



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

September 29, 2006

Colonel Timothy S. Green, Commander  
99<sup>th</sup> Mission Support Group  
4420 Grissom Ave., Ste 205  
Nellis AFB, NV 89191-6522

SUBJECT: INSPECTION 9999004/2006003 NELLIS AIR FORCE BASE, 99<sup>TH</sup> MISSION  
SUPPORT GROUP AND NOTICE OF VIOLATION

Dear Colonel Green,

This letter refers to the NRC in-office inspection conducted between May 2006 and August 2006, regarding a generally licensed device possessed by the 99<sup>th</sup> Civil Engineering Squadron at Nellis Air Force Base. The inspection was an examination of the controls over generally licensed materials as they relate to radiation safety and compliance with the Commission's regulations. The inspection consisted of telephonic interviews with personnel, review of electronic documentation, as well as documentation submitted to the NRC dated August 22, 2006. The findings were discussed with you and your staff during the exit meeting on August 23, 2006. Further discussions with you and members of your staff occurred during a telephone conference on September 7, 2006.

Based on the information developed during the inspection and the submitted documentation dated August 22, 2006, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation involved improperly transferring a generally licensed device. This violation was evaluated in accordance with the NRC Enforcement Policy, which is located on the NRC website at [www.nrc.gov](http://www.nrc.gov), select **What We Do, Enforcement**, then **Enforcement Policy**. The violation is cited in the enclosed Notice of Violation (Notice) (Enclosure 1) and the circumstances surrounding it are described in detail in the subject inspection report (Enclosure 2). The violation is being cited in the Notice because the licensee did not identify the violation.

The NRC concluded that the corrective actions taken to redistribute the generally licensed device and planned corrective actions to prevent future recurrence were already addressed on the docket by your letter dated August 22, 2006. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, the Enclosures 1 & 2, and your response, if you choose to provide one, will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, any response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

If you have any questions concerning this inspection, please contact Ms. Rachel Browder at (817) 276-6552 or the undersigned at (817) 860-8197.

Sincerely,

*/RA/*

Jack E. Whitten, Chief  
Nuclear Materials Licensing Branch

Docket No.: 9999004

Enclosures:

1. Notice of Violation
2. NRC Inspection Report  
9999004/2006003

bcc: w/enclosures (via ADAMS distribution):

LDWert  
CLCain  
JEWhitten  
VHCampbell  
GMVasquez  
HAFreeman  
KEGardin  
RIV Docket File (5th Floor)

SUNSI Review Completed: RSB ADAMS:  Yes  No Initials: RSB  
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DOCUMENT NAME: E:\Filenet\ML062720378.wpd

RIV/DNMS/NMLB	D:ACES	C:NMLB		
RSBrowder	GMVasquez	JEWhitten		
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09/25/06	09/26/06	09/29/06		

## ENCLOSURE 1

### NOTICE OF VIOLATION

Nellis Air Force Base  
99<sup>th</sup> Mission Support Group

Docket No. 9999004  
General License

During an NRC inspection conducted between May 2006 and August 2006, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 31.5(c)(8) requires, in part, that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall, except as provided in 10 CFR 31.5(c)(9), transfer or dispose of the device containing byproduct material only by transfer to persons holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device.

Contrary to the above, between April 2004 and September 2005, the licensee failed to transfer a generally licensed device, Model HNU GC-311 gas chromatograph containing nickel-63 foil, to a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device, and the exceptions in 10 CFR 31.5(c)(9) did not apply. Specifically, the device was transferred to the Defense Redistribution and Marketing Organization (DRMO), where it was sold to an unlicensed individual who subsequently sold the device on eBay to another individual who did not have a specific license.

This is a Severity Level IV Violation (Supplement VI).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and the planned corrective actions to prevent recurrence are adequately addressed on the docket. However, Nellis Air Force Base, 99<sup>th</sup> Mission Support Group is required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect their corrective actions or their position. In that case, or if Nellis Air Force Base, 99<sup>th</sup> Mission Support Group chooses to respond, clearly mark the response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region IV, within 30 days of the date of the letter transmitting the Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 29<sup>th</sup> day of September 2006.

**ENCLOSURE 2**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

INSPECTION REPORT

Docket No: 99990004  
License No: General Licensee  
Report No: 99990004/2006003  
Licensee: Nellis Air Force Base, 99<sup>th</sup> Mission Support Group  
Location: Nevada  
Date: May - August 2006  
Inspector: Rachel S. Browder, Health Physicist  
Nuclear Materials Licensing Branch  
Approved By: Jack E. Whitten, Chief  
Nuclear Materials Licensing Branch  
Attachment: Supplemental Inspection Information

## **EXECUTIVE SUMMARY**

Nellis Air Force Base, 99<sup>th</sup> Mission Support Group  
NRC Inspection Report 99990004/2006003

In May 2006, the State of California informed the U.S. Nuclear Regulatory Commission (NRC) that a company in their state was in possession of a generally licensed device without the proper paperwork or license. The State of California was able to obtain documentation that the device had originated from Nellis Air Force Base (AFB). An inspection was initiated from the NRC Region IV office to review the general license requirements and determine how this particular device was transferred to an individual in the State of California. This Inspection Report documents the inspection findings.

