuclear emergency preparedness and response;
- should be less than 500 words (maximum) and written in layman's terms.

Please save your article in text (\*.txt), Word (\*.doc) or WordPerfect (\*.wpd) format. If you have graphics to support your text, send them along! Images should be 150 – 300 dpi and in JPEG (\*.jpg) or bitmap (\*.bmp) format.

Note that all articles will be edited for length and clarity prior to publishing. Accompanying images may or may not be used in accordance with editorial board decisions.

If you want to add your name to LIAISON's mailing list, please contact us! Just send us an e-mail, requesting that we add you to our list of readers.

### Contact Us!

LIAISON staff can be reached at:

TICS/NEPRD  
HECS Branch — SEP — RPB  
Health Canada  
Tupper Building, 4th Floor  
2720 Riverside Drive  
P/L 6604G  
Ottawa, Ontario  
Canada  
K1A 0K9

Our e-mail address is: [liaison@hc-sc.gc.ca](mailto:liaison@hc-sc.gc.ca)

