

Technical Instruction 008

Reference Statement of Work: Paragraph 2.7

Technical Instruction Radiation Safety

1. Background/Introduction: Radiation Safety support services are required by the Radiation Safety Office (RSO), Code 353, at the Naval Surface Warfare Center Carderock Division (NSWCCD), West Bethesda, Maryland. The Radiation Safety Office is responsible for carrying out Navy Department, Federal directives and requirements of the Nuclear Regulatory Commission for the possession, use and disposal of radioactive material, particle accelerators, various x-ray, microwave, and laser equipment.

2. Tasks:

The contractor shall provide support to the Radiation Safety Officer (RSO), Laser Systems Safety Officer (LSSO) and Electromagnetic Radiation Safety Officer (EMRSO). In accordance with 2.7 of the task order, the contractor shall perform support in the following areas:

a. The contractor shall manage the Carderock Site Personal Dosimetry Program, which includes the following:

1. Distribute <https://pubapp.dcma.mil/CASD/CasdSearch.dote> /collect personnel and environmental thermoluminescent dosimeters (TLDs),
2. Maintenance of the Dosimetry Database,
3. Upload of TLD data from the National Naval Medical Center (NNMC) Dosimetry Center,
4. Prepare TLDs to be submitted to NNMC Dosimetry Center,
5. Prepare individual dose reports/correspondence to NSWCCD personnel / visitors being monitored (memo and letterhead format), and
6. Generate various Situational and Annual Reports as required by NAVMED P-5055.

b. The contractor shall manage the Radiation Safety Survey Program, which includes the following:

1. Perform surveys that include a review of Standard Operating Procedures,
2. Take and interpret radiation survey instrument readings and analysis of air, fluid and work area samples to determine any release of radioactive material to the environment, contamination of work areas, or radiation levels in excess of established limits.
3. Evaluate survey readings, record survey reports in a computer database, and forward a copy of the findings or deficiencies to the responsible department following review by the RSO.
4. Conduct routine surveys using prepared check lists. Surveys include quarterly radioactive material surveys, semi-annual x-ray surveys, various biennial surveys.
5. Perform initial radioactive material/device surveys, and other miscellaneous surveys as needed (ie., outgoing/incoming radioactive material shipments/excessed equipment).

c. The contractor shall prepare radioactive waste for shipment.

- d. The contractor shall manage the distribution/collection and calibration/repair arrangements for the Carderock Site Program's supply of portable Radiation Detection, Indication and Computation (RADIAC) Instrumentation. The contractor shall maintain the database of information associated with the equipment inventory.
- e. The contractor shall conduct the semi-annual inventory of all Carderock Site radioactive material/radiation producing devices, which includes providing users with inventory documentation and maintaining a computer inventory list of inventories.
- f. The contractor shall conduct quarterly and semi-annual leak-tests of Carderock Site radioactive sources, assuring integrity of encapsulation.
- g. The contractor shall conduct daily Quality Control (QC) checks on the 3 pieces of laboratory radio analysis equipment and prepare QC graphs. The contractor shall routinely supply liquid nitrogen and P-10 gases to equipment for their operation and maintain laboratory/office supplies.
- h. The contractor shall provide awareness radiation safety training staff, as required. The contractor will attend Department of Navy (DON) training required to meet / maintain professional qualifications required by DON for work / appointments at NSWCCD expense. The contractor support in the preparations and requirements for Radiation Safety Committee Meetings quarterly.
- i. The contractor shall conduct and document the weekly testing of the emergency eyewash station in the Radio Analysis Laboratory to ensure proper operation, which also includes documenting the weekly testing.
- j. The contractor shall participate in routine inspections by outside agencies.
- k. The contractor shall conduct the hazardous material inventory of the Radiation Safety Program chemicals as needed.
- l. The contractor shall participate as an active member of the NSWCCD Ionizing Radiation Safety Committee and NSWCCD Laser Safety Committee and made recommendations where appropriate.
- m. The contractor shall maintain records for the NSWCCD Radiation Safety Program.
- n. The contractor shall provide support in the investigation of radiological accidents/incidents and report findings of radiological incidents or accidents upon request of the RHO. The contractor shall implement the procedures specified in Rad-10 for pocket dosimeters that are found to be off scale after x-ray radiography operations or cannot be brought to read less than 10 mR, go off scale, or drift prior to first actual x-ray production of the day or shift at x-ray radiography operations.
- o. The contractor shall provide support in the preparation, finalization, and staffing of NSWCCD Safety Instructions, Notices, Guides, Standard Operating Procedures, Navy Radioactive Materials Permits, and Operational Risk Management evaluations.
- p. The contractor shall provide support in the preparation and finalization of NSWCCD Radiation Safety Committee meeting associated paperwork and meeting minutes.

- q. The contractor shall provide support to the Occupational Safety and Health Division, as hen requested.
- r. The contractor shall be required to attend the 3 day X-ray Radiation Safety Officer's course (S-491-0016) in Yorktown, VA provided by NAVSEA's Radiological Affairs Support Office Detachment.
- s. The contractor shall be required to obtain an annual ionizing radiation medical exam that meets requirements specified in NAVMED P-5055 Radiation Health Protection Manual to qualify as a Radiation Worker.

3. Deliverables:

The contractor shall provide the deliverables identified in Section 2 entitled tasking, in addition to the following monthly reports:

- a. The contractor shall submit monthly progress report describing the services provided as follows: milestone status of long term (i.e. greater than 1 month) projects, radioactive source leak tests, radiation source inventories, inspections, surveys, dosimetry program, equipment exchanges, RADIAC instrumentation calibration/exchange, radioanalysis procedures conducted, Radiation Exposure Report, Radiation Health Assessment Report, dosimetry correspondence, radioactive material receipt and radioactive material transfer accomplishments.
- b. A monthly cost summary report (MCR) shall be submitted initially 15 days after the monthly reporting period. This requirement can be met by the submission of monthly invoices.
- c. The following delivery schedule applies to the monthly reports:

Deliverable	No.	Due	Frequency	Copies To
Progress Report	A004	15 days after end of reporting period	Monthly	Code 353 (2)
Cost Report	A008	15 days after end of reporting period	Monthly	Code 353 (2)

4. Technical Point of Contact

Charles (Joe) Olenik
Naval Surface Warfare Center
Code 3510 Bldg 10
9500 MacArthur Blvd
W. Bethesda MD 20817
(301) 227-2316
charles.olenik@navy.mil