



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

January 12, 2006

Docket No. 03029462

License No. 45-23645-01NA

Chief of Naval Operations
Environmental Readiness Division (N45)
ATTN: CAPT Lino Fragoso, Ph.D.
Executive Secretary, Navy Radiation Safety Committee
Radiological Controls and Health Branch
2000 Navy Pentagon (NC1 Suite 2000)
Washington, DC 20350-2000

SUBJECT: INSPECTION 03029462/20050006, NAVAL SEA SYSTEMS COMMAND
DETACHMENT, RADIOLOGICAL AFFAIRS SUPPORT OFFICE, YORKTOWN,
VIRGINIA

Dear CAPT Fragoso:

On November 28 - December 2 and 15, 2005, Orysia Masnyk Bailey and Jim Schmidt of this office conducted a safety inspection at the Naval Sea Systems Command Detachment, Radiological Affairs Office (RASO), Yorktown, Virginia of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to decommissioning and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. The findings of the inspection were discussed with RDML(s) Symonds, you, and other members of the Navy Radiation Safety Committee (NRSC) during the December NRSC meeting.

Within the scope of this inspection, no violations were identified.

Current NRC regulations are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, industrial, and academic uses of nuclear material**; then **toolkit index page**. The current NRC Enforcement Policy is included on the NRC's website at www.nrc.gov; select **What We Do, Enforcement**, then **Enforcement Policy**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

L. Fragoso
Chief of Naval Operations

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No reply to this letter is required. Your cooperation with us is appreciated.

Sincerely,

Original signed by John D. Kinneman

John D. Kinneman, Chief
Security and Industrial Branch
Division of Nuclear Materials Safety

cc:
LCDR Marvin Earles, Recording Secretary, NRSC
District of Columbia

L. Fragoso
Chief of Naval Operations

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 03029462/2005006

Docket No. 03029462

License No. 45-23645-01NA

Licensee: Department of the Navy

Address: Chief of Naval Operations
Environmental Readiness Division (N45)
2000 Navy Pentagon (NC-1 Suite 2000)
Washington, D.C. 20350-2000

Locations Inspected: Naval Sea Systems Command Detachment
Radiological Affairs Support Office (RASO)
Naval Weapons Station
Yorktown, Virginia

Inspection Dates: November 28 - December 2, 2005; December 15, 2005

Inspectors:	<i>Original signed by</i> <i>Orysia Masnyk Bailey</i>	<i>January 5, 2006</i>
	_____	_____
	Orysia Masnyk Bailey Health Physicist	date
	<i>Original signed by</i> <i>James Schmidt</i>	<i>January 11, 2006</i>
	_____	_____
	James Schmidt, CHP Health Physicist	date
Approved By:	<i>Original signed by</i> <i>John D. Kinneman</i>	<i>January 12, 2006</i>
	_____	_____
	John D. Kinneman, Chief Materials Security and Industrial Branch Division of Nuclear Materials Safety	date

EXECUTIVE SUMMARY

Department of the Navy
NRC Inspection Report No. 03029462/2005006

This NRC inspection was conducted to evaluate the Navy's decommissioning program. Within the realm of this program, 170 sites have decommissioning activities currently underway or are planned for eventual cleanup. These sites are situated on 220 facilities across the United States. This inspection included a review of permitting and inspection activities at the licensee's Radiological Affairs Support Office (RASO), discussion with Navy personnel, and review of procedures and documentation. The Navy's current Financial Assurance Statement of Intent was also reviewed and discussed.

Based upon the results of this inspection, no NRC violations were identified. It was determined that the Navy's decommissioning program was generally comparable to that of the NRC and that permit termination was being conducted in accordance with NRC regulations, policies, and guidance.

REPORT DETAILS

I. Navy Decommissioning Program

a. Inspection Scope

This inspection was conducted to assess the methodology in place to support licensee decommissioning activities, evaluate the scope of decommissioning activities presently underway, review the method being used to support decommissioning timeliness, and identify the protocol being used by the licensee to assure financial assurance is being addressed to support decommissioning needs. Activities conducted by the inspectors during this inspection included detailed discussions with licensee personnel regarding decommissioning activities, review of select decommissioning oversight documents, review of the licensee's decommissioning site data base, review of recent Statement of Intent (SI) documents provided by the licensee to support financial assurance requirements and a limited review of select decommissioning plans currently being implemented by the licensee or other licensed contractors on behalf of the licensee.

During the NRC biennial review of licensee activities conducted in August and December 2004, the licensee indicated that their intent was to use the guidance and policies contained in NRC Manual Chapter 2602, Decommissioning Procedures for Fuel Cycle and Materials Licensees, and NUREG 1757, "Consolidated Guidance for Decommissioning", Volumes 1-3, issued in 2003, to provide the framework for their decommissioning program. During this current inspection, the NRC inspectors used the guidance in these documents to help determine that the licensee's decommissioning program was comparable to that of the NRC and that permit termination was being conducted in accordance with NRC regulations, policies, and guidance.

b. Observations and Findings

The inspectors identified that the licensee maintained an acceptable oversight of the approximately 170 decommissioning activities that are currently underway or planned for eventual cleanup. The inspectors found that the licensee was in the process of developing a new computer data base that will be used to further improve high-level program oversight. For each decommissioning location, this data base will provide details regarding the Project Manager, a brief summary of former site use, the main radionuclides of interest, and site decommissioning status. This data base was 90% complete at the time of the inspection and the licensee reported that it will be completed in the first quarter of 2006. The licensee stated that it will be used to keep the Navy's Radiation Safety Committee (NRSC) and the NRC updated as to the status of decommissioning activities within the Navy. The decommissioning data base will be available at the March NRSC meeting and will be updated quarterly.

As stated, at the time of the inspection there were approximately 170 sites undergoing decommissioning. These sites are located on approximately 22 installations. The majority of these sites were identified as Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites. Discussions with the licensee and review of select decommissioning records indicated that the release limits being used by

the licensee for these CERCLA sites are either screening values delineated in NUREG-1757 for radioactive material regulated by the NRC or site specific Derived Concentration Guideline Levels (DCGLs) approved by a competent authority, such as the Agreement State in which the site was located or the Environmental Protection Agency. The licensee advised that work at these sites was performed by either NRC or Agreement State licensed contractors, and that work was subject to inspection by the appropriate regulatory organization. The licensee had established Base-Wide Decommissioning Work Plans and Site Specific Work Plans for areas undergoing decommissioning. The work plans reviewed for active decommissioning sites appeared adequate. The licensee is using the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) as the basis for site final status surveys consistent with NRC guidance.

The need to comply with 10 CFR 20, Subpart E, requirements was discussed with the licensee. The inspectors advised Navy personnel that although the sites were CERCLA sites, the Navy was not relieved from ensuring that site release for unrestricted use was in compliance with 10 CFR 20, Subpart E criteria. Cognizant Navy personnel agreed to advise the NRC when final status surveys were complete so that each site could be evaluated by the NRC for compliance with the License Termination Rule as necessary. As new sites entered the Navy's decommissioning process, the Navy agreed to involve the NRC as soon as possible to ensure timely NRC involvement if deemed necessary by NRC staff. Site files were found to be maintained at RASO and included Decommissioning Work Plans, surveys, and inspection records generated by the NRC, EPA and Agreement States. The licensee was informed that these documents may be periodically reviewed by the NRC, and as deemed appropriate, confirmatory surveys for released sites may be initiated by the NRC.

During review of the licensee's decommissioning data base, it was identified that a portion of the decommissioning sites were being remediated for Radium-226 or other radionuclides that were not under NRC authority when the work was initiated. The inspectors advised the Navy that the NRC was in the process of amending current regulations to incorporate pertinent aspects of the Energy Policy Act Of 2005. The licensee will be contacted when the impact of these revised regulations on these sites is evaluated.

The licensee reported that the balance of the sites being decommissioned are formerly licensed sites. The licensee stated that these sites will be remediated to meet the requirements of 10 CFR 20, Subpart E. Document review by the NRC will be conducted in the same fashion specified for the CERCLA sites. Regulatory oversight for one location, the Naval Training Center in Great Lakes, Illinois is provided by NRC Region III. This is the location of a terminated licensee, Engelhard Minerals & Chemical Corporation, License No. SMC-01207, Docket No. 030-08306.

The licensee reported that a number of permitted sites are being decommissioned under the Master Materials License (MML). Provided below is a summary of the general decommissioning activities being conducted at these facilities.

The Naval Air Depot at Cherry Point, North Carolina has several areas to be released. The Navy is developing a characterization survey plan. This survey may serve as the final status survey for a portion of the site since a review of records by the Navy leads them to expect minimal residual contamination. The Navy plans to demolish two storage areas by July 2006. Further remediation will be based on the results of the characterization survey.

The Naval Air Warfare Center Weapons Division in China Lake, California was permitted for four DU ranges. The decision was made to cease permitted activities and the Navy asked for, and was granted, a time extension to delay completion of decommissioning activities until September 30, 2009. This was granted because the ranges are within the restricted areas of the site and it was determined that there would be no impact on the public health and safety. The Navy has completed a site historical assessment and is in the process of developing a DP.

Building 5003 at the Naval Weapons Warfare Center Keyport Division in Washington State was licensed for 40 curies of krypton-86 for use in a RADIFLO unit. In 2004, the RADIFLO unit and three tanks were transferred to an Agreement State licensee, ISOVAC Engineering. The associated ventilation ducting was also removed. The Navy has determined that no residual contamination remains. The Navy has requested NRC assistance in the publication of Environmental Assessments (EA). The NRC will accommodate the Navy on a case by case basis as resources allow, and will publish the EA for this permit termination.

Building 150 at the Naval Medical Research center in Bethesda, Maryland has been remediated and a final status survey has been completed. A report documenting the results of the decommissioning of Building 150 and surrounding grounds and the results of surveys performed to demonstrate that the site met the 10 CFR 20, Subpart E criteria for unrestricted use was submitted to the NRC by letter dated February 29, 2000. This letter contained a request for the NRC to review the enclosed report and recommend, if necessary, how to proceed with decommissioning activities. The inspectors discussed this letter and the report with RASO staff and advised them to complete permit termination in accordance with the Navy's Decommissioning Check List.

The High Velocity Gun Range at the Naval Research Laboratory in Washington DC has fixed depleted uranium contamination. A decommissioning package has been submitted from the command to RASO.

The DU Munitions Indoor Test Range, (Building 200), at the Naval Surface Center Dahlgren Division, in Maryland has fixed DU contamination. The Navy is developing a characterization survey plan.

The inspectors discussed the Timeliness Rule (10 CFR 30.36) with licensee staff and determined that a reasonable process is in place to identify when licensed activities have ceased at permitted facilities. The Flow Chart and Decommissioning Guide

Checklist being used by the licensee funnels requests for permit termination from permittees to the NRSC. The inspectors agreed that it was appropriate for the NRSC to make the timely notification to the NRC that a decision has been made to cease the use of permitted material at a particular location, but that information flow from the permittees through RASO and NEHC to the NRSC also requires timely identification. The inspectors provided clarification to the licensee that they were responsible for assessing whether permittees have ceased permitted activities for a period of 24 months consistent with the requirements of the Timeliness Rule. Frequent communications with permittees will help prevent licensee violation of the Timeliness Rule. The licensee stated that they will establish a mechanism to routinely poll permittees, since routine inspections may not discern this information in a timely manner.

An observation from the biennial review in 2004 was that the previous NRSC Executive Secretary had issued permits to RASO for decommissioning activities and had performed inspections of these same activities. The Navy was advised that if decommissioning activities were to be performed by RASO under the MML then decommissioning should be explicitly requested as an authorized use on the MML with the supporting procedures and activities subject to NRC inspection. Alternatively, decommissioning permits may be issued to organizations outside of the licensing and inspection groups and subject to oversight by these groups. The licensee stated that they intended to be more proactive in involving the NRC early in the decommissioning process and to implement a more structured process with defined responsibilities within RASO. The licensee further stated that in the future, the Environmental Branch will be responsible for project oversight to include development of DPs, Work Plans, and oversight of contractors. The Inspection and Licensing Branch will approve DPs and Work Plans and provide periodic inspections of permitted decommissioning activities as required. The Navy was advised that guidance about decommissioning inspections is contained in NRC Manual Chapter 2602, "Decommissioning Procedures for Fuel Cycle and Materials Licensees" and that inspectors performing these inspections should be qualified using guidance provided in NRC Manual Chapter 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area," Section IX.

The financial assurance (FA) mechanism for this licensee was found to generally be adequate. The licensee had prepared a Statement of Intent (SI) dated November 14, 2005 based upon the total amount of financial assurance (FA) required considering each permittee meeting FA criteria. This letter specifically excluded one permittee, China Lake, because the specific cost estimate for this site had not yet been completed. This need to revise the SI as new projects are identified and cost estimates developed was discussed with the licensee. The inspectors advised that a SI would have to be submitted by the licensee for each subsequent site where a decommissioning funding plan identified a specific amount of funding above the default funding amounts stipulated in regulation. The project-based SI would then be established and maintained in addition to the November 14, 2005, SI until such time as the overall SI is updated. The licensee was informed that the previous SI, now outdated, will be returned to the licensee by separate correspondence.

c. Conclusions

Based upon the results of this inspection, no NRC violations were identified. It was determined that the Navy's decommissioning program was comparable to that of the NRC and that permit termination was being conducted in accordance with NRC regulations, policies, and guidance.

II. Exit Meeting

An exit meeting was held during the quarterly NRSC meeting on December 15, 2005. The conduct and results of the inspection were discussed. The Navy MML Manager noted the Navy's development of the Decommissioning Data Base and the Decommissioning Flow Chart and a Decommissioning Guide Checklist . All present agreed that the Decommissioning Data Base would be a useful tool in managing the decommissioning program. The Navy was advised that no violations were identified.

PARTIAL LIST OF PERSONS CONTACTED

- LCDR P. Aldridge, CHP, RASO, Officer in Charge (OIC)
- S. Doremus, Ph.D., RASO, Director Environmental Programs
- * LCDR M. Earles, Recording Secretary, NRSC
- * CAPT. L. Fragoso, Ph.D., Executive Secretary, NRSC
- * CDR B. Glennon, BUMED, (M342)
- T. P. Hart, RASO, Radiological Program Director
- P. A. Haworth, RASO, Environmental Program Manager, (EPM)
- L. Lowman, RASO, Director Low Level Radioactive Waste
- W. J. Morris, CHP, RASO, EPM
- * CAPT T. Naquin, NAVSEA, (SEA 04N)
- * LCDR B. Pomije, NEHC, OIC
- * RDML (s) J. Symonds, Chairman, NRSC
- * T. Weisher, NAVSEA, O8R

- * Attended exit interview.