CMAT

NOTIFICATION OF STOCKPILE INSPECTION

1. NAME AND LOCATION OF DEPOT OR FACILITY	2. NAME AND		3. SERIAL NO.
DLA/DNSC/MONH New Haven Depot	TYPE OF	Annual Review -	9
New Haven , IN 46774-9644	COMMODITY	Radiological Survey	4.CODE

DATE	A.LAST	6.TYPE OF STORAGE AND SPECIFIC DEPOT AREA
	August-00	
	B. THIS July-01	

7. NAME AND TITLE OF PERSON RESPONSIBLE FOR MATERIAL	7A. TEL. NO. OR CODE	7B. EXTENSION
FREDERIC W. BROOKS, DEPOT MANAGER	219-749-5953	

INSPECTION DATA (Check and complete. Explain negative responses.)			YES	NO
8. STORAGE	A. Storage Facilities Are of the Type Prescribed in the Storage Manual			
	B. Storage Facilities Are Maintained in Good Order.			
9. MATERIAL	A. Material Is Stored in the Manner Prescribed in the Storage Manual.			
	B. Material is Free of Deterioration, Infestation, Contamination, Commingling, Migration and Erosion.			
10. RECORDS	A. Depot Manager Confirmed that all entries have been Posted.			
	B. Depot Postings indicate Last RR No.	Dated		
	Last OSR No.	Dated		
11. UNITS	Quantity indicated in Item 14. reflects Depot Postings and agrees with ____ actual or ____ computed count.			
12. SECURITY AN FIRE PROTECTIO	Security and Fire Protection are being provided in accordance with Quality Assurance and Materials Inspection Handbook and Storage Manual Requirements.			
13. CONTAINERS PILES OR OTHER UNITS	A. Material is Stored in Proper Containers (Check only if applicable)			
	B. All containers, Piles and/or Units Are Marked as Prescribed in the Storage Manual.			
	C. Condition of Containers (Give exact number in Class III under remar	(1) CLASS I %	(2) CLASS II %	(3) CLASS III %

14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS

PROGRAM a.	TYPE (Pile, case, ingot, bale, etc.)	WIDTH c.	LENGTH d.	HEIGHT e.	DIAMETER f.	g. WEIGHT OF UNIT (1) GROSS	(2) NET	TOTAL NUMBER OF UNITS	i. TOTAL WEIGHT NET LBS

15. REMARKS (Review all other appropriate questions contained in "guide for the inspection of stockpiled materials and storage facilities, " and, if deficiencies are found, give the appropriate guide numbers and complete details in this block)

See Attached.

16. RECOMMENDATIONS (Not to be construed by storage depot or facility as authorization to proceed with remedial measures beyond the scope of usual authority)

See Attached. This report was reviewed by the Facilities Distribution Manager and a signed copy is on file at the Depot.

17. DISTRIBUTION			
	[X] DNSC-EQ	[X] DNSC-EQNH	[X] DNSC-EQBR
	[X] DNSC-OLNH	[X] DNSC-OL	[ ] CONTRACTING OFFICER
	[X] DNSC-EH	[X] DNSC-EE	[ ] OTHER

18. NAME OF INSPECTOR (Type or print)	18A. SIGNATURE	18. DATE OF SIGNATURE
William J. Till, QAS	/S/	8/30/2001

1.) Purpose:

This report is issued to document the required annual radiological survey at the New Haven Depot, Indiana. Reference: 10 CFR Part 20 subpart F. This facility is listed in Conditions (Item 10) on the Defense Logistics Agency, Defense National Stockpile, Materials License number STC-133, Docket or Reference No. 040-00341. Current Amendment No. 22 expires February 28, 2010.

2. General:

Ms. Lois Huddlestun, DNSC, Storage Specialist, Radiation Protection Officer (RPO).
Mr. Wm J. Till, DNSC, Quality Assurance Specialist, Radiological Safety Officer (RSO).

3. Instrumentation:

a.) Survey Instruments:

Instrument	Model/Type	Serial No.	Calibration Due
Fag Radiac Meter	40F6	5-0002	2/12/02
Eberline Geiger Counter	E-520	3135	8/5/02
FEMA Reader	Model 6/CVD-750	A 004264	N/A
Eberline Survey Meter	E-600 with SHP-380/SPA-3 probes	01883	4/03/02
Eberline Alpha Scintillator	PAC-ISA with AC-3 probe	374	1/27/99

All instruments were checked and all are in good working condition except the Eberline Alpha Scintillator that is need of repair.

b.) Individual Monitoring Devices:

Monitoring Device	Number of Units
V-138 Dosimeter	11
Thermoluminescent Dosimeter (Film Badge)	15

The film badges documented above are on a quarterly rotational program from the UASIRDC, US Army TMDE Activity, Redstone Arsenal, AL. This program provides the submitter with a printout of exposures and transcribes this information into a permanent database for each individual with a badge submitted. Copies of the printouts are kept on file at the depot.

c.) Source Check: Cs 137

Source chip has a serial number of 951. This source chip was sent with the Eberline E-520 when the unit was sent in for calibration but the source chip itself was not calibrated.

4. Disposition of Licensable Commodities:

See Remarks for a, b, c as follows.

a.) Included in this report is a request for instructions to dispose of radioactive waste as a result of the tantalum ores and concentrates sampling project. Sampling and clean-up of the containment area concluded August 14, July 2001.

b.) Included in this report is a recommendation to return samples of batch lots to a parent lot as a result of a tantalum sampling project that took place in 1996.

c.) Included in this report is a request for disposition of quart can reserve samples that are stored in bays with the lot material as a result of the tantalum sampling project that just concluded in 2001.

Tantalum ores and concentrates containing uranium and thorium are either stored in Warehouse 214, in various locations in section 3. The containerized material is stacked and in accordance with DNSC regulations and containers meet Class No. 1 specifications of DNSC 8200.9, Part 9, 3-903a.

Ore piles 111 and 111A were sold. The last shipment from both of these piles was on December 19, 2000. The clean-up project for the piles is pending. This clean-up project will be through MARSSIM regulations.

Attached are four maps that graphically depict both the locations of the former ore storage area and the containerized material stored in the warehouse.

The inventory for radioactive material is available for review and appears to be accurate. Also on file is a listing of the radioactive components by percentage and weight of a particular ore.

On record is the ACIS that documents the location of the containerized material. Spreadsheets are sorted by warehouse/section/bay. References are made on the accompanying three maps, which specifically depict the location of the material and give the radioactive readings. The following lists the disposition of the two former ore piles included on the applicable licensed material in this report.

Pile Number	Net Pounds
111	-741,551 (overshipment)
111A	-2,884,509 (overshipment)

The attached map graphically depicts the configuration of the two areas where the ore piles were formerly located.

5. Posting:

A barbed wire fence surrounds the area where the zirconium ore piles were stored. There are gates to this area as well. Appropriate signs are on all sides of the fence. The signs posted around this area on the fence read, "Caution Radioactive Materials".

The warehouse containing the licensed material is in good condition. All entrances into warehouse 214 are locked as well as secured with numbered seals. In compliance with ORPP par. 4.3, a copy of NRC form 3 “Notice to Employees” and the Energy Reorganization Act of 1974, Section 206 is posted in the administration office. Also posted near the TLD badge location is information denoting the location of the licensed material.

Each bay containing radioactive material (bays 9, 14, 15, 16, 17, 18, 26, 27, 28, 37, 38, 44 and 77) is marked with a yellow banding saying, "Caution Radiation Hazard". There are also signs in these areas that read, "Caution Radioactive Material".

Bay 13 in warehouse 214, section 3, was used as a containment area for sampling radioactive tantalum concentrates. The sampling project concluded in July 2001 and the area was cleaned and cleared on August 14, 2001.

6. Records and Reports:

The Radiological Data Handbook (ORPP par. 16.2) is located in a rolling file cabinet. This rolling file is maintained by the Depot RPO and is located in the depot administration office (bldg. T-111). This book is well maintained and contains all the information necessary for compliance with DNSC-ORPP regulations.

a.) Documentation for all radiological training received by depot personnel is included in the Radiological Data Handbook. Names of employees, security guards, and the dates of training are as follows:

Name	Date of Training	Name	Date of Training
Frederic Brooks	9/28/00	Steve Bourn	9/28/00
Lois Huddlestun	9/28/00	Keith DeVelbiss	9/28/00
Warren Flood	9/29/00	David Simmons	9/28/00
Richard Whitman	9/29/00	Snowden Hensley	9/29/00
Dale Arnos	9/28/00	Preston Jackson	9/28/00
Brian Kilpatrick	9/29/00	William Till	10/5/00
Nikki Horther	10/5/00	Tim Lee	3/1/01
Daniel Fogel	3/16/01	Cory Thomas	3/16/01
Pat Trainor	3/17/01	Craig Walters	3/17/01
Willard McKinzie	3/17/01	Anthony Fedock	3/17/01
Frank Sikorski	3/17/01	Donald Parton	3/17/01
Russell Locke	3/17/01	Dean Drews	3/18/01

b.) Individual exposure records are current and are maintained in the rolling file cabinet. The quarterly Exposure records are signed by the RPO. Each individual has signed the annual exposure record indicating that the information for the results was discussed and is correct. All individuals on the program were given copies. There are no over doses for this annual report.

c.) DD Form 1952's for all depot personnel are recorded in the RPO files. Blocks 11 through 20 have been left blank per DNSC directive.

d.) In compliance with ORPP par. 4.3, NRC form 3 "Notice to Employees" and the location of the NRC License is posted. Also posted is the Energy Reorganization Act of 1974, Section 206. The mentioned forms are posted in the administration office.

e.) An Occupant Emergency Plan has been established for New Haven Depot. Notification to The New Haven Fire Department and Response Team and dates of meeting here at the facility is on record in the "Radiological Data Handbook". The subject material/commodities for this report is listed under the title of "Hazardous Material Leak/Spill" in the Emergency Plan. A copy of the MSDSs and the commodity location is available in a Knox box at the Security Guard Office.

f.) On file in the "Radiological Data Handbook" are calibration certificates and prior radiological surveys. Also available in this file are DLAR 1000.28, DLAR 4145.23, 10 CFR 20 & 40, 29 CFR Part 1910 and 49 CFR Parts 171 through 189, U.S. NRC Regulatory Guide 8.13 & 8.29, ANSI Z9.2 - 1972.

g.) Records are on file at this depot that documents the annual physicals. The results of the physicals are not on file at this depot. Also on file are the respiratory fit testing records for all the personnel that have respirators.

h.) The decontamination facility is located in warehouse 214, section 1. This facility is equipped with filtered air, showers, wall lockers, restroom facilities, washer and dryer. This area is also used to store protective equipment and protective clothing (tyvek suits, respirators, etc.)

7. This survey was conducted in accordance with Defense National Stockpile Center Occupational Radiation Protection Program guidelines. The instrumentation used was a FAG 40 F6 Radiac Meter. See attached "Monitoring Radiation Report" for specific survey results and attached maps for a graphic depiction of the analytic data.

8. Conclusion:

a.) Results of this survey indicate that licensed materials at the New Haven Depot appear to be stored in accordance with applicable regulations.

b.) All warning signs, labels, markings, placards appear to be properly posted.

c.) Background was established to be 0.025 mR/hr. Exposure levels on the restricted area fence were recorded to be 0.03 to 0.10 mR/hr. Measurements made in direct contact with the ore piles yielded readings from 0.10 to 1.0 mR/hr. Exposure levels of warehouse 214, section 3 yielded reading from 0.05 to 0.90 mR/hr.

9. Remarks:

a.) Request instructions on disposal of radioactive waste obtained from tantalum sampling. The waste consists of four mazeline wipes, which were placed in a plastic 5-gallon bucket with lid and the bucket then put in a 55-gallon plastic bag. Sampling and clean up concluded in August 2001. The depot manager was notified of this request the week of August 10, 2001.

b.) Recommend that radioactive batch samples of tantalum be returned to a parent lot. These samples were acquired from a sampling project accomplished in 1996. Each sample is a composite of two or more parent lots mixed together. There are 37 of these batch samples, stored in labeled plastic resealable bags and weighing approximately one and one-half pounds each.

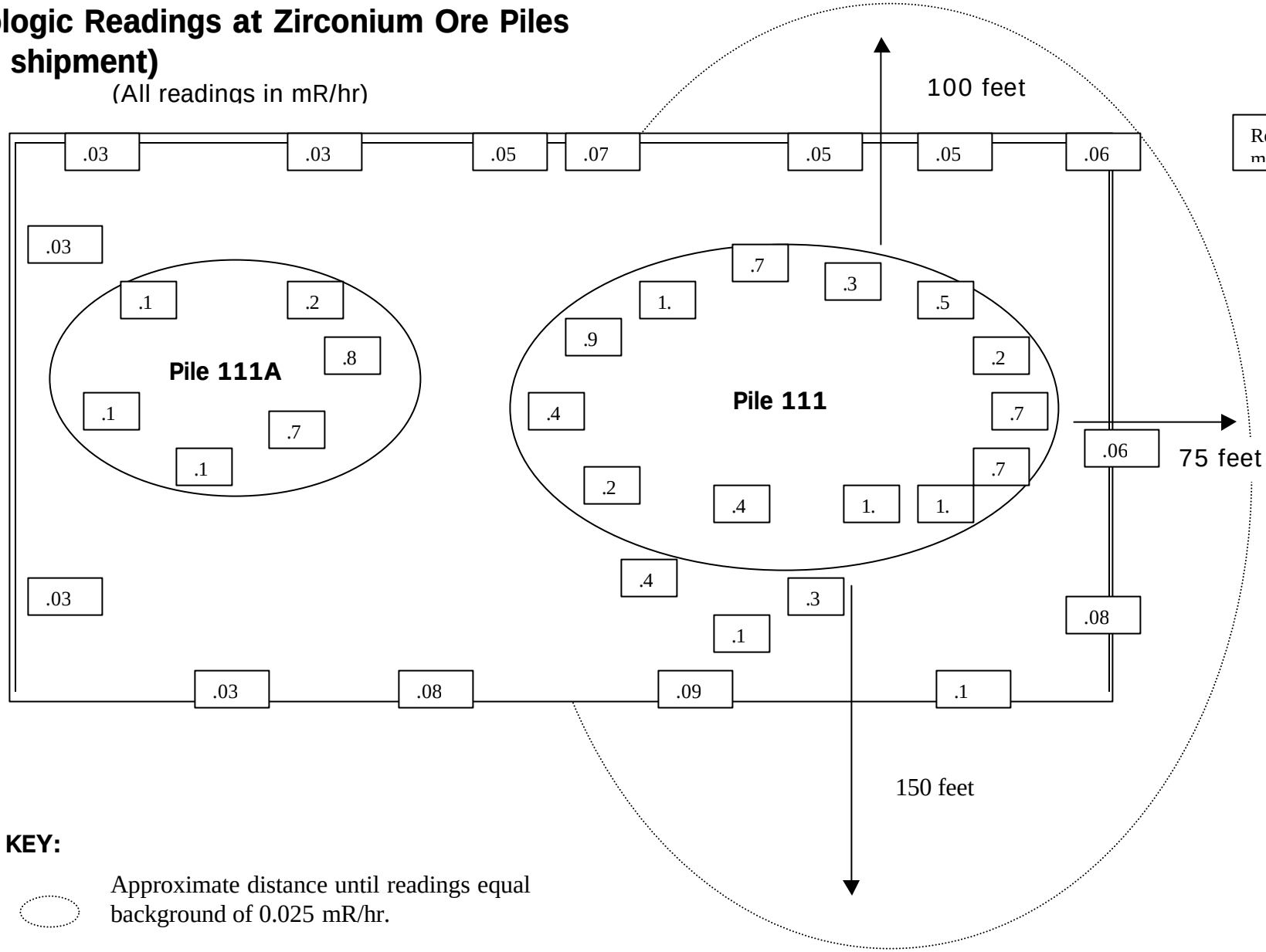
c.) Request that instructions be given for the disposition of radioactive tantalum reserve samples that are now stored in plastic resealable bags and quart paint cans along with the prospective lot material. There are 268 of these samples with each sample weighing approximately one and one-half pounds. The sampling project and clean up concluded in August 2001.

10. Attachments:

a.) Radiological Readings at Zirconium Ore Pile
b.) Monitoring Radiation Report (for outside storage)
c.) Monitoring Radiation Report (for inside storage)
d.) Readings Taken In Contact With Material
e.) Readings Taken One Foot Away From Material
f.) Readings Taken At Warehouse Exit Doors

Radiologic Readings at Zirconium Ore Piles (after shipment)

(All readings in mR/hr)



KEY:

Approximate distance until readings equal background of 0.025 mR/hr.

Former Zirconium Ore Piles (all readings are at contact)

Fence Surrounding Ore Piles
Readings in this area are contact at ground level

MONITORING RADIATION REPORT

Monitor: Bill Till

Date: July 2001

(See para. 4 of attached report)

Report No.: 9

Time	Location	Object or Person Monitored	Instrument Used	Shield	Distance	Range	Reading	Dose Rate
N/A	Pile 111	Zirconium Ore Pile - shipped		N/A	contact		0.2-1.0 mR/hr	0.2-1.0 mR/hr
"	Pile 111A	Zirconium Ore Pile - shipped		N/A	contact		0.1-0.8 mR/hr	0.1-0.8 mR/hr
"		Fence surrounding piles			contact		0.03-0.10 mR/hr	0.03-0.10 mR/hr

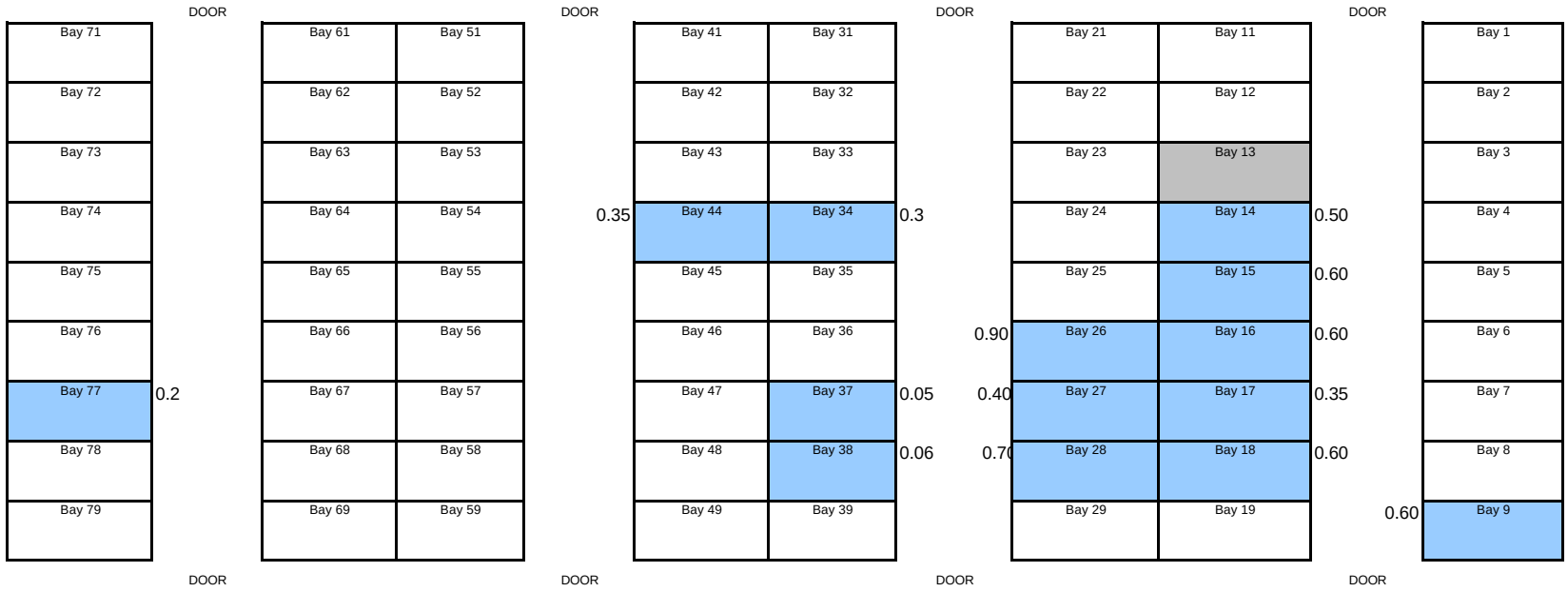
READINGS TAKEN IN CONTACT WITH MATERIAL

(All readings in mR/hr)

WAREHOUSE 214, SECTION 3

Former containment area for sampling

Permanent Storage



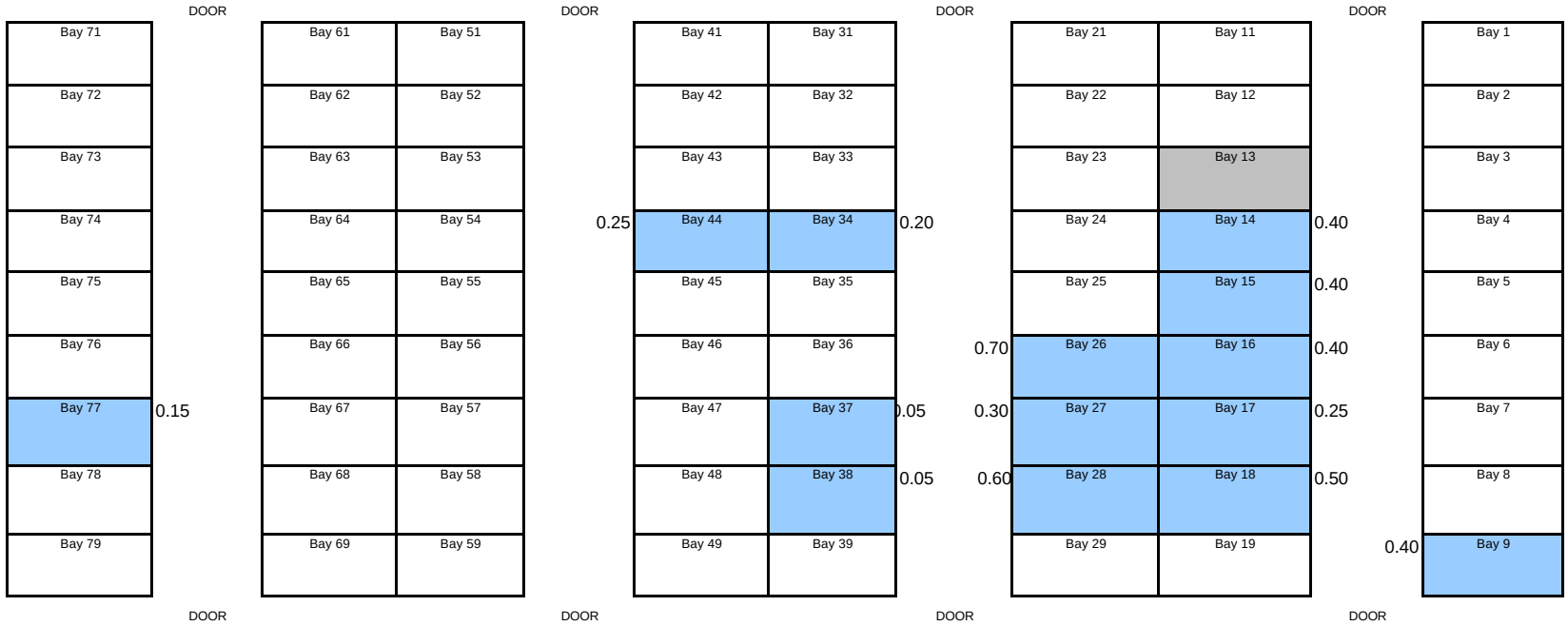
READINGS TAKEN ONE FOOT AWAY FROM MATERIAL

(All readings in mR/hr)

WAREHOUSE 214, SECTION 3

Former containment area for sampling

Permanent Storage



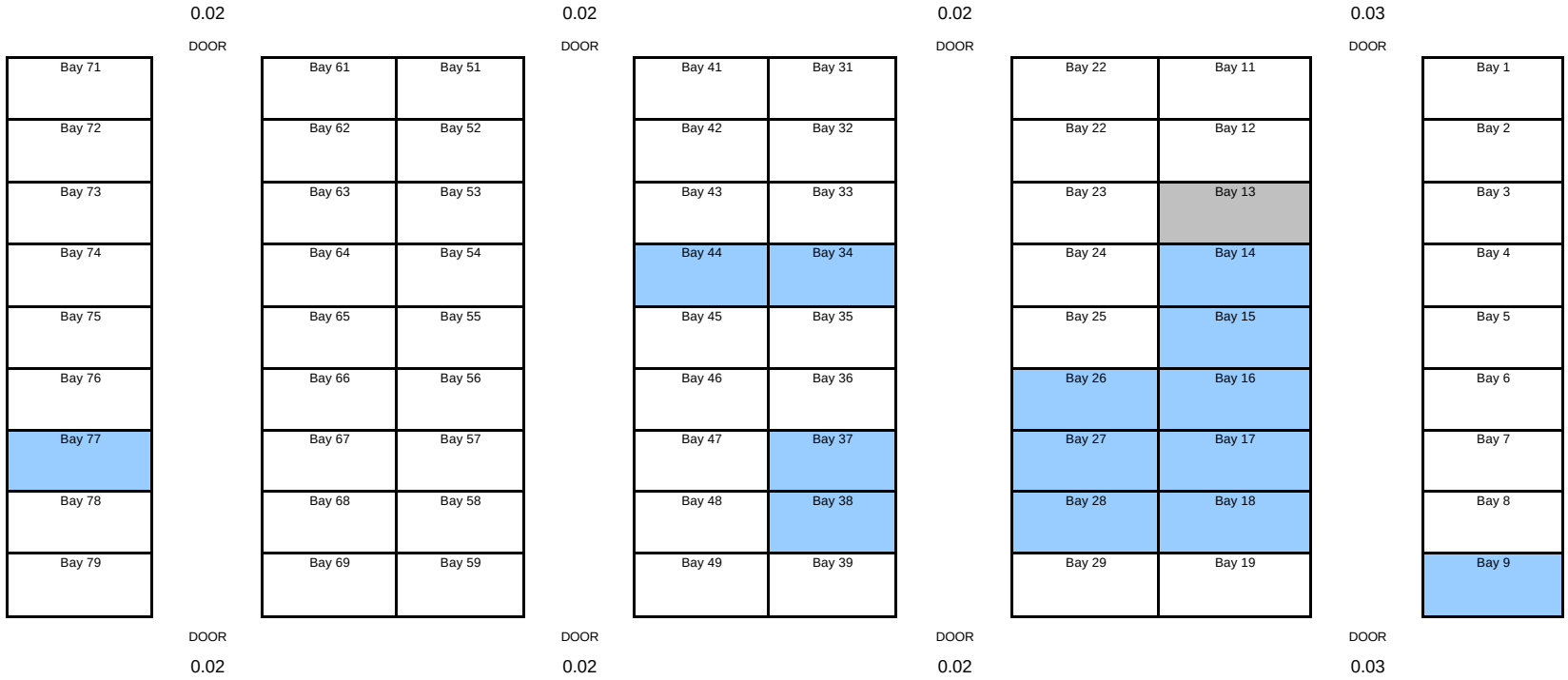
READINGS TAKEN AT WAREHOUSE EXIT DOORS

(Readings in mR/hr)

WAREHOUSE 214, SECTION 3

Former containment area for sampling

Permanent Storage



MONITORING RADIATION REPORT

Monitor: Bill Till Date: July 2001

Temporary Storage for Sampling (see para 4 of attached report) Report No. 9

Time	Whse 214	Object or Person Monitored	Instrument Used	Shield	Distance	Range	mR/hr	Dose Rate
N/A	Section 3 Bay 77	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.2 0.15	
N/A	Section 3 Bay 44	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.25	
N/A	Section 3 Bay 38	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.06 0.05	
N/A	Section 3 Bay 37	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.05 0.05	
N/A	Section 3 Bay 34	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.3 0.2	
N/A	Section 3 Bay 28	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.7 0.6	
N/A	Section 3 Bay 27	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.4 0.3	
N/A	Section 3 Bay 26	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.9 0.7	
N/A	Section 3 Bay 18	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.6 0.5	
N/A	Section 3 Bay 17	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.25	
N/A	Section 3 Bay 16	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.6 0.4	
N/A	Section 3 Bay 15	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.6 0.4	
N/A	Section 3 Bay 14	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.5 0.4	
N/A	Section 3 Bay 9	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.6 0.4	
N/A	Section 3	Doors-N9, N10, N11, N12 S9, S10, S11, S12	Radiation Meter FAG	N/A	Contact Contact		0.02 0.03	

From: Horther, Nikki
Sent: Wednesday, August 29, 2001 2:38 PM
To: Pecullan, Michael
Cc: Delhoste, Charles
Subject: Radiological Survey

Mike,

I gave the report to Fred to read as it had recommendations. He had a problem with the request for instructions to dispose of the radioactive waste from the last sampling. He says we have a waiver on file from DRMS to go ahead and use Safety Kleen as we already have that system in place. He either wants the report changed or he is going to write a statement. He says he knows what to do and, if need be, he'll take the disposal away from us and take it over again. I told him I would discuss it with you before changing the report. Any thoughts? Please give me a call.

Thanks,
Nikki

From: Horther, Nikki
Sent: Thursday, August 30, 2001 11:44 AM
To: Delhoste, Charles
Cc: Pecullan, Michael
Subject: Radiological Survey

Attached are the files comprising the radiological survey for New Haven Depot. Conversation went well with Fred and he signed off as is noted on the 30.


30 radiological survey.xls


NHRADMAP.DOC


Rad Read 1.xls


Rad Read 2.xls


Rad read.xls


RADdoc99.doc

DLAH Form 30 -	File 30 radiological survey.xls
Readings of ore piles -	File NHRADMAP.doc
Monitoring of ore piles -	File Rad Read 2.xls
Readings in warehouses -	File Rad read.xls
Monitoring of warehouses -	File Rad Read 1.xls

Mike, send me OCS link? Thanks for helping us get this one out.

Nikki

From: Pecullan, Michael
Sent: Monday, September 10, 2001 2:41 PM
To: Cangro, Vincent R
Cc: Reilly, Kevin; Brooks, Frederic; Till, William; Horther, Nikki; Bixler, Allen; Porton, Peter; Foster, Russell J; McCray, Winnie
Subject: Annual Radiological Survey-New Haven

Follow Up Flag: Follow up
Due By: Monday, October 08, 2001 4:15 PM
Flag Status: Flagged

The subject attached report notes several items in need of correction and contains recommendations regarding radioactive waste and samples.

NHavenRadSurv.pdf

1.0 Discrepancies Needing Corrective Action

Page 1-

1.01 The depot continues to maintain one FEMA dosimeter reader and 11 FEMA pocket dosimeters. All depots (except Curtis Bay & Hammond) were directed to discontinue use of pocket dosimeters in a memo of 8/24/98 signed by the radiation program manager.

Action: This equipment should be excessed by the RPO.

1.02 An Eberline alpha scintillator, Model PAC-1SA is both out of calibration (1/27/99) & in need of repair.

Action: The RPO should send the instrument to the Redstone Arsenal repair facility.

1.03 The depot has an uncalibrated Cs-137 source chip; it was recently sent to the Redstone Arsenal calibration facility along with an E-520 geiger counter but was apparently returned uncalibrated.

Action: The RPO should return it to Redstone for calibration

Page 10-

1.04 Gamma dose rates at a distance of one foot from the tantalum in section 3, bays 26 & 28 exceed the exposure criteria limits specified in ORPP 9.1.2 for an unrestricted area:

["9 1.2 The DNSC maximum permissible dose rate within a controlled area shall not exceed 0.50 mR/hr. A Restricted Area shall be established where dose rates exceed 0.50 mR/hr at a distance of one foot from the material."].

Action: Depot reconfigure the storage in these bays so as to reduce the dose rate.

2.0 Recommendations

Pages 1 & 4-

2.01 We concur with the recommendation to dispose of radioactive waste which was developed from a recent tantalum sampling program.

Action: The depot RPO should send an e-mail to: crooksk@osc.army.mil. The message should include the following: description, radionuclide and activity, hazardous material - yes/no, if yes what volume, when you want it picked up, where it is. The size of the present packaging should be significantly reduced before contacting OSC. For your information we are including the following web link: http://www.osc.army.mil/dm/dmwweb/indexdmw.htm

Pages 2 & 4-

2.02 We concur with the recommendation to return samples of batch lots from the 1996 tantalum sampling program to a parent lot.

Action: The survey data indicates that there are 37 batch lot samples; the batch samples each contain material from 2 to 28 parent lots. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which of the parent lots are radioactive. If material from any parent lot is radioactive, return that batch sample material to any container(s) in one or more of its radioactive parent lots; this material should be removed from its plastic bag(s). After emptying, the inner and outer surfaces of the bag(s) must be monitored for alpha contamination. If found to be contaminated, dispose of as radioactive waste.

2.03 We concur with the recommendation that instructions be given to the depot regarding radioactive tantalum reserve samples from the 2001 sampling program.

Action: Although the survey notes that there are 268 samples, only a portion are radioactive. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which samples are radioactive and return these samples to any container(s) of the original lots. This material should not be removed from its plastic bag(s).

Follow-Up

I'll be maintaining a suspense file on the seven items enumerated above. It would be appreciated if the depot RPO would provide periodic progress reports via e-mail as action proceeds (I understand that it may not be feasible to complete 2.02 & 2.03 at the present time due to parent lot accessibility. In such cases the sample containers should be identified as containing radioactive material until such time as the contents can be returned). I will establish the first suspense date as October 8, 2001.

M.J. Pecullan
Dep. Mgr., ORPP

From: Pecullan, Michael
Sent: Monday, November 26, 2001 10:32 AM
To: Cangro, Vincent R
Cc: Reilly, Kevin
Subject: RE: PAC-1SA and Reconfiguration Response-New Haven

Vince,

I completely understand that Fred is dependent on Lois' input in the radiological arena and we would all be much better informed if she would provide the complete info she gave below, when first requested rather than the cryptic responses in her original response. We really need much better ***willing*** cooperation in lieu of the game playing and half stories.

Regarding the PAC-1SA
The original response in its entirety was "***[huddlestun, lois]*** - This equipment has been turned over to the designated depot representative as excess equipment."

Had we been told that: "Redstone Arsenal (19 Sep 01 @ 0945) was contacted - they stated that they would not repair a PAC-1SA - it is an "obsolete" piece of equipment" we would have recommended that the depot RPO purchase an Eberline ASP-2 Portable Survey Meter, HP-380A Alpha Probe & CA-15-36 Cable for an approximate cost of $1,875. Purchase of this equipment will "- put this to bed-".

Regarding the excessive radiation
The original response in its entirety was: "***[huddlestun, lois]*** The storage area will not be reconfigured as per New Haven Depot's Distribution Facility Manager".

Had we been told that the entire section is a restricted area, the issue would have ended there; as it now ends here!

-----Original Message-----
From: Cangro, Vincent R
Sent: Wednesday, November 21, 2001 10:13 AM
To: Pecullan, Michael
Subject: FW: PAC-1SA and Reconfiguration Response

fyi- lets put this to bed-

-----Original Message-----
From: Brooks, Frederic
Sent: Wednesday, November 21, 2001 9:27 AM
To: Cangro, Vincent R
Cc: Huddlestun, Lois
Subject: FW: PAC-1SA and Reconfiguration Response

Vince per Michael's request through you, Vince to be totally honest with you, I am not that well verse in the radiological arena, I requested Lois, the depot RPO to put the response together for me, it goes without saying, I am aware and accept the responsibility of my duties irregardless of the degree of knowledge I have, I concur and support Lois' response and have confident in her knowledge of the program, with all due respect, if you have any questions, please call.

-----Original Message-----
From: Huddlestun, Lois
Sent: Tuesday, November 20, 2001 2:56 PM
To: Brooks, Frederic
Subject: PAC-1SA and Reconfiguration Response

1. The PAC-1SA was sent in to be calibrated back in 1996 or 1997. At that time it was determined that it would cost more to repair/calibrate it than it would to buy a new one (besides Eberline claimed that it was an obsolete piece of equipment), therefore we were directed to dispose of it per Kevin Reilly. It was on the list for DRMS in 1998 - someone removed it from the DRMS area and it was just recently found by the QA's. Upon receipt of CY 01 Annual Radiological Survey recommendations by Mr Pecullan - Redstone Arsenal (19 Sep 01 @ 0945) was contacted - they stated that they would not repair a PAC-1SA - it is an "obsolete" piece of equipment. For further information you can contact Paul Pittman at 256-876-1302.

2. Reference:

10 CFR 20.1003 - Restricted Area means an area, access to which is limited by the licensee for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials. Restricted area does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.

DNSC ORPP 9.1.2 - The DNSC maximum permissible dose rate within a controlled area shall not exceed 0.50 mR/hr. A Restricted Area shall be established where dose rates exceed 0.50 mR/hr at a distance of one foot from the material.

DNSC ORPP 9.1.3 - TLD's shall be used by ALL personnel who enter an area containing thorium nitrate or oxide, and by personnel entering a restricted area WHERE THEY ARE LIKELY TO RECEIVE, IN ONE YEAR, A DOSE IN EXCESS OF 500 MREMS. In addition to the TLD's, pocket dosimeters shall be worn in an area containing thorium nitrate or oxide.

The storage area will not be reconfigured because:

a. It would require handling the material for a third time (batch sampling and then again the lot sampling). Since the material has been sampled, it will soon be placed on a solicitation - at which time the material will be shipped and the section reconfigure itself through attrition.

b. At the present time, the area is considered a Restricted Area (10 CRF 20.1003) - no one is allowed in that section (it is the only section in which we store radioactive material) without the knowledge of the Facilities Distribution Manager (DNSC ORPP 9.1.2). All employees have been briefed that they cannot enter that section without a TLD. (DNSC ORPP 9.1.3)

c. The section is properly placarded with numerous "Radioactive Materials" signs within the section and on all doors and fire doors leading into that section.

d. The other commodities stored in that section are Rubber and a few lots of Ferrochrome, LC - which at the moment - neither are moving - so other than an occasional walk-thru of the section there is not a need for employees to work for any length of time in that section.

e. It doesn't appear that personnel would likely receive, in one year, a dose in excess of 500 MREMS - based on the results of the TLD badge readings taken during the tantalum sampling - which was on average a 7-hour per day task in that section. All of the TLD badges came back with zero readings.

So unless we are missing some major paragraphs in the regulations - we should be, as is, within the technical parameters of requirements per referenced regulations listed above.

-----Original Message-----
From: Brooks, Frederic
Sent: Tuesday, November 20, 2001 1:32 PM
To: Huddlestun, Lois
Subject: FW: CY01 Radiological Survey - Update Number 2

Please respond

-----Original Message-----
From: Cangro, Vincent R
Sent: Tuesday, November 20, 2001 8:09 AM
To: Brooks, Frederic
Subject: FW: CY01 Radiological Survey - Update Number 2

fyi

-----Original Message-----
From: Pecullan, Michael
Sent: Monday, November 19, 2001 2:17 PM
To: Cangro, Vincent R
Cc: Reilly, Kevin; Bixler, Allen
Subject: RE: CY01 Radiological Survey - Update Number 2

Vince,

Regarding the the PAC-1SA Alpha scintillator (1.02), the instructions were to repair the instrument not dispose of it. The reason for dual alpha capability at the depot was to always have one instrument available when the other was in for calibration.

Insofar as the excessive radiation (1.04) in section 3, unless the manager wants to take other steps to protect his personnel or has information to the contrary, his is presently in violation of the DNSC ORPP 9.1.2 and by extension NRC License STC-133. Please ask the manager to explain (ASAP) why "The storage area will not be reconfigured as per New Haven Depot's Distribution Facility Manager"

Insofar as follow-ups we would appreciate a three month interval with the next update due by the end of February. Thanks for your assistance.

MJP
Dep. Mgr., DNSC ORPP

-----Original Message-----
From: Cangro, Vincent R
Sent: Monday, November 19, 2001 12:48 PM
To: Pecullan, Michael
Subject: FW: CY01 Radiological Survey - Update Number 2
Importance: Low

Fyi

-----Original Message-----
From: Brooks, Frederic
Sent: Monday, November 19, 2001 11:06 AM
To: Cangro, Vincent R
Cc: Huddlestun, Lois
Subject: FW: CY01 Radiological Survey - Update Number 2
Importance: Low

Vince, per your request

-----Original Message-----
From: Huddlestun, Lois
Sent: Monday, November 19, 2001 10:52 AM
To: Brooks, Frederic
Subject: CY01 Radiological Survey - Update Number 2

See responses below -

Since there is no specific timeframes mentioned for follow ups - at what time intervals would you like for me to update you on this status?

-----Original Message-----
From: Brooks, Frederic
Sent: Monday, November 19, 2001 9:54 AM
To: Huddlestun, Lois
Cc: Till, William
Subject: FW: Annual Radiological Survey-New Haven

Per our conversation

-----Original Message-----
From: Cangro, Vincent R
Sent: Monday, November 19, 2001 7:35 AM
To: Brooks, Frederic
Subject: FW: Annual Radiological Survey-New Haven

fred- advise on status

-----Original Message-----
From: Pecullan, Michael
Sent: Monday, November 19, 2001 7:31 AM
To: Cangro, Vincent R
Subject: FW: Annual Radiological Survey-New Haven

Vince,

Of the 7 action items in the list below, the depot RPO has provided progress info for only one (2.01).

-----Original Message-----

From: Pecullan, Michael
Sent: Monday, September 10, 2001 2:41 PM
To: Cangro, Vincent R
Cc: Reilly, Kevin; Brooks, Frederic; Till, William; Horther, Nikki; Bixler, Allen; Porton, Peter; Foster, Russell J; McCray, Winnie
Subject: Annual Radiological Survey-New Haven

The subject attached report notes several items in need of correction and contains recommendations regarding radioactive waste and samples.

<< File: NHavenRadSurv.pdf >>

1.0 Discrepancies Needing Corrective Action

Page 1-

1.01 The depot continues to maintain one FEMA dosimeter reader and 11 FEMA pocket dosimeters. All depots (except Curtis Bay & Hammond) were directed to discontinue use of pocket dosimeters in a memo of 8/24/98 signed by the radiation program manager.

Action: This equipment should be excessed by the RPO.
[huddlestun, lois] - This equipment has been turned over to the designated depot representative as excess equipment.

1.02 An Eberline alpha scintillator, Model PAC-1SA is both out of calibration (1/27/99) & in need of repair.

Action: The RPO should send the instrument to the Redstone Arsenal repair facility.
[huddlestun, lois] - This equipment has been turned over to the designated depot representative as excess equipment.

1.03 The depot has an uncalibrated Cs-137 source chip; it was recently sent to the Redstone Arsenal calibration facility along with an E-520 geiger counter but was apparently returned uncalibrated.

Action: The RPO should return it to Redstone for calibration
[huddlestun, lois] Redstone was contacted and the chief of that operation stated that they do not calibrate chips. They recommend that the chips be sent in with the equipment when the equipment is due for calibration. Then when the equipment is returned we are to take a reading with the chip and write it down. Then each time we use that piece of equipment the reading should be within +/- 20%. If it falls outside of that range the piece of equipment will need to be recalibrated. This is the procedure that we have been using and will continue to use. If there are any questions you can contact Patrick.kuykendall@redstone.army.mil

Page 10-

1.04 Gamma dose rates at a distance of one foot from the tantalum in section 3, bays 26 & 28 exceed the exposure criteria limits specified in ORPP 9.1.2 for an unrestricted area:

["9 1.2 The DNSC maximum permissible dose rate within a controlled area shall not exceed 0.50 mR/hr. A Restricted Area shall be established where dose rates exceed 0.50 mR/hr at a distance of one foot from the material."].

Action: Depot reconfigure the storage in these bays so as to reduce the dose rate.
[huddlestun, lois] The storage area will not be reconfigured as per New Haven Depot's Distribution Facility Manager.

2.0 Recommendations

Pages 1 & 4-

2.01 We concur with the recommendation to dispose of radioactive waste which was developed from a recent tantalum sampling program.

Action: The depot RPO should send an e-mail to: crooksk@osc.army.mil. The message should include the following: description, radionuclide and activity, hazardous material - yes/no, if yes what volume, when you want it picked up, where it is. The size of the present packaging should be significantly reduced before contacting OSC. For your information we are including the following web link: http://www.osc.army.mil/dm/dmwweb/indexdmw.htm
[huddlestun, lois] OSC has been contacted (02 Oct 01) - they are still working on the request.

Pages 2 & 4-

2.02 We concur with the recommendation to return samples of batch lots from the 1996 tantalum sampling program to a parent lot.

