

CODE-

NOTIFICATION OF STOCKPILE INSPECTION

1. NAME AND LOCATION OF DEPOT OR FACILITY New Haven Depot New Haven, IN 46774-9644		2. NAME AND TYPE OF COMMODITY Annual Radiological Report And Survey		3. SERIAL NO. 8
D	A. LAST 5/27/99	6. TYPE OF STORAGE AND SPECIFIC DEPOT AREA Zirconium Ore Piles 111 & 111A Warehouse 214, Section 3		
A	B. THIS 8/3/00	4. REGION		

7. NAME AND TITLE OF PERSON RESPONSIBLE FOR MATERIAL Mr. Frederic W. Brooks, Depot Manager at New Haven Depot	7A. TEL. NO. OR CODE 219-749-5953	7B. EXTENSION
--	--------------------------------------	---------------

INSPECTION DATA (Check and complete. Explain negative responses.)		N/A	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 and/or computed count.			
12. SECURITY AND FIRE PROTECTION	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 UNIT	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 remarks)	(1) CLASS I %	(2) CLASS II %	(3) CLASS III %

14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS										N/A	
PRO-GRAM	TYPE (Pile, case, ingot, bale, etc.)	WIDTH c.	LENGTH d.	HEIGHT e.	DIAM-ETER	g. WEIGHT OF UNIT		TOTAL NUMBER OF UNITS	i. TOTAL LBS WEIGHT		
						(1) GROSS	(2) NET				

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 ATTACHMENTS

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 ATTACHMENTS

17. DISTRIBUTION	<input checked="" type="checkbox"/> DNSC-MQ	<input checked="" type="checkbox"/> DNSC-MQNH	<input checked="" type="checkbox"/> DNSC-MQBR
	<input checked="" type="checkbox"/> DNSC-MONH	<input checked="" type="checkbox"/> DNSC-MO	<input type="checkbox"/> CONTRACTING OFFICER
	<input checked="" type="checkbox"/> DNSC-MH	<input checked="