



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

IN REPLY REFER TO
OPNAVINST 6470.4
N45
15 Mar 2012

OPNAV INSTRUCTION 6470.4

From: Chief of Naval Operations

Subj: ACQUISITION, USE AND DISPOSAL OF CERTAIN NUCLEAR
REGULATORY COMMISSION REGULATED RADIOACTIVE
DEVICES AND SOURCE MATERIAL

Ref: (a) Atomic Energy Act 1954
(b) E.O. 12344
(c) SECNAVINST 5100.10J
(d) Energy Policy Act 2005
(e) OPNAVINST 6470.3A
(f) 10 CFR 30
(g) 10 CFR 31
(h) 10 CFR 40
(i) DoD 4715.6-R, Low-Level Radioactive Waste Disposal
Program, 17 January 2001

1. Purpose. To establish Navy policy for the acquisition, use, and disposal of various categories of devices and material regulated by the Nuclear Regulatory Commission (NRC). These categories are: (1) exempt devices, (2) generally licensed radioactive devices, (3) generally licensed radioactive devices above a certain quantity, (4) 'unimportant' quantities of source material, and (5) generally licensed source material.

2. Scope. This instruction applies to all Navy and Marine Corps activities engaged in the acquisition, use, or disposal of the NRC radioactive materials listed in paragraph 1. It does not apply to nuclear weapons related radioactive materials transferred from the Department of Energy to the Department of Defense per section 91B of reference (a), nor to radioactive materials produced as a consequence of the construction, operation, servicing, or maintenance of naval nuclear propulsion plants, under reference (b).

3. Background. The Secretary of the Navy assigned the Chief of Naval Operations responsibility to establish and manage the Navy Occupational Radiation Protection Program in coordination with the Commandant of the Marine Corps (CMC) for those matters which affect the Marine Corps, under reference (c).

4. Discussion. The Navy and Marine Corps use a variety of radioactive materials to perform their missions. All nuclear materials not associated with nuclear weapons or the nuclear propulsion programs are regulated under reference (a), as amended by reference (d). NRC categorizes and regulates radioactive materials based on risk to the public and the environment. Regulatory safeguards depend on the amount of risk associated with each category of material. The discrete categories of control are listed in paragraph 1. Within the Department of the Navy, specifically licensed material is controlled under the Navy's Master Materials License (MML), per reference (e). Specific information and regulatory requirements for each device category and each source material category not covered under the MML is provided below.

a. Device Categories

(1) Exempt Devices

(a) Consumer products containing radioactive material are exempted from licensing requirements if the NRC determines they do not constitute an unreasonable risk to public health and safety and the environment.

(b) Examples of exempt devices include electron tubes, self-luminous watches, smoke detectors, lensatic compasses, and some rifle optics.

(c) Specific NRC requirements for exempt devices are contained in reference (f). These include the requirement for ensuring quantities do not exceed those set in section 30.71, schedule B of reference (f).

(d) All Navy and Marine Corps activities must comply with reference (f) and with any additional requirements issued by CMC; Commander, Naval Sea Systems Command (COMNAVSEASYS COM); and Chief, Bureau of Medicine and Surgery (BUMED).

(2) Generally Licensed Radioactive Devices

(a) NRC's regulations provide a general license for the use of radioactive material contained in certain products. This general license allows persons to receive and use a device containing radioactive material if the device has been manufactured and distributed under a specific license issued by the NRC or by an agreement state. The device is designed with inherent radiation safety features to allow use by individuals with no radiation safety training or experience.

(b) Examples of generally licensed radioactive devices include gas chromatograph units, static eliminators, luminous exit signs, calibration or reference standards, some ice detection devices, in vitro laboratory kits, gun-sights, and some chemical agent detectors.

(c) Specific NRC requirements for generally licensed radioactive devices are contained in reference (g). These include, as applicable, complying with the appropriate labeling, storage, and disposal requirements.

(d) Navy and Marine Corps activities that purchase these devices become general licensees and must comply with reference (g), any specific manufacturer's requirements, and with any additional requirements issued by CMC, COMNAVSEASYS COM, and BUMED.

(3) Generally Licensed Radioactive Devices Above a Certain Quantity

(a) Some generally licensed radioactive devices with quantities of isotopes that equal or exceed those in table 1 have special registration requirements.

Isotope	Quantity (in millicuries)
Cesium-137	≥ 10
Strontium-90	≥ .1
Cobalt-60	≥ 1
Americium-241 (or element with atomic number greater than uranium)	≥ 1

(b) An example of a generally licensed radioactive device above a certain quantity in the Navy and Marine Corps is the in-flight main rotor blade inspection system.

(c) Navy and Marine Corps activities are prohibited from acquiring or using these devices except as authorized under a permit of the Naval Radiation Safety Committee.

b. Source Material Categories. Source material is defined in reference (h) as either the element thorium or the element uranium, provided that the uranium has not been enriched in the isotope uranium-235. Some small quantities of source material are also generally licensed.

(1) 'Unimportant' Quantities of Source Material

(a) Examples of 'unimportant' quantities of source material, as defined in reference (h) and uses within the Navy and Marine Corps, include thoriated tungsten welding rods, depleted uranium counterweights in aircraft or rockets, magnesium-thorium alloys for aircraft engines, piezoelectric ceramics, vacuum tubes, thoriated lenses, and germicidal lamps.

(b) Specific NRC requirements for 'unimportant' quantities of source material are listed in reference (h). These include ensuring the quantities are below those specified in reference (h) and ensuring any applicable labeling requirements are met.

(c) All Navy and Marine Corps activities will comply with reference (h) and with any additional requirements issued by CMC, COMNAVSEASYS COM, and BUMED.

(2) Generally Licensed Source Material

(a) Examples of generally licensed source material include uranyl acetate used in electron microscopy and thorium dioxide used in crafting high quality lenses.

(b) Navy and Marine Corps activities are prohibited from acquiring or using this material, except as authorized under a permit of the Naval Radiation Safety Committee.

5. Responsibilities

a. Office of the Chief of Naval Operations, Director, Energy and Environmental Readiness Division (OPNAV (N45)) shall:

(1) Establish policies for the acquisition, use and disposal of the NRC radioactive materials listed in paragraph 1; and

(2) Establish enforcement policies and procedures.

b. CMC shall:

(1) Issue instructions and guidance to Marine Corps activities concerning procedures for the NRC radioactive materials listed in paragraph 1;

(2) In conjunction with COMNAVSEASYSKOM, provide technical assistance to Marine Corps activities concerning radioactive materials safety programs; and

(3) Ensure adequate resources are provided to implement the radiation safety program.

c. COMNAVSEASYSKOM shall:

(1) Issue instructions and guidance to Navy and Marine Corps activities not under the control of BUMED concerning procedures for acquiring, using, and disposing of the NRC radioactive materials listed in paragraph 1;

(2) In conjunction with CMC (Safety Division), provide technical assistance to Navy and Marine Corps activities in the acquisition, use, and disposal of the NRC radioactive materials listed in paragraph 1;

(3) Review naval radioactive material permit (NRMP) requests for generally licensed radioactive devices above a certain quantity and generally licensed source material as described in paragraphs 4a(3) and 4b(2);

(4) Prepare NRMPs for generally licensed radioactive devices above a certain quantity and generally licensed source material and forward to the executive secretary of the Naval Radiation Safety Committee;

(5) Perform inspections to assess compliance with current Federal and Navy regulations and provisions of the specific permits;

(6) Prepare reports of non-compliance and forward them to the Naval Radiation Safety Committee; and

(7) Coordinate the disposal of the NRC radioactive materials listed in paragraph 1.

d. BUMED shall:

(1) Issue instructions and guidance to medical commands concerning procedures for acquiring, using, and disposing of the NRC radioactive materials listed in paragraph 1;

(2) Provide technical assistance to Navy activities in the acquisition, use, and disposal of the NRC radioactive materials listed in paragraph 1;

(3) Review NRMP requests for generally licensed radioactive devices above a certain quantity and generally licensed source material as described in paragraphs 4a(3) and 4b(2);

(4) Prepare NRMPs for generally licensed radioactive devices above a certain quantity and generally licensed source material and forward to the executive secretary of the Naval Radiation Safety Committee;

(5) Perform inspections to assess compliance with current Federal and Navy regulations and provisions of the specific permit; and

(6) Prepare reports of non-compliance and forward them to the Naval Radiation Safety Committee.

e. Commanding officers and officers in charge shall:

(1) Ensure the command obtains an NRMP prior to receipt, possession, or use of generally licensed radioactive devices and generally licensed source material defined in paragraphs 4a(3) and 4b(2);

(2) Provide management oversight of the NRMP and radiation protection and safety programs at the command, and ensure adequate resources and staffing are available;

(3) Comply with the conditions of all specific NRMPs issued to the command;

(4) Comply with all instructions required by the manufacturer of generally license material possessed by the command;

(5) Comply with instructions concerning the safe receipt, possession, use, transportation, transfer, and disposal of radioactive material; and

(6) Establish and maintain an effective radiation protection program for permitted materials.

f. Navy and Marine Corps activities acquiring, using or disposing of the NRC radioactive materials listed in paragraph 1 shall:

(1) Operate under conditions specified in applicable NRMP or the manufacturer's instructions pertaining to generally licensed material possessed by the command;

(2) Coordinate all questions or reports concerning radioactive material use with the proper program manager:

(a) COMNAVSEASYSKOM is the program manager for Navy activities not under the control of BUMED.

(b) BUMED is the program manager for medical commands.

(c) CMC (Safety Division) is the program manager for the Marine Corps, and coordinates with COMNAVSEASYS COM in its execution.

(3) Coordinate disposal of the NRC radioactive materials listed in paragraph 1 through the Low Level Radioactive Waste Program per reference (i).

6. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV Manual 5210.1 of January 2012.



P. H. Cullom
Vice Admiral, U.S. Navy
Deputy Chief of Naval Operations
(Fleet Readiness and Logistics)

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