Yes
10 CFR multiple

DEPARTMENT OF THE ARMY
UNITED STATES ARMY TANK - AUTOMOTIVE AND ARMAMENTS COMMAND
ARMAMENT AND CHEMICAL ACQUISITION AND LOGISTICS ACTIVITY
ROCK ISLAND, ILLINOIS 61299-7630

A = 10 CFR 20.2201(b)
B = 10 CFR 30.50(c)(2)

REPLY TO
ATTENTION OF

5 MAR 1997

Safety Office, Armament and Chemical
Acquisition and Logistics Activity

06-12-00722-06 03013027
13-12-00722-13 03021073

Mr. James Cameron
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Dear Mr. Cameron:

Enclosed with this memorandum are 30 day reports responding to 3 incidents reported to the NRC. The incidents are as follows:

	Location	Date Reported	Event	NRC Control No.
A	Fort Irwin CA	2/3/97	M43A1 Loss (Am-241)-13	31719
A B	Fort Bragg NC	2/4/97	Broken Device (H-3)-06	Not available
B	Fort McCoy WI	2/7/97	Contamination (H-3)-06	31753

A synopsis of each incident is as follows:

a. Fort Irwin, CA: The device was discovered on a range at the National Training Center (NTC) at Fort Irwin, CA by a unit of the 1st Cavalry Division which recovered an M43A1 Chemical Agent Detector (CAD). This actual loss of the device occurred at an unknown time. The device cell module cell module containing the Am-241 source was observed to be missing at the time that the device was recovered. The device showed evidence of having been out on the range in the elements for some time as the telephone report stated that the metal parts on the device were quite corroded. The serial number on this detector could not be read correctly therefore the tracking database could not give any information on the serial number of the cell module on record as being associated with that detector. The serial number that the individual reporting thought they made out was traced to a device sold to Taiwan under a foreign military sales agreement and no longer in U.S. inventory. It is therefore impossible, to

1/1
IE-12

determine who the last owner of the recovered device might have been. Due to the length of time that the device had been out on the range and the lack of a legible serial number, there has been no way to locate the owner to determine what may have happened to the cell module. The report of the Fort Irwin Radiation Protection Officer (RPO) is found at enclosure 1.

b. Fort Bragg, NC: An M137 Panoramic telescope counter box containing a 2.7 curie tritium source was being worked on in a DOL Maintenance Shop. When the counter box cover was removed the tritium air monitor alarmed. Two maintenance technicians and a third person in the area were identified for bioassay. Bioassay results for the individuals were .00710 rem (.000455 rem CEDE), .00257 rem (.000164 rem CEDE) and .00157 rem (.000100 rem CEDE). Wipe test results and corrective actions are detailed in the report submitted by the Fort Bragg RPO provided at enclosure 2.

c. Fort McCoy, WI: Contamination of a provost marshal arms room was discovered to have been caused by breakage of tritium containing pistol sights locally purchased by the Fort McCoy Provost Marshal Office. The sights were distributed under an NRC license 10-23654-01E issued to HESCO Inc. of LaGrange, GA. Apparently the sights were damaged as the guards removed and replaced pistols in the weapon storage rack. The detailed report describing the decontamination work including corrective actions by the Ft. McCoy (RPO) is provided at enclosure 3. Corrective actions consisted of removing the radioactive sights and holding them for disposal as radioactive waste.

The point of contact for this action is Mr. Jeff Havenner, AMSTA-AC-SF, (309) 782-2965.

Sincerely,

for Terry Schaefer
Major, OD
Chief, Safety Office

DEPARTMENT OF THE ARMY
HEADQUARTERS, NATIONAL TRAINING CENTER AND FORT IRWIN
FORT IRWIN, CALIFORNIA 92310-5000

REPLY TO
ATTENTION OF

AFZJ-PTC-SO

27 Feb 97

MEMORANDUM FOR ARMAMENT AND CHEMICAL ACQUISITION LOGISTICS ACTIVITY (ACALA), ATTN: AMSTA-AC-SF, SAFETY OFFICE, (MS. PETERSON) ROCK ISLAND, IL 61299-7630

SUBJECT: Control of Radioactive Material and Suspected Missing Radioactive Material

1. On 24 February 1997, I contacted Ms. Betty Peterson at the Rock Island Safety Office concerning her request for information on the status of the suspected missing M43 Chemical Agent Alarm Detector (Encl 7) and a M140 Alignment Device (Encl 6). Ms. Peterson was also concerned about a plan or provisions which would prevent losing equipment in the future.