Action: The survey data indicates that there are 37 batch lot samples; the batch samples each contain material from 2 to 28 parent lots. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which of the parent lots are radioactive. If material from any parent lot is radioactive, return that batch sample material to any container(s) in one or more of its radioactive parent lots; this material should be removed from its plastic bag(s). After emptying, the inner and outer surfaces of the bag(s) must be monitored for alpha contamination. If found to be contaminated, dispose of as radioactive waste.
[huddlestun, lois] The remainder of the tantalum lot samples were sent to the lab on 07 Nov 01. Awaiting analyses in order to determine radioactive status of parent lots.

2.03 We concur with the recommendation that instructions be given to the depot regarding radioactive tantalum reserve samples from the 2001 sampling program.

Action: Although the survey notes that there are 268 samples, only a portion are radioactive. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which samples are radioactive and return these samples to any container(s) of the original lots. This

material should not be removed from its plastic bag(s).
[huddlestun, lois] The remainder of the tantalum lot samples were sent to the lab on 07 Nov 01. Awaiting analyses in order to determine radioactive status.

Follow-Up

I'll be maintaining a suspense file on the seven items enumerated above. It would be appreciated if the depot RPO would provide periodic progress reports via e-mail as action proceeds (I understand that it may not be feasible to complete 2.02 & 2.03 at the present time due to parent lot accessibility. In such cases the sample containers should be identified as containing radioactive material until such time as the contents can be returned). I will establish the first suspense date as October 8, 2001.

M.J. Pecullan
Dep. Mgr., ORPP

From: Huddlestun, Lois
Sent: Monday, March 18, 2002 8:50 AM
To: Pecullan, Michael
Cc: Olszewski, John; Bourn, Steven; Till, William
Subject: RE: CY01 Radiological Survey - Update Number 3

1.0 Discrepancies Needing Corrective Action

Page 1-

1.01 The depot continues to maintain one FEMA dosimeter reader and 11 FEMA pocket dosimeters. All depots (except Curtis Bay & Hammond) were directed to discontinue use of pocket dosimeters in a memo of 8/24/98 signed by the radiation program manager.

Action: This equipment should be excessed by the RPO.
[huddlestun, lois] - This equipment has been turned over to the designated depot representative as excess equipment.
[huddlestun, lois] - COMPLETE

1.02 An Eberline alpha scintillator, Model PAC-1SA is both out of calibration (1/27/99) & in need of repair.

Action: The RPO should send the instrument to the Redstone Arsenal repair facility.
[huddlestun, lois] - This equipment has been turned over to the designated depot representative as excess equipment.
[huddlestun, lois] - COMPLETE

1.03 The depot has an uncalibrated Cs-137 source chip; it was recently sent to the Redstone Arsenal calibration facility along with an E-520 geiger counter but was apparently returned uncalibrated.

Action: The RPO should return it to Redstone for calibration
[huddlestun, lois] Redstone was contacted and the chief of that operation stated that they do not calibrate chips. They recommend that the chips be sent in with the equipment when the equipment is due for calibration. Then when the equipment is returned we are to take a reading with the chip and write it down. Then each time we use that piece of equipment the reading should be within +/- 20%. If it falls outside of that range the piece of equipment will need to be recalibrated. This is the procedure that we have been using and will continue to use. If there are any questions you can contact Patrick.kuykendall@redstone.army.mil
[huddlestun, lois] COMPLETE

Page 10-

1.04 Gamma dose rates at a distance of one foot from the tantalum in section 3, bays 26 & 28 exceed the exposure criteria limits specified in ORPP 9.1.2 for an unrestricted area:

["9 1.2 The DNSC maximum permissible dose rate within a controlled area shall not exceed 0.50 mR/hr. A Restricted Area shall be established where dose rates exceed 0.50 mR/hr at a distance of one foot from the material."].
[huddlestun, lois] COMPLETE

Action: Depot reconfigure the storage in these bays so as to reduce the dose rate.
[huddlestun, lois] The storage area will not be reconfigured as per New Haven Depot's Distribution Facility Manager.
[huddlestun, lois] COMPLETE

2.0 Recommendations

Pages 1 & 4-

2.01 We concur with the recommendation to dispose of radioactive waste which was developed from a recent tantalum sampling program.

Action: The depot RPO should send an e-mail to: crooksk@osc.army.mil. The message should include the following: description, radionuclide and activity, hazardous material - yes/no, if yes what volume, when you want it picked up, where it is. The size of the present packaging should be significantly reduced before contacting OSC. For your information we are including the following web link: http://www.osc.army.mil/dm/dmwweb/indexdmw.htm
[huddlestun, lois] OSC has been contacted (02 Oct 01) - they are still working on the request.
[huddlestun, lois] 21 Feb 02 - Received e-mail from OSC - they stated that they have not forgotten about us, but that they are waiting to get their new facility at RIA up and running so that they can have the material sent there for consolidation. They are still awaiting approval from the NRC on their license.

Pages 2 & 4-

2.02 We concur with the recommendation to return samples of batch lots from the 1996 tantalum sampling program to a parent lot.

Action: The survey data indicates that there are 37 batch lot samples; the batch samples each contain material from 2 to 28 parent lots. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which of the parent lots are radioactive. If material from any parent lot is radioactive, return that batch sample material to any container(s) in one or more of its radioactive parent lots; this material should be removed from its plastic bag(s). After emptying, the inner and outer surfaces of the bag(s) must be monitored for alpha contamination. If found to be contaminated, dispose of as radioactive waste.

[huddlestun, lois] The remainder of the tantalum lot samples were sent to the lab on 07 Nov 01. Awaiting analyses in order to determine radioactive status of parent lots.
[huddlestun, lois] Bill Till, RSO has determined the parent lot for each sample based on the analyses received from Michael Pecullan. The material will be emptied into the appropriate parent lot's drum as time, equipment, and manpower permits.

2.03 We concur with the recommendation that instructions be given to the depot regarding radioactive tantalum reserve samples from the 2001 sampling program.

Action: Although the survey notes that there are 268 samples, only a portion are radioactive. Utilizing information obtainable from Russ Foster once his analysis program is completed, RPO should determine which samples are radioactive and return these samples to any container(s) of the original lots. This material should not be removed from its plastic bag(s).
[huddlestun, lois] The remainder of the tantalum lot samples were sent to the lab on 07 Nov 01. Awaiting analyses in order to determine radioactive status.
[huddlestun, lois] Bill Till, RSO has received analyses results from Michael Pecullan and based on Michael's figures has determined which lots are radioactive. These sample bags will be placed in the appropriate lot's drum as time, equipment, and manpower permits.