



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

## REGULATORY STANDARD

# **Making Changes to Dose-Related Information Filed with the National Dose Registry**

S-260

October 2004

## TYPES OF REGULATORY DOCUMENTS

The legal framework within which the Canadian Nuclear Safety Commission (CNSC) operates includes the *Nuclear Safety and Control Act*, its Regulations and other legal instruments such as licences, certificates and orders. The legal framework is supported by regulatory documents issued by the CNSC, the main classes of which are

**Regulatory Policy (P):** a document that describes the philosophy, principles or fundamental factors that underlie the CNSC's approach to its regulatory mission. It provides direction to CNSC staff and information to stakeholders.

**Regulatory Standard (S):** a document that describes CNSC requirements. It imposes obligations on the regulated party, once it is referenced in a licence or other legally enforceable instrument.

**Regulatory Guide (G):** a document that indicates acceptable ways of meeting CNSC requirements, as expressed in the Act, Regulations, regulatory standard or other legally-enforceable instrument. It provides guidance to licensees and other stakeholders.

**Regulatory Notice (N):** a document that provides licensees and other stakeholders with information about significant matters that warrant timely action.

REGULATORY STANDARD

**S-260**

**MAKING CHANGES TO DOSE-RELATED INFORMATION  
FILED WITH THE NATIONAL DOSE REGISTRY**

Published by the  
Canadian Nuclear Safety Commission  
October 2004

*Making Changes to Dose-Related Information Filed with the National Dose Registry*  
Regulatory Standard S-260

Published by the Canadian Nuclear Safety Commission

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Catalogue number: CC173-3/3-260E  
ISBN 0-662-38237-4

Ce document est également disponible en français sous le titre  
*Modification des renseignements sur les doses déposés dans le Fichier dosimétrique national.*

**Document availability**

The document can be viewed on the CNSC Internet website at [www.nuclearsafety.gc.ca](http://www.nuclearsafety.gc.ca). Copies may be ordered in English or French using the contact information below:

Communications and Information Management Directorate  
Canadian Nuclear Safety Commission  
P.O. Box 1046, Station B  
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Ottawa, Ontario, K1P 5S9

Telephone: (613) 995-5894 or 1-800-668-5284 (Canada only)  
Facsimile: (613) 992-2915  
E-mail: [publications@cnsccsn.gc.ca](mailto:publications@cnsccsn.gc.ca)

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# MAKING CHANGES TO DOSE-RELATED INFORMATION FILED WITH THE NATIONAL DOSE REGISTRY

## 1.0 PURPOSE

The purpose of this Regulatory Standard, when incorporated in a licence or other legally enforceable instrument, is to require the licensee to seek Canadian Nuclear Safety Commission (CNSC) approval, in accordance with specified procedures, of any changes to dose-related information previously filed with the National Dose Registry (NDR) of Health Canada.

## 2.0 SCOPE

This Regulatory Standard, when incorporated in a licence or other legally enforceable instrument, sets out the requirements to be met by the licensee, including the process to be followed and the information to be provided to the CNSC and workers, when seeking CNSC approval of proposed changes to dose-related information previously filed with the NDR of Health Canada.

## 3.0 RELEVANT LEGISLATION

The following provisions of the *Nuclear Safety and Control Act* (“NSC Act,” “Act”) and regulations are relevant to the Standard:

1. subsection 24(4) of the Act, which prohibits the Commission from issuing, renewing, amending or replacing a licence, unless in the opinion of the Commission, the applicant is (a) qualified to carry on the activity that the licence will authorize the licensee to carry on, and (b) will, in carrying out that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed;
2. subsection 24(5) of the NSC Act, which provides that a licence issued by the Canadian Nuclear Safety Commission may contain any term or condition that the Commission considers necessary for the purposes of the Act;
3. paragraph 27(a) of the NSC Act, which requires licensees to keep prescribed records, including dose records;
4. section 5 of the *Radiation Protection Regulations*, which deals with the ascertainment and recording of doses;
5. section 7 of the *Radiation Protection Regulations*, which deals with the provision of information to nuclear energy workers;

6. section 8 of the *Radiation Protection Regulations*, which stipulates that “Every licensee shall use a licensed dosimetry service to measure and monitor the doses of radiation received by and committed to nuclear energy workers who have a reasonable probability of receiving an effective dose greater than 5 mSv in a one-year dosimetry period”;
7. section 9 of the *Radiation Protection Regulations*, which deals with the collection of personal information; and
8. section 19 of the *Radiation Protection Regulations*, which stipulates that “Every licensee who operates a dosimetry service shall file with the National Dose Registry of the Department of Health, at a frequency specified in the licence and in a form compatible with the Registry, the following information with respect to each nuclear energy worker for whom it has measured and monitored a dose of radiation:
  - a) the worker’s given names, surname and any previous surname;
  - b) the worker’s Social Insurance Number;
  - c) the worker’s sex;
  - d) the worker’s job category;
  - e) the date, province and country of birth of the worker;
  - f) the amount of exposure of the worker to radon progeny; and
  - g) the effective dose and equivalent dose received by and committed to the worker.”

#### **4.0 TERMINOLOGY**

The Glossary at the end of the document defines the special terms used in this regulatory standard.

#### **5.0 GENERAL PROCESS**

The CNSC uses dose records to monitor licensee compliance with regulatory occupational dose limits. The dosimetry service reports the dose information to the NDR even if the dose information may be incorrect. Dose information already sent to the NDR may have to be changed for various reasons (e.g., following an investigation that concludes there is an incorrect overexposure record). Once the original dose is recorded, the user can initiate a dose information change as per this standard.

The following describes the general process to make a change to an NDR dose record when a user initiates the change to dose information:

1. The user submits to the CNSC a dose information change request, as described in section 6.2.
2. The CNSC evaluates the request and approves or denies it based on the information provided.



3. If the CNSC approves the requested change, it sends a letter to the dosimetry service with the details of the change to be made and sends a copy to the user. A copy of the letter is also sent to the NDR; however, the dosimetry service sends the official notice of the change to the NDR.
4. If the CNSC denies the change request, it sends a letter informing the user of the refusal.

## **6.0 REQUIREMENTS**

### **6.1 Approval**

Users must seek CNSC approval to make a dose information change to a dose record in the NDR.

### **6.2 Dose Information Change Request Procedure**

When submitting a request for approval to the CNSC to make a dose information change to a dose record in the NDR, the user shall undertake the following procedure:

1. The user shall provide the following information in “Section A – Licensee Declaration” of the Dose Information Change Request Form provided in Appendix B:
  - a) dosimetry service name and Group or Account Number that refers to the number of the account assigned to the licensee by the dosimetry service;
  - b) company name that appears on the dosimetry service dose report;
  - c) licensee name that appears on the CNSC licence;
  - d) name of the worker and his or her social insurance number;
  - e) serial number of the dosimeter that is shown on the original dose report, if applicable;
  - f) wearing period or monitoring period (e.g., 03/01/01 to 03/03/31) as listed on the original dose report, if applicable;
  - g) investigation report, as described in section 6.3; and
  - h) requested dose information change.
2. The Radiation Safety Officer or delegate shall complete, date and sign “Section A – Licensee Declaration” of the Dose Information Change Request Form.
3. The worker whose dose information will be affected shall sign and date “Section B – Worker Declaration” of the Dose Information Change Request Form.
4. The user shall mail the completed Dose Information Change Request Form and any attachments to the relevant CNSC licensing personnel (see Appendix A for contact information).

5. The user shall inform the affected worker of any change to the dose information.

### **6.3 Investigation Report**

The user shall conduct an investigation of the event that prompted a request for a dose information change and summarize the information in an investigation report. The report shall contain the following information:

1. reasons for requesting the dose information change;
2. description of the circumstances and time frame involved;
3. calculations to support the request, when applicable;
4. copy of the relevant section of dosimetry service dose report; and
5. other relevant information, as determined by the CNSC licensing specialist, (e.g., a brief description of the person's work history and dose history).

## GLOSSARY

For the purpose of this document, the following terms and definitions apply.

