Special Edition, Winter 2013

DNSR Newsletter

Canada's Nuclear Regulator

Update on the New 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 in Canada. A new CSA certification guide will cover new knowledge requirements in areas such as: 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 in the use of exposure devices.

In addition, the certificate issued for an exposure device operator (EDO) will include a date for when an EDO certification must be renewed – as of 2013, the renewal is scheduled 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.

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.

Before the updated certification exam can be finalized, it must be beta-tested to provide feedback and assist in establishing the pass/fail score. With this in mind, CSA requires current and apprentice exposure device operators with at least 40 hours of work activity within the past 12 months to act as BETA examination testers.

BETA Examination Details

- The BETA exam consists of approximately 240 multiple-choice questions, developed by radiography industry experts (no essays or extended response questions).
- Each BETA tester will be allowed up to four hours to complete the exam.
- The test will be conducted at computer-based testing centres throughout Canada.
- A completed and signed application is required, but there are no fees associated with the exam.

If you are up for the challenge of beta-testing the updated exam, sign up now on the CSA Web page below. Exams will be available at convenient testing centres across Canada.

For current QOs and CEDOs, the CNSC will swap the existing card for a new CEDO card with an expiry date. The expiry date will be determined using an algorithm based on the person's NRCan number and will range from two to seven years. This will ensure that the expiration dates are spread out both over the year and over a five-year period. If you work for a radiography company, talk to your radiation safety officer about exchanging your card.

For additional information as it becomes available, visit the CSA Web page http://www.csa-america.org/personnel_certification/exposure_device_operator/, or the CNSC Web page http://www.nuclearsafety.gc.ca/eng/licenseesapplicants/certexposure/index.cfm.

In this issue

Canadian Nuclear Safety Commission
Commission canadienne de sûreté nucléaire

Canada

Important Reminders about Direct Reading Dosimeters

The CNSC recently conducted an evaluation of different types of direct reading dosimeters (DRDs) to evaluate their performance in varying radiological environments, including elevated dose-rate conditions.

The purpose of a DRD is to accurately and reliably measure and display dose and/or dose-rate to help the wearer make informed and important decisions to control radiation exposures.

Situations can vary in terms of environmental conditions and more importantly, in terms of gamma dose-rate fields.

It is the user's responsibility to determine the environment in which the DRD will be used, and to choose a suitable DRD for all potential operating conditions, based on the manufacturer's specifications. Not all types of direct reading dosimeters are suitable for use in elevated dose-rate conditions. Failure of a DRD to respond accurately and reliably may lead to a situation where the wearer may unknowingly approach or exceed a regulatory dose limit or action level.

The table below provides general information and guidance for the three types of detectors most commonly used in DRDs.

Detector Type	Typical Dose Rate Range	Advantages	Limitations
GM-Tube (electronic)	0 to 20 mSv/h	• Real-time display • Alarm capability for dose and dose rate • Sensitive for use at low dose rates	• Limited high dose rate operating range
Silicon Diode (electronic)	0.001 mSv/h to 10,000 mSv/h	• Real-time display • Alarm capability for dose and dose rate • Reliable dose response in a wide range of dose rates including upset conditions	• Limited very low dose rate operating range
Ion Chamber (pencil)	• Measures dose accurately at any dose rate within the instrument's dose scale • Various dose scales available	• Real-time display	• No alarm • Sensitive to shock • Small dose scale instruments may be limiting for upset conditions • Large dose scale may degrade dose resolution

IAEA Requests Input from Member States

The International Atomic Energy Agency (IAEA) has requested Member States (this includes Canada) to review and evaluate two documents. The first is the recently published *Regulations for the Safe Transport of Radioactive Material* (Specific Safety Requirements, No. SSR-6, 2012 Edition). The other is the draft *Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material* (2012 Edition).

