

UNITED STATES MARINE CORPS COMMAND ELEMENT II MARINE EXPEDITIONARY FORCE PSC BOX 20080 CAMP LEJEUNE, NC 28542-0080

> II MEFO 5104.1A Ch1 G-10 SEP 12 2019

#### II MARINE EXPEDITIONARY FORCE ORDER 5104.1A Ch 1

From: Commanding General, II Marine Expeditionary Force To: Distribution List

Subj: RADIATION CONTROL SAFETY PROGRAM

Encl: II MEFO 5104.1A

1. Situation. To transmit a change to the basic order.

2. <u>Execution</u>. This change clarifies radiation safety personnel duties and responsibilities with regard to the chain of command and shipment of Radioactive Material (RAM).

## 3. Filing Instructions.

a. On page 1-4, Figure 1, add the following under Unit Radiation Safety Managers (URSM): "At each Aviation Support and Control Group."

b. On page 2-6, para 6, add the following sentence at the end of the paragraph: "URSMs may conduct RPA training under MSC/MSE oversight."

c. On page 3-1, para 2b, replace the last sentence with the following: "The RSO, or RSM when applicable, shall contact the CMC (SD) Radiation Health Physicist via their chain of command for all matters concerning actual or potential LLRW under their purview."

d. On page 3-1, para 3b, change the paragraph to read as follows: "Shipments of RAM shall be coordinated with the local DLA office, the Installation Traffic Management Branch, and/or Marine Aviation Logistics Squadron (MALS) supply, as applicable, to ensure adherence to all DOT regulations pertaining to shipment of RAM."

e. File this change immediately behind the promulgation page.

S. MORG

Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS II MARINE EXPEDITIONARY FORCE COMMAND ELEMENT PSC BOX 20080 CAMP LEJEUNE, NORTH CAROLINA 26542-0080

> II MEFO 5104.1A G-10 JUN 1 8 2019

# II MARINE EXPEDITIONARY FORCE ORDER 5104.1A

From: Commanding General, II Marine Expeditionary Force To: Distribution List

- Subj: RADIATION CONTROL SAFETY PROGRAM
- 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
  - (h) 10 CFR 71 Packaging and Transportation of Radioactive Material
  - (i) 49 CFR 173 Shippers General Requirements for Shipments and Packaging
  - (j) Nuclear Regulatory Commission (NRC) Master Materials License 45-23645-01NA (NOTAL)
  - (k) SECNAV Notice 5210
  - (1) SECNAV M-5210.1
  - (m) MCO 5210.11F
  - (n) 5 U.S.C. 552a
  - (o) SECNAVINST 5211.5E
  - (p) MCO 5104.3C
  - (q) MARFORCOMO 5100.1

Encl: (1) Radiation Control Safety Program

1. <u>Situation</u>. As directed by guidance in reference (a) through (q), this order provides the policy, assigns responsibility and presents requirements for the administration of II Marine Expeditionary Force (II MEF) Radiological Control (RADCON) Program. This Order delineates and enacts the Program elements necessary to assure compliance with references, the Department of Navy's Master Materials License (MML), and specific Naval Radioactive Materials Permits (NRMPs) utilized by II MEF Commands. This order has been revised and contains a substantial number of changes that clarify and outling requirements as well as set new standards for training.

2. Cancellation. II MEFO 5104.1.

3. <u>Mission</u>. This Order establishes a formal RADCON program within the II MEF structure to minimize the risk of injury to personnel and the general public, contamination of personnel and facilities, and the loss of control of sources of ionizing radiation.

DISTRIBUTION STATEMENT A: Approved for public release: distribution is unlimited.

## 4. Execution

## a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) 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.

(b) Provide guidance and requirements for implementing references (a) through (q), for sources of ionizing radiation utilized within II MEF.

(c) The end state is to enhance unit and individual readiness by maintaining an effective RADCON program in compliance with applicable laws and regulations.

(2) <u>Concept of Operations</u> 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 for each permit, and state and federal regulations.

b. Subordinate Element Missions

## (1) Commanding General, II MEF

(a) Appoint in writing a Radiation Safety Officer (RSO) or Command Radiation Safety Manager (CRSM) who shall have direct oversight of the command's radiation safety practices and procedures.

(b) Ensure subordinate commands adhere to the requirements of this Order, all references, and host base/installation RADCON procedures.

(c) Ensure the assignment of RSOs, CRSMs and/or Radiation Protection Assistants (RPAs) as required, to oversee compliance at subordinate commands.

(2) II MEF Major Subordinate Commands (MSCs)

(a) Appoint in writing a RSO or CRSM who have direct oversight of the command's radiation safety practices and procedures.

(b) Ensure the assignment of RSOs, Unit Radiation Safety Managers (URSMs), RPAs, and Responsible Officers (ROs), as required, to oversee NRMP compliance at subordinate commands that possess, store, and use radioactive commodities.

(c) Ensure subordinate commands adhere to the requirements of this order, all references, and host base/installation RADCON procedures.

(3) II MEF Major Subordinate Elements (MSEs)

(a) Appoint in writing a RSO or URSM who will have direct oversight of the commands radiation safety practices and procedures.

II MEFO 5104.1%

(a) Appoint in writing a RSO or URSM who will have direct oversight of the commands radiation safety practices and procedures.

(b) Ensure the assignments of RSOs, URSMs, RPAs, and ROs, as required, to oversee NRMP compliance at subordinate commands that possess, store, and use radioactive commodities.

(c) Units that possess Depleted Uranium (DU) and units with armories that possess any item that is under a NRMP will assign a URSM.

(d) Units that have Armories with only ACOGs and Compasses will assign an RPA.

#### 5. Administration and Logistics

(a) Recommended changes to this order will be submitted to the II MEF Command Radiation Safety Manager (CRSM), II MEF G-10 for review and incorporation.

#### 6. Command and Signal

a. Command. This order applies to all II MEF commands procuring, possessing, using, or responsible for training users of sources of ionizing radiation. For the purpose of this order, sources of ionizing radiation are defined as radioactive materials in commodities and equipment or radiation producing equipment. 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.

R. S. MORGAN Chief of Staff

DISTRIBUTION: A

II MEFO 5104.1K JUN 182019

## LOCATOR SHEET

Subj: RADIATION CONTROL SAFETY PROGRAM

Location:

(Indicate the location(s) of copy(ies) of this Order.)

	TABLE OF CONTENTS	
IDENTIFICATION	TITLE	PAGE
CHAPTER 1	RADIATION SAFETY OVERVIEW	
1-1	Marine Corps Radiation Safety	1.42
Figure 1	Hierarchy of Marine Corps Radiation Safety	+ - +
· · · ·	Program (MCRSP)	1-4
	Liogian (Hendry	
CHAPTER 2	INDIVIDUAL ROLES AND RESPONSIBILITES	
2-1	Commanding General, II Marine Expeditionary	
	Force (CG II MEF)	2-1
2-2	Commanding General, 2d Marine Aircraft Wing,	
	Commanding Géneral, 2d Marine Division	
	Commanding General, 2d Marine Logistics Group	
	Commanding Officer, II Marine Information Group	2-2
2-3	Radiation Safety Officer (RSO)	2 2
2-4	Radiation Safety Manager (RSM)	
2-5	Command RSM (CRSM)	2-5
2-6	Unit RSM (URSM)	$\frac{d^2 2}{d t^2} = \frac{d t^2}{d t^2}$
2-7	Radiation Protection Assistant (RPA)	2-2
2-8	Responsible Officer (RO)	2-7
Figure 2	Radiation Safety Manager (RSM Designation and Directives	
The second and	dens wir and den an of the A and the	2-5
Figure 3	Example letters of Designation/Appointment	2-10
CHAPTER 3	COORDINATING INSTRUCTIONS	
CIDICIDA 3	COORDINATING INSTRUCTIONS	
3-1	Maintenance Instructions	3-1
3-2	Unwanted Radioactive Material (URM) and Low	120.00
	Level Radioactive Waste (LLRW)	342
3-3	Transportation of Radioactive Material	3-1
3-4	Decommissioning records	3-2
3-5	Radioactive Accidents and Incident Procedures	3-2

5

#### CHAPTER 1

#### RADIATION SAFETY OVERVIEW

## 1. Marine Corps Radiation Safety

a. Per reference (a), the Secretary of the Navy assigned CNO the responsibility to establish and manage the Navy Safety and Occupational Health Program, including the promulgation of appropriate, directives in coordination with CMC for those matters that affect the U.S. Marine Corps. Figure 1 details the USMC Radiation Safety Program Hierarchy.

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 he Radiological Affairs Support Program (RASP) is the vehicle used by COMNAVSAESYSCOM to discharge the responsibilities for Radiological Controls (RADCON). The RASP is the responsibility of NAVSEASYSCOM (SEA-04N) and includes all aspects of radiation safety with respect to 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.

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

(2) <u>X-ray Radiography</u>. 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 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) <u>Naval Low-Level Radioactive Waste (LLRW) Program</u>. 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) <u>Radiation Safety Training</u>. NAVSEA DET RASO provides initial qualification training to respective Radiation Safety Officers (RSOs) and Assistant Radiation Safety Offices (ARSOs).

f. To accomplish radiation safety responsibilities in the Marine Corps, the Director, CMC (SD) shall maintain an effective and unified MCRSP in coordination with COMNAVSEASYSCOM and appoint a member to the NRSC. The appointed NRSC members hall be knowledgeable in the MCRSP and shall function as liaison and central point of contact for radiological affairs within the Marine Corps.

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. Maine 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 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.

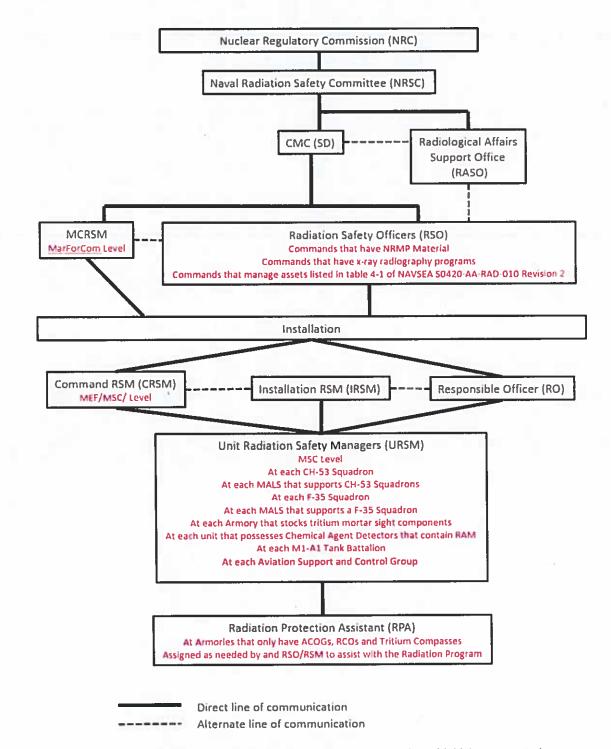


Figure 1: Hierarchy of Marine Corps Radiation Safety Program (MCRSP)

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

#### CHAPTER 2

## INDIVIDUAL ROLES AND RESPONSIBILITIES

## 1. Commanding General, II Marine Expeditionary Force

a. Ensure that radiation safety programs reflect command support and fulfill the requirements of NRMPs and their associated orders (see Appendix B of reference (p)).

b. Ensure subordinate commands adhere to the requirements of reference (p) and applicable NRMP requirements and their associated orders (see Appendix B of reference (p)).

c. Publish procedures implementing formal radiation safety programs pursuant to the requirement of reference (p) and commensurate with command operations utilizing radioactive assets.

d. Assign in writing a CRSM to oversee radiation safety compliance of subordinate commands as applicable.

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

f. Coordinate the procurement of any generally licensed or licenseexempt radioactive assets with COMMARFORCOM.

g. Receive, consolidate and report results of semi-annual inventories of radiological assets from each applicable MSC/MSE associated with an NRMP. II MEF G-4 shall submit a copy of the inventory to MARCORLOGCOM with copies going to II MEF RSM and COMMARFORCOM.

2. Commanding General, 2d Marine Aircraft Wing, 2d Marine Division, 2d Marine Logistics Group, Commanding Officer, II Marine Information Group

a. Ensure that radiation safety programs reflect command support and fulfill the requirements of NRMPs and their associated orders (see Appendix B of reference (p)).

b. Ensure subordinate commands adhere to the requirements of Appendix B of reference (p), applicable NRMP requirements and their associated orders, and Figure 2.

c. Assign in writing a RSO, CRSM, URSM, or RPA as required to oversee radiation safety compliance of subordinate commands as applicable.

d. Report any incidents of loss, theft, or damage of radioactive assets to II MEF CRSM, to include reporting to the pertinent RSO for any permitted items.

e. Receive, consolidate and report results of semi-annual inventories of radiological assets from each applicable MSC/MSE associated with an NRMP. II MEF G-4 shall submit a copy of the inventory to MARCORLOGCOM with copies

going to II MEF CRSM and COMMARFORCOM.

3. Radiation Safety Officers (RSOs): The person directly responsible for the radiation safety program associated with an NRMP, x-ray radiographer, and other usage codes listed in reference (f) table 4-1 that require an RSO.

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

b. All other radiation safety personnel shall be designated as an RSM (CRSM, URSM) or an RPA.

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

(1) Successful completion of the applicable RSO course 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 RSO 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(b) X-ray are also assigned in writing as an RSM.

(4) For all other non-NRMP, and non-radiography usage codes listed in reference (f) table 4-1, that require an RSO, they 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.

: Гіьла Огя эйт . Б

(1) Per reference (f), be designated in writing 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 other pertinent radiation safety directives, 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 the 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 CG, CMDR, or CO and a copy of the Annual Program Review, shall be forwarded to CMC (SD) via the chain of command for review.

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

e. Per reference (f), 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. RSOs shall attend the COP that is most appropriate for the program that they are managing. 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.

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

g. RSOs may serve concurrently as an RSM in the same command that possesses radioactive assets that require both an RSO and an RSM.

4. <u>Radiation Safety Managers (RSM)</u>: The RSM (henceforth refers generically to all RSMs (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 RSOs 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 chain of command acquires a specifically or generally licensed asset, whichever comes first.

c. As appropriate to the level of 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.

(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 radioactive assets and upon receipt.

(5) Establish local procedures and maintain close liaison with the Defense Logistics Agency Disposition Services (DLA-DS) and other installation logistics organizations to prevent 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 Office 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) via the chain of command 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 orders specified in Appendix B related to the associated NRMPs.

(10) Coordinate and track the initial and periodic training and actions of appointed Radiation Protection Assistants (RPAs) in 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 RPAs actions that are appointed to assist them in their radiation safety program.

(12) Ensure required documents are posted such as, NRC Form 3, SOP, POCs, and Emergency Telephone numbers in Radioactive Material (RAM) storage areas.

(13) Ensure copies of NRC Licenses, NRMPs, RAM movement forms and record of shipments for radiological assets are maintained at the appropriate level of command.

d. RSMs shall coordinate the disposal or transfer of any unwanted radioactive assets from the command with CMC (SD) via the chain of command for generally 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 three months of assuming duties as an 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 via the chain of command for evaluation. MARCORLOGCOM, RADCON Division releases a message each January, which provides Community of Practice (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 (one credit attendee, two credits lecturer), and RSM-RADCON (RSM-R) training (two credits). If this requirement cannot be met, the RSM shall be required to successfully complete the RSM course again within the five-year period after initial completion.

5. <u>Command Radiation Safety Managers (CRSM)</u>. The CRSM is the individual designated in writing at the MEF/MSC/MSE level who is responsible for coordinating the Radiation Safety Program for sources of ionizing radiation under the control of the MEF, MSE or MSE. Appointment letters will be forwarded to MCRSM via the chain of command. 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 MSC/MSE CRSMs will be responsible for administering RPA training and forwarding completion rosters to the II MEF CRSM within 30 days of conducting the training.

b. The CRSM shall maintain an accurate roster of URSMs that fall under their MSC/MSE and forward a copy annually to the II MEF CRSM.

6. Unit Radiation Safety Manager (URSM). URSMs shall be E-5 and above or civil service employees appointed in writing to support specifically licensed and generally licensed radioactive assets in which the RSO/CRSM responsible for said license is not geographically located and per Appendix B. Appointment letters for URSMs shall be forwarded to the II MEF CRSM via the chain of command. URSMs may conduct RPA training under MSC/MSE oversight.

7. <u>Radiation Protection Assistant (RPA)</u>. The RPA is the unit level, collateral duty radiation safety professional. The RPA is appointed to assist the URSM 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 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 thus will 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 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. These training materials are available from the II MEF CRSM.

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

c. In the event any radiological assets under the cognizance of the RPA is broken, damaged, or leaking the RPA shall contact the IRSM, via the chain of command. Guidance will be obtained from the IRSM and URSM for response,

cleanup, disposal, and reporting instructions.

d. Report to the IRSM, via the chain of command, any requests for or identification of any external sources of ionizing radiation being brought onto their installation by outside contractors, DoD services, or federal agencies.

e. Ensure that radiological assets are secured to prevent loss or unauthorized use.

8. <u>Responsible Officer (RO)</u>. 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 supply assets for the unit. The RO shall receive radiation safety training that is commensurate with his/her/it'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 the 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.

Figure 2: 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 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, HMH 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/COMNAVAIR LANT INST 5104.1B

2-7

- (3) EOTS: NRMP 04-57025-T1NP
- (4) EOTS: COMNAVAIRPAC/COMNAVAIRLANT ONST 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 Radiation 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 a knowledge as stated in the LOGCOM order associated with the NRMP. The RSO and ARSO contact info are listed below.

- (1) NRMP No. 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 Radiation 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 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 No. 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 Managers 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 Radiation Safety Program for the various DU assets. The RSO, ARSO, and Item Managers contact info are listed below.

(1) NRMP No. 10-67004-T3NP

- (2) MARCORLOGCOM Order (LCO) 5104.1
- (3) MARCORLOGCOM Order (LCO) 5104.2
  - 2-8

- (4) POC Info:
  - (a) RSO Phone: (229) 639-7670
  - (b) ARSO Phone: (229) 639-7146
  - (c) Item Managers Phone: (229) 639-8275/6739

e. Marine Corps Systems Command (MARCORSYSCOM) is responsible for DU ammunition within the Marine Corps. The RSO and ARSOs 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/GMLO 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 of reference (f) for the generally licensed asset shall be identified and included in a local SOP. Figure 3: Example Letters of Designation / Appointment

From: Commanding Officer To: (Appointee name here)

Subject: APPOINTMENT AS RADIATION SAFETY OFFICER (RSO)

Ref:

- (a) NAVMC DIR 5100.8
  - (b) MCO 5104.3C
  - (c) NAVSEA S0420-AA-RAD-10 Rev 2

1. Per references (a) through (c), you are appointed as a Radiation Safety Officer.

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 reference (a) through (c) as well as applicable NRMP 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 you consider to be unsafe.

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

C. O. NAME

## APPOINTMENT ACKNOWLEDGMENT

From:	(Appointee	name here)
To:	Commanding	Officer

Subject: APPOINTMENT AS RADIATION SAFETY OFFICER (RSO)

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

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

PRINTED NAME

2-10

From: Commanding Officer To: (Appointee name here)

Subject: 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 the (Insert Major Command, Command, or Unit) Radiation Safety Manager.

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 reference (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 chain of command 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.

## C. O. NAME

#### APPOINTMENT ACKNOWLEDGMENT

From: (Appointee name here) To: Commanding Officer

Subject: APPOINTMENT AS RADIATION SAFETY MANAGER (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:

2-11

Enclosure (1)

From: Commanding Officer To: (Appointee name here)

Subject: APPOINTMENT AS RADIATION PROTECTION ASSISTANT (RPA)

Ref: (a) NAVMC DIR 5100.8 (b) MCO 5104.3C

1. Per references (a) and (b), you are appointed as the unit RPA.

3. You are directed to familiarize yourself with reference (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 chain of command 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.

C. O. NAME

#### APPOINTMENT ACKNOWLEDGMENT

From: (Appointee name here) To: Commanding Officer

Subject: APPOINTMENT AS RADIATION SAFETY MANAGER (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:

## CHAPTER 3

## Coordinating Instructions

1. <u>Maintenance</u> 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 manager for facility maintenance operations must adhere to the requirements delineated in the specific NRMP (see Appendix B for guidance).

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

a. 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. The RSO, or RSM when applicable, shall contact the CMC (SD) Radiation Health Physicist 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 by qualified individuals per reference (g).

b. Shipments of RAM shall be coordinated with the local DLA office, the Installation Traffic Management Branch, and/or Marine Aviation Logistics Squadron (MALS) supply, as applicable, to ensure adherence to all DOT regulations pertaining to shipment of RAM.

c. A RAM Movement Form available on-line at: <u>https://navalforms.documentservice.dla.mil/web/public/forms</u>, 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.

3-1

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).

4. <u>Decommissioning Records</u>. Prior to the release of facilities used for handling, maintenance, or storage of radioactive materials or commodities for unrestricted use, the command shall contact the CRSM. The CSRM will work with the command and the IRSM to develop and implement complete work plans to address any potential residual contamination and allow for the appropriate level of release for the facility. The following information must be provided prior to the release of a facility:

a. Complete description of the facility and the history of its use.

- b. List of radioactive materials or commodities stored or used.
- c. Previous surveys and general procedures used in the facility.

d. Reports of any accidents or incidents that may have occurred involving radioactive material or commodities.

5. Emergency Accident/Incident Procedures. Accidents or incidents involving radioactive materials or commodities will be reported immediately to the URSM and CRSM. If the commodity is covered under an NRMP the emergency procedures pertaining to that NRMP take precedence over any other procedures. Procedures for each commodity will be posted in the area where the material is stored or used. The senior person present shall take immediate steps to control the incident and request assistance from the URSM, CRSM or IRSM. The initial objective of any response is to regain control of the event and prevent further spread of contamination produced. However, activities to save life, aid the injured, fight fires, or control further spread of damage, takes precedence over concerns for radiological contamination. Guidance for contamination clean up, surveys, and disposition of damaged commodities will be obtained from the URSM, CRSM and IRSM after the incident is stabilized.