### **General License Requirements**

- Based on this inspection, the NRC identified a violation of 10 CFR 31.5 for improperly transferring a generally licensed device. Specifically, a generally licensed device (Model HNU GC-311 gas chromatograph) was turned in to the Defense Redistribution and Marketing Organization (DRMO), where it was sold to an unlicensed individual who subsequently sold the device on eBay to another individual who did not have a specific license. Nellis AFB, 99<sup>th</sup> Mission Support Group took corrective actions by issuing a purchase contract to have the generally licensed device redistributed to the current owner/possessor of the device. Additionally, procedures and programmatic changes were implemented to prevent recurrence of improperly transferring radioactive material.

## **Report Details**

### Summary of Organization of General Licensee

Nellis Air Force Base (AFB) covers more than 14,000 acres and provides 15,000 square miles of airspace for flying operations in Nevada. Nellis AFB is considered a large base with five wings and nearly 12,000 military and civilian personnel. One of the wings is the 99<sup>th</sup> Air Base Wing which serves as the host wing for the base and oversees the daily operations of the base such as personnel, finance, and civil engineering & supply. The 99<sup>th</sup> Mission Support Group is one of three groups assigned to the 99<sup>th</sup> Wing, and is the group responsible for civil engineering, communications, contracting, logistics, readiness, personnel and services support for Nellis and Creech AFB.

The 99<sup>th</sup> Civil Engineer Squadron reports to the 99<sup>th</sup> Mission Support Group, and provides maintenance, repair, design and construction support for facilities and infrastructure, fire protection and crash rescue, disaster preparedness, military family housing, environmental compliance and explosive ordnance disposal.

#### 1.1 Inspection Scope

The use and disposition of the HNU GC-311 generally licensed device at Nellis AFB was reviewed as it applies to the regulatory requirements under 10 CFR 31.5. Additionally, the documents submitted on August 22, 2006, by the Commander, 99<sup>th</sup> Mission Support Group were reviewed as part of the licensee's response to the notice of violation.

#### 1.2 Observations and Findings

The HNU GC-311 generally licensed device (GLD) was manufactured by HNU and distributed by PID Analyzers through a State of Massachusetts' possession and distribution license. However, HNU/PID Analyzers no longer possesses a manufacture/distributor's license from either the NRC or Massachusetts due to their regulatory history of continued violations of their licenses. For the time period between May 1992 and December 2000, the manufacturer reported that 77 devices containing nickel-63 sources were sold. There was no information regarding the number of devices still in use or information involving the servicing of these devices. The Massachusetts Department of Public Health, Radiation Control Program has prohibited HNU Systems Incorporated from manufacturing and distributing these types of devices and from accepting returned sources and/or devices for disposal, due to the numerous license violations.

The sale of this particular GLD on eBay (device serial number 352001 and sealed source model number 300-15A with serial number 275073) came to the attention of the NRC in September 2005. Once the NRC became aware of the device being sold on eBay, the NRC contacted the seller and informed the seller that they potentially could not sale the device. The NRC verified with the seller that the device contained radioactive material by requesting the potential seller to open the device, at which time he reported that the interior cell contained a radioactive material symbol with a serial number of 275073. The NRC representative advised the seller that the reason for the prohibition was that the



seller was in possession of radioactive material without a license. Since the potential sale of the device originated in the State of California, the NRC informed the state of the potential sale of a GLD in September 2005 and provided the state with the appropriate information.

In February 2006, the State of California contacted the NRC and stated that the device had originated from Nellis AFB and requested that the NRC investigate the potential improper transfer of a generally licensed device. Additionally, the State of California informed the NRC that the device had been sold on eBay in October 2005, and the current owner of the device did not have a license and possessed the device illegally. The NRC Air Force Project Manager contacted Nellis AFB through the USAF Radioisotope Committee and requested documentation for the purchase of the device and subsequent disposal of the device. The documentation could not be produced by Nellis AFB; however, on May 23, 2006, the State of California provided the NRC the transfer paperwork from HNU which documented the transfer of the device to Nellis AFB in 1993.