2. Based on a detailed investigation, the following information is relevant:

a. The NTC conducted a 100% hands-on inventory of all M140's and found no alignment device missing at our location. Further record searches failed to locate the missing device. Based on all available evidence, it is felt that the rotational unit located the lost unit, turned in the device when they cleared post and failed to notify the Safety Office (Encls 6, 7 and 8).

b. The NTC conducted an investigation and search for the M43 detector unit and found that we did not have the unit and it was further found that the unit had been shipped to Taiwan. The NTC never called the M43 in as being found, it was Mr. Jones from the 1st Calvary Division (Encls 9, 10 and 11).

3. The NTC Safety Office briefs all incoming rotational units on the safe handling of radioactive material at the NTC. Commanders and rotational safety personnel are also routinely briefed on how they should handle radiation related problems before, during and after incidents. The need for 100% accountability is also stressed at this time (Encls A and 1-5).

4. The NTC Safety Office and RPO will continue to stress the importance of accountability and prompt radiation incident reporting to all incoming rotational units and to all leaders and commanders at the Last and Next Safety Evaluation Review (LANSER) with the goal of preventing future radiation incidents.

5. Point of contact for this office is Mr. Ken Evans at DSN 470-5093.

Ken Evans

KENNETH EVANS
Radiation Protection Officer
NTC Safety

Encls
as

CF:
G3

Encl 1

MEMORANDUM FOR RECORD 24 Feb 97
(ATZJ-PTC-SO) AR 385-11

SUBJECT: Loss of Control of Radioactive Items.

1. On 21 Feb 97, I was contacted by Mrs. Betty Peterson, who was wanting information on how we control radioactive items during the rotations. Mrs. Peterson was also wanting a copy of our plan for loss of control.

2. The rotational units have control and responsibility for all of their equipment and not this installation. We are providing training areas for them but control of their radioactive items is a unit responsibility. This is repeatedly stressed to them through normal safety channels and through command channels as well, that control and accountability should be a very high unit responsibility. We are here to assist them, but it is their responsibility.

a. Enclosure 1 is a copy of the rotational safety instructions where it is stressed to them the importance of control and proper handling. Also POCs from this installation and detailed RPO briefings are covered. I personally brief every rotational safety on these issues and then have them receive a detailed briefing from the installation RPO, Mr. Ken Evans.

b. Enclosure 2-5 are copies of the monthly safety mishap reviews for each rotation. In a subparagraph of paragraph 5, once again accountability of radioactive items is stressed to the rotational units through the command group.

3. POC for this office is Mr. Herman Harke, DSN 470-5074.

HERMAN HARKE
Tactical Safety Specialist and Alternate RPO

AFZJ-PTC-SO 20 Nov 1996

MEMORANDUM FOR Rotational Safety Officers

SUBJECT: ROTATIONAL SAFETY OFFICER INSTRUCTIONS

1. Accidents will be logged on the log forms on the computer disk in the Rotational Safety Officer Book. Prepare a log for all "recordable" accidents for the BDE or Task Force. Blank logs are on the disk for "reportable" accidents if the Rotationalal Chain of Command wants to maintain your log of them also. All costs will be completed for each accident. Total costs will be added up at the end of rotation. Insure each accident has a complete unit designation. Multiple injures for an accident will be recorded separately, with lost time and costs for each soldier. The days will be logged as D-1, D Day and D+1 etc. The days at the end of training during BRD will be labeled B1, B2 etc.

2. You can use the computer in room 3, keys to main office and this room provided. See SFC Biehl to sign for keys and beeper.

3. Please check in daily between 0730 and 0900. Provide a summary log of the accidents during the last 24 hours. If you have had any type of significent accident, this information should be made available to the NTC Tactical Safety as soon as possible. The NTC chain of command normally knows about it before you do and they will push for details just like your chain of command.

4. Check in at BLDG 988, (DTOC) with SFC Hedges, x4566 or x4122 and FAX x3592. They need daily information on number of accidents. To dial on-post, dial 4 and the 4-digit number. DSN is 98 and the 7-digit number. Off-Post is 99 and the 7 or 10 digit number. Also, check in at the EOC at Post Headquarters, provide them with your billets location, telephone number and beeper number. This information will also be posted on the board in the Safety office.

5. The NTC Tactical Safety is Herman Harke, x5074, beeper 0498, (H) 386-2234, on post at the Fort Irvi RV Park #9, off Goldstone Road.

The NTC Radiation Officer is Ken Evans, x5093, beeper #

Beeper instructions are, dial 99-243-PAGE(7243), enter pager

number and # sign, your callback number and # sign.

6. On day 2 (Tuesday) of RSOI week there is a 0830 LANSER meeting that you need to attend at the Post Headquarters Conference Room, lasts about 1 hour.

7. Insure reports are filled out and turned in on all fires during the rotation. Reports are in the book and must be turned in to the fire department. Any tank fire must be reported to Mike Whitlock, x3756. He is the General Dynamics represenatative and he must file the reports with TACOM.

8. Insure your units are briefed to handle radiation incidents, composite material accidents and fires. Radiation incidents are routinely mishandled and cause significent loss of time and money. All commanders must be briefed on how to handle and to prevent unnecessary exposure to soldiers and equipment. Strict accountability of all radioactive items is a must. Loss of control and prevention of any contamination are the key issues. Report any losses immediately to Mr. Evans(RPO) or Mr. Harke(Alt. RPO). These losses must be reported to the radioactive item manager within 24 hours. Report to Mr. Evans for a detailed briefing on handling of radiation incidents.

If you have any questions, please ask.

Herman Harke
Tactical Safety Specialist

DEPARTMENT OF THE ARMY
HEADQUARTERS, XVIII AIRBORNE CORPS AND FORT BRAGG
FORT BRAGG, NORTH CAROLINA 28307-5000

REPLY TO ATTENTION OF:

AFZA-SA (385-11k) 6 February 1997

MEMORANDUM THRU

Commander, Forces Command, ATTN: FCJ1-SO, Fort McPherson, Georgia 30330-6000

FOR Commander, U.S. Army Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-SF, Rock Island, Illinois 61299-7630

SUBJECT: Investigation of Tritium Incident - Directorate of Logistics, Materiel Maintenance Division (Optical Shop)

1. Synopsis of the Incident:

a. On 3 February 1997, the Installation Radiation Protection Officer responded to a Triton Monitor Alarm which was activated when tritium gas was detected during routine maintenance operations at the Materiel Maintenance Division (MMD), Optical Shop. Maintenance was being performed on two M137 Counter Box Assemblies which contain a 2.7-curie tritium source (H-3).

b. The maintenance area for the M137 Counter Box was without contamination and cleared to perform maintenance. Simultaneously, the covers of two M137 Counter Boxes located on table #2 and table #4 were removed. When the covers were removed the alarm sounded indicating there was gross contamination.

c. The Fort Bragg Radiation Protection Officer (RPO) was notified and went to the Optical Shop to survey for contamination. The RPO sent the workers to Womack Army Medical Center (WAMC) for bioassay four hours after the incident. The counter boxes were placed under the hood located in the Optical Shop to prevent further contamination.

d. A wipe test analysis identified which device was leaking. The contamination level was 2,941,731 disintegrations per minute (dpm) (Encl 1). The leaking device was placed in double plastic bags and turned in to the Installation Radiation Collection Point, Building J-2535, Bay 2, as radioactive waste.

Encl 2

AFZA-SA (385-11k)
SUBJECT: Investigation Tritium Incident Directorate of Logistics, Materiel Maintenance Division (Optical Shop)

e. The area was decontaminated and resurveyed by the Installation RPO. A second wipe test analysis taken 24 hours after the decontamination was completed indicated no hazardous contamination in the controlled area. The survey results were within acceptable levels of exposure for radiation workers (Wipe Test Results, 4 and 5 February 1997, Encl 2).

f. On 4 February 1997, the Materiel Maintenance Division, Optical Shop, Building FT-9525 (Diagram at Encl 3) was approved to resume normal operations and released to the MMD Radiation Safety Officer.

2. Although Fort Bragg has no other outstanding issues pertaining to the maintenance of the M137 Counter Box the following corrective action will be implemented:

-When the M137 Counter Box is inside for maintenance, the mechanic must remove the cover of the counter box under the hood. If the box is leaking, this will release the tritium gas to be released into the atmosphere.

3. Point of contact is Mr. Wilbert Evans, Installation Radiation Protection Officer, DSN 236-7233 or Commerical (910) 396-7233.

3 Encls
as

for Kathleen Crawford
JAMES A. ADAMS
Director of Safety

CF:
Directorate of Logistics

Womack Army Medical Center
Health Physics Office
Fort Bragg, North Carolina

Removable Contamination Survey Report

Requesting Agency: MMD OPTICAL SHOP Date: 3 FEB 97
Phone: 64777/28091
Survey Technician: MR EVANS Suspected Isotopes: H_3

Survey Location.
Building: MMD Room or Area: TRITIUM SHOP

Sample	Location/description	CPM	DPM	Remarks
1	Table 2 Top Counter	215	588	
2	Table 2 Upper Shelf	85	209	
3	Table 4 Top Counter	397	1007	
4	Table 4 Upper shelf	252	654	
5	Door Knob	68	167	
6	SN# 214 M137 Inside Bag	1162949	2941731	
7	SN# 214 M137 Outside Bag	24,291	57,728	
8	SN# 215 M137 Inside Bag	3,919	9,591	
9	SN# 215 M137 Outside Bag	1,240	3,029	
10	Fan Vent T14	927	2,533	

HEALTH PHYSICS OFFICE USE

Counting System: o LBK Wallac Compugamma ✓ LBK Wallac Rackbeta
o Multichannel Analyzer o Other:

Technician: MR EVANS Date: 3 FEB 97

Background Count: MDA: 16 Efficiency: STD CURVE
Counting Time (min): 1 Stnd Error: FITTING

Comments:

Cont'd

Womack Army Medical Center
Health Physics Office
Fort Bragg, North Carolina

Removable Contamination Survey Report

Requesting Agency: DOL, MMD Date: 4 FEB 97
Phone: 64777/20991
Survey Technician: MR EVANS
Suspected Isotopes: H_3
Survey Location.
Building: FT-9525 Room or Area: OPTICAL SHOP

Sample	Location/description	CPM	DPM	Remarks
1.	COUNTER BOX (INSIDE BOX)	10	25	SN# 215 TURN-IN
2.	COUNTER BOX (OUTSIDE BOX)	17	40	RADIOACTIVE WASTE
3.	WORK TABLE #2 TOP COUNTER	18	45	
4.	WORK TABLE #4 TOP COUNTER	23	54	
5.	FAN VENT T14	19	47	
6.	DOOR KNOB	17	41	
7.	TELEPHONE	9	21	
8.	MONITOR HOOD #2	16	41	
9	COUNTER BOX (INSIDE BOX)	471	1,129	SN# 214 TURN-IN
10	COUNTER BOX (OUTSIDE BOX)	50	121	RADIOACTIVE WASTE
11	HOOD #2 LEFT SIDE	488	1,032	
12	HOOD #2 RIGHT SIDE	644	1,761	

HEALTH PHYSICS OFFICE USE

Counting System: o LBK Wallac Compugamma ✓ LBK Wallac Rackbeta
o Multichannel Analayzer o Other:

Technician: MR EVANS Date: 4 FEB 97

Background Count: MDA: 14 Efficiency: STD CURVE
Counting Time (min): 1 Stnd Error: FITTING

Comments:

Womack Army Medical Center
Health Physics Office
Fort Bragg, North Carolina

Removable Contamination Survey Report

Requesting Agency: MMD, OPTICAL SHOP Date: 5 FEB 97
Phone: MR EVANS
Survey Technician: Suspected Isotopes: H3
Survey Location.
Building: FT-9525 Room or Area: TRITIUM SHOP

Sample	Location/description	CPM	DPM	Remarks
M1	HOOD #2 LEFT SIDE	18	46	
M2	HOOD #2 RIGHT SIDE	6	15	

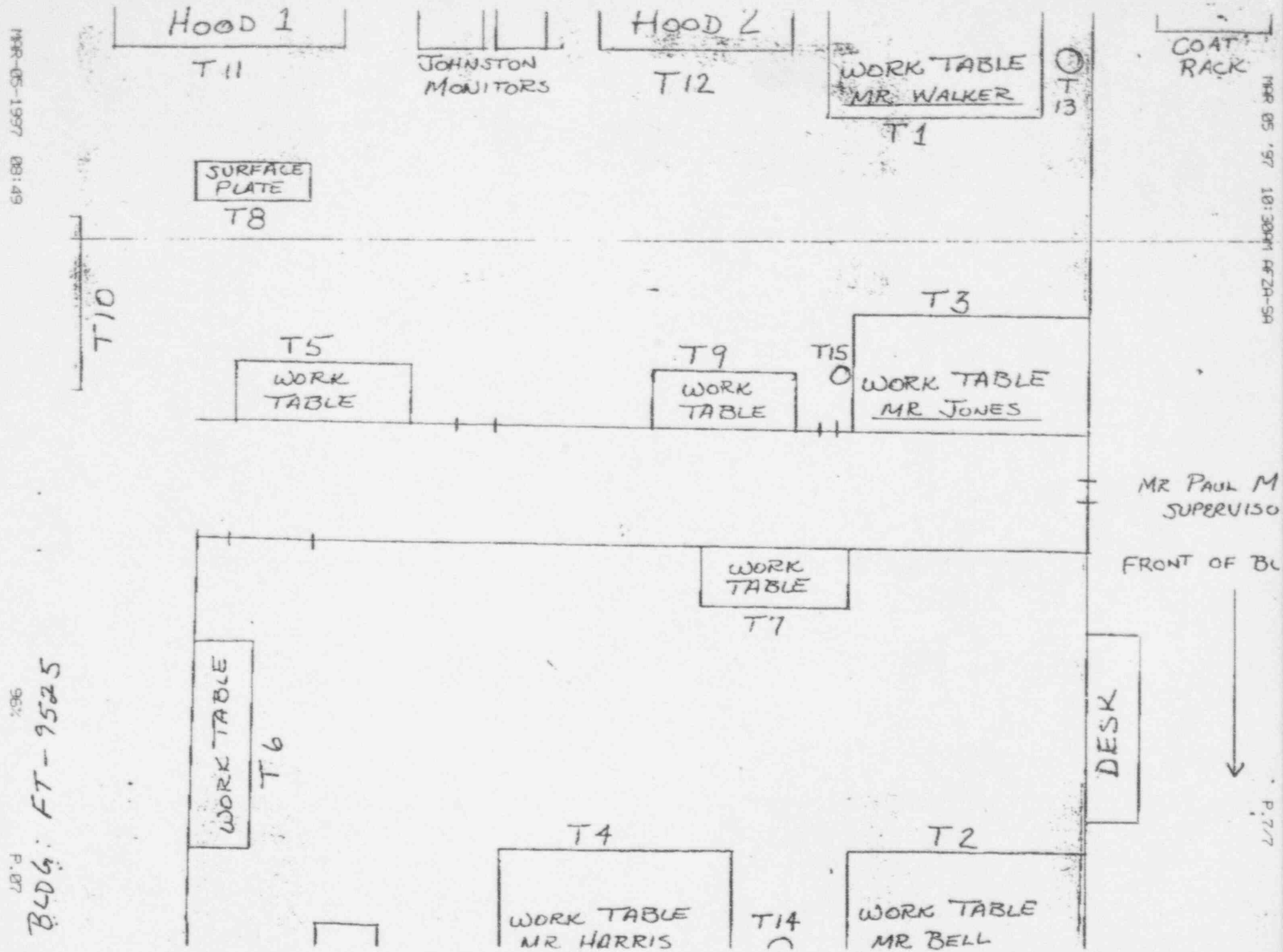
HEALTH PHYSICS OFFICE USE

Counting System: o LBK Wallac Compugamma ✓ LBK Wallac Rackbeta
o Multichannel Analayzer o Other:

Technician: MR EVANS Date: 5 FEB 97

Background Count: MDA: 16 Efficiency: STD CURVE
Counting Time (min): Stnd Error: FITTING

Comments:


HOOD 1
T11
JOHNSTON MONITORS
HOOD 2
T12
WORK TABLE MR WALKER
T1
T13
COAT RACK
SURFACE PLATE
T8
T10
T5
WORK TABLE
T9
WORK TABLE
T15
T3
WORK TABLE MR JONES
MR PAUL M
SUPERVISO
FRONT OF BU
WORK TABLE
T7
WORK TABLE
T6
DESK
T4
WORK TABLE MR HARRIS
T14
T2
WORK TABLE MR BELL
BLDG: FT-9525

REPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

BIOASSAY DATABASE: RBDBRAG DBS FILENAME: XXXX.DBS
MEASUREMENT PERIOD: 19970202 -> 19970203 INTAKE PERIOD: 19970202 -> 19970203

[redacted] X H-3 V INHALATION U INCIDENT 19970203 11 00
ASSAY: U 1 1.00 INTAKE(uCi): 7.10E+00 EFF DOSE(mrem): 4.55E-01

SSN: [redacted] NAME: HARRIS_ROBERT_C
H-3 V INTAKE(uCi): 7.10E+00 EFFECTIVE DOSE EQUIVALENT(mrem): 4.55E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01

SSN: [redacted] NAME: HARRIS_ROBERT_C
SUM OVER NUCLIDES - COMMITTED EFFECTIVE DOSE EQUIVALENT(mrem): 4.55E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01	4.55E-01

* NOTE: DOSE IS NOT COMPUTED FOR WOUND PATHWAY.

REPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

EPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

IOASSAY DATABASE: RBDBRAG DBS FILENAME: XXXX.DBS
EASUREMENT PERIOD: 19970202 -> 19970203 INTAKE PERIOD: 19970202 -> 19970203

[redacted] XXXX H-3 V INHALATION U INCIDENT 19970203 11 00
ASSAY: U 1 1.00 INTAKE(uCi): 2.57E+00 EFF DOSE(mrem): 1.64E-01

SSN: [redacted] NAME: BELL_DENNIS_E
I-3 V INTAKE(uCi): 2.57E+00 EFFECTIVE DOSE EQUIVALENT(mrem): 1.64E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01

SSN: [redacted] NAME: BELL_DENNIS_E
SUM OVER NUCLIDES - COMMITTED EFFECTIVE DOSE EQUIVALENT(mrem): 1.64E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01

* NOTE: DOSE IS NOT COMPUTED FOR WOUND PATHWAY.

REPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

EPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

IOASSAY DATABASE: RBDBRAG DBS FILENAME: XXXX.DBS
IEASUREMENT PERIOD: 19970202 -> 19970203 INTAKE PERIOD: 19970202 -> 19970203

[redacted] X H-3 V INHALATION U INCIDENT 19970203 11 00
ASSAY: U 1 1.00 INTAKE(uCi): 1.57E+00 EFF DOSE(mrem): 1.00E-01

SSN: [redacted] NAME: HARRISON EARL
H-3 V INTAKE(uCi): 1.57E+00 EFFECTIVE DOSE EQUIVALENT(mrem): 1.00E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

SSN: [redacted] NAME: HARRISON EARL
SUM OVER NUCLIDES - COMMITTED EFFECTIVE DOSE EQUIVALENT(mrem): 1.00E-01

ORGAN:	GONADS	BREAST	LUNG	R MARROW	B SURFACE	THYROID	REMAIN
DOSE:	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

* NOTE: DOSE IS NOT COMPUTED FOR WOUND PATHWAY.

REPORT Ver. 4.1 07-01-92 COMPUTATION DATE: 2/11/1997

AFRC-FM-SA (AMSTA-AC-SF/22 Feb 97) (385-11) 1st End
Mr. Blair/DSN 280-3403
SUBJECT: Tritium Contamination at Ft McCoy

CDR, Fort McCoy, ATTN: AFRC-FM-SA, 1436 S. M Street, Fort McCoy, Wisconsin 54656-5263

FOR TACOM-ACALA Safety Office, ATTN: AMSTA-AC-SF

1. As requested in the basic memo, a decontamination and bioassay plan for material and individuals affected by the Tritium leak at the Fort McCoy Provost Marshals Office (PMO) is enclosed.

2. Fort McCoy POC is the undersigned.

/drb/
DOUGLAS R. BLAIR
Safety Manager/RPO

1 Encl
as

Encl 3

DECONTAMINATION AND BIOASSAY PLAN
FOR INCIDENT INVOLVING TRITIUM LEAKS
IN THE PMO ARMS ROOM VAULT,
FORT MCCOY, WISCONSIN

1. Arms Room and Pistol Decontamination.

a. In all PMO had sixty four M9 pistols fitted with after market sights from Meprolight. Each sight set has three sources, containing .018 curies per source for a total of .054 curies in the set. Twenty four weapons had at least one source that was not glowing. Eight weapons were initially wipe tested on 30 January 1997 to determine if Tritium had actually leaked. Results were received on 7 February 1997, and all indicated some contamination. Results are listed in TAB 1.

b. All remaining pistols with non-illuminating sights were wipe sampled on 7 February. Results were received on 11 February and are listed in TAB 2. In addition to wipe testing weapons with non-illuminating sights, four area survey wipes were taken to give a preliminary indication of contamination spread. Results are listed in the consolidated area wipe test results TAB 3.

c. On 10 February, additional area wipe test samples were taken in the PMO arms room. Results are listed in TAB 3.

d. On 11 February, twenty four weapons were decontaminated. First each weapon was field stripped into its three major assemblies - frame and grip, barrel, and slide. Then the front and rear sights were removed and double bagged in plastic for disposal. The three assemblies were cleaned with brake cleaning solvent to remove oil, dirt, carbon, and other firing residue. Then, they were treated with a commercially available antiseptic solution of hydrogen peroxide. Each weapon was wipe tested, double bagged in plastic, and stored in a different arms room at the Installation Material Maintenance Activity (IMMA) in a cardboard box sitting on kraft paper. Results of the wipe tests are provided in TAB 4.

e. Also on 11 February, additional area wipe samples were taken in the PMO arms room. Results are given in TAB 3.

f. On 19 February, nine pistols listed in TAB 4 with counts near or above 100 DPM were deconed a second time. This time the

pistol subassemblies were broken down. Small components were removed from the slide and body assembly of each pistol and immersed in a small tub of antiseptic solution of hydrogen peroxide. All were wipe tested. As this is written, sample results have not been received. If the wipe test results show levels above 100 DPM, we will again attempt decontamination with hydrogen peroxide. Scrubbing with tooth brushes will be used to remove residual Tritium. Weapons which cannot be decontaminated to levels below 100 DPM will be demilitarized and transferred to radiation waste for burial.

g. With the exception of the pistol storage rack, all area wipes have returned with results less than 100 DPM. Decontamination of the room and its fixtures is not needed. The pistol racks will be cleaned with a small amount of soapy water solution (Radiac Wash) and retested. Since counts are so low, we anticipate little trouble in cleaning the racks.

h. To prevent breakage and further leaks, Meprolight Tritium sights will be removed from all PMO M9 pistols. As wipe results on pistols with still functioning sights suggests, there are low levels of contamination on pistols adjacent to pistols with non-illuminating sights. To address the lingering concerns of PMO personnel, remaining M9 pistols will be field stripped and cleaned with brake cleaning solvent. After cleaning, wipe test samples will be taken, and the weapons will be bagged and held in separated storage in the IMMA arms room until the sample results are received.

i. After all decon activities are complete, the cleaned pistols are returned to PMO, and the PMO arms room is opened for use, the IMMA arms room where the pistols were stored during decon operations will be wipe tested to ensure Tritium levels are less than 100 DPM. If spot contamination is detected, it will be deconed.

2. Personnel Bioassay.

a. In all, PMO employs 53 personnel. Only 44 of those have access to the arms room. The sources could have been damaged and leaked any time since first installed (installation occurred in stages between June 1994 and October 1994), and it is impossible to tell which personnel with arms room access were exposed. For that reason, all 44 personnel submitted samples for bioassay.

Sample collection began 12 February. The last PMO personnel provided bioassay samples on 21 February.

b. In addition, those involved in weapon's decontamination submitted samples on 12 February after the first decontamination effort, and again on 20 February after the second decon. We anticipate that one or two additional bioassay samples will be submitted as decontamination of the remaining pistols and pistol racks takes place.

c. As this is written, no bioassay results have been received. When results are received, they will be evaluated by the installation RPO and appropriate actions will be taken to reduce Tritium levels in individuals. Even if there is no evidence of Tritium in the bioassay results, as we expect, we will post the medical records of all screened personnel to indicate possible exposure to Tritium.

PISTOL WIPE TEST RESULTS
30 JANUARY 1997

SAMPLE #	WEAPON #	WEAPON SERIAL #	WIPE TEST RESULTS
1	4	1316987	190
2	8	1320162	270
3	20	1140594	9,113
4	60	1320170	1,132
5	41	1319392	170
6	5	1320164	230
7	12	1320165	36
8	42	1319401	1,734

TAB 1

PISTOL WIPE TEST RESULTS
7 FEBRUARY 1997

SAMPLE #	WEAPON #	WEAPON SERIAL #	WIPE TEST RESULTS
1	6	1140215	6,202
2	17	1140591	13,384
3	21	1140595	2,825
4	22	1316961	3,714
5	25	1316969	12,535
6	26	1316975	5,070
7	28	1320152	38,626
8	32	1316988	6,160
9	34	1316993	149
10	38	1316998	4,765
11	43	1319405	70
12	9	1316984	5,442
13	49	1316983	7,945
14	54	1140217	123
15	55	1140214	4,224

TAB 2

CONSOLIDATED AREA WIPE TEST RESULTS

Page 1 of 2

SAMPLE #	WHERE TAKEN	RESULTS
DATE: 7 February 1997		
16	Weapons rack above pistols 20-28	188
17	100 cm^2 area on wall adjacent to rack	18
18	100 cm^2 area on cloth bag adjacent to rack	67
19	100 cm^2 area on ceiling above rack area	19
DATE: 10 February 1997		
1	100 cm^2 area on table top near issue door	< LLD
2	100 cm^2 area on wooden radio rack at side	< LLD
3	100 cm^2 area on wooden radio rack shelf	< LLD
4	Slide and barrel of M9 pistol w/ illuminating sight (rack #27)	< LLD
5	M16 rifle rack adjacent to pistol rack	< LLD
6	Forestock/handguard of M16 (rack # 25)	< LLD
7	Slide and barrel of M9 pistol w/ illuminating sight (rack #44)	29
8	100 cm^2 area of ceiling tile support above weapons rack	< LLD
9	Pistol magazines stored near the weapons issue door	< LLD
10	Holster for pistol #41	< LLD

TAB 3

SAMPLE #	WHERE TAKEN	RESULTS
11	Holster for pistol #20	29
12	100 cm^2 area of desk sergeant station outside arms room	29

Date: 11 February 97

31	Door knob inside PMO arms room door	< 2 X LLD
32	100 cm^2 from floor of arms room in front of pistol rack	< 2 X LLD
33	100 cm^2 from floor of arms room	< 2 X LLD
34	Upper right section of arms room door jam	< 2 X LLD
35	Slide and barrel of pistol #14	< 2 X LLD
36	Slide and barrel of pistol #31	< 2 X LLD
37	Slide and barrel of pistol #46	< 2 X LLD

NOTE: Low level readings in sample results from 7 and 10 February may be due to cross contamination from gloves.

TAB 3 (CONT)

PISTOL WIPE TEST RESULTS
11 FEBRUARY 1997

Page 1 of 2

SAMPLE #	WEAPON #	WEAPON SERIAL #	WIPE TEST RESULTS
1		1320152	9393 +/- 315
2		1316993	< 2 X LLD
3		1140591	< 2 X LLD
4		1316961	520 +/- 78
5		1316983	174 +/- 20
6		1140595	< 2 X LLD
7		1140217	< 2 X LLD
8		1316984	445 +/- 68
9		1319392	< 2 X LLD
10		1320170	< 2 X LLD
11		1319405	< 2 X LLD
12		1140594	116 +/- 16
13		1320165	< 2 X LLD
14		1140592	1207 +/- 112
15		1320162	< 2 X LLD
16		1319401	< 2 X LLD
17		1316988	88 +/- 30
18		1316987	< 2 X LLD

TAB 4

PISTOL WIPE TEST RESULTS
11 FEBRUARY 1997

SAMPLE #	WEAPON #	WEAPON SERIAL #	WIPE TEST RESULTS
19		1140215	279 +/- 55
20		1140214	< 2 X LLD
21		1316975	424 +/- 68
22		1316969	< 2 X LLD
23		1320164	< 2 X LLD
24		1316998	< 2 X LLD

TAB 4 (CONT)

X indicates pistols with at least one nonilluminated source. These pistols were double bagged on 10 Feb 97.

WEAPON ASSIGNMENTS

Swipe Results Prior to Decon (DPM)	Worked 11 Feb 97	Swipe Results After Decon Efforts	RACK#	M9 SER #	M16 SER #	RANK	NAME
			01	1316991	126631	OFC	OLIVIER, JEREMY
			02	1320156	3213588		
			03	1140158	3215208	SGT	SHAW, RANDY
190	X	<2x LLD	04	1316987	3310638	OFC	BOWMAN, JERIJO L.
230	X	"	05	1320164	3314272	SGT	FROLO, DANIEL J.
6,202	X	279	06	1140215	3325568	OFC	SEUBERT, KYLE
			07	1140216	3334008	OFC	HANSEN, DAVID B.
270	X	<2x LLD	08	1320162	3339317	SGT	JESSEN, GREG
5,422	X	495	09	1316984	3348942	OFC	TURNER, MARK
			10	1140578	3348804	OFC	TESTER, CLAYTON W.
			11	1140579	3180577	CHIEF	ZANOTTI, JEFFERY A.
36	X	<2x LLD	12	1320165	3213631		
			13	1140581	3306668	OFC	CAVE, JON T.
			14	1140588	3313180	OFC	ASCHAUER, TIMOTHY
			15	1320166	3314278		
			16	1140590	3325834	OFC	McINTYRE, JOHN
13,384	X	<2x LLD	17	1140591	3338824	OFC	BRENNAN, THOMAS
	X	1,207	18	1140592	3339756	OFC	SEIBERT, GREGORY
			19	1320175	3347502	OFC	PALMER, BILLY
9,113	X	116	20	1140594	3349688	OFC	ELDRIDGE, ROBERT A.
2,825	X	<2x LLD	21	1140595	3182509	OFC	HOYING, LAWRENCE A.
3,714	X	520	22	1316961	3214111	OFC	ZEBRO, BRIAN
			23	1320155	3307904	OFC	ECKELBERG, GLEN
			24	1316958	3313716	OFC	HUBERT, JAMES
12,535	X	<2x LLD	25	1316969	3315003	OFC	SWOFFORD, ROBERT
5,070	X	424	26	1316975	3326862	OFC	RAFFO, GENO A.
			27	1316981	3338905		
38,626	X	4,343	28	1320152	3340013	OFC	STETZER, JAMES
			29	1320153	3347551		
			30	1316986	3351228		
			31	1320151	3213470	OFC	VAN ZANDT, MARC W.
6,160	X	88	32	1316988	3214199	OFC	BRANDAU, MIKE
			33	1320147	3310542	OFC	KLIMEK, CASEY
149	X	<2x LLD	34	1316993	3314094	LT	McCARTHY, MICHAEL D.
			35	1316994	3324080	CPT	BEAVERS, JAMES
			36	1316996	3327552	OFC	MASTERS, JOSEPH G.
			37	1316997	3339248	SGT	HAMRE, JOHN R.
4,765	X	"	38	1316998	3345460	OFC	TEEBO, NORMAN J.
			39	1317004	3347941	OFC	SCHULTZ, RICHARD E.
			40	1317105	3351231	SGT	MODICA, DOMENIC F.
176	X	"	41	1319392	3351235	SGT	HERICKS, ARTHUR W.
1,734	X	"	42	1319401	4664596	OFC	BARNES, JOSEPH R.
70	X	"	43	1319405	3352003	SGT	LILE, BRIAN
			44	1319410	5201520	SGT	JOHNSON, FRANK
			45	1320143	4547810	LT	FULLER, LARRY
			46	1320144	4623993	LT	KRAUSE, TIMOTHY
			47				

			48				
7,945	X	174	49	13316983			
			50				
			51				
			52				
			53	1320161			
123	X	< 2 x LLD	54	1140217			
4,244	X	"	55	1140214			
			56	1140580			
			57	1140589			
			58	1140212			
			59	1320169			
1,132	X	"	60	1320170			
			61	1140593			
			62	1320179			
			63	1320180			
			64	1320482			PISTOL AT DEVENS
			65	1320488		LT	MARCZEWSKI, GREGORY
			66	1320490			PISTOL AT JTA
			67	1320491			PISTOL AT JTA
			68	B17207		DET	JACKSON, RICHARD
			69	B172077		DET	HENRY, MARION