



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

September 28, 2006

Lt. Col. Mark Wrobel
Department of the Air Force
USAF Radioisotope Committee
HQ AFMOA/SGPR
110 Luke Ave., Suite 405
Bolling AFB, DC 20032-7050

SUBJECT: NRC INSPECTION REPORT 030-28641/06-003

Dear Lt. Col. Wrobel,

This letter refers to the U.S. Nuclear Regulatory Commission (NRC) inspections conducted during calendar year 2006. These inspections were selected based on the priority assigned in accordance with Manual Chapter 2800, "Materials Inspection Program." The Master Materials License (MML) permittees selected were Wright-Patterson AFB, Eglin AFB, Hurlburt Field AFB, and Travis AFB. The details of the inspections are summarized in the enclosed Inspection Report.

The purpose of the inspection was to determine whether activities authorized under NRC License 42-23539-01AF were conducted in accordance with NRC requirements. The NRC examined activities with respect to radiation safety and compliance and the conditions authorized under the respective permits. Within the scope of this inspection, no violations were identified; therefore, no response to this letter is required. At the conclusion of the two inspections, the findings were discussed with members of the respective Air Force Base's staff.

Should you have any questions concerning these inspections, please contact Ms. Rachel S. Browder at (817) 276-6552 or the undersigned at (817) 860-8197.

Sincerely,

/RA/

Jack E. Whitten, Chief
Nuclear Materials Inspection Branch

Docket No.: 030-28641
License No.: 42-23539-01AF

Enclosure: Inspection Report
Attachment: Supplemental Inspection Information

bcc (via ADAMS e-mail distribution):

LDWert

CLCain

JEWhitten

VHCampbell

LDonovan

GOParker, RIII (gop@nrc.gov)

DJCollins, R1-Atlanta Office (djc3@nrc.gov)

RSBrowder

RKStruckmeyer, NMSS/IMNS/MSIB (rks@nrc.gov)

NMIB

KEGardin

RIV Materials Docket File - 5th floor

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RSBrowder	JEWhitten		
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09/27/06	09/27/06		

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

INSPECTION REPORT

Docket No: 030-28641

License No: 42-23539-01AF

Report No: 030-28641/2006003

Licensee: Wright-Patterson AFB
Permits: OH-30154-01/04AFP, OH-30158-01/04AFP, OH-00472-02/01AFP
Location: Ohio
Date: May 9, 2006
Inspector: George O. Parker, Health Physicist
Region III

Licensee: Eglin AFB
Permits: FL-17214-02/05AFP
Location: Florida
Date: July 26, 2006
Inspector: David J. Collins, Health Physicist
Region 1-Atlanta Office

Licensee: Hurlburt Field AFB
Permits: FL-30023-02/02AFP, FL-00145-00/00AFP
Location: Florida
Date: July 26, 2006
Inspector: David J. Collins, Health Physicist
Region 1-Atlanta Office

Licensee: Travis AFB
Permits: CA-07840-02/00AFP
Location: California
Date: August 7, 2006
Inspector: Larry Donovan, Health Physicist
Region IV

Approved By: Jack E. Whitten, Chief
Nuclear Materials Licensing Branch

Attachment: Supplemental Inspection Information

EXECUTIVE SUMMARY

Department of the Air Force
USAF Radioisotope Committee
NRC Inspection Report 030-28641/2006003

The radiation safety programs inspected, and the respective training and security elements were determined to be conducted in a manner protective of the health and safety of workers and the general public and in accordance with NRC requirements.

Report Details

1 Wright-Patterson Air Force Base

1.1 Inspection Scope

The radiation safety program, training and security were reviewed to verify that licensed activities were being conducted in a manner protective of the health and safety of workers and the general public and that licensed programs were being conducted in accordance with NRC requirements.

1.2 Observations and Findings

Permit OH-00472-02/01AFP authorized a waste collection facility in which materials were collected from installations world wide for consolidated disposal or reutilization. Materials collected under this permit included items such as smoke detectors and instruments which contained radioactive sources.

Permit OH-30154-01/04AFP authorized an engineering research laboratory which was located in the decommissioned reactor building. The irradiator associated with this permit had been decommissioned and removed from the facility. Several sources and a small amount of source material remained at the site which were used in general research.

Permit OH-30158-01/04AFP authorized a research laboratory for the combined forces (Navy/Air Force) research contingent. Radioactive materials used under this permit were for classical academic type research and consisted of microcurie to millicurie quantity amounts of phosphorus-32, tritium, and carbon-14.

Each permittee adequately described the procedures used to handle and control the radioactive materials for which they were authorized. The materials were determined to be controlled and maintained securely. Personnel onsite demonstrated they were adequately trained and knowledgeable of radiation safety practices and procedures. Individuals authorized on each permit were provided dosimetry badges and all readings for the past year were nominally at the minimum level.

1.3 Conclusion

The radiation safety program, training and security were determined to be satisfactory.

2 Eglin Air Force Base

2.1 Inspection Scope

The radiation safety program, training and security were reviewed to verify that licensed activities were being conducted in a manner protective of the health and safety of workers and the general public and that licensed programs were being conducted in accordance with NRC requirements.

2.2 Observations and Findings

Permit FL-17214-02/05AFP authorized diagnostic nuclear medicine for 35.100 and 35.200 modalities within the Eglin AFB Hospital. The permit authorized three authorized users and the permittee's facilities were as described in the permit.

The permittee received unit dosages of materials which were ordered according to patient need. The containers of unit dosages were inspected properly and returned to the pharmacy. The staff demonstrated proper handling and survey techniques. Based on interviews with staff and observations of techniques used in the facility, it was determined that radiation safety procedures were followed and the staff were knowledgeable of radiation uses and safety practices.

Training was reviewed and determined to be commensurate with the activities performed. The annual audit of the radiation protection program content and implementation was performed as required by 10 CFR 20.1101(c), and was determined to be complete and thorough assessment of the program. The results of the audit were reviewed by management.

During a previous inspection in November 1999, one severity level IV violation was identified. This violation involved a failure to perform dose calibrator linearity test to a lower limit of 30 microcuries, which is required by 10 CFR 35.50(b)(3). The corrective actions as provided in the permittee's response letter dated January 7, 2000, were reviewed and determined to be adequate. Therefore, this violations is considered closed.

2.3 Conclusion

The radiation safety program, training and management oversight were determined to be satisfactory.

3 **Hurlburt Field Air Force Base**

3.1 Inspection Scope

The radiation safety program, training and security were reviewed to verify that licensed activities were being conducted in a manner protective of the health and safety of workers and the general public and that licensed programs were being conducted in accordance with NRC requirements.

3.2 Observations and Findings

Permit FL-30023-02/02AFP authorized portable density gauges for material measurements in support of construction projects. The devices were in storage and not frequently used. The gauges and storage facility were inspected. The inspector determined that the gauges were labeled and stored correctly and the facility was posted as required. The controls established to meet 10 CFR 30.34 were inspected within the facility and what would be implemented during transportation. The controls were found to be sufficient to meet the security requirements. The use, inventory and leak test records were maintained as required.

The training program was reviewed and based on observations and discussion with one of the permittees, the inspector determined that the training was adequate to enable users to safely use the gauges and implement the required transportation requirements. The annual audit of the radiation protection program content and implementation was performed as required by 10 CFR 20.1101(c), and was determined to be complete, thorough assessment of the program, and timely. The results of the audit were reviewed by management, who were aware of the findings and proposed corrective actions.

