UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

May 30, 2000

The Honorable Manuela Santiago Alcaldesa
Municipio De Vieques
449 Calle Carlos Lebrun
Vieques, PR 00765

Dear Mayor Santiago Alcaldesa:

It was a pleasure speaking with you by telephone last Thursday. As discussed, we will inspect the Navy's activities to recover depleted uranium penetrators on the Naval firing range. We also plan to perform environmental surveys, at numerous locations on Vieques, in response to the public health concerns stemming from the firing of depleted uranium munitions on the live impact area of the Naval Range. In addition to using specialized instrumentation for measuring environmental radiation levels, our team also plans to collect samples of soil, surface water, vegetation, and silt for laboratory analysis. We plan to perform these surveys and collect these samples during the first two weeks of June. These samples will then be analyzed for depleted uranium.

In an effort to keep you informed of our actions in response to the firing of depleted uranium munitions on the Naval range, we are enclosing copies of two documents. The first document is a copy of NRC's inspection of the incident, and the second document is a chronology of key events and actions taken by the Navy and NRC in response to the incident.

If you have any questions, or if you would like for me to personally meet with you to discuss these issues further, please give me a call. I can be reached at (404) 562-4410. We would be happy to provide you any additional information you may need.

Sincerely,
/RA/

Luis A. Reyes
Regional Administrator

Enclosures: 1. NRC Inspection Report
No. 45-23645-01NA/00-001
2. Chronology of Key Events

OFFICE	RII:DNMS	RII:DNMS	RII:DNMS				
SIGNATURE	/RA/	/RA/	/ra by Hosey acting for/				

NAME	MFuller	MLesser	DCollins				
DATE	5/24 /2000	5/24/2000	5/24/2000				
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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CHRONOLOGY OF KEY EVENTS AND ACTIONS

The following is a chronology of key events and actions taken by the Navy and the NRC in response to the firing of depleted uranium armor piercing ammunition on Vieques Island, Puerto Rico.

- On February 19, 1999, two U. S. Marine Corps aircraft fired 263 rounds of depleted uranium ammunition during a training exercise at the Live Impact Area of the Vieques Island firing range. The ammunition consisted of 25 millimeter, armor piercing rounds, containing 148 grams of depleted uranium.

- On March 5, 1999, the Navy's Radiation Safety Committee's Executive Secretary reported the event to the NRC.

- The NRC staff evaluated the incident and determined that depleted uranium ammunition does not pose an immediate safety concern. Because the radioactivity is low, occasional direct exposure of the protestors does not pose a significant radiological hazard.

- The Navy's Radiation Safety Committee reported to the NRC in March 1999, that they had identified this incident as a violation of the requirements of the Navy's radioactive materials permit which specifies that depleted uranium ammunition is to be used strictly during combat or approved tests and are prohibited from peacetime or training use.

- Between March 10 and 19, 1999, a team of Navy health physics personnel located and removed 57 expended rounds of depleted uranium ammunition from the Vieques Island range. Radiological surveys identified some depleted uranium soil contamination which was also removed. The Navy found that most recovered rounds were buried six to eight inches in the soil. The Navy measured a dose rate of 1.2 millirem per hour six inches from a round. Radiation levels at the surface of the rounds remaining on the range, which were not readily accessible, would be higher than the measured level. Recovery activities were discontinued because of the hazards from unexploded ammunition located in areas covered in vegetation where additional surveys and recovery activities need to be performed.

- On April 1, 1999, the Navy provided the NRC with a written initial report of the incident. In that report, the Navy's Radiation Safety Committee provided findings of their preliminary investigation into the cause of the incident, that uncovered a failure by individuals to follow written procedures for the issuance and use of ammunition.

- On June 1, 1999, the Navy provided the NRC with a written follow up report of the incident. In this report, the Navy confirmed their previous findings with respect to the cause of the incident, and also described their planned and implemented corrective actions. In addition to the actual recovery of the depleted uranium ammunition from Vieques, the following additional corrective actions were described: the Marine Corps

issued a naval message to all ammunition activities reemphasizing the prohibition of firing of the 25 millimeter and 120 millimeter depleted uranium rounds for peacetime and training use; applicable Navy and Marine Corps instructions were revised to include the specific use restrictions for depleted uranium ammunition; a checklist was developed and forwarded for use by all depleted uranium ammunition storage facilities; and; the Marine Corps has initiated inclusion of specific depleted uranium information in its Ordnance Occupational (training) Courses.

