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MARINE CORPS ORDER 5104.3C

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS RADIATION SAFETY PROGRAM (MCRSP)

Ref: (a) SECNAVINST 5100.10K
(b) OPNAVINST 5100.23G w/CH-1
(c) OPNAVINST 6470.2D
(d) OPNAVINST 6470.3B
(e) NAVSEAINST 5100.18B
(f) NAVSEA S0420-AA-RAD-010 Rev 2, Radiological Affairs Support Program Manual (NOTAL)
(g) DTR 4500.9-R, "Defense Transportation Regulation," Part (2), April 2017
(h) 10 CFR 71, "Packaging and Transportation of Radioactive Material," January 01, 2018
(i) 49 CFR 173, "Shippers-General Requirements for Shipments and Packagings," October 01, 2017
(j) Nuclear Regulatory Commission (NRC) Master Materials License 45-23645-01NA (NOTAL)
(k) SECNAV Notice 5210
(l) SECNAV M-5210.1
(m) MCO 5210.11F
(n) 5 U.S.C. 552a
(o) SECNAVINST 5211.5E

Encl: (1) Marine Corps Radiation Safety Program (MCRSP)

1. Situation. References (a) through (o) require the Marine Corps to provide policy and assign responsibility for the administration of the MCRSP. This Order establishes the minimum program elements necessary to ensure compliance with references (a) through (o), and associated Naval Radioactive Materials Permits (NRMPs) issued to Marine Corps commands. This Order has been revised and contains a substantial number of changes that clarify and outline requirements as well as set new standards for training. Therefore, a complete review of this Order is required.

2. Cancellation. MCO 5104.3B

3. Mission. Establish the formal MCRSP to minimize the risk of injury to personnel and the general public, contamination of personnel and facilities, and loss of control of sources of ionizing radiation.

4. Execution

a. Commander's Intent and Concept of Operations

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(1) Commander's Intent

(a) Enhance unit and individual readiness by maintaining an effective Radiation Safety Program in coordination with the Chief of Naval Operations (CNO) and in compliance with pertinent regulations.

(b) Control sources of ionizing radiation to minimize personnel exposures to a level As Low As Reasonably Achievable (ALARA) and to prevent contamination of personnel, equipment, and facilities.

(c) Provide guidance and requirements for implementing the components of the MCRSP.

(2) Concept of Operations

(a) The provisions set forth in this Order identify specific command responsibilities and establish program requirements to ensure compliance with the U.S. Nuclear Regulatory Commission (NRC) regulations, Naval Sea Systems Command Detachment, Radiological Affairs Support Office (NAVSEA DET RASO) permit requirements, associated orders to each permit, and state and federal regulations.

(b) This Order is applicable worldwide for Marine Corps commands.

b. Subordinate Element Missions. Commands in possession of any radioactive assets (henceforth utilized, as appropriate, to represent material, devices, and commodities) shall comply with references (f) through (j) and enclosure (2).

5. Administration and Logistics

a. Submit recommendations to change this Order to Commandant of the Marine Corps (CMC) Safety Division (SD) via the chain of command.

b. Any discrepancies between references (a) through (o) and this Order shall be clarified by contacting the Senior Marine Corps Health Physicist at CMC SD.

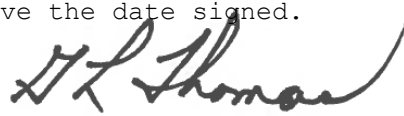
c. Records Management. Records created as a result of this Order shall be managed according to National Archives and Records Administration (NARA) approved dispositions per references (k) and (l) to ensure proper maintenance, use, accessibility and preservation, regardless of format or medium. Refer to reference (m) for Marine Corps records management policy and procedures.

d. Privacy Act. Any misuse or unauthorized disclosure of Personally Identifiable Information (PII) may result in both civil and criminal penalties. The Department of the Navy (DON) recognizes that the privacy of an individual is a personal and fundamental right that shall be respected and protected. The DON's need to collect, use, maintain, or disseminate PII about individuals for purposes of discharging its statutory responsibilities will be balanced against the individuals' right to be protected against unwarranted invasion of privacy. All collection, use, maintenance, or dissemination of PII will be in accordance with the Privacy Act of 1974, as amended (reference (n)) and implemented per reference (o).

6. Command and Signal

a. Command. This Order is applicable to the Marine Corps Total Force. It does not apply to the use of any fixed or portable medical x-ray equipment used by health service personnel in support of Marine Corps operations.

b. Signal. This Order is effective the date signed.



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Distribution: PCN 10207380000

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Marine Corps Radiation Safety Program (MCRSP)

Chapter 1

Radiation Safety Pillars

1. Marine Corps Radiation Safety Foundation:

a. Per reference (a), the Secretary of the Navy assigned CNO the responsibility to establish and manage the Navy Safety and Occupational Safety and Health Program, including the promulgation of appropriate directives, in coordination with the CMC for those matters that affect the U.S. Marine Corps.

b. The NRC issued reference (j), a Master Materials License (MML), to the DON to control the receipt, acquisition, possession, use, and transfer of NRC regulated Radioactive Material (RAM) at Navy and Marine Corps activities. Reference (d) established the Naval Radiation Safety Committee (NRSC) to provide control and dispose of all RAM used in the Navy and Marine Corps; except for nuclear propulsion reactors and associated radioactivity, nuclear weapons, and certain components of weapons delivery systems. NRMPs are used to maintain this control.

c. Per reference (b), CNO described and assigned to Commander, Naval Sea Systems Command (COMNAVSEASYSCOM) specific program responsibilities pertaining to ionizing radiation. Per reference (e) the Radiological Affairs Support Program (RASP) is the vehicle used by COMNAVSEASYSCOM to discharge the responsibility for Radiological Controls (RADCON). The RASP is the responsibility of NAVSEASYSCOM (SEA-04N) and includes all aspects of radiation safety with respect to the design, construction, and control of radiation from ionizing radiation producing machines (x-ray devices, accelerators, etc.) as well as from RAM not otherwise controlled by Naval Nuclear Propulsion, Navy Medicine, or the Strategic Systems Program. NAVSEASYSCOM (SEA-04N) is the technical manager of the RASP and acts authoritatively on behalf of the CNO for all matters under the auspices of the RASP throughout the Navy and Marine Corps.

d. The Chief, Bureau of Medicine and Surgery is responsible for the Radiation Health Program (RHP) that serves the Navy and Marine Corps. The RHP includes the areas of medical examinations, radiation protection standards, exposure records, personnel dosimetry, and all ionizing radiation producing machines and sources within medical treatment facilities. Successful radiation protection programs include Radiation Health and Radiation Safety elements.

e. Per reference (d), NAVSEA DET RASO serves as technical support center to SEA-04N and the NRSC. NAVSEA DET RASO also provides guidance to Navy and Marine Corps commands in the following areas:

(1) Naval Radioactive Materials Permit Program. NAVSEA DET RASO, as the technical support center, provides guidance on applying for and maintaining individual command NRMPs.

(2) X-ray Radiography. NAVSEA DET RASO provides guidance on establishing and maintaining x-ray radiography programs.

(3) Other Usage Codes. NAVSEA DET RASO also provides guidance on

establishing and maintaining programs that do not require an NRMP or involve radiography. These usage codes are listed within reference (f) table 4-1 and while they may not require a permit, commands interested in acquiring and utilizing a new radiological asset need to consult with CMC (SD) to fully understand the requirements necessary to manage the safety program for the asset.

(4) Naval Low-Level Radioactive Waste (LLRW) Program. NAVSEA DET RASO manages the Navy's LLRW Program that covers all RASP-related LLRW generated by the Navy and Marine Corps. The program also provides contractual support for both command-specific and Naval Facilities Engineering Command managed radiological contamination and remediation projects at Navy and Marine Corps commands. The program is an integral part of the Department of Defense (DoD) LLRW Program managed by the U.S. Army. Any alternative path for disposal of waste shall be initiated and coordinated via CMC (SD).

(5) Radiation Safety Training. NAVSEA DET RASO provides initial qualification training to prospective Radiation Safety Officers (RSOs) and Assistant Radiation Safety Officers (ARSOs).

f. To accomplish radiation safety responsibilities in the Marine Corps, the Director, SD shall maintain an effective and unified MCRSP in coordination with COMNAVSEASYSKOM and appoint a member to the NRSC. The appointed NRSC member shall be knowledgeable in the MCRSP and shall function as liaison and central point of contact for radiological affairs within the Marine Corps. Appendix A shows the functional chain of command for the MCRSP.

g. Marine Corps commands can submit applications for NRMPs to use NRC licensed material or sources of ionizing radiation in a local radiation safety program. Applications are submitted via the chain of command to CMC (SD) for endorsement and forwarding to NAVSEA DET RASO for review and processing. When an NRMP is issued, the command shall comply with its locally developed operating procedures, NRMP requirements, and applicable Federal regulations. Non-compliance with NRMP requirements could impact not only an individual command program, but could implicate all NRMPs across the Navy, with potential adverse consequences involving life-saving medical treatment of patients, critical repairs of ships and aircraft, and research and development of warfighting technologies.

h. Marine Corps commands interested in acquiring generally licensed or exempt quantity devices that fall outside of already established NRMPs held within the Marine Corps shall contact CMC (SD) to discuss the programmatic requirements prior to acquisition.

i. NRMPs are also issued to Major Commands with the ultimate goal of distribution of radioactive assets to the fleet. Any command storing, utilizing or deploying with these assets shall abide by its locally developed operating and safety procedures, NRMP requirements, associated Major Command orders, and applicable Federal regulations. Failure to comply with these requirements can jeopardize the NRMP and potentially the MML.

j. Industrial x-ray radiography represents a potential for serious radiation injury to radiography personnel and members of the general public. In order to minimize the hazard, it is incumbent upon all radiography-capable Marine Corps commands to operate their programs in strict compliance with the

standards established in reference (f). These standards reflect the minimum radiation safety requirements necessary to safely conduct x-ray radiography operations. In addition to the requirements in reference (f), each Marine Corps radiography command will establish Standard Operating Procedures (SOPs) which will incorporate any additional radiation safety measures necessary to support that command's operations, as dictated by local conditions.

2. Director, Commandant of the Marine Corps (CMC) Safety Division (SD)

a. Appoint in writing, a qualified Naval Radiation Health Officer (RHO) to serve as Senior Marine Corps Health Physicist at CMC (SD). This RHO shall be responsible for the following actions:

(1) Oversee management of all NRMPs issued to Marine Corps commands and take appropriate actions to ensure compliance with this Order and all other applicable directives.

(2) Serve as a voting member of the NRSC and function as the liaison and central point of contact for radiological affairs within the Marine Corps.

(3) Develop and implement Marine Corps policies regarding the Radiation Safety Program.

(4) Develop, maintain, and provide training programs for material and processes not covered by NAVSEA DET RASO training programs, to all Marine Corps RSOs and Managers.

(5) Provide advice to Marine Corps commands on radiation safety matters.

(6) Except as specified in an NRMP, serve as the primary point of contact for the reporting of incidents involving applicable radioactive assets. This includes generally licensed and license-exempt radioactive assets, and items not otherwise specifically permitted for use in the Marine Corps (i.e., unknown radioactive assets or items that bear the radioactive materials symbol that may belong to the Marine Corps).

(7) Conduct biennial (every two years) assessments of all Marine Corps NRMPs, x-ray radiography operations, analytical measurement instrument programs and other codes listed in reference (f) table 4-1.

(8) Assist in coordinating the procurement of radioactive assets by Marine Corps commands to ensure adequacy of permit coverage and establishment of radiation safety.

(9) Provide technical assistance that is beyond the ability (training and experience) of local resources.

(10) In coordination with the Capabilities Processing Branch within the Capabilities Development Directorate at Marine Corps Combat Development Command, review all Urgent Universal Needs Statements (UUNS) through the Virtual UUNS (VUUNS) system. This review will focus on any capabilities solution or recommendation that may have ionizing radiation components.

3. Commanding General (CG), Marine Corps Logistics Command (MARCORLOGCOM)

a. Coordinate the Inter-Service Support Agreements with the Defense Logistics Agency (DLA) for radioactive asset storage and distribution requirements.

b. Provide disposition instructions for radioactive assets in the Marine Corps using the current Accountability Property System of Record and directives.

c. Ensure Equipment Specialists and Item Managers have the appropriate training and awareness to provide detailed instructions for special handling, demilitarization, and transportation of radiological assets.

d. Direct and maintain inventories of MARCORLOGCOM NRMPs and NRC licensed and exempt radioactive assets.

e. Assign appropriate authority, responsibility, and funding to the MARCORLOGCOM Radiological Controls (RADCON) Office to ensure compliance with this Order and all NRMPs issued to CG MARCORLOGCOM.

f. Ensure adequate resources are available for supporting radioactive sample analysis and instrument calibration as a service to other Marine Corps commands as required by specific NRMPs.

g. Promulgate radiation safety compliance requirements commensurate with materiel management and supply procedures to support Marine Corps equipment containing radioactive sources.

h. Establish and maintain oversight for Marine Corps stock, storage, issue, and use of MARCORLOGCOM licensed radiological assets.

i. Receive, consolidate and report results of semi-annual inventories of radiological assets from each applicable Marine Corps unit associated with MARCORLOGCOM NRMPs. The RSO shall submit a copy of the inventory to NAVSEA DET RASO no later than 31 January of each year that includes all inventoried RASP radioactive assets and machines possessed by the command on 31 December of the preceding year.

4. Commander, Marine Corps Systems Command (MARCORSYSCOM)

a. Coordinate the development, procurement, acquisition, testing, evaluation, and distribution of systems involving ionizing radiation sources, or equipment containing RAM with CMC (SD) and MARCORLOGCOM, RADCON Division. This coordination ensures compliance with new or established NRMPs or NRC licenses. Coordination with MARCORLOGCOM will ensure that radioactive assets are managed properly by MARCORLOGCOM, which is responsible for the maintenance, repair, replacement, storage, and distribution of all materials brought into the Marine Corps inventory.

b. Coordinate the procurement of any generally licensed or license-exempt radioactive assets with CMC (SD) and MARCORLOGCOM, RADCON Division. Reference (f) and Appendix B requirements must also be met for generally licensed radioactive asset acquisition.

c. Direct and maintain inventories of MARCORSYSCOM NRMP and NRC licensed and exempt radioactive assets.

d. Assign appropriate authority, responsibility, and funding to the MARCORSYSCOM RSO to ensure compliance with this Order and all NRMPs issued to CG MARCORSYSCOM.

e. Assign, in writing, a Command Radiation Safety Manager (CRSM) to oversee NRMP compliance, at each command, that receives, uses, handles, and stores radioactive assets or produces ionizing radiation.

f. Incorporate Marine Corps radiation safety requirements in the research, development, testing, and evaluation phases for an end item or system component that contains RAM or is a source of ionizing radiation. Make appropriate provisions for specific licensing and disposition requirements when planning life-cycle management of new systems.

g. Coordinate with CMC (SD) the promulgation of documents for radioactive assets to ensure the availability of training, maintenance, and pertinent regulatory information.

h. Establish and maintain oversight for Marine Corps stock, storage, issue, and use of MARCORSYSCOM licensed radiological assets.

i. Receive, consolidate and report results of semi-annual inventories of radiological permitted assets associated with MARCORSYSCOM NRMPs. The RSO shall submit a copy of the inventory to NAVSEA DET RASO no later than 31 January of each year that includes all inventoried RASP radioactive assets and machines possessed by the command on 31 December of the preceding year.

5. Marine Corps Total Force: Specifically, Commanding General, MCCDC; Commander, U.S. Marine Corps Forces Command; Commander, U.S. Marine Corps Forces Pacific; Commander Marine Corps Installation Command; Commander, U.S. Marine Corps Forces Reserve; Commander, U.S. Marine Corps Forces Special Operations Command; Commander Marine Corps Forces Europe/Africa; Commander Marine Corps Forces Central; Commander, U.S. Marine Corps Forces Korea; and Commanding General, Marine Corps Recruiting Command

a. Ensure that radiation safety programs reflect command support and fulfill the requirements of NRMPs and their associated orders (see Appendix B) as well as applicable host-country and federal regulations.

b. Ensure subordinate commands adhere to the requirements of this Order and applicable NRMP requirements and their associated orders (see Appendix B). This includes pertinent requirements laid out in reference (f).

c. Publish procedures implementing formal radiation safety programs pursuant to the requirements of this Order and commensurate with command operations utilizing radioactive assets.

d. Assign, in writing, a Major CRSM (MCRSM) to oversee radiation safety compliance of subordinate commands as applicable.

e. Report any incidents of loss, theft, or damage of radioactive assets to CMC (SD), to include reporting to the pertinent RSO for any permitted items.

f. Coordinate the procurement of any generally licensed or license-exempt radioactive assets with CMC (SD).

6. Commanding General (CG), Training and Education Command (TECOM)

a. Ensure training and readiness manuals and programs of instruction for equipment containing and operations utilizing radioactive assets or capable of producing ionizing radiation, include basic radiation safety information and training.

b. Coordinate with CMC (SD) on obtaining subject matter expertise for the radiation safety training material.

c. Coordinate the procurement of any generally licensed or license-exempt radioactive assets with CMC (SD).

Chapter 2

Individual Roles and Responsibilities

1. Radiation Safety Officers (RSOs): The person directly responsible for the radiation safety program associated with an NRMP, x-ray radiography, and other usage codes listed in reference (f) table 4-1 that require an RSO. Installation or Command safety instructions or position descriptions using the term/title RSO shall be stricken unless they meet the requirements above.

a. ARSOs are assigned to assist an RSO and/or manage the program in the stead of an RSO per reference (f) guidelines.

b. All other radiation safety personnel in the Marine Corps shall be designated as an RSM (MCRSM, CRSM, IRSM, URSM) or an RPA.

c. Prior to assuming duties as the RSO, the following are required:

(1) Successful completion of the applicable RSO Course(s) provided by NAVSEA DET RASO. Only designated or soon to be designated RSOs, that meet the requirements in paragraph 1., shall be given consideration for attendance.

(2) For an NRMP RSO the following are required:

(a) A signed NRMP amendment listing the RSO on the permit.

(b) Attend the RSM course within three months of being designated as the RSO on a permit.

(3) For an x-ray radiography RSO the following are required:

(a) A signed Ionizing Radiation Producing Machine Authorization (IRPMA) listing the RSO on the authorization.

(b) X-ray radiographers will only be required to attend RSM training if they are also assigned in writing as an RSM.

(4) For all other non-NRMP and non-radiography usage codes (see reference (f) table 4-1), that require an RSO, will require the following:

(a) The RSO shall ensure all requirements within reference (f) for their specific program are met.

(b) The RSO will only be required to attend RSM training if they are also assigned in writing as an RSM.

d. The RSO shall:

(1) Per reference (f), be designated in writing (see Appendix C) by the commanding general, commander, or commanding officer directly (i.e., not "By direction") and document in writing their acceptance of the responsibilities and position of RSO.

(2) Have independent authority to stop operations associated with their NRMP, x-ray or other usage code program that they consider unsafe.

(3) Have sufficient time and commitment from management to fulfill their duties and responsibilities as outlined in their specific NRMP or IRPMA, all radiation safety directives and their local SOP, to ensure that radioactive assets and/or sources of ionizing radiation are used in a safe manner.

(4) Have direct, unimpeded access to the commanding general, commander, or commanding officer for all matters concerning radiation safety.

(5) Recommend to the commanding general, commander, or commanding officer a suitable candidate to serve as ARSO with the same training and qualifications as the RSO.

(6) Ensure that a radiation safety review, audit, and inspection program is implemented and results are forwarded to the commanding general, commander, or commanding officer via the chain of command and that program deficiencies are corrected expeditiously.

(7) The RSO or ARSO shall provide an annual commander's brief to the commanding general, commander, or commanding officer on the status of the radiation safety program for which they are responsible. This briefing shall include the general topics listed in reference (f), Sections 2.8.2.3 items a. through i., all inspections or assessments since the last commander's brief and any NRMP actions or correspondence. A copy of the completed brief, signed by the CO, and a copy of the Annual Program Review, shall be forwarded to CMC (SD) for review.

(8) Ensure strict compliance with all applicable regulations, instructions, and orders that are germane to the Radiation Safety Program, to include any specific conditions associated with an NRMP.

e. Per reference (f) and to maintain proficiency in radiation safety practices and to remain current with guiding regulations, the RSO and ARSO, shall accumulate five RASP continuing training credits approved by NAVSEA DET RASO within the previous five years. Credits may be earned by attending the annual RSO Communities of Practice (COP), and completing other RASP sponsored and virtual training courses. If this requirement cannot be met, the RSO and ARSO shall be required to successfully complete the RSO course again within the 5-year period after initial completion. RSOs shall attend the COP that is most appropriate for the program that they are managing.

f. RSOs shall notify CMC (SD) of deficiencies in RSM manning per Appendix B.

g. RSOs may serve as RSMs, once trained as an RSM, however the RSO must be in a position that bears responsibility for and has visibility of the radioactive asset.

2. Radiation Safety Managers (RSMs): The RSM (henceforth refers generically to all RSM's (MCRSM, CRSM, IRSM, and URSM)) is the individual responsible for the coordination and management of a Radiation Safety Program at all levels of command via the guidance of the respective RSO (when considering specifically licensed items), higher headquarters, and CMC (SD). The RSM will support the entire spectrum of radioactive assets throughout the Marine Corps.

a. An RSM shall manage all specifically licensed and generally licensed radioactive assets in direct support of the RSO's NRMP at their command.

b. For all exempt quantity assets an RSM shall ensure a qualified RPA is assigned responsibilities over the assets.

(1) Requests for exemption from requiring an RSM within exempt quantity only programs will be made directly to CMC (SD) via the chain of command.

(2) Exemptions shall expire after three years or if the command acquires a specifically or generally licensed asset, whichever comes first.

c. As appropriate to the level of the command, the RSM general duties and responsibilities include, but are not limited to:

(1) Develop and implement the appropriate level radiation safety SOP, and publish and distribute applicable messages, bulletins, or notices, as required.

(2) In coordination with the installation logistics office, develop and implement procedures for shipping radioactive assets. Those procedures shall establish and maintain an electronic logbook in spreadsheet format. At a minimum, the logbook shall contain the asset name, national stock number (NSN), serial number (if applicable), radioactive isotope, original radioactive quantity (original activity in curies (Ci) and terabecquerels (TBq)), pre-shipping radiation surveys, date, time, and name of person packaging the items.

(3) Maintain inventories and storage locations of radioactive assets located within their purview and provide the quantities and locations of those assets to the IRSM. If there is no IRSM assigned within your installation, then report locations of radioactive inventories to the fire department and emergency response personnel and as applicable, provide periodic training to these organizations on emergency response procedures involving radiation sources.

(4) Coordinate the procurement of any generally licensed or license-exempt radioactive assets with CMC (SD) and MARCORLOGCOM, RADCON Division. The MCRSM will be notified of any acquisition and the IRSM will also receive notification prior to procurement of said asset and upon receipt.

(5) Establish local procedures and maintain close liaison with the Defense Logistics Agency Disposition Services (DLA-DS) and other base organizations to prevent the unauthorized transfer or delivery of any radioactive assets to the DLA-DS. This includes license-exempt radioactive assets.

(6) Maintain liaison with the RSO and other RSMs within the installation or command that have been appointed oversight of specific radiation safety programs (RADIAC calibration laboratory, x-ray radiography, etc.).

(7) Serve as the point of contact for radiological incident reporting, to include receiving initial notification of broken, damaged, or leaking radiological sources, or the receipt of a radiological shipment with damaged packaging. The RSM shall contact the IRSM (Base Safety if no IRSM

exists) as soon as possible when such an incident transpires, to discuss appropriate actions and receive guidance on response and cleanup. The RSM shall make notification of such incidents to the NRMP RSO and CMC (SD) and provide support for leak test and contamination survey requirements resulting from such incidents per Appendix B.

(8) Report to the IRSM any requests for or identification of external sources of ionizing radiation being brought onto the installation by outside contractors, DoD services, or federal agencies. Examples include, but are not limited to, x-ray/gamma radiography operations, moisture density testing, or testing of research and development equipment. In the absence of an IRSM contact CMC (SD) with the pertinent information.

(9) Conduct leak tests and contamination surveys in accordance with the Marine Corps Orders specified in Appendix B.

(10) Coordinate and track the initial and periodic training and actions of appointed Radiation Protection Assistants in the administration of command radiation safety programs. Prepare and conduct command specific training with new RPAs to familiarize them with the command and assets for which they will be responsible.

(11) Retain responsibility for RPA's actions that are appointed to assist them in their radiation safety program.

d. RSMs shall coordinate the disposal or transfer of any unwanted radioactive assets from the command with CMC (SD) via their chain of command for licensed or generally licensed radioactive assets and request disposition instructions from the appropriate Item Manager (see Appendix B for POC information).

e. All RSMs shall successfully complete Radiation Safety Manager training provided by CMC (SD) within 3 months of assuming duties as RSM.

(1) CMC (SD) owns RSM training and coordinates on-site training at each Marine Expeditionary Force (MEF) annually and upon request given sufficient attendees, lead-time, and resources. Requests for RSM training shall be sent to CMC (SD) and MARCORLOGCOM, RADCON Division for evaluation. CMC (SD) approves the MARCORLOGCOM, RADCON Division announcement released in January each year, which provides COP, RSM training, and site audit dates.

(2) In order to maintain proficiency in radiation safety practices and to remain current with guiding regulations, all RSMs designated in writing shall accumulate three continuing education credits approved by CMC (SD) within the previous five years. Credits may be earned by attending the annual USMC COP (1 credit attendee, 2 credits lecturer), and RSM-RADCON (RSM-R) training (2 credits). If this requirement cannot be met, the RSM shall be required to successfully complete the RSM course again within the 5-year period after initial completion.

3. Major Command Radiation Safety Manager (MCRSM). The MCRSM is the individual designated in writing at the major command level. Because major commands do not typically possess radioactive assets, the MCRSM will normally be responsible for oversight of subordinate command RSMs, RSOs, and their associated programs. Whenever possible, assignment of the major command RSM should be from the major command safety office. Designation letters (see Appendix C) for MCRSMs shall be forwarded to CMC (SD). Exemptions from this

requirement shall be considered for programs that only possess exempt quantity assets.

4. Command Radiation Safety Manager (CRSM). The CRSM is the individual designated in writing at the Marine Expeditionary Force (MEF) or Major Subordinate Command (MSC) level who is responsible for coordinating the Radiation Safety Program for sources of ionizing radiation under the control of that MEF or MSC. Designation letters (see Appendix C) for CRSMs shall be forwarded to the MCRSM. Whenever possible, assignment of the CRSM should be from the command safety office. Exemptions from this requirement shall be considered for programs that only possess exempt quantity assets. Additional duties for the CRSM are as follows:

a. The CRSM will be responsible for administering access to Radiation Protection Assistant (RPA) training for their Area Of Responsibility (AOR).

b. The CRSM shall maintain an accurate roster of URSMs that fall within their AOR and will provide a copy annually to the MCRSM and the respective RSO (utilize Appendix B to determine which RSO(s)).

5. Unit Radiation Safety Manager (URSM). URSMs shall be E-5 and above and designated to support specifically licensed and generally licensed radioactive assets in which the RSO/ARSO responsible for said license is not geographically located and per Appendix B. Designation letters (see Appendix C) for URSMs shall be forwarded to the CRSM and the IRSM.

6. Installation Radiation Safety Manager (IRSM). The IRSM is the individual designated in writing by the commanding general, commander, or commanding officer at the installation, base, air station, combat center, or other fixed activity, who is responsible for coordinating the Radiation Safety Program for sources of ionizing radiation under the control of that installation, as well as maintenance of an inventory of all radioactive assets physically located on the installation.

a. Whenever possible, assignment of the IRSM should be from the installation safety office.

b. The IRSM shall successfully complete RSM -R training provided by NAVSEA DET RASO within six months of assuming the duty of IRSM.

(1) Once qualified the IRSM shall retake RSM-R within five years as part of their continuing education credits or requalification per chapter 2, 2.e.(2).

(2) IRSMs who also hold the title of RSO (excludes radiographer RSOs) and have attended RASO's RSO training on or after January 2015 are exempt from attending the initial RSM-R training.

c. Upon notification of a spill or breach of radioactive assets by a tenant command on the installation, the IRSM shall direct recovery actions in coordination with the NRMP RSO and/or CMC (SD). The tenant command RSM/RPA will provide any/all support necessary to the IRSM to ensure a safe recovery from the spill or breach. This in no way makes the IRSM responsible for any reporting or disposition requirements.

d. The IRSM's contact info shall be posted within all components of an installation that store/use radioactive assets to include instructions to

contact the IRSM in the event of theft, loss, or damage should the designated RSM/RPA not be available or an RSM/RPA is not assigned to the space.

e. The IRSM as applicable, shall provide periodic training to emergency response organizations on response procedures involving radiation sources within the scope of their installation.

f. The IRSM shall report inventory locations and quantities of all radioactive assets on the installation to the fire department, custodians, and emergency response personnel upon initial receipt of assets, change of location, and annually.

g. The IRSM shall report to CMC (SD) any new requests for or identification of any external sources of ionizing radiation being brought onto their installation by outside contractors, DoD services, or federal agencies, whether for storage or utilization, to ensure a Radiological Contract Oversight Management Authorization (RCOMA) has been processed as necessary per reference (f). Examples include, but are not limited to, x-ray/gamma radiography operations, moisture density testing, or testing of research and development equipment.

h. Designation letters (see Appendix C) for IRSMs shall be forwarded to CMC (SD).

7. Radiation Protection Assistant (RPA). The RPA is the unit-level, collateral duty radiation safety professional, and is appointed to assist the RSM in administration of the command radiation safety program. RPAs shall be assigned to support license exempt radioactive assets. An RPA is not authorized to assume the responsibility for the management of specifically licensed or generally licensed radioactive assets in the stead of an RSM with the exception of deployable units where an RPA can support the program in the stead of an RSM until another RSM can be trained. Under these circumstances the RPA shall be designated in writing as the RSM, assuming the responsibilities of the program, and will thus be required to attend RSM training within three months unless another candidate has been identified to replace the RSM.

a. RPAs shall successfully complete a radiation safety training program provided by the CMC (SD) within three months of assuming duties as RPA and shall complete an annual refresher thereafter. CMC (SD) provides the training material to RSMs to administer all RPA training.

b. RPAs shall maintain an inventory of radioactive assets within the unit.

c. In the event any inventory items, under the cognizance of an RPA, are broken, damaged or leaking the RPA shall contact the IRSM, via the chain of command, to receive guidance on response, cleanup, and disposal of the radioactive asset.

d. Report to the IRSM, via the chain of command, any requests for or identification of external sources of ionizing radiation being brought onto the installation by outside contractors, DoD services, or federal agencies. Examples include, but are not limited to, x-ray/gamma radiography operations, moisture density testing, or testing of research and development equipment. In the absence of an IRSM contact CMC (SD) with the pertinent information.

8. Responsible Officer (RO). The unit having custody of licensed or permitted radioactive assets must assign an RO. The RO is appointed in writing by the Commanding Officer and assumes custodial responsibility for property and accountability of supplies for units. The RO shall receive radiation safety training that is commensurate with one's duties and responsibilities. The RO shall be responsible for the following actions:

a. Perform or ensure the conduct of radiation safety program requirements for the receipt, handling, storing, physical inventory, packaging, and shipping of licensed sources of ionizing radiation.

b. Respond to radiological inventory inquiries within specified tasking timelines. Semi-annual inventories will be conducted and submitted to the permit holder within 30 days of tasking date.

c. Obtain the Accountable Officer's signature on inventories of radiological assets.

d. Perform or ensure that documentation and reporting requirements are fulfilled.

Chapter 3

Coordinating Instructions

1. Maintenance. Maintenance on equipment containing radioactive assets shall only be conducted per the following guidance:

a. Maintenance shall only be conducted in accordance with the equipment's Source Maintenance, Recoverability, and Code (SMRC), as described in the equipment's technical manual.

b. The radiation safety for facility maintenance operations must adhere to the requirements delineated in the specific NRMP (see Appendix B for further guidance).

2. Unwanted Radioactive Material (URM) and Low-Level Radioactive Waste (LLRW)

a. In the Marine Corps, URM includes items that contain intact and unbroken radioactive assets for which the possessing command has no further use. These items include, but are not limited to, license-exempt radioactive assets, e.g., advanced combat optical gunsights (ACOG), rifle combat optics (RCO), and tritium compasses. RSOs and RSMs should contact the appropriate Item Manager for disposition instructions on these items.

b. LLRW includes assets that contain RAM or any item which is contaminated with RAM, or any radioactive asset which is known to be broken and leaking RAM. Once designated as LLRW, the RSO will work directly with NAVSEA DET RASO to coordinate the disposal. The RSM shall contact CMC (SD) via their chain of command for all matters concerning actual or potential LLRW under their purview.

c. Only NAVSEA DET RASO can officially designate items as LLRW for disposal and transfer as such. Therefore, close coordination with NAVSEA DET RASO is required to ensure proper classification and final disposition of anticipated LLRW. Do not transfer unwanted radioactive assets for demilitarization to the DLA-DS.

3. Transportation of Radioactive Materials

a. The transportation of RAM is regulated by references (g) through (i) and shall only be certified and shipped by qualified individuals per reference (g).

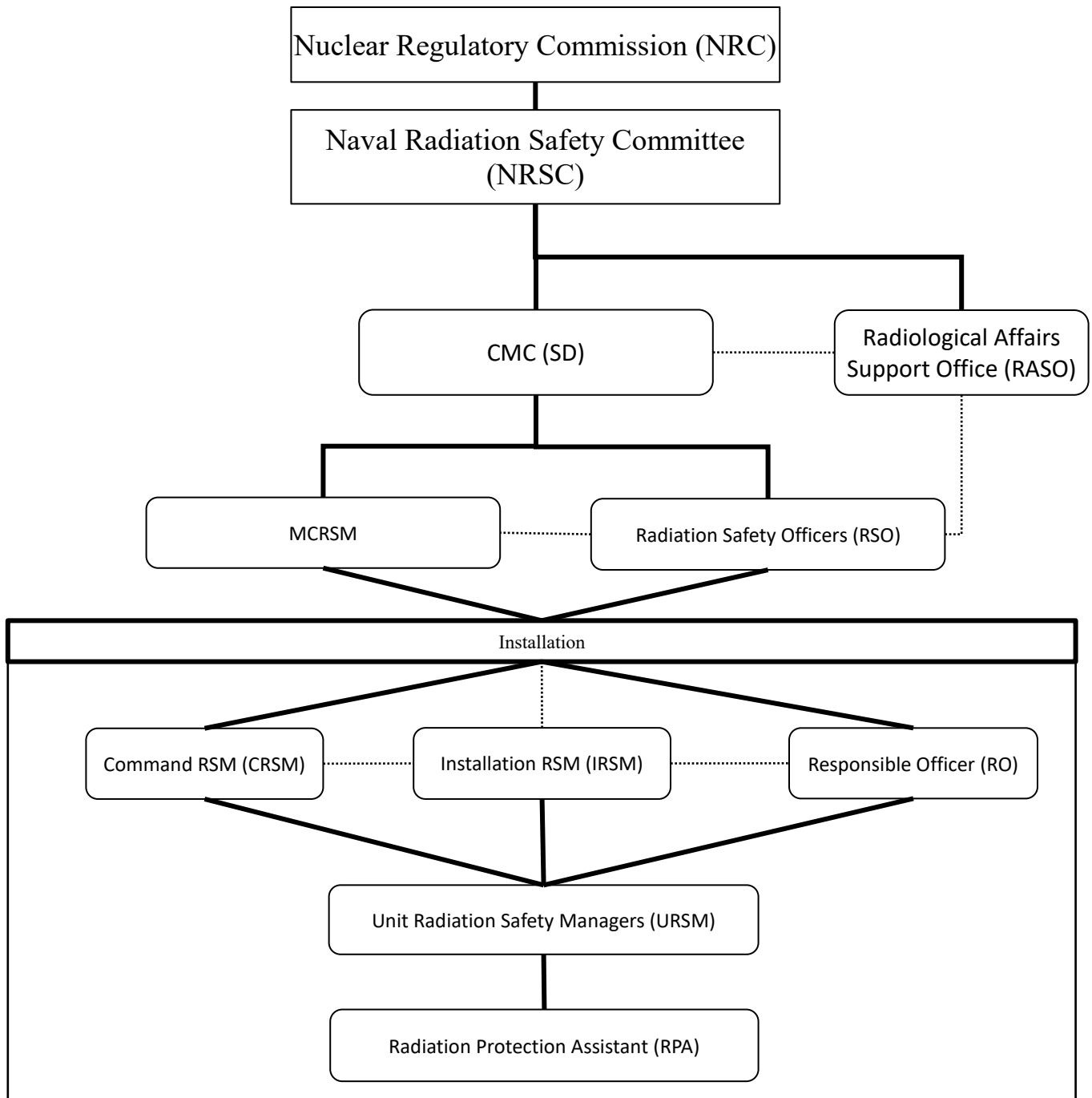
b. Shipments of RAM shall be carefully coordinated with the local DLA office and the installation Traffic Management Branch, as applicable, to ensure all regulations pertaining to shipment of RAM are followed.

c. A RAM Movement Form available on-line at: <https://navalforms.documentservices.dla.mil/web/public/forms>, shall accompany radioactive asset movements to include on-base permanent transfer from one building to another, transfer from one command to another, and for any RAM being prepared for shipment.

d. A RAM Movement Form is not required for temporary movement of items remaining on the installation.

e. The RSM will ensure that a copy of each completed RAM Movement Form is provided to the IRSM (CRSM if there isn't an IRSM) and maintained on file at the generating command for seven years. After seven years, original RAM Movement Forms shall be turned over to the IRSM (CRSM if there isn't an IRSM) to be retained indefinitely in accordance with reference (f).

Appendix A: Hierarchy of Marine Corps Radiation Safety Program (MCRSP)



Direct lines of communication *
 Alternate lines of authorized communication

****Although RSMs and RSOs have direct lines of communication with higher commands, they should continue to keep their chain of command informed.***

Appendix B - RADIATION SAFETY MANAGER (RSM) DESIGNATION AND DIRECTIVES

1. The following guidance is designed to clarify where to designate Unit Radiation Safety Managers (URSM) and the guidance that shall be adhered to in their radiation safety program in order to comply with Naval Radioactive Material Permit conditions, the associated orders to the NRMP, and ultimately the federal regulations. All other permits associated with the Marine Corps have a local dedicated RSO and thus don't require URSMs unless specified within their permit conditions, the associated orders, or at the discretion of their RSO.

a. Commander Naval Air Force (CNAF) is responsible for the strontium-90 (Sr-90) in the In-Flight Blade Inspection Systems (IBIS) and americium-241 (Am-241) contained within the Electro-Optical Targeting System (EOTS). The NRMP and instructions/directives listed below provide the URSM with mandatory guidance to manage the IBIS and EOTS program. A URSM shall be qualified and designated within each Marine Aviation Logistics Squadron, HMM Squadron (CH/MH-53), and VMFA Squadron (F-35 only) that have an IBIS or EOTS associated with their aircraft. The RSO and ARSO contact info are listed below.

- (1) IBIS: NRMP No. 04-57025-T2NP
- (2) IBIS: COMNAVAIRPAC/COMNAVAIRLANT INST 5104.1B
- (3) EOTS: NRMP No. 04-57025-T1NP
- (4) EOTS: COMNAVAIRPAC/COMNAVAIRLANT INST 5104.2A
- (5) POC Info (both permits share RSO and ARSO):
 - (a) RSO Phone: (619) 545-1436
 - (b) ARSO Phone: (619) 545-4955

b. Marine Corps Logistics Command (MARCORLOGCOM) is responsible for the nickel-63 (Ni-63) within the various chemical agent detectors (see the permit listed below for all assets). The NRMP and LOGCOM orders listed below provide the URSM with mandatory guidance to manage the safety program for the various Ni-63 assets. Units possessing equipment containing Ni-63 shall have a qualified and designated URSM. Users of this equipment must have knowledge as stated in the LOGCOM order associated with the NRMP. The RSO and ARSO contact info are listed below.