During a previous inspection in July 1997, two severity level IV violations were identified. These violations involved 1) failure to include all information required on shipping papers used to transport portable nuclear gauges that contain radioactive material, and 2) failure to have shipping papers readily available during transport of radioactive material. The corrective actions as provided in the permittee's response letters dated November 5, 1997 and January 8, 1998, were reviewed and determined to be adequate. Therefore, these violations are considered closed.

Permit FL-00145-00/00AFP (previously FL-30177-01) authorized sealed sources in a system monitoring helicopter blade integrity during flight. Based on interviews with personnel, observations of storage controls and review of installation and removal records, it was determined that the controls for handling radioactive materials were satisfactory. Inventory and leak test records were conducted appropriately and records were maintained as required. Transportation documentation, labeling and marking of packages was performed as required. The annual audit of the radiation protection program content and implementation was performed as required by 10 CFR 20.1101(c), and determined to be complete with satisfactory management involvement.

3.3 Conclusion

The radiation safety program, training and security were determined to be satisfactory.

4 Travis Air Force Base

4.1 Inspection Scope

The radiation safety program, training, security, and management oversight were reviewed to verify that licensed activities were being conducted in a manner protective of the health and safety of workers and the general public and that licensed activities were being conducted in accordance with NRC requirements.

4.2 Observations and Findings

Permit CA-07840-02/00AFP authorized nuclear medicine for 35.100, 35.200 and 35.300 modalities. The permit authorized seven authorized users, one medical physicist, a radiation safety officer and an alternate radiation safety officer. There were eight technologists and four students who worked under the permit, at the time of the inspection.

The inspector reviewed the use of radioactive materials at the facility. Annual reviews of the radiation protection program were performed as required. Annual training was provided to the staff by the radiation safety officer and determined to be satisfactory.

The delivery and receipt of licensed materials were satisfactory. Contamination and ambient surveys were performed as required. The quality control measurements for the dose calibrator were performed in accordance with 10 CFR 35.63. Personnel exposure monitoring results were reviewed and determined to be satisfactory for the procedures performed.

During the previous inspection in 1998, three severity level IV violations were identified. These involved 1) the failure to conduct surveys in unrestricted areas, 2) perform dose calibrator geometrical variation of all volumes typically used, and 3) annotate the date on written directives. The corrective actions for these violations were reviewed and determined to be adequate. Therefore, these violations are considered closed.

4.3 Conclusion

The radiation safety program, training, security and management oversight were determined to be satisfactory.

5 Exit Meeting Summary

The inspector presented inspection results and notice of violation to members of the licensee at telephonic exit meeting on August 23, 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

Mr. Mark Mays, Wright-Patterson AFB
Cpt. German Reyes, Travis AFB
Maj. Tiffany Morgan, Hurlburt Field AFB
Mr. Stephen Curry, Eglin AFB

INSPECTION PROCEDURES USED

IP 87124	Fixed and Portable Gauge Programs
IP 87126	Industrial/Academic/Research Programs
IP 87130	Nuclear Medicine Programs, Written Directive Not Required
IP 87131	Nuclear Medicine Programs, Written Directive Required

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

30-28641/9902-01	SLIV	Failure to perform dose calibrator linearity tests to a lower limit of 30 microcuries, which is required by 10 CFR 35.30(b)(3).
30-28641/9708-01	SLIV	Failure to include all information required on shipping papers used to transport portable nuclear gauges that contain radioactive material.
30-28641/9708-01	SLIV	Failure to have shipping papers readily available during transport of radioactive material.

Closed

30-28641/9902-01	SLIV	Failure to perform dose calibrator linearity tests to a lower limit of 30 microcuries, which is required by 10 CFR 35.30(b)(3).
30-28641/9708-01	SLIV	Failure to include all information required on shipping papers used to transport portable nuclear gauges that contain radioactive material.
30-28641/9708-01	SLIV	Failure to have shipping papers readily available during transport of radioactive material.

Discussed

None

LIST OF ACRONYMS

AFB	Air Force Base
CFR	Code of Federal Regulations
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer