



# DNSR Newsletter

## Radiation Safety Officer Responsibilities

A licensee's radiation safety officer (RSO) is responsible for ensuring the radiation safety of workers, and may be assisted by technical personnel responsible for performing specific tasks. Smaller licensees may not have full-time RSOs, but they still must have someone responsible for radiation safety, licensing and compliance matters. These individuals should understand the *Nuclear Safety and Control Act* (NSCA), the applicable regulations made pursuant to the NSCA, and the conditions of the licence under which their activities are being carried out. RSOs and assisting technical personnel should also be well informed about the current radiation protection principles, methods, and practices related to the licensed activity.

Occasionally, the CNSC becomes aware that an RSO is either a consultant or someone who is not in the licensee's employ. In some cases, the RSO may even be located in another province. These situations may create issues with ensuring that the RSO has sufficient authority and control over the licensed activities, as required by paragraph 12(1)(a) of the *General Nuclear Safety and Control Regulations* and section 36 of the NSCA.

When inspecting licensed locations, CNSC staff will take note of whether the RSO is in the employ of the licensee or not. In the latter case, the inspector will verify if this is a short- or long-term arrangement, and request a justification when a long-term arrangement is proposed. If this is a short-term situation, there should be a definitive date by which the situation will be resolved.

For all such cases, CNSC staff will verify whether the RSO intends to physically inspect the site on a periodic basis, and establish the basis for any audits that the RSO will undertake. If the licensee delegates an onsite staff member as substitute during the physical absence of the RSO, an assessment

of the qualifications, training and skills of this person will also be conducted. The RSO and the onsite person must be able to respond to incidents and events, and provide information and records as requested by CNSC inspectors.

For more information on a radiation safety officer's responsibilities, contact:

Directorate of Nuclear Substance Regulation  
Canadian Nuclear Safety Commission  
P.O. Box 1046, Station B  
Ottawa, ON K1P 5S9  
Telephone: 1-888-229-2672  
Fax: 613-995-5086  
[Licence-Permis@cnsccsn.gc.ca](mailto:Licence-Permis@cnsccsn.gc.ca)

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## Update on the New Certified Exposure Device Operator (CEDO) Program

The CNSC, in collaboration with the Canadian Standards Association (CSA) and the gamma radiography industry, is revising the requirements for the certification of exposure device operators (EDO) in Canada. A new CSA certification guide will cover new knowledge requirements in areas such as the fundamental aspects of radiation, units of radiation detection and measurement, CNSC regulatory requirements, security requirements, operational procedures and radiation protection. There will also be a new practical examination to verify the required skills and abilities for the use of exposure devices.

In addition, the certificate issued for an EDO will include an expiration date – which, as of 2013, will be every five years. Current qualified operators (QOs) and certified exposure device operators (CEDOs) will be issued new identification cards with a pre-set expiry date. To renew a certification, a CEDO must show that they have been employed as a CEDO, attended training seminars or demonstrations, or participated in online learning during

the five-year period. The CEDO must also successfully complete a short practical test which can be administered by another CEDO prior to renewal.

In general, the new program is expected to greatly enhance safety and security within the radiography industry, reduce accidents and establish continuing education for CEDOs.

The new CSA certification guide is currently in draft form, and will be translated prior to being made available by CSA for comments or questions. This new guide will replace the CNSC Guidance Document G-229, *Certification of Exposure Device Operators*, published in March 2004.

For additional information as it becomes available, visit the CSA Web page [csa-america.org/personnel\\_certification/exposure\\_device\\_operator/](http://csa-america.org/personnel_certification/exposure_device_operator/), or the CNSC Web page [nuclearsafety.gc.ca/eng/licenseesapplicants/certexposure](http://nuclearsafety.gc.ca/eng/licenseesapplicants/certexposure).

## Verify that Package Contents are Secure

The *Packaging and Transport of Nuclear Substances Regulations* specify that upon receipt of a package, the recipient must verify whether the package is intact and whether any portion of its contents has escaped from the containment system or the package. If the package shows evidence of damage, tampering or leakage, this must be reported immediately to the CNSC.

This means looking for signs of damage, tampering or leakage. If anything out of the ordinary is discovered, the company's procedure for damaged or leaking packages should be followed, including a wipe test. In fact, some licensees may have internal procedures requiring a wipe test of every shipment.

The CNSC's *Nuclear Substances and Radiation Devices Regulations* ensure that licensees using packages have the appropriate procedures in place to detect and prevent the spread of contamination. The CNSC agrees that wipe tests are not required for every package upon receipt (although this is a good precautionary measure for many shipments), but does require its licensees to have a verification system in place, to ensure that the radioactive nuclear substance has not escaped its containment.

CNSC poster, *Guidelines for Handling Packages Containing Nuclear Substances*, provides basic information on identifying and opening transport packages.

## Free CNSC 101 Information Sessions

This spring, the Canadian Nuclear Safety Commission will be holding information sessions on May 22, in Winnipeg, Manitoba, and on May 30, in Sherbrooke, Quebec.

Who should attend? Members of the public and those interested in learning more about how the CNSC does its work as Canada's nuclear regulator.

CNSC 101 outlines how the CNSC's regulatory oversight ensures the safety and security of the Canadian nuclear sector and its activities, including: nuclear power plants, uranium mines and mills, nuclear waste management, nuclear medicine, manufacture of medical isotopes, use of nuclear substances and prescribed equipment, as well as transportation of radioactive materials.

Attendance is limited. Register by [email](#) or by phone at 1-800-668-5284.

For more information, visit the [CNSC Web site](#) or the [CNSC Facebook page](#).



## Orders

*As part of its oversight, the CNSC issues orders to licensees for regulatory non-compliance, in order to protect the health and safety of workers, the public and the environment. These regulatory actions were taken by the CNSC between October 5, 2012, and March 8, 2013.*

On October 5, 2012, the CNSC issued an order to **Hanjin Shipping Canada Inc.**, a company that provides cargo-shipping services to Canada.

Upon its arrival at the Port of Montreal, a shipment transported by Hanjin triggered a Canada Border Services Agency radiation detection alarm. An inspection at the Port confirmed that kitchenware within a shipping container was contaminated with cobalt 60.

Given that Hanjin Shipping Canada Inc. did not hold a CNSC licence to possess nuclear substances, the order required the company to remove the contaminated material it had brought into Canada by October 26, 2012.

On November 16, 2012, the CNSC confirmed that Hanjin Shipping Canada Inc. had removed the contaminated material from Canada.

On October 6, 2012, the CNSC issued an order to **Inspec-Sol Inc.**, a company located in Montreal, Quebec, which provides geotechnical, environmental and materials engineering services across the province.

The order was issued following an inspection in Kiamika, Quebec, where an employee was observed leaving a portable nuclear gauge unattended.

The order required Inspec-Sol Inc. to have the employee immediately stop using the portable nuclear gauge until the person had been retrained and qualified by the company to work with portable nuclear gauges.

On November 8, 2012, the CNSC confirmed that Inspec-Sol Inc. had complied with all the terms and conditions of the order.

On October 15, 2012, the CNSC issued an order to **Acuren Group Inc.**, a company based in Edmonton, Alberta, which provides testing services to the industrial sector.

The order was issued following a CNSC inspection in Markham, Ontario, during which workers were observed operating an exposure device in an unsafe manner, without appropriate warning signs or barriers preventing unauthorized access to the areas being tested.

The order required Acuren Group Inc. to cease radiographic operations at the inspected location and to return the exposure device to secure storage. The operators were removed from work duties relating to exposure devices, and prevented from conducting any further radiography work until safety measures have been put in place.

On April 9, 2013, the CNSC confirmed that Acuren Group Ltd. had complied with all the terms and conditions of the order.

On November 20, 2012, the CNSC confirmed that **Nelson's Welding Inspection Limited** complied with all the terms and conditions of an order issued to the company on August 20 (refer to the [fall 2012 edition of the DNSR Newsletter](#) for details). The corrective measures implemented by the company were reviewed and found to be satisfactory by CNSC staff.

On December 12, 2012, the CNSC issued an order to **E2K Engineering Ltd.**, a company located in Calgary, Alberta, which provides geotechnical, environmental and materials engineering services in Alberta and British Columbia.

The order was issued following a CNSC inspection in Calgary, at which time the company was responding to an event involving a damaged nuclear gauge. The inspection identified that workers had inadequate training to safely conduct the activities licensed by the CNSC.

The order required E2K Engineering Ltd. to return all portable gauges, except the damaged gauge, to secure storage until it has implemented an effective radiation protection program and satisfactorily trained its workers. The CNSC oversaw the safe removal of the damaged gauge.

On April 19, 2013, the CNSC confirmed that E2K Engineering Ltd. had complied with all the terms and conditions of the order.

On January 10, 2013, the CNSC issued an order to **Bonnechere Excavating Inc.**, a company located in Renfrew, Ontario, which provides geotechnical, environmental and materials engineering services.

The order was issued following a CNSC inspection, which identified numerous deficiencies, including inadequate

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## Orders ... *continued from p.3*

emergency response equipment and a failure to maintain complete training records for workers.

The order required Bonnechere Excavating Inc. to stop using its portable nuclear gauges and to return them to secure storage until it can demonstrate to the CNSC that all items of non-compliance identified during the inspection have been corrected.

On February 14, 2013, the CNSC confirmed that Bonnechere Excavating Inc. had complied with all the terms and conditions of the order.

On January 24, 2013, the CNSC issued an order to **TISI Canada Inc.**, a company based in Oakville, Ontario, which provides testing services to the industrial sector.

The order was issued following a CNSC inspection in Edmonton, Alberta, during which a worker was observed operating an exposure device in an unsafe manner, without appropriate warning signs or barriers preventing unauthorized access to the areas being tested, and not using radiation safety equipment properly.

The order required TISI Canada Inc. to remove the worker from duties related to the operation of an exposure device until the worker no longer poses a risk to the health and safety of persons.

On March 4, 2013, the CNSC confirmed that TISI Canada Inc. complied with all terms and conditions of this order.

On January 30, 2013, the CNSC issued an order to **Hoban Equipment Ltd.**, a construction company serving the heavy equipment industry in central British Columbia, with offices in Prince George and the Okanagan Valley.

The order was issued following a CNSC inspection that identified numerous deficiencies in the transportation of portable nuclear gauges, as well as the company's radiation protection and training programs.

The order requires Hoban Equipment Ltd. to immediately service the portable nuclear gauges and place them in secure storage until all items of non-compliance identified during the inspection have been corrected.

At press time, Hoban Equipment Ltd. had not demonstrated compliance with all the terms and conditions of the order.

On February 20, 2013, the CNSC issued an order to **Metalcare Inspection Services Inc.**, a company based in Fort McMurray, Alberta, which provides testing services to the industrial sector.

The order was issued following a CNSC inspection during which a trainee was observed operating an exposure device unsafely and without the immediate supervision of an authorized certified exposure device operator.

This order requires Metalcare Inspection Services Inc. to prohibit the designated supervisor from conducting any licensed activity, including the operation of an exposure device until the company can demonstrate to the CNSC that the supervisor's activities will no longer pose an unreasonable risk to the health and safety of any person.

At press time, Metalcare Inspection Services Inc. had not demonstrated compliance with all the terms and conditions of the order.

On February 25, 2013, the CNSC issued an order to **Les Laboratoires d'Essais Méqualtech Inc.** based in Montreal, Québec, that provides testing services for the industrial sector.

The order was issued following an inspection at an industrial fabrication facility during which exposure device operators were observed performing radiography work in an unsafe manner, potentially exposing employees to radiation dose levels above the allowable limits for members of the public.

The order required Les Laboratoires d'Essais Méqualtech Inc. to cease all radiography work at the fabrication facility and determine the radiation dose levels of all employees to ensure that the health and safety of workers, the Canadian public and the environment are protected when radiography is performed.

On April 2, 2013, the CNSC confirmed that Les Laboratoires d'Essais Méqualtech Inc. had complied with all the terms and conditions of the order.

On March 1, 2013, the CNSC issued an order to **Démolisseurs d'autos Normand Legault Inc.** based in Ville Ste-Catherine, Quebec.

Démolisseurs d'autos Normand Legault Inc. is no longer authorized to possess nor use a Niton XL radiation device (x-ray fluorescence analyzer).

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The order was issued following the CNSC review of their licence renewal submission. The review identified that Démolisseurs d'autos Normand Legault Inc. was no longer qualified to continue to safely conduct the licensed activities associated with this device.

The order prohibited Démolisseurs d'autos Normand Legault Inc. from using the device, and required the company to safely dispose of it or transfer it to an authorized licensee prior to March 11, 2013.

On April 11, 2013, the CNSC confirmed that Démolisseurs d'autos Normand Legault Inc. had complied with all the terms and conditions of the order.

On March 7, 2013, the CNSC confirmed that **SAI Testing and Inspection Ltd.** complied with all the terms and conditions of an order issued on April 12, 2012 (refer to the [fall 2012 edition of the DNSR Newsletter](#) for details). The corrective measures implemented by the company were reviewed and found to be satisfactory by CNSC staff. 

## Clarification on the Posting of a Licence

The *General Nuclear Safety and Control Regulations* (GNSCR) require licensees to notify all interested parties that the activities carried out at any site are authorized under a CNSC licence. Subsection 14(1) of the GNSCR requires the posting "in a conspicuous place" of a "notice of licence" at all sites where a licensed activity is carried out.

### Points to note

- This requirement does not apply if the licensed activity is conducted at a field location.
- If the licence has a specific condition requiring the "notice of licence" to be posted in a given location, then that is where it must be posted. While this condition is not normally included in most DNSR licences, it may be a part of other CNSC-issued licences.
- If a document submitted by the licensee states exactly where they will post the "notice of licence" and this document is referenced in the licence, then it becomes a condition that must be complied with.

If there is no reference to a specific location, then the "notice of licence" must be posted at the site of the licensed activity. If the company operates two or more sites, it would have to post a "notice of licence" at each site.


A conspicuous place is a location that can reasonably be physically accessed by any person, not one that is hidden, locked, or inaccessible. Therefore, having a copy of the licence available on the local intranet site is not sufficient, since as that location is only accessible to certain individuals.

### What to post

The "notice of licence" can mean either one of the two things referred to in GNSCR 14(1)(a) or (b):

- A notice of licence, as per GNSCR 14(1)(a), is a copy of the licence (main body only, without the appendices, given the enhanced security requirements), with a notice stating where the remaining referenced documents (appendices and licence documents) and records are kept, and who to contact to gain access to the documents.
- A notice of licence, as per GNSCR 14(1)(b), is simply a notice that should include:
  - a statement to the effect that the site is operated by licensee under a CNSC licence
  - a statement referring to the activity (i.e., "operate a medical accelerator and other radiotherapy facilities") authorized for the site
  - if not self-evident, a description of the type of substances or equipment used at the site; for example, a brachytherapy facility could say "conducting brachytherapy with sealed nuclear substances"
  - a statement informing people where or how to consult the licence and other relevant documents

Subsection 14(2) of GNSCR applies if the licensed activity is conducted at a field location. It requires that a full copy of the licence (not including the referenced documents, but including all the appendices) be available at the location of the field activity. Note that there is no requirement to have a licence posted at the entrance to each room, laboratory or bunker at the site.

Further information on specific requirements contained in a licence may be obtained from the company's CNSC licensing officer, or by email to [Licence-Permis@cnsccsn.gc.ca](mailto:Licence-Permis@cnsccsn.gc.ca). 




## Industrial Radiography Working Group Update

The Industrial Radiography Working Group is made up of members from the Canadian radiography industry and the CNSC. The group meets at least twice a year to discuss safety and compliance performance issues related to industrial radiography.

The CNSC will hold two meetings with the industrial radiography industry this spring. The first will be in Leduc, Alberta, on May 7, 2013, and the second in Ottawa, Ontario, on May 22, 2013. These sessions will build on

last year's successful meetings dealing with safety and compliance performance topics. An update will also be provided on the ongoing efforts to replace the CNSC Guidance Document G-229, *Certification of Exposure Device Operators*, with a standard being developed by the Canadian Standards Association.

To register for these upcoming meetings and for more information, contact Tammy Madsen at 403-292-4802 (for the meeting in Leduc) or Michele Armitage at 613-993-7973 (for the meeting in Ottawa). 

### DNSR Newsletter

The *DNSR Newsletter* is a CNSC publication. If you have any suggestions on topics or issues that you would like to see covered, please do not hesitate to contact us.

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