- On June 2, 1999, Luis A. Reyes, Regional Administrator, NRC Region II, attended a Naval Radiation Safety Committee meeting. During this meeting, the Navy described the circumstances surrounding the expenditure of the depleted uranium ammunition on Vieques. The Navy also described their initial recovery activities, their plans to resume the recovery activities in August 1999, and their corrective actions.

- On June 29, 1999, in a letter to Senator Adlah “Foncie” Donastorg of the Legislature of the Virgin Islands, from then NRC Chairman Shirley Jackson, the NRC committed to provide Senator Donastorg with the results of our independent inspection and review of the Navy’s corrective actions. Since the Navy has been unable to continue their recovery activities safely, including the removal of unexploded ammunition, our inspection has not been performed.

- The Navy had planned to resume recovery activities in August 1999, but in the interim, unauthorized individuals began camping on the firing range and, as a result, the team was unable to resume their work to remove the remaining depleted uranium.

- On December 6, 1999, Douglas M. Collins, Director, Division of Nuclear Materials Safety, NRC Region II, attended a Naval Radiation Safety Committee meeting. During this meeting, the Navy discussed preparations for the cleanup. Mr. Collins discussed the need to promptly remove the remaining depleted uranium once the area was safe from potentially unexploded ammunition. Mr. Collins noted that the NRC understood that the Navy could not safely check for or remove unexploded ammunition at the time because of the presence of members of the public in the area.

- On January 19, 2000, the Navy provided the NRC a proposed plan for the recovery of the remaining depleted uranium and cleanup of residual contamination. On March 21, 2000, the NRC provided the Navy with its evaluation of the plan. In summary, the NRC concluded that the survey work plan appeared sufficient for the Navy to proceed to locate and retrieve the depleted uranium rounds. This plan will serve as the basis for the NRC’s inspection of the Navy’s resumption of the depleted uranium recovery activities. The NRC’s inspection will be designed to ensure that the Navy’s recovery activities are carried out safely and in accordance with the NRC-accepted plan.

- On March 22-23, 2000, NRC Region II conducted an inspection of the Naval Radiation Safety Committee’s actions as a result of the incident. No violations were identified, other than those previously identified by the Navy. The inspector determined that the corrective actions implemented and planned by the NRSC to prevent similar occurrences appeared to be adequate.

- On May 18, 2000, Mr. Luis A Reyes, Regional Administrator, NRC Region II, briefed the Puerto Rico Secretary of Health, Carmen Feliciano de Melecio, MD, about the planned Vieques Environmental Survey in San Juan, Puerto Rico.

- On May 25, 2000, Mr. Luis A Reyes, Regional Administrator, NRC Region II, briefed the Puerto Rico Commissioner to the U.S. House of Representatives, the Honorable Carlos Romero-Barcelo, about the planned Vieques Environmental Survey in Washington, D.C.

- Environmental Survey in Vieques - planned for the first two weeks of June, 2000.

- Conduct inspection of Navy's activities in Vieques for recovery of remaining DU-planned for the first two weeks of June, 2000.

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April 19, 2000

Department of the Navy
Naval Radiation Safety Committee
Chief of Naval Operations (N-45)
ATTN: RADM L. Baucom
Chairman
Room 636
2211 S. Clark Place
Arlington, VA 22244-5108

SUBJECT: NRC INSPECTION REPORT NO. 45-23645-01NA/00-01

Dear Admiral Baucom:

This refers to the inspection conducted on March 22-23, 2000 of the Naval Radiation Safety Committee's (NRSC) actions as a result of the incident involving the firing of depleted uranium (DU) ammunition on February 19, 1999, on the Naval Range on Vieques Island, Puerto Rico. The inspection examined the circumstances surrounding the incident, and reviewed the joint Navy-Marine Corps investigation report. This incident was initially reported to the NRC on March 5, 1999. The inspection was conducted at the NRSC offices in Crystal City, Virginia. At the conclusion of the inspection, the findings were discussed with you, the NRSC Executive Secretary, and other members of the NRSC.

Based on the results of the inspection, the NRC determined that the NRSC properly identified a Severity Level IV violation. This violation and other contributing factors resulted in the unauthorized expenditure of DU ammunition. The NRSC appropriately issued a Notice of Violation to the responsible command. The NRC did not identify any additional violations.

