

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No.: 93-09  
Docket No.: 030-28641  
License No.: 42-2353901AF  
Licensee: Department of the Air Force  
60 AW/CC  
400 Brennen Circle  
Travis Air Force Base, CA 94535-5000

Inspection: Frieda Y. Taylor 1/4/94  
Frieda Y. Taylor, Radiation Specialist Date Signed

Approved by: G.P. Yuhos 1/5/94  
Gregory P. Yuhos, Chief Date Signed  
Radioactive Materials Safety Branch

Summary:

Inspection of December 8 and 13, 1993, and January 4, 1994  
(Report No. 0302846/93-09)

Areas Inspected:

This was a special announced inspection which was conducted to review the radiological impact of the October 7, 1993, fire aboard an Air Force C-141 cargo plane at Travis Air Force Base in Fairfield, California.

Results:

The C-141 cargo plane contained depleted uranium counterweights. The counterweights remained in tact and no contamination resulted to either equipment or personnel. However, the licensee's documentation of survey results needs improvement.

## DETAILS

### 1. Persons Contacted

Major Hedrick, Base Radiation Safety Officer (RSO)

\* Captain Judkins

\* Sergeant McNight

Ed Dudley, Supervisor at the NDI Lab

Master Sergeant Lutheran

Chief Master Sergeant Young, Fabrications Branch Superintendent

Lieutenant Johnson

Senior Master Sergeant Rodriguez

\* Present at exit conference

### 2. Radiation Safety

On October 7, 1993, an Air Force C-141 cargo plane caught fire and burned on the tarmac at Travis Air Force Base in Fairfield, California. A memorandum from OJ. AW/CC to HQ AFMOA/SGPR dated November 8, 1993, stated, in part, that the fire was located approximately 200 yards from the nearest occupied building and that more than 10,000 military and civilian personnel were located within 2 miles of the accident site. Further, there was no indication that depleted uranium was burned or consumed during the fire or that any individual was exposed to radioactive materials. The memorandum also stated that there appeared to be no other known aircraft components or cargo containing NRC regulated radioactive materials on board.

Based on discussions with Captain Judkins and Sergeant McNight on December 8, and Major Hedrick on December 13, 1993, the following radiological controls were taken during the emergency response:

1. The area was roped off.
2. Nasal swabs were performed on seven members of the initial recognizance team. The swabs were analyzed for gross alpha and beta contamination. All results were less than 2 picocuries (pCi), the lower limit of detection.
3. Downwind air sampling was performed and analyzed with an open window ANPDR/27 survey meter for gross beta contamination and a PAC-1S survey meter for gross alpha contamination. Nothing above background was detected. The air samples were forwarded to Brooks Air Force Base (AFB) in San Antonio Texas, for further analysis. As of December 13, 1993, the air sample results from Brooks AFB had not been returned.
4. All persons on the initial recognizance team were frisked for gross alpha and beta contamination using PAC-1S and ANPDR/27 survey meters, respectively. Nothing above background was detected.
5. The counterweights were surveyed using an open window ANPDR/27 survey meter for gross beta contamination and a PAC-1S survey meter for gross alpha contamination. Nothing above background was detected.

On December 8, 1993, Ms. Taylor met with Captain Judkins and Sergeant McNight. The inspector toured the x-ray vault in the NDI lab and the control surface storage area which is adjacent to building 819, where the uranium counterweights were being stored.

Captain Judkins and Sergeant McNight also discussed the Air Force's radiological controls immediately following the fire. They indicated that Major Hedrick, the Base RSO, had spoken directly to the radio-isotopes committee subsequent to the fire. Since there wasn't an apparent breach in the protective coating covering the depleted uranium counterweights, the licensee concluded that no radioactive hazard resulted from the fire. Based on the inspector's observation of the integrity of a representative sample of depleted uranium counterweights that were involved in the fire, and a review of the licensee's evaluation of the accident site, it appears that no radioactivity above background was released as a result of the fire.

It should be noted that the only documentation of radiological surveys available for review, during the inspection, were the results of the nasal swabs. Additional documentation reviewed was the November 8, 1993, memorandum, "C-141 Accident - Recovery of Radioactive Material ."

#### Exit Meeting

The Air Force's radiological controls associated with the October 7, 1993, fire aboard the Air Force C-141 cargo plane, were discussed with Captain Judkins, Sergeant McNight and Major Hedrick on December 8 and 13, 1993. Ms. Taylor also expressed concerns with regard to the apparent lack of documentation of radiological surveys.

Per Captain Judkins on January 4, 1994, he could not identify as proprietary any of the materials provided to or reviewed by the inspector during the inspection.

# IFS Data Entry Form

Reviewed By: Ch

Date: 27.94 TRAVIS AFB

Site/Name: TRAVIS DEPT. OF THE

Report Transmittal Date: 03.07.94 AIR FORCE

Lead Inspector: FYT Responsible Org. Code: 430R

Report End Date: 1.4.94 Region: 5

	Report NBR	Docket NBR
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C	_____	_____

Materials Only	
License NBR	*Docket Name
<u>42-23539-01AF</u>	_____
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Update? (Y/N): \_\_\_\_\_ Opened IR/LER/P21 LOG/IFS Number: \_\_\_\_\_

\*\*\*Sequence NBR: 01 Item Type: \_\_\_\_\_ \*\*Severity: \_\_\_\_\_ \*\*Supplement: \_\_\_\_\_

Status	*UPD I/R	*Proj. Closeout	*Actual Closeout
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B	_____	____/____/____	____/____/____
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\*Cause CD: \_\_\_\_\_ \*\*EA Number: \_\_\_\_\_ \*\*NOV/NNC Issue Date: \_\_\_\_\_

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\*\*\*Sequence NBR: 02 Item Type: \_\_\_\_\_ \*\*Severity: \_\_\_\_\_ \*\*Supplement: \_\_\_\_\_

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\*Cause CD: \_\_\_\_\_ \*\*EA Number: \_\_\_\_\_ \*\*NOV/NNC Issue Date: \_\_\_\_\_

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ITEMS CONTINUED? (Y/N): \_\_\_\_\_