

From: "Frazee, Terry" <tcf0303@doh.wa.gov>
To: TWFN_DO.twf1_po(PHL)
Date: Wed, Aug 11, 1999 12:27 PM
Subject: RATS; NRC letter August 6

Your letter of August 6, 1999 documents your review of proposed regulations submitted for compatibility with RATS 1996-1, 1996-3, 1997-1, and 1997-2. Your letter requests that we send you the final regulations as adopted and published. You ask that the final changes (if any) be highlighted and sent in computer readable format, if possible.

The only changes made from the proposed regulations were in the sections discussed with Linda McLean (WAC 246-221-005) and Stephen Solomon (WAC ~~246-235-075~~). The change made to WAC 246-221-005 also incorporated a licensee comment. As a result the final rule includes (in addition to the earlier change made at Linda's request) the addition of radon-220 as well as radon-222 and adds the sentence "This dose constraint does not apply to sealed sources or to accelerators less than 200 MeV." The change made to WAC 246-235-075 addresses the issue noted in your July 26, 1999 letter referencing RATS 1995-6.

We do not have a computer readable format "in house" to send you; however, you may be able to download the "highlighted" version from the on-line Washington State Register and that may fulfill your needs. The steps to reach the specific register notice are as follows:

1. Go to <http://slc.leg.wa.gov/wsr/register.htm>
2. Select "index"
3. Adjust to "index 1999 G to I"
4. Scroll down to "Health, Department of"
5. Continue scrolling to "Radiation protection"
6. Select WSR number "99-15-105"

These rules are effective August 21, 1999 (31 days after filing). If this does not satisfy your requirement for submitting the "as published" regulations for review, please let me know. Otherwise, I look forward to receiving your letter documenting the final review. Thanks!

This message from: Terry Frazee tcf0303@doh.wa.gov

Quick ways to reach me:
Voice = 360-236-3221
FAX = 360-236-2255

Also, visit our Home Page at
-> <http://www.doh.wa.gov/ehp/rp>

CC: TWFN_DO.twf1_po(DMS4),ARL_DO.ARL_PO(MLM1,MRS)

Washington State Department of Health

Environmental Health Programs Division of Radiation Protection



WAC 246-221-005 and 246-221-260

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Below is a description of the proposed changes to several sections from the Washington Administrative Code followed by the text as it is proposed to read. While every effort is made to ensure accuracy, please note the "Copyright/Disclaimer"!

The following changes are proposed in WAC 246-221-005:

- A new subsection (4) is added to specify a dose constraint on air emission of radioactive material. (Per public hearing, radon-220 was included; and sealed sources and most accelerators were specifically excluded)

The following changes are proposed in WAC 246-221-260:

- Subsection (1)(b)(vi) is added to require reporting of instances where the release of radioactive material results in doses in excess of the air emissions dose constraint.
- Subsection (2)(g) is amended to include ALARA constraints in the reporting of corrective actions.

Published in State Register: WSR 99-12-130; modified after public hearing on July 6.

→ **WAC 246-221-005 Radiation protection programs.**

(1) Each specific licensee shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of this chapter.

(2) The licensee shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).

(3) The licensee shall review the radiation protection program content and implementation at the frequency specified in the license.

(4) To implement the ALARA requirements of subsection (2) of this section, and notwithstanding the requirements of WAC 246-221-060, a constraint on air emission of radioactive material to the environment, excluding radon-220, radon-222 and their daughters, shall be established by licensees such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 0.1 mSv (10 mrem) per year from these emissions. This dose constraint does not apply to sealed sources or to accelerators less than 200 MeV. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the exceedance as provided in WAC 246-221-260 and promptly take appropriate corrective action to ensure against recurrence.

(5) Each licensee shall maintain records of the radiation protection program, including:

(a) The provisions of the program; and

(b) Audits, where required, and other reviews of program content and implementation.

WAC 246-221-260 Reports of overexposures and excessive levels and concentrations.

(1) In addition to any notification required by WAC 246-221-250, each licensee or registrant shall submit a written report to the department within thirty days after learning of any of the following occurrences:

(a) Incidents for which notification is required by WAC 246-221-250; or

(b) Doses in excess of any of the following:

(i) The occupational dose limits for adults in WAC 246-221-010; or

(ii) The occupational dose limits for a minor in WAC 246-221-050; or

(iii) The limits for an embryo/fetus of a declared pregnant woman in WAC 246-221-055; or

(iv) The limits for an individual member of the public in WAC 246-221-060; or

(v) Any applicable limit in the license; or

(vi) The ALARA constraints for air emissions established under WAC 246-221-005; or

(c) Levels of radiation or concentrations of radioactive material in:

(i) A restricted area in excess of applicable limits in the license; or

(ii) An unrestricted area in excess of ten times the applicable limit set forth in this chapter or in the license or registration, whether or not involving exposure of any individual in excess of the limits in WAC 246-221-060; or

(d) For source materials milling licensees and nuclear power plants subject to the provisions of United

States Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, levels of radiation or releases of radioactive material in excess of those standards, or of license conditions related to those standards.

(2) Each report required by subsection (1) of this section shall describe:

(a) The incident and its exact location, time and date;

(b) The extent of exposure of individuals to radiation or to radioactive material, including estimates of each individual's dose as required by subsection (3) of this section;

(c) Levels of radiation and concentrations of radioactive material involved, including the radionuclides, quantities, and chemical and physical form;

(d) The cause or probable cause of the exposure, levels of radiation or concentrations;

(e) The manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;

(f) The results of any evaluations or assessments; and

(g) Corrective steps taken or planned to assure against a recurrence, including the schedule for achieving conformance with applicable limits, ALARA constraints, generally applicable environmental standards, and associated license

conditions.

(3) Each report filed with the department pursuant to this section shall include for each individual exposed the name, social security number, and date of birth, and an estimate of the individual's dose. With respect to the limit for the embryo/fetus in WAC 246-221-055, the identifiers should be those of the declared pregnant woman. The report shall be prepared so that this information is stated in a separate and detachable part of the report.

(4) Individuals shall be notified of reports in accordance with the requirements of WAC 246-222-040.

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Comments or questions regarding this page? *Send mail to: Terry Frazee*