

1 15A NCAC 11 .1604 is amended with changes as published in NCR 27:22, pp. 2031-2073, as follows:

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3 **15A NCAC 11 .1604 OCCUPATIONAL DOSE LIMITS FOR ADULTS**

4 (a) ~~The~~ A licensee or registrant shall ~~control~~ limit the occupational dose to individual adults, except for planned  
5 special exposures as provided in Rule .1608 of this Section, to the following dose limits:

6 (1) an annual limit, which is the more limiting of:

7 (A) the total effective dose equivalent being equal to five rems (0.05Sv); or

8 (B) the sum of the deep-dose equivalent and the committed dose equivalent to any individual  
9 organ or tissue other than the lens of the eye being equal to 50 rems (0.5 Sv); and

10 (2) the annual limits to the lens of the eye, ~~to~~ the skin of the whole body, and ~~to~~ the skin of the  
11 extremities which are:

12 (A) an eye dose equivalent of ~~15 rems (0.15 Sv), and~~ 15 rems (0.15 Sv); and

13 (B) a shallow-dose equivalent of 50 rems (0.50 Sv) to the skin of the whole body or to the  
14 skin of any extremity.

15 (b) Doses received in excess of the annual limits, including doses received during accidents, emergencies, and  
16 planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may  
17 receive during the current year and during the individual's lifetime. Dose limits for planned special exposures are  
18 provided in Item (5) of Rule .1608 of this Section.

19 ~~(e) The assigned deep dose equivalent shall be for the part of the body receiving the highest exposure. The~~  
20 ~~assigned shallow dose equivalent shall be the dose averaged over the contiguous 10 square centimeters of skin~~  
21 ~~receiving the highest exposure. The deep dose equivalent, eye dose equivalent and shallow dose equivalent may be~~  
22 ~~assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the~~  
23 ~~occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or~~  
24 ~~the results of individual monitoring are unavailable.~~

25 (c) When the external exposure is determined by measurement with an external personal monitoring device, the  
26 deep-dose equivalent must be used in place of the effective dose equivalent unless the effective dose equivalent is  
27 determined by a dosimetry method approved by the agency as consistent with this Chapter. The assigned deep-dose  
28 equivalent must be for the part of the body receiving the highest exposure. The assigned shallow-dose equivalent  
29 must be the dose averaged over the contiguous 10 square centimeters of skin receiving the highest exposure. The  
30 deep-dose equivalent, lens-dose equivalent, and shallow-dose equivalent may be assessed from surveys or other  
31 radiation measurements for the purpose of demonstrating compliance with the occupational dose limits if the  
32 individual monitoring device was not in the region of highest potential exposure or the results of individual  
33 monitoring are unavailable.

34 (d) Derived air concentration (DAC) and annual limit on intake (ALI) values are presented in Table 1 of Appendix  
35 B to 10 CFR §§ 20.1001 - 20.2401 and may be used to determine the individual's dose and to demonstrate  
36 compliance with the occupational dose limits.

1 (e) In addition to the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to 10  
2 milligrams in a week in consideration of chemical toxicity. Requirements for annual limits on intake for uranium  
3 are provided in Appendix B to 10 CFR §§ 20.1001 - 20.2401.

4 (f) The licensee or registrant shall reduce the dose that an individual may be allowed to receive in the current year  
5 by the amount of prior or current occupational dose received while employed by any other person. Requirements for  
6 determining prior occupational exposure are provided in Rule .1638(e) of this Section.

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8 *History Note: Authority G.S. 104E-7(a)(2);*

9 *Eff. January 1, 1994;*

10 *Amended Eff. October 1, 2013; May 1, 2006.*