Nellis AFB, 99<sup>th</sup> Civil Engineer Squadron researched the device and documented that the gas chromatograph was locally purchased in 1993 to test wastes. Additionally, they recalled that several people at Nellis AFB were trained by the manufacturer to use the device. Subsequently the device was disposed of around 2004, as part of a pallet disposal of laboratory equipment through the Defense Redistribution and Marketing Organization (DRMO). Since this device was locally purchased it was not in the Hazardous Materials Information System (HMIRS) database and therefore not identified as containing radioactive material. Additionally, the research performed by the 99<sup>th</sup> Civil Engineer Squadron did not identify that this particular device was labeled as containing radioactive material on the outer device case, although the interior gas chromatograph cell containing the nickel-63 foil was labeled. The sealed source device registry required the manufacturer/distributor to label the exterior of the case with three 2" x 4.25" labels made of 0.08 cm thick aluminum which should be riveted to the external stainless steel shell of the device. However, based on pictures of the device from the potential sale on eBay in September 2005, it was not apparent there were any labels on the exterior case of the device.

On July 20, 2006, the NRC officially contacted the 99<sup>th</sup> Mission Support Group to discuss the improper transfer of the GLD and the corrective actions which the NRC expected the licensee to take. Nellis AFB indicated its intent to pursue redistribution of the device through a licensed manufacturer/distributor, since the current possessor of the device had indicated he wanted to retain possession of the device. Additionally, Nellis AFB discussed implementing corrective actions to prevent recurrence.

Nellis AFB, 99<sup>th</sup> Mission Support Group, submitted documentation dated August 22, 2006, regarding the corrective actions taken. This documentation included a copy of the letter to Thermo Electron Corp., who was contracted to redistribute the device to the individual in California, a copy of the existing Air Force Policy dated Jan 27, 2001 regarding the possession of GLD, and the Department of Defense (DoD) procedure that provided guidance for the control of radioactive material in the DoD supply system. The following programmatic changes were also provided.

- All agencies on Nellis AFB must purchase all laboratory equipment using Nellis AFB acquisition procedures and to contact the base radiation safety officer (RSO) prior to purchasing any laboratory equipment containing a GLD.
- Register all RSO approved devices, annual inventories and notification and approval of the RSO prior to disposal/transfer of GLD.
- Register all approved purchased GLDs with Defense Logistic Agency HMIRS database, which will identify the device as containing radioactive material.
- Require DRMO to contact the Base RSO or Bioenvironmental Engineering Flight, if radioactive material, including GLDs, is brought to DRMO for turn-in.
- Annual review of the management of each GLD available at the base.

Further, the USAF Radioisotope Committee had already drafted procedural changes to address the control of GLDs throughout the Department of the Air Force. The NRC had reviewed the draft procedure changes and determined that if properly implemented, they would meet the regulatory requirements for handling and disposing of GLDs.

A subsequent telephone conference was conducted on September 7, 2006, to discuss the closure of the inspection and Notice. The NRC staff concluded that the actions taken by Nellis AFB, 99th Mission Support Group, were reasonable and sufficient to close out the violation, since a contract was issued to have the GLD redistributed to the current owner/possessor of the device and extensive corrective actions had been taken. The NRC does not expect Nellis AFB to go beyond the actions taken to register the GLD, especially if the individual will not accept redistribution of the device he possesses. The NRC will continue its dialogue with the State of California to obtain closure on this matter.

### 1.3 Conclusion

Based on this inspection, the NRC identified a violation of 10 CFR 31.5 for improperly transferring a GLD. Specifically, a GLD (Model HNU GC-311 gas chromatograph) was turned in to DRMO, where it was sold to an unlicensed individual who subsequently sold the device on eBay to another individual who did not have a specific license. Nellis AFB, 99<sup>th</sup> Mission Support Group took corrective actions by issuing a purchase contract to have the GLD redistributed to the current owner/possessor of the device. Additionally, procedures and programmatic changes were implemented by Nellis AFB to prevent recurrence of improperly transferring radioactive material.

## 2 **Exit Meeting Summary**

The inspector discussed the inspection findings with members of the licensee during two telephonic exit meetings on August 23 and September 7, 2006.

The licensee did not identify as proprietary any information provided to, or reviewed by, the inspector.

**ATTACHMENT**

**SUPPLEMENTAL INSPECTION INFORMATION**

**PARTIAL LIST OF PERSONS CONTACTED**

Col. Timothy S. Green, Commander, 99<sup>th</sup> Mission Support Group  
Lt. Col. Mark Wrobel, Chief Radiation Protection Division, Radioisotope Committee Secretariat  
Dr. Ram Bhat, Chief Materials Licensing, Radioisotope Committee  
Mr. Kenneth E. Domako, Deputy, 99<sup>th</sup> Mission Support Group  
Major, Craig A. Refosco, Bioenvironmental Engineering Flight Commander

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

99990004/2006003 SLIV Failure to transfer a generally licensed device to a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device.

Closed

99990004/2006003 SLIV Failure to transfer a generally licensed device to a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device.

Discussed

None

**LIST OF ACRONYMS USED**

AFB	Air Force Base
CFR	Code of Federal Regulations
DRMO	Defense Redistribution and Marketing Organization
GLD	Generally Licensed Device
HMIRS	Hazardous Materials Information System
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer