

1 15A NCAC 11 .0305 is amended with changes as published in NCR 27:22, pp. 2031-2073, as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

36 ~~(B)(2) [Reserved for future codification]]~~ lock illuminators containing not more than 15 millicuries of  
37 tritium or not more than two millicuries of promethium-147 installed in automobile locks (the

1 levels of radiation from each lock illuminator containing promethium-147 shall not exceed one  
2 millirad per hour at one centimeter from any surface when measured through 50 milligrams per  
3 square centimeter of absorber);

4 ~~(C)~~~~(3)~~(2) ~~balances~~ Balances of precision containing not more than one millicurie of tritium per  
5 balance or not more than 0.5 millicurie of tritium per balance ~~part~~; part manufactured  
6 before December 17, 2007;

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

9 ~~(E)~~~~(5)~~(3) ~~marine~~ Marine compasses containing not more than 750 millicuries of tritium gas and  
10 other marine navigational instruments containing not more than 250 millicuries of tritium  
11 gas; gas manufactured before December 17, 2007;

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

14 ~~(7)~~(4) Ionization chamber smoke detectors containing not more than ~~1~~ one microcurie of  
15 americium-241 per detector in the form of a foil and designed to protect life and property  
16 from fires.

17 ~~(G)~~~~(8)~~(5) ~~electron~~ Electron tubes, provided that each tube does not contain more than one of the  
18 following specified quantities of radioactive material and provided further, that the levels  
19 of radiation from each electron tube containing radioactive material does not exceed one  
20 millirad per hour at one centimeter from any surface when measured through seven  
21 milligrams per square centimeter of absorber ~~{(for purposes of this Subparagraph,~~  
22 ~~"electron tubes" include spark gap tubes, power tubes, gas tubes including glow lamps,~~  
23 ~~receiving tubes, microwave tubes, indicator tubes, pickup tubes, radiation detection tubes~~  
24 ~~and any other completely sealed tube that is designed to conduct or control electrical~~  
25 ~~currents);}~~ For purposes of this Subparagraph, "electron tubes" include spark gap tubes,  
26 power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator  
27 tubes, pickup tubes, radiation detection tubes and any other completely sealed tube that is  
28 designed to conduct or control electrical currents;

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

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

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

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

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

35 ~~(vi)~~(F) 30 microcuries of promethium-147; ~~and provided further, that the~~  
36 ~~levels of radiation from each electron tube containing radioactive material does~~  
37 ~~not exceed one millirad per hour at one centimeter from any surface when~~

1 measured through seven milligrams per square centimeter of absorber (for  
2 purposes of this Subparagraph, "electron tubes" include spark gap tubes, power  
3 tubes, gas tubes including glow lamps, receiving tubes, microwave tubes,  
4 indicator tubes, pickup tubes, radiation detection tubes and any other completely  
5 sealed tube that is designed to conduct or control electrical currents); and

6 ~~(H)~~~~(9)~~~~(6)~~ ~~ionizing~~ Ionizing radiation measuring instruments containing for purposes of internal  
7 calibration or standardization, sources of radioactive material each not exceeding the  
8 applicable quantity set forth in Rule .0304~~(e)~~ (f) of this ~~Section~~. Section, and each  
9 instrument contains no more than 10 exempt quantities.

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

13 ~~(2)~~(c) For purposes of ~~Part (b)(1)(H)~~ Subparagraph (b)(5) ~~{(b)(8)}~~ of this Rule, where there is involved a  
14 combination of radionuclides, the limit for the combination shall be derived as follows:

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

18 ~~(B)~~(2) No ratio shall exceed one and the sum of such ratios shall not exceed ~~40~~. 10; and

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

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

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

29 (2) The exemption in Subparagraph ~~(e)(1)~~ (d)(1) of this Rule does not apply to tritium, krypton-85, or  
30 promethium-147 used in products for frivolous purposes or in toys or adornments.

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

32 (1) Except for persons who manufacture, process, ~~or produce~~ produce, or initially transfer for sale or  
33 distribution gas and aerosol detectors containing radioactive material, any person is exempt from  
34 the rules of this Chapter to the extent that ~~any~~ the person receives, possesses, uses, transfers, owns  
35 or acquires radioactive material in gas and aerosol detectors designed to protect life or property  
36 from fires and airborne hazards provided that detectors containing radioactive material shall be  
37 manufactured, ~~imported~~, processed, produced, or initially transferred in accordance with a specific

1 license issued by the U.S. Nuclear Regulatory Commission ~~or any agreement state,~~ pursuant to  
2 Section 32.26 of 10 CFR 32, ~~or equivalent,~~ which authorizes the transfer of the detectors to  
3 persons who are exempt from regulatory requirements.

- 4 (2) Gas and aerosol detectors previously manufactured and distributed to general licensees before  
5 November 30, 2007 in accordance with a specific license issued by an agreement state ~~shall be~~  
6 ~~considered~~ are exempt under Subparagraph (d)(1) of this Rule from the {Rules} rules in this  
7 Chapter, provided that the devices are labeled in accordance with the specific license authorizing  
8 distribution of the general licensed device, and providing further that the devices meet the  
9 requirements of Rule .0327 of this Section.

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

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

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

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

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

- 26 ~~(2)(1)~~ (1) Any person who desires to use the capsules for research involving human subjects shall apply for  
27 and receive a specific license from the ~~agency.~~ agency; and

- 28 ~~(3)(2)~~ (2) Any person who desires to manufacture, prepare, process, produce, package, repackage, or transfer  
29 for commercial distribution such capsules shall apply for and receive a specific license from the  
30 U.S. Nuclear Regulatory Commission.

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

34 *History Note:* Authority *G.S. 104E-7; 104E-10(b);* ~~104E-20;~~ 104E-20; 10 CFR 30.15; 10 CFR 30.19; 10 CFR  
35 30.20;

36 *Eff. February 1, 1980;*

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