NRC Inspection Manual Chapter 2810, "Master Material License Inspection Program," states that the NRC will not take any further enforcement action, to cite or to pursue escalation for Severity Level IV violations by permittees that have already been identified and adequately corrected by the Master Material Licensee's Radiation Safety Committee.

Following the inspection, the NRSC committed to develop a method to track the status and implementation of each planned and completed corrective action.

Enclosure 2

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/
Douglas M. Collins, Director
Division of Nuclear Materials Safety

Docket No. 030-29462
License No. 45-23645-01NA

Enclosure: NRC Inspection Report
No. 45-23645-01NA/00-01

cc w/encl:
Commonwealth of Virginia
Commonwealth of Puerto Rico

*see previous concurrence

OFFICE	RII:DNMS	RII:DNMS	RII:EICS	RII:DNMS			
SIGNATURE	MF 4/17/00	ML 4/17/00		CH 4/18/00			
NAME	MFuller*	MLesser*	CEvans	CHosey*			
DATE						7/ /2000	7/ /2000
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\Santiago-letter.wpd

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	030-29462
License No.:	45-23645-01NA
Report No.:	45-23645-01NA/00-01
Licensee:	Department of the Navy
Navy Radioactive Material Permit:	13-00164-L1NP
Date:	March 22-23, 2000
Inspector:	Michael L. Fuller, Radiation Specialist
Accompanied by:	Mark S. Lesser
Approved by:	Mark S. Lesser, Chief Materials Licensing/Inspection Branch 2 Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Department of the Navy
NRC Inspection Report No. 45-23645-01NA/00-01

This special, announced inspection was conducted 1) to assess the licensee's determination of the causes associated with the firing of depleted uranium (DU) ammunition on the Naval Range on Vieques Island, Puerto Rico on February 19, 1999; and 2) to assess the licensee's response to the incident; including the corrective actions implemented and planned to prevent similar occurrences. The inspection included discussions with cognizant members of the Naval Radiation Safety Committee (NRSC) and a review of the joint Navy-Marine Corps investigation report.

A joint Navy-Marine Corps investigation was conducted to identify the causes of the incident. The investigation was thorough and adequately identified the causes. Based on review of the investigation report and discussion with the NRSC, the inspector determined that there were multiple causes that provided the foundation for, and contributed to, the firing of DU ammunition on the Naval Range. Specifically, the causes included administrative errors, failure to follow established procedures for issuing and receiving ammunition, a lack of awareness of restrictions placed on DU ammunition by certain individuals, an over-reliance on an automated database system that contained errors in the data, and significant pressure on those directing and supporting the training mission to precisely execute a "time on target" training exercise.

The inspector determined that the NRSC's response to the incident was timely and appropriate. Specifically, the NRSC dispatched specialists to Vieques in an initial attempt to recover DU ammunition without risking harm from unexploded ordnance. The NRSC also worked closely with the Navy and Marine Corps investigators to provide technical assistance and advice during their investigation. The Navy and Marine Corps are not authorized to fire DU ammunition for training purposes on the Vieques Naval Firing Range. The licensee identified this violation and reported it to the NRC. The NRSC issued a Severity Level IV violation to the unit involved in the incident.

The inspector determined that the corrective actions implemented and planned by the NRSC to prevent similar occurrences appeared to be adequate. In addition, the NRSC committed to develop a means for tracking the various corrective actions to allow the NRSC and the NRC to audit the implementation and effectiveness of them.

No additional violations of NRC requirements were identified, other than those previously identified by the Navy. NRC Inspection Manual Chapter 2810, “Master Material License Inspection Program,” states that the NRC will not take any further enforcement action, to cite or to pursue escalation for Severity Level IV violations by permittees that have already been identified and adequately corrected by the Master Material Licensee’s Radiation Safety Committee (RSC).

Attachment:
List of Persons Contacted
Inspection Procedures Used
List of Acronyms

REPORT DETAILS

16. Description of Incident

On February 19, 1999, during a training exercise, DU ammunition was expended on the Live Impact Area (LIA) of the Vieques Naval Range, on Vieques Island, Puerto Rico. The range is a naval weapons firing range. The NRC was notified of the incident by the NRSC Executive Secretary on March 5, 1999.

During the training exercise, two U. S. Marine Corps Harrier aircraft expended 263 ammunition rounds containing DU. Each round contained 148 grams of DU for the purpose of penetrating targets. A total of 400 rounds of DU ammunition were loaded on the two aircraft (200 rounds each). One of the aircraft expended all 200 rounds. The second aircraft only expended 63 rounds because of a malfunction of its gun. The incident was identified on March 5, 1999, when a Marine Corps Ordnance Officer reviewed a report of the expended DU ammunition and recognized the ammunition as restricted for combat use only.

The NRSC identified the issuance of the DU ammunition and the subsequent firing of it as a Severity Level IV violation of the Navy's master materials license (MML); specifically, a violation of naval radioactive material permit (NRMP) number 13-00164-L1NP. This permit is issued to the Naval Surface Warfare Center, in Crane, Indiana and specifies the DU ammunition as war reserve material, deployed only for combat use.

2. Assessment of Causes of the Incident

a. Scope

On March 22-23, 2000, an inspection was conducted, in part, to review the licensee's determination of the cause or causes associated with the firing of DU ammunition on the Naval Range on Vieques Island, Puerto Rico on February 19, 1999. The inspector, accompanied by an NRC manager, reviewed the joint Navy-Marine Corps investigation report of the incident and interviewed various members of the NRSC. In addition, a telephone conversation was held on April 5, 2000, between the inspector and the NRSC Executive Secretary for the purpose of clarifying certain facts.

b. Observations/Findings

Through discussions with NRSC members and review of the joint Navy-Marine Corps investigation report, the inspector determined the following:

(16) In June, 1998, the USS Kearsarge, a helicopter assault docking ship, was supplied with its full allotment of ammunition for use by Harrier jet aircraft. One of the missions of this class of ship is to support the deployment of Harrier jet aircraft. The ship's magazines were supplied with DU rounds and training rounds (non-DU). In conjunction with the loading of the ammunition in the ship's magazines, entries were made into the Retail Ordnance Logistics Management System (ROLMS), an automated database system

used to track and locate ammunition stored aboard the ship. One of the fields in the database is the “use condition code.” The code indicates, among other things, whether or not a particular type of ammunition is “restricted” for use. The 25 mm DU rounds are designated with condition code “B” which indicates that this ammunition is restricted. In this instance, the condition code “A” was incorrectly entered into the ROLMS database, indicating that the ammunition was “unrestricted.” This mistake was identified by the joint investigation to be one of the causes of the incident.

(17) On December 1, 1999, a message was sent to the ship from the Marine Corps detachment that was scheduled for deployment with this ship, identifying the target practice (TP) rounds intended to be used during the training exercise at the Vieques naval range. A error was made in the requisition documentation. Specifically, the correct ammunition was requested by nomenclature (25 mm, TP), but the Naval Ammunition Logistics Code (NALC) was transposed incorrectly. The code that was used in the requisition was in error by one digit and resulted in the NALC for 25 mm, DU. As is normally done, the requisition was filled based upon the NALC and not the nomenclature. This mistake was identified by the joint investigation to be another cause of the incident.

(3) Standard naval written procedures dictate that “use restrictions” of all ammunition must be checked by individuals issuing and receiving ammunition in the Notice of Ammunition Reclassification (NAR) manual for each type of ammunition prior to the transfer occurring. This document specifies DU as “war reserve.” This restriction further indicates that the DU rounds are to be used strictly during combat only, and are restricted from peacetime or training use.

When restricted ammunition is requested, the ROLMS system is designed to provide the user with a warning that the ammunition is restricted and to also provide the specific NAR restriction. However, since the incorrect condition code was entered into the system initially (indicated unrestricted use), no warning was generated by the automated system. Nevertheless, the issuing individuals are required by written procedure to check the NAR manual prior to issuance. This check was not done. The users believed that the ROLMS database system was superior to the manual system. Specifically, they believed that all of the data contained in the manual system was resident on the automated system, and they also knew that the automated system was updated in a more timely manner. The failure to check the NAR manual, prior to issuance of the DU ammunition was identified by the joint investigation as another cause of the incident. In addition, an over-reliance on the automated system (ROLMS), by the issuing individuals was identified by the joint investigation as another cause of the incident.

(4) On February 19, 1999, naval ammunition personnel used the automated ROLMS system to locate the ammunition for the training exercise involving the Harriers. As indicated in Paragraph 2.b.(2), the Harrier unit had incorrectly requested DU by using an incorrect NALC. The automated ROLMS, with an erroneous “use condition code” for DU, failed to warn the user that DU was restricted (paragraph 2.b.(1). 400 rounds of 25 mm DU ammunition were removed from the magazines of the USS Kearsarge and delivered to the Marine Corps Harrier unit. Each container of the ammunition was marked “DU.”

(5) Upon receipt, the Marine Corps ammunition personnel recognized that the rounds were not training rounds, but were, in fact, DU rounds, and thought to have been delivered in error. The Marine Corps and Navy individuals estimated that it would take between one and two hours to switch the DU ammunition with the training rounds. With that delay, they believed that the training exercise would be aborted. The Marine Corps ammunition personnel believed they would need permission to use DU, and informed their superiors up to the Marine Corps officer in charge, a Lieutenant Colonel (Lt. Col.). They failed to refer to the NAR manual because it was located on another level of the ship and not readily available. The Navy ammunition personnel did not inform their superiors of the discrepancy.

(6) Discussions between the Harrier pilots and the Lt. Col. centered around the acceptability of using DU instead of the training rounds. The pilots considered DU superior to training rounds because the DU would penetrate “hard targets” and not fragment like training rounds. Neither the pilots nor the Lt. Col. were aware that the DU rounds were restricted, and failed to adequately research the issue. The Lt. Col. approved the DU for use.

(7) The individuals involved, who were aware that there was some question about the ammunition, were under pressure to meet the “time on target” objectives of the training exercise. The joint investigation identified the failure of key individuals (both Navy and Marines) to check the NAR manual after the DU had been delivered, and before it was loaded into the aircraft as another contributing cause of the incident. The general lack of awareness by both Navy and Marine Corps personnel, of the restrictions placed on DU ammunition was identified by the inspector as another cause of the incident. The reluctance on the part of several key individuals, up to and including the Lt. Col., to stop and reassess the situation, once it was known that a mistake had been made, appeared to be influenced by pressure on everyone involved to precisely execute a “time on target” training exercise. This pressure to complete the training mission was identified by the inspector to be another cause of the incident.

c. Conclusions

The NRC inspector determined that the firing of DU ammunition on Vieques was a result of several causes. Specifically, the inspector determined that the incident was the result of a combination of administrative errors, several instances where individuals failed to follow written procedures, an over-reliance on an automated database management system, a general lack of awareness of the restrictions on the use of DU ammunition, and significant pressure to precisely execute a “time on target” training exercise.

The root cause appears to be over-reliance on the automated system (ROLMS), which was being used informally as the method to control restricted ammunition, and a failure to use the approved method of checking the NAR. Incorrect data was entered into the ROLMS, indicating that DU was unrestricted. Time pressure, inadequate awareness of DU restrictions, and failure to adequately research requirements were contributing causes.

18. NRSC's Response to the Incident, Including Corrective Actions Implemented and Planned to Prevent Similar Occurrences

a. Scope

The March 22-23, 2000, inspection was also conducted, in part, to assess the NRSC's actions as a result of the incident. The inspection was focused on the corrective actions implemented and planned by the NRSC to prevent similar occurrences. The inspector, accompanied by an NRC manager, reviewed the joint Navy-Marine Corps investigation report of the incident and interviewed various members of the NRSC.

b. Observations/Findings

Through discussions with NRSC members and review of the joint Navy-Marine Corps investigation report, the inspector determined that the NRSC took a number of corrective actions in response to the incident. In addition, members of the NRSC worked closely with Marine Corps and Navy investigators who conducted a joint investigation. The inspector determined that the NRSC, through its members involved, assisted the investigators by recommending specific questions and clarifying technical issues. The inspector also determined that the NRSC members provided technical input to senior officers in both services about the appropriate corrective actions to take at the fleet management level. Specific corrective actions taken by the licensee are listed below.

(1) The NRSC identified the issuance of the DU ammunition and the subsequent firing of it as a Severity Level IV violation of the Navy's MML; specifically, a violation of NRMP number 13-00164-L1NP. This permit is issued to the Naval Surface Warfare Center, in Crane, Indiana and specifies the DU ammunition as war reserve material, deployed only for combat use. A Severity Level IV Notice of Violation (NOV) was issued by the NRSC to the USS Kearsarge on August 19, 1999. The USS Kearsarge responded to the Notice and provided corrective actions. Specifically, the USS Kearsarge corrected the ROLMS database, and counseled and retrained individuals to follow the written procedures for issuing ammunition.

(2) On April 8, 1999 the NRSC issued an "All Points Administrative Message" to all commands associated with the handling, storage, or deployment of all forms of DU ammunition. The message highlighted the restrictions imposed on the use of DU and described the radioactive material permit that authorizes the possession of DU.

(3) A team of Navy Health Physicists was deployed to Vieques between March 10 and 19, 1999. The team performed visual and radiological surveys and recovered a total of 57 penetrators. The search was suspended due to dense vegetation in portions of the affected area and of the possibility of unexploded conventional ordinance. The Navy had planned to resume recovery operations in August 1999 following clearance of unexploded ordnance; however, due to the ongoing presence of protesters on the LIA, recovery operations continue to be delayed.

(4) In March, 1999, the Radiation Safety Officer (RSO) from the command that holds the permit for the possession and storage of DU ammunition issued a self-audit checklist to all commands who have DU ammunition deployed. The intent was to highlight the restrictions imposed on the use of DU among end users.

(5) Disciplinary action was taken against certain individuals who were involved in the use of DU ammunition.

(6) Training for Marine Corps detachments was developed that emphasized DU ammunition restrictions. The Marines implemented requirements that this training be conducted prior to deployments.

(7) In October, 1999, the condition code for DU ammunition was changed from “B” (restricted) to “N” (suspended, use for combat only). This was a significant change because, with this change, DU ammunition now has its own, unique restriction code. Together with the new training requirements described in items 6 and 9, the NRSC believes that the awareness of the restrictions placed on the use of DU in both services, will be significantly enhanced.

(8) In January 2000, the NRSC submitted its “Survey Work Plan for Depleted Uranium (DU) Penetrators, Vieques Naval Target Range, Live Impact Area, Vieques, Puerto Rico” to the NRC for review. On March 21, 2000, the NRC issued to the NRSC its evaluation findings that concluded that the Navy’s plan “... appears sufficient for the Navy to proceed to locate and retrieve the depleted uranium rounds.”

(9) The Navy and Marines have begun the development of new curriculum requirements for entry level training schools in both services, that will emphasize DU ammunition restrictions and hazards.

The inspector discussed with representatives of the Navy, future audits by the NRSC of Marine Corps commands to determine the adequacy of the level of knowledge of those using DU and to review the use of DU. An NRSC representative indicated that they would consider this.

c. Conclusions

The NRC inspector determined that the corrective actions implemented and planned for future implementation, designed to prevent the occurrence of similar incidents, appear to be adequate. However, some of the corrective actions have been implemented or are being planned by components of the Marines and the Navy independent of the NRSC. The NRSC has committed to develop a means for tracking the various actions in order to audit the implementation and effectiveness of them.

NRC Inspection Manual Chapter 2810, “Master Material License Inspection Program,” states that the NRC will not take any further enforcement action to cite or to pursue escalation for Severity Level IV violations by permittees that have already been identified and adequately corrected by the Master Material Licensee’s Radiation Safety Committee. Thus, the NRC will not take any further enforcement regarding the firing of the DU. No violations of NRC requirements, other than those identified by the NRSC, were identified.

EXIT MEETING SUMMARY

An exit meeting was held with the NRSC on March 23, 2000. The overall scope and findings of the inspection were discussed. No dissenting comments were received from the NRSC.

On April 7, 2000, a telephone conversation was held between the inspector and the NRSC Executive Secretary. At that time, the Executive Secretary committed to developing a means to track the implementation of the various actions taken by the licensee to prevent the occurrence of similar actions.

ATTACHMENT

LIST OF PERSONS CONTACTED

Naval Radiation Safety Committee

RADM L. Baucom, Chairman
CDR G. Higgins, Executive Secretary
CDR D. Farrand
LCDR P. Liotta

INSPECTION PROCEDURES USED

87103 - Inspection of Materials Licensees Involved in an Incident or Bankruptcy Filing

LIST OF ACRONYMS

DU - Depleted Uranium
LIA - Live Impact Area
Lt. Col. - Lieutenant Colonel
MML - Master Materials License
NALC - Naval Ammunition Logistics Code
NAR - Notice of Ammunition Reclassification
NOV - Notice of Violation
NRC - Nuclear Regulatory Commission
NRMP - Naval Radioactive Material Permit
NRSC - Naval Radiation Safety Commission
ROLMS - Retail Ordnance Logistics Management System
RSC - Radiation Safety Committee
RSO - Radiation Safety Officer
TP - Target Practice