- (1) NRMP 10-67004-T1NP
- (2) MARCORLOGCOM Order (LCO) 5104.1
- (3) MARCORLOGCOM Order (LCO) 5104.2
- (4) POC Info:
 - (a) RSO Phone: (229) 639-7670
 - (b) ARSO Phone: (229) 639-7146

c. MARCORLOGCOM maintains a permit for tritium (H-3) sighting assets. These assets are listed in the NRMP listed below. The NRMP and LOGCOM orders listed below provide the URSM with mandatory guidance to manage the safety program for the various H-3 assets. Armories which manage permitted H-3 sighting assets shall have a qualified and designated URSM. If an armory has multiple cages one URSM is sufficient but the individual cages shall have a qualified and designated RPA. Units without items specified in the below permit are not required to abide by this requirement. Repairable Issue Points (RIP) shall have a qualified and designated URSM as well. Personnel who stock, store and issue permitted items containing H-3 will have user knowledge appropriate to their position. Other areas which maintain permitted items in any capacity shall have a qualified and designated URSM. These areas will also ensure handlers of the items have appropriate hazardous awareness knowledge. The RSO, ARSO, and Item Managers contact info are listed below.

- (1) NRMP 10-67004-T2NP
- (2) MARCORLOGCOM Order (LCO) 5104.1
- (3) MARCORLOGCOM Order (LCO) 5104.2
- (4) POC Info:
 - (a) RSO Phone: (229) 639-7670
 - (b) ARSO Phone: (229) 639-9478
 - (c) Item Manager's Phone: (229) 639-8275/6739

d. MARCORLOGCOM maintains a permit for depleted uranium (DU) on the USMC M1A1 and M1A2 tanks. Units maintaining M1A1 and M1A2 tanks shall have a qualified and designated URSM. The NRMP and LOGCOM orders listed below provide the URSM with mandatory guidance to manage the safety program for the various DU assets. The RSO, ARSO, and Item Managers contact info are listed below.

- (1) NRMP 10-67004-T3NP
- (2) MARCORLOGCOM Order (LCO) 5104.1
- (3) MARCORLOGCOM Order (LCO) 5104.2
- (4) POC Info:
 - (a) RSO Phone: (229) 639-7670
 - (b) ARSO Phone: (229) 639-7146
 - (c) Item Manager's Phone: (229) 639-8275/6739

e. Marine Corps Systems Command (MARCORSYSCOM) is responsible for DU ammunition within the Marine Corps. The RSO and ARSO's contact info are listed below and both fall within the PM Ammo division of MARCORSYSCOM. For deployed units a CRSM shall be qualified and designated to support all DU ammunition. As DU shall never be stocked within the Continental United States (CONUS), there is no need for assigning RSMs to support on CONUS

installations. The following NRMP, instructions/directives, and POC information provide the RSM with mandatory guidance and assistance in managing the DU ammunition safety program.

(1) NRMP No. 45-67854-L1NP (pending)

(2) MCO 5104.2

(3) POC info:

(a) RSO Phone: (703) 432-8784

(b) ARSO Phone (703) 432-8938

2. When a command obtains a generally licensed radioactive asset, not under an NRMP, a URSM shall be trained, designated and assigned to support the asset per reference (f) as the Generally Licensed Material Officer (GLMO). A URSM/GLMO is not required if there is a local RSO, who can take responsibility for the asset (new device and RSO fall under the same command). All requirements (see reference (f)) for the generally licensed asset shall be identified and included in a local SOP.

Appendix C - Letters of Designation

From: *Commanding Officer*
To: *(Insert appointee name here)*

Subj: APPOINTMENT AS A(N) (ASSISTANT) RADIATION SAFETY OFFICER

Ref: (a) NAVMC DIR 5100.8
(b) MCO 5104.3C
(c) NAVSEA S0420-AA-RAD-010 Rev 2, Radiological Affairs Support
Program (RASP) Manual (NOTAL)

1. Per references (a) through (c), you are appointed as a (n) (*Assistant*) RSO.

2. This appointment does not constitute a replacement appointment or serve as a cancellation of the RSO appointment of any other individual. (*For replacements utilize: This appointment constitutes a replacement appointment and serves as a cancellation of the RSO appointment of (insert outgoing RSO name here)*)

3. You are directed to familiarize yourself with references (a) through (c) as well as the permit conditions and ensure strict adherence to the same as they will guide you in the execution of your duties and responsibilities.

4. You will keep the chain of command informed at all times of problems encountered in the execution of your duties. Further, you have direct access to the Commander, CO, or OIC on matters dealing with the RASP and have independent authority to stop any RASP operation he/she considers to be unsafe.

5. This appointment shall remain in effect until your reassignment, transfer, or is rescinded by proper authority.

(Printed name)

APPOINTMENT ACKNOWLEDGMENT

From: *(Appointee name)*
To: *Commanding General*

Subj: APPOINTMENT AS RADIATION SAFETY OFFICER

1. I have read and understand references (a) through (c) as well as the permit conditions pertaining to this billet.

2. I hereby assume the duties and responsibilities of this billet.

(Printed name)

Copy To:
CMC (SD)

From: *Commanding Officer*
To: *(Insert appointee name here)*
Subj: APPOINTMENT AS RADIATION SAFETY MANAGER (RSM)
Ref: (a) NAVMC DIR 5100.8
(b) MCO 5104.3C

1. Per references (a) and (b), you are appointed as a *(Insert Major Command, Command, Installation, or Unit)* RSM.
2. This appointment does not constitute a replacement appointment or serve as a cancellation of the RSM appointment of any other individual. *(For replacements utilize: This appointment constitutes a replacement appointment and serves as a cancellation of the RSM appointment of (insert outgoing RSM name here))*
3. You are directed to familiarize yourself with references (a) and (b) and ensure strict adherence to the same as they will guide you in the execution of your duties and responsibilities.
4. You will keep the Chief of Staff informed at all times of problems encountered in the execution of your duties.
5. This appointment shall remain in effect until your reassignment, transfer, or is rescinded by proper authority.

(Printed name)

APPOINTMENT ACKNOWLEDGMENT

From: *(Appointee name)*
To: *Commanding General*
Subj: APPOINTMENT AS RSM

1. I have read and understand references (a) and (b) pertaining to this billet.
2. I hereby assume the duties and responsibilities of this billet.

(Printed name)

Copy To: Apply guidance on pages 2-5 through 2-6 in determining whom to copy for MCRSM, CRSM, IRSM, or URSM