

### **NAC 459.325 Limits on occupational doses for adults.**

1. Except as otherwise provided in subsection 5, a licensee or registrant shall control occupational doses, except for planned special exposures, to ensure that no adult receives annually occupational doses in excess of the following limits:

(a) The lesser of:

(1) A total effective dose equivalent of 5 rems (50 millisieverts); or

(2) The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue, other than the lens of the eye, of 50 rems (500 millisieverts);

(b) A lens dose equivalent of 15 rems (150 millisieverts); and

(c) A shallow-dose equivalent to the skin of the whole body or the skin of any extremity of 50 rems (500 millisieverts).

2. Occupational doses received in excess of the annual limits specified in subsection 1, including doses received during accidents, emergencies and planned special exposures, must be subtracted from the limits for planned special exposures that a person may receive during a current year and during his lifetime.

3. The assigned deep-dose equivalent must be for the portion of the body receiving the highest exposure. The assigned shallow-dose equivalent must be the dose averaged over the contiguous 10 square centimeters of skin receiving the highest exposure. The deep-dose equivalent, lens dose equivalent and shallow-dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the limits for occupational doses, if the personnel monitoring equipment was not in the region of highest potential exposure, or the results of personnel monitoring are unavailable.

4. The derived air concentration and annual limit on intake values that are set forth in table I of appendix B may be used to determine the occupational dose of a person and to demonstrate compliance with the limits for occupational doses.

5. Notwithstanding the annual limits, a licensee shall limit a person's intake of soluble uranium to 10 milligrams in 1 week.

6. The licensee or registrant shall reduce the occupational dose that a person is allowed to receive in a current year by the amount of the occupational dose that person received during the year while employed by another person.

(Added to NAC by Bd. of Health, eff. 1-18-94; A by Dep't of Human Resources by R137-01, 5-30-2003; A by Bd. of Health by R085-06, 11-13-2006)

**NAC 459.331 Annual limits for occupational doses for minors.** The limits for the annual occupational dose for minors are 10 percent of the limits for the annual occupational dose specified in NAC 459.325 for adult workers.

(Added to NAC by Bd. of Health, eff. 1-18-94)

**NAC 459.335 Dose limits for individual members of public; application for authorization to increase annual dose limit; imposition of additional restrictions; standards for nuclear power operations.**

1. Except as otherwise provided in this section and subsection 2 of NAC 459.321, each licensee and registrant shall conduct operations to ensure that:

(a) The total effective dose equivalent to any member of the public from its licensed or registered operation does not exceed 0.1 rem (1 millisievert) per year, not including the dose contribution from background radiation, any medical administration the member of the public has received, exposure to natural persons who have been administered radioactive material and have been released from the control of a licensee pursuant to 10 C.F.R. § 35.75, voluntary participation in medical research, and the disposal by the licensee of radioactive material into sanitary sewerage in accordance with NAC 459.3605; and

(b) The dose in any unrestricted area from external sources, not including the dose contributions from natural persons who have been administered radioactive material and have been released from the control of a licensee pursuant to 10 C.F.R. § 35.75, does not exceed 0.002 rem (0.02 millisievert) in any 1 hour.

2. Notwithstanding the provisions of paragraph (a) of subsection 1, a licensee may allow a visitor to a person who cannot be released pursuant to 10 C.F.R. § 35.75 to receive a radiation dose greater than 0.1 rem (1 millisievert) if:

(a) The radiation dose does not exceed 0.5 rem (5 millisieverts); and

(b) Before the visit, the licensee has determined that the visit is appropriate.

3. A licensee, a registrant or an applicant for a license or registration may apply to the Division for authorization to operate up to an annual dose limit for a member of the public of 0.5 rem (5 millisieverts) per year. The application must include:

(a) A demonstration of the need for and the expected duration of operations in excess of the limit specified in paragraph (a) of subsection 1;

(b) A description of the program of the licensee or registrant to assess and control the dose within the annual limit of 0.5 rem (5 millisieverts); and

(c) The procedures to be followed to maintain the dose as low as is reasonably achievable.

4. The Division may impose additional restrictions on radiation levels in unrestricted areas and on the total quantity of radionuclides that a licensee may release in effluents in order to restrict the collective dose.

5. In addition to the requirements of this section, a licensee who is subject to the provisions of 40 C.F.R. Part 190 shall comply with the standards set forth therein.

(Added to NAC by Bd. of Health, eff. 1-18-94; A by Dep't of Human Resources by R137-01, 5-30-2003; A by Bd. of Health by R085-06, 11-13-2006)