### **Change**

Any modification to dosimetry information. Such a modification can include a decrease or an increase to an assigned dose value previously filed with the NDR. For the purpose of this document, changes to wearing periods are not included as a modification to dosimetry information.

### **CNSC**

Canadian Nuclear Safety Commission

### **Committed**

In respect of a dose of radiation, received by an organ or tissue from a nuclear substance during the 50 years after the substance is taken into the body of a person 18 years old or older or during the period beginning at intake and ending at age 70, after it is taken into the body of a person less than 18 years old, as defined in section 1 of the *Radiation Protection Regulations*.

### **Dose Information**

The occupational radiation doses of monitored workers on record with the NDR. This dose information includes annual summaries, discrete dose details, cumulative dose totals, dose histories, dose type, pregnant worker dose information, and exposure to radon progeny. Dose information excludes other information in the worker's National Dose Registry record, such as the worker's name, date of birth, pregnancy declaration date, social insurance number, employer and job category.

### **Effective Dose**

The sum of the products, in sievert, obtained by multiplying the equivalent dose of radiation received by and committed to each organ or tissue set out in column 1 of an item of Schedule 1 by the weighting factor set out in column 2 of that item, as defined in section 1 of the *Radiation Protection Regulations*.

### **Equivalent Dose**

The product, in sievert, obtained by multiplying the absorbed dose of radiation of the type set out in column 1 of an item of Schedule 2 by the weighting factor set out in column 2 of that item, as defined in section 1 of the *Radiation Protection Regulations*.

### **National Dose Registry (NDR)**

The centralized radiation dose record repository managed, updated and maintained by the Radiation Protection Bureau of the Department of Health (Health Canada).

### **User**

Any CNSC licensee who uses a CNSC-licensed dosimetry service or a dosimetry service that is authorized under the licensee's Radiation Protection Program and is approved by the CNSC.

**Worker**

A person who performs work that is referred to in a licence, as defined in section 1 of the *Radiation Protection Regulations*.

## APPENDIX A CNSC CONTACT INFORMATION

Canadian Nuclear Safety Commission  
Central Regional Office  
P.O. Box 1046, Station B  
280 Slater Street, 9th Floor  
Ottawa, Ontario  
K1P 5S9  
Ph: 1-888-229-2672  
Fx: (613) 995-5086

Canadian Nuclear Safety Commission  
Uranium Mines and Lands Evaluation  
Saskatoon Office  
101 22nd Street E., Suite 307  
Saskatoon, Saskatchewan  
S7K 0E1  
Ph: (306) 975-6376  
Fx: (306) 975-6387

Canadian Nuclear Safety Commission  
Bruce NGS-A Site Office  
Technical Building  
P.O. Box 3000  
Tiverton, Ontario  
N0G 2T0  
Ph: (519) 361-3089  
Fx: (519) 361-7507

Canadian Nuclear Safety Commission  
Bruce NGS-B Site Office  
P.O. Box 4000  
Tiverton, Ontario  
N0G 2T0  
Ph: (519) 361-4010  
Fx: (519) 361-7207

Canadian Nuclear Safety Commission  
Pickering NGS-A & B Site Office  
1675 Montgomery Park Road, Gate 1  
Admin Building  
Pickering, Ontario  
L1V 2R5  
Ph: (905) 831-8195  
Fx: (905) 831-9849

Canadian Nuclear Safety Commission  
Point Lepreau Site Office  
P.O. Box 600  
Lepreau, New Brunswick  
E5J 2S6  
Ph: (506) 659-2220  
Fx: (506) 659-2418

Canadian Nuclear Safety Commission  
Darlington NGS-A Site Office  
P.O. Box 4000  
Bowmanville, Ontario  
L1C 3Z8  
Ph: 1-800-263-8009 (7758) (from Ontario)  
(905) 623-6670 (7758) (from other provinces)  
Fx: (905) 623-5963

Canadian Nuclear Safety Commission  
Gentilly-2 Site Office  
4900 Bécancour Boulevard  
Bécancour, Quebec  
G9H 3X3  
Ph: (819) 298-4334  
Fx: (819) 298-2867

## APPENDIX B DOSE INFORMATION CHANGE REQUEST FORM

Table 1 provides information to be used to complete section 6b) of the Dose Information Change Request Form.

**Table 1 – Source of Committed (Internal) Dose and Associated Reference Number**

Radionuclide or Compound Containing a Radionuclide	Reference #
Americium- 241	1
Carbon-14 dioxide	2
Carbon- 14 particulate	3
Cerium- 144	4
Cesium- 137	5
Cobalt- 60	6
Iodine -131	7
Iodine- 125	8
Iron-59	9
Strontium- 90	10
Technetium- 99m	11
Tritium oxide	12
Tritium gas	13
Uranium ore dust	14
Uranium natural (U-238, U-234, U-235)	15
Zirconium/Niobium 95	16







**PROTECTED B once completed**

## Dose Information Change Request Form (page 1 of 2)

Once the form is complete, mail it to the relevant CNSC licensing personnel.

**A – Licensee Declaration (All fields required except those indicated with asterisk (\*); please check or fill in all information)**

- 1) Dosimetry service name: \_\_\_\_\_ Group or Account Number: \_\_\_\_\_
  
- 2) a) Company name as it appears on dose report: \_\_\_\_\_  
 b) Licensee name as it appears on the CNSC licence: \_\_\_\_\_
  
- 3) Name of the worker: \_\_\_\_\_ SIN number: \_\_\_\_\_
  
- 4) Serial number of the dosimeter, as listed on the original dose report, if applicable:  
 \_\_\_\_\_
  
- 5) The period of time the dosimeter was worn or the monitoring period, as listed on the original dose report, if applicable \_\_\_\_\_ to \_\_\_\_\_ (format: yy/mm/dd)
  
- 6) Effective dose: investigation report attached Y  N 
  - a) Change the external component of the effective dose<sup>1</sup> from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv
    - i) Type of radiation: photon neutron
  - b) Change the committed (internal) dose from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv
    - i) Radionuclide reference number<sup>2</sup>: \_\_\_\_\_
  - c) Change the radon progeny exposure from \_\_\_\_\_ WLM to \_\_\_\_\_ WLM
  - d) Other change (specify: \_\_\_\_\_) from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv
  
- 7) Equivalent dose: investigation report attached Y  N 
  - a) Change the skin dose from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv
  - b) Change the hand and feet dose from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv
  - c) Change the lens of eye dose from \_\_\_\_\_ mSv to \_\_\_\_\_ mSv

**Radiation Safety Officer or Delegate**

Dr. Mr. Mrs. Ms.  
 Given name: \_\_\_\_\_ Initial\*: \_\_\_\_\_ Surname: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone number: \_\_\_\_\_  
 E-mail address\*: \_\_\_\_\_ Fax number\*: \_\_\_\_\_

<sup>1</sup> Sometimes referred to as whole body dose

<sup>2</sup> See Table 1 - Source of Committed (Internal) Dose and Associated Reference Number provided in this appendix

## Dose Information Change Request Form (page 2 of 2)

**B – Worker Declaration (All fields required except those indicated with asterisk (\*); please check or fill in all information)**

Dr. Mr. Mrs. Ms.

Given name: \_\_\_\_\_ Initial\*: \_\_\_\_\_ Surname: \_\_\_\_\_

Serial number of the dosimeter: \_\_\_\_\_

I have been informed of the requested change to my dose information. I accept this change, and understand its implications.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone number: \_\_\_\_\_

E-mail address\*: \_\_\_\_\_ Fax number\*: \_\_\_\_\_

**FOR CNSC USE ONLY:**

Directorate/Year/Licence number:

/ /

Request number:

**Request reviewed by:**

Dr. Mr. Mrs. Ms.

Given name: \_\_\_\_\_ Initial\*: \_\_\_\_\_ Surname: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone number: \_\_\_\_\_

E-mail address\*: \_\_\_\_\_ Fax number\*: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Approved by:**

Director

Dr. Mr. Mrs. Ms.

Given name: \_\_\_\_\_ Initial\*: \_\_\_\_\_ Surname: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone number: \_\_\_\_\_

E-mail address\*: \_\_\_\_\_ Fax number\*: \_\_\_\_\_