Before the CNSC responds to the IAEA request, we would like to invite licensees, consignors, carriers and consignees to provide their own comments to the CNSC on these two documents. This input will then be compiled by the CNSC and submitted to the IAEA on behalf of Canada.

Refer to the IAEA Web site for the draft *Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material* (2012 Edition) and enter any comments on the IAEA form. Both SSR-6 and its comment form are also available on the IAEA Web site. Please note that the comment forms for the two documents must be downloaded, filled out by respondents and submitted to the CNSC.

These documents were prepared to assist consignors, carriers and consignees involved in the transport of nuclear substances. Those wishing to comment are asked to complete the respective comment forms and to forward them to the CNSC, no later than March 28, 2013. Note that the above documents are available from the IAEA in English only.

Submit the completed IAEA comment forms to the following:

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Attn: S. Faille
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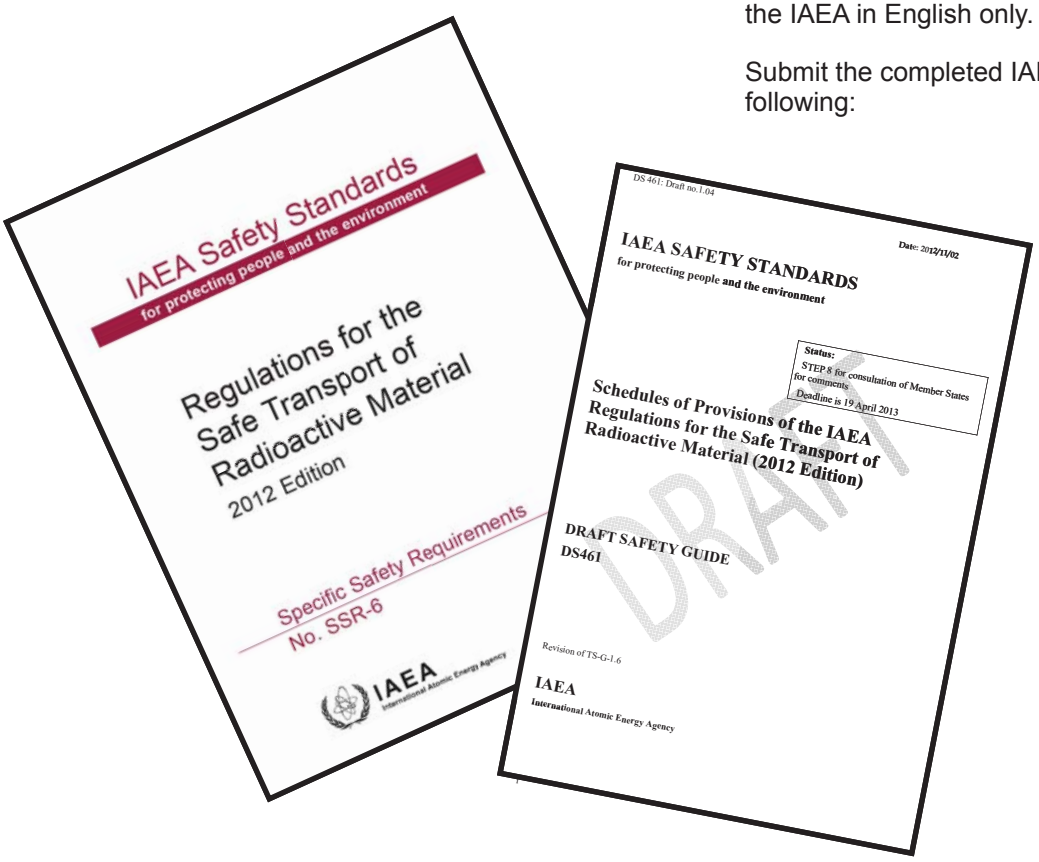
P.O. Box 1046, Station B
Ottawa, ON K1P 5S9
Telephone: 1-888-229-2672
Fax: (613) 995-5086
transport@cnsc-ccsn.gc.ca



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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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