

1 15A NCAC 11 .0305 is proposed for amendment as follows:

2
3 **15A NCAC 11 .0305 EXEMPT ITEM CONTAINING OTHER THAN SOURCE MATERIAL**

4 (a) Authority to transfer possession or control by the manufacturer, processor, or producer of any equipment,
5 device, commodity, or other product containing source, byproduct, or special nuclear material whose subsequent
6 possession, use, transfer, and disposal by all other persons are exempted from the rules of this Chapter may be
7 obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

8 ~~(b) Certain items containing radioactive material are exempt as provided in this Paragraph.~~

9 ~~(b)~~ (b) Except for persons who apply radioactive material to, or persons who incorporate radioactive material into
10 the following products, or persons who initially transfer for sale or distribution the following products, any person is
11 exempt from the rules of this Chapter to the extent that he receives, possesses, uses, transfers, owns, or acquires the
12 following products:

13 ~~(A)(1)~~ (1) timepieces or hands or dials containing not more than the following ~~specified~~ quantities of
14 radioactive material and not exceeding the following ~~specified~~ levels of radiation:

15 ~~(i)(A)~~ (A) 25 millicuries of tritium per timepiece;

16 ~~(ii)(B)~~ (B) five millicuries of tritium per hand;

17 ~~(iii)(C)~~ (C) 15 millicuries of tritium per dial (bezels when used shall be considered as part of the
18 dial);

19 ~~(iv)(D)~~ (D) 100 microcuries of promethium-147 per watch or 200 microcuries of promethium-147
20 per any other timepiece;

21 ~~(v)(E)~~ (E) 20 microcuries of promethium-147 per watch hand or 40 microcuries of promethium-147
22 per other timepiece hand;

23 ~~(vi)(E)~~ (E) 60 microcuries of promethium-147 per watch dial or 120 microcuries of promethium-147
24 per other timepiece dial (bezels when used shall be considered as part of the dial);

25 ~~(vii)(F)~~ (F) the levels of radiation from hands and dials containing promethium-147 ~~will not exceed~~,
26 when measured through 50 milligrams per square centimeter of absorber:

27 ~~(i)~~ (i) for wrist watches, 0.1 millirad per hour at 10 centimeters from any
28 surface;

29 ~~(ii)~~ (ii) for pocket watches, 0.1 millirad per hour at one centimeter from any
30 surface; or

31 ~~(iii)~~ (iii) for any other timepiece, 0.2 millirad per hour at 10 centimeters from
32 any surface or:

33 (iv) 1 microcurie of radium-226 per timepiece in intact timepieces
34 manufactured prior to November 30, 2007.

35 ~~(B)(2)~~ (2) [Reserved for future codification] lock illuminators containing not more than 15 millicuries of
36 tritium or not more than two millicuries of promethium 147 installed in automobile locks (the
37 levels of radiation from each lock illuminator containing promethium 147 shall not exceed one

1 millirad per hour at one centimeter from any surface when measured through 50 milligrams per
2 square centimeter of absorber);

3 ~~(C)~~(3) balances of precision containing not more than one millicurie of tritium per balance or not more
4 than 0.5 millicurie of tritium per balance ~~part~~; part manufactured before December 17, 2007;

5 ~~(D)~~(4) [Reserved for future codification] automobile shift quadrants containing not more than 25
6 millicuries of tritium;

7 ~~(E)~~(5) marine compasses containing not more than 750 millicuries of tritium gas and other marine
8 navigational instruments containing not more than 250 millicuries of tritium ~~gas~~; gas
9 manufactured before December 17, 2007;

10 ~~(F)~~(6) [Reserved for future codification] thermostat dials and pointers containing not more than 25
11 millicuries of tritium per thermostat;

12 (7) Ionization chamber smoke detectors containing not more than 1 microcurie of americium-241 per
13 detector in the form of a foil and designed to protect life and property from fires.

14 ~~(G)~~(8) electron tubes, provided that each tube does not contain more than one of the following specified
15 quantities of radioactive material and provided further, that the levels of radiation from each
16 electron tube containing radioactive material does not exceed one millirad per hour at one
17 centimeter from any surface when measured through seven milligrams per square centimeter of
18 absorber (for purposes of this Subparagraph, "electron tubes" include spark gap tubes, power
19 tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pickup
20 tubes, radiation detection tubes and any other completely sealed tube that is designed to conduct or
21 control electrical currents):

22 ~~(i)~~(A) 150 millicuries of tritium per microwave receiver protector tube or 10
23 millicuries of tritium per any other electron tube;

24 ~~(ii)~~(B) one microcurie of cobalt-60;

25 ~~(iii)~~(C) five microcuries of nickel-63;

26 ~~(iv)~~(D) 30 microcuries of krypton-85;

27 ~~(v)~~(E) five microcuries of cesium-137; and

28 ~~(vi)~~(F) 30 microcuries of promethium-147; and provided further, that the levels of
29 radiation from each electron tube containing radioactive material does not
30 exceed one millirad per hour at one centimeter from any surface when measured
31 through seven milligrams per square centimeter of absorber (for purposes of this
32 Subparagraph, "electron tubes" include spark gap tubes, power tubes, gas tubes
33 including glow lamps, receiving tubes, microwave tubes, indicator tubes, pickup
34 tubes, radiation detection tubes and any other completely sealed tube that is
35 designed to conduct or control electrical currents); and

36 ~~(H)~~(9) ionizing radiation measuring instruments containing for purposes of internal calibration or
37 standardization, sources of radioactive material each not exceeding the applicable quantity set

1 forth in Rule .0304~~(e)~~ (f) of this ~~Section~~. Section, and each instrument contains no more than 10
2 exempt quantities.

3 ~~(10)~~ [Reserved for future codification] spark-gap irradiation containing not more than one microcurie of
4 cobalt-60 per spark-gap irradiator for use in electrically ignited fuel oil burners having a firing rate
5 of at least three gallons (11.4 liters) per hour.

6 ~~(2)(c)~~ For purposes of Part ~~(b)(1)(H)~~ (b)(8) of this Rule, where there is involved a combination of radionuclides, the
7 limit for the combination shall be derived as follows:

8 ~~(A)(1)~~ Determine for each radionuclide in an ionizing radiation measuring instrument the ratio between
9 the quantity present in the instrument and the exempt quantity established in Rule .0304~~(e)~~ (f) of
10 this Section for the specific radionuclide when not in combination;

11 ~~(B)(2)~~ No ratio shall exceed one and the sum of such ratios shall not exceed ~~10~~. 10; and

12 ~~(C)(3)~~ For the purpose of Part ~~(b)(1)(H)~~ (b)(8), 0.05 microcurie of americium-241 is considered an
13 exempt quantity under Rule .0304 of this Section.

14 ~~(e)(d)~~ Self-luminous products are exempt as provided in this Paragraph.

15 (1) Except for persons who manufacture, process, or produce self-luminous products containing
16 tritium, krypton-85, or promethium-147, any person is exempt from the rules of this Chapter to the
17 extent that ~~any~~ the person receives, possesses, uses, transfers, owns, or acquires tritium,
18 krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced,
19 imported, or transferred in accordance with a specific license issued by the U.S. Nuclear
20 Regulatory Commission pursuant to Section 32.22 of 10 CFR Part 32, which license authorizes
21 the transfer of the product to persons who are exempt from regulatory requirements.

22 (2) The exemption in Subparagraph (c)(1) of this Rule does not apply to tritium, krypton-85, or
23 promethium-147 used in products for frivolous purposes or in toys or adornments.

24 ~~(e)(e)~~ Gas and aerosol detectors are exempt as provided in this Paragraph.

25 (1) Except for persons who manufacture, process, ~~or produce~~ produce, or initially transfer for sale or
26 distribution gas and aerosol detectors containing radioactive material, any person is exempt from
27 the rules of this Chapter to the extent that ~~any~~ the person receives, possesses, uses, transfers, owns
28 or acquires radioactive material in gas and aerosol detectors designed to protect life or property
29 from fires and airborne hazards provided that detectors containing radioactive material shall be
30 manufactured, ~~imported~~, processed, produced, or initially transferred in accordance with a specific
31 license issued by the U.S. Nuclear Regulatory Commission or any agreement state, pursuant to
32 Section 32.26 of 10 CFR 32, or equivalent, which authorizes the transfer of the detectors to
33 persons who are exempt from regulatory requirements.

34 (2) Gas and aerosol detectors previously manufactured and distributed to general licensees before
35 November 30, 2007 in accordance with a specific license issued by an agreement state ~~shall be~~
36 considered are exempt ~~under Subparagraph (d)(1) of this Rule~~ from the Rules in this Chapter,
37 provided that the devices are labeled in accordance with the specific license authorizing

1 distribution of the general licensed device, and providing further that the devices meet the
2 requirements of Rule .0327 of this Section.

3 ~~(e) Resins containing scandium 46 are exempt as provided in this Paragraph.~~

4 ~~(1) Any person is exempt from these Rules to the extent that such person receives, possesses, uses,~~
5 ~~transfers, owns or acquires synthetic plastic resins containing scandium 46 which are designed for~~
6 ~~sand consolidation in oil wells. These resins shall be manufactured or imported in accordance~~
7 ~~with a specific license issued by the U.S. Nuclear Regulatory Commission, or shall be~~
8 ~~manufactured in accordance with the specifications contained in a specific license issued by the~~
9 ~~agency or any agreement state to the manufacturer of such resins pursuant to licensing~~
10 ~~requirements equivalent to those in Sections 32.16 and 32.17 of 10 CFR Part 32 of the regulations~~
11 ~~of the U.S. Nuclear Regulatory Commission.~~

12 ~~(2) This exemption does not authorize the manufacture of any resins containing scandium 46.~~

13 ~~(f) Capsules containing Carbon 14 urea for "in vivo" diagnostic use for humans are exempt as provided in this~~
14 ~~Paragraph:~~

15 ~~(1)(f) Except as provided in Subparagraphs (2) and (3) of this Paragraph, as follows, any person is exempt from the~~
16 ~~requirements for a license set forth in this Section provided that such person receives, possesses, uses,~~
17 ~~transfers, owns or acquires capsules containing approximately one microcurie (37kBq) Carbon-14 urea each~~
18 ~~for "in-vivo" diagnostic use for humans. humans:~~

19 ~~(2)(1) Any person who desires to use the capsules for research involving human subjects shall apply for~~
20 ~~and receive a specific license from the agency.~~

21 ~~(3)(2) Any person who desires to manufacture, prepare, process, produce, package, repackage, or transfer~~
22 ~~for commercial distribution such capsules shall apply for and receive a specific license from the~~
23 ~~U.S. Nuclear Regulatory Commission.~~

24 ~~(4)(g) Nothing in this Rule relieves persons from complying with applicable FDA and other federal regulations, and~~
25 ~~North Carolina requirements governing the receipt, administration, and use of drugs.~~

26
27 *History Note: Authority G.S. 104E-7; 104E-10(b); 104E-20.;*

28 *Eff. February 1, 1980;*

29 *Amended Eff. October 1, 2013; April 1, 1999; June 1, 1993; October 1, 1982;*

30 *September 1, 1981.*