



July 19, 2019

Canadian Nuclear Safety Commission
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Re: Orano Canada Inc.'s comments on REGDOC 2.7.2, Dosimetry, Volume I: Ascertain Occupational Dose

Orano Canada Inc.

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Orano Canada Inc. (Orano) appreciates the opportunity to comment on CNSC Regulatory Document REGDOC 2.7.2, *Dosimetry, Volume I: Ascertain Occupational Dose*. Orano is in general agreement with the detailed comments provided by our industry colleagues and is providing the following specific concerns for your consideration.

Radon Progeny Effective Dose

The calculation of effective dose from radon progeny exposure has not been provided in either the Radiation Protection Regulations or REGDOC 2.7.2. A conversion to effective dose units is necessary to determine compliance with dose limits.

The conversion of radon progeny exposure to effective dose calculation should be included in the Radiation Protection Regulations or the REGDOC. For greater certainty and stability, continued inclusion of the conversion factor of 5 mSv/WLM within the Radiation Protection Regulations, is preferred.

Uranium mine and mill workers are accustomed to radon progeny exposures and exposure rates presented in terms of working level months and working levels. Preservation of these traditional units provides consistency for this workforce. Inclusion of a straight-forward conversion factor for radon progeny preserves the transparency in effective dose calculations for uranium mine and mill workers.

Requirement for Licensed Dosimetry Service Providers

Section 2.4 of the proposed REGDOC states, "In cases where a dosimetry device measures more than one source of radiation (e.g., a personal alpha dosimeter for radon progeny and long-lived radioactive dust), these should be treated as a single component for the purposes of determining dosimetry requirements". This sentence should be removed completely.

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The requirement for a licenced dosimetry service should be driven by the magnitude of the potential risk, not by the capability of the dosimetry device. Specifically, in the example provided, the need for a personal alpha dosimeter should be determined by the magnitude of each component, not treated as a single component.

Personal alpha dosimeters (PADs) used in uranium mining are a significant expense and lowering the threshold for their requirement by combining the dose components of radon progeny and long-lived radioactive dust would impact radiation protection operating costs disproportionately. PADs have considerably more analysis, maintenance and administration costs when compared to gamma dosimetry.

If you require any additional information or clarification regarding this submission, please feel free to contact the undersigned at dale.huffman@orano.group or (306) 343-4058.

Sincerely,



Dale Huffman
Vice President,
Health, Safety, Environment & Regulatory Relations

cc: Orano Distribution

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