

Environmental Standard Operating Procedure	
Radioactive Material Storage	
SF Director: Alicia Florez Signature:	Date:

PURPOSE.

The purpose of this Environmental Standard Operating Procedure (ESOP) is to provide environmental guidelines for handling radioactive materials in storage, as well as detection and testing equipment. This guidance applies to those individuals who store or work with radioactive materials either in detection and testing equipment or other equipment aboard Marine Corps Logistics Base (MCLB) Barstow.

PROCEDURES.

The Marine Corps' mission necessitates the use of radioactive materials that are incorporated and maintained in various types of detection and testing equipment, (e.g., photolumination detectors, ion chambers, and x-ray machines), as well as certain aircraft components, such as “flare” lenses. These materials are considered hazardous and must be properly handled, in order to lessen impacts to human health and the environment.

The following procedures apply:

1. Ensure Safety Data Sheets (SDS's) for radioactive materials (Alpha, Beta, and Gamma radiation sources) are available and current.
2. Ensure that Radiation Protection Assistant (RPA) training records for all personnel are current and available for inspection.
3. Use proper personal protective equipment (PPE), such as thermo-luminescent detector (TLD) badges, gloves, respirators, and lead aprons. For incident response, PPE will vary, depending on the source and situation and may include nitrile gloves only, or may require level C or B response PPE.
4. Ensure that signs reading “Caution: Radioactive Materials”, Nuclear Regulatory Commission (NRC) Form 3, “No Smoking, Eating or Drinking” sign, and information about who to contact, in case of an emergency are posted in areas where radiation sources are present.
5. Ensure that approved time, distance and shielding protection measures are in place and properly used around all equipment containing radiation sources.
6. Ensure that all personal hygiene and eating restrictions are followed in the vicinity of radiation sources (i.e., no eating, drinking, or smoking, applying makeup or chewing gum in these areas).

7. Ensure that dosimeter logs, radiation safety site inspections, personnel health records, and radiation safety procedures are current and available for inspection.
8. Ensure that personnel Dosimetry and Radiacs (i.e., radiation survey meters) are used and maintained (i.e., calibrated at specified intervals) and that records of these activities are current and available for inspection.
9. Follow approved decontamination procedures following a response incident or other potential exposure, including: three stage decontamination procedures, showering, changing clothing (do not remove contaminated clothing from decontamination facilities) and surveying body, clothing and equipment for radiation contamination.
10. The following records must be maintained:
 - a. SDSs for radioactive materials
 - b. Training records for all personnel
 - c. Radiation source checklist
 - d. Shipping log
 - e. Incident response log
 - f. Dosimeter logs
 - g. Radiation safety site inspections
 - h. Personnel health records
 - i. Radiation survey meter calibration records
 - j. Annual radioactive materials inventory
11. The Environmental Compliance Coordinator (ECC) shall coordinate with their supervisor/leadership to ensure personnel are designated to conduct inspections. The ECC shall ensure deficiencies noted during the inspections are corrected immediately.
12. If there are any specific situations or other concerns not addressed by this procedure, please contact the Environmental Division.

REFERENCES.

- a. 10 CFR (Code of Federal Regulations)
- b. 29 CFR 1910
- c. 49 CFR
- d. NUREG-0980 (Nuclear Regulations)
- e. MCO P5090.2 (Marine Corps Environmental Compliance and Protection Manual)
- f. MCO P5100.8F (Marine Corps Occupational Safety and Health Program Manual)
- g. MCO P4790.2C (Marine Corps Integrated Maintenance Management System Field Procedures Manual), as applicable
- h. MCO 5104.7
- i. Radiation Affairs Management Program
- j. NATOPES (Naval Aviation Tactical Operations)
- k. NAVMED P5055 (Radiation Health Protection Manual)
- l. NAVSEA COM RASO (Naval Sea Systems Command Rear Airfield Supply Organization)
- m. NAVSEA 50420 AA-RAD-010 (RAD 10)
- n. Navy Radioactive Materials Permit 10-67004
- o. NAVMEDCOM 5055 (Navy Medical Command)

TRAINING.

Unit personnel should be trained on all the provisions of this ESOP. All training must be requested through unit ECC or Environmental Compliance Branch.

All personnel must be trained in this ESOP, to include the following, as applicable:

- a. Hazardous Communication training
- b. HAZWOPER (Hazardous Waste Operations and Emergency Response) training (initial and annual)
- c. NATOPS (Naval Aviation Tactical Operations)
- d. NAVAIR (Naval Air Force) 4790 training
- e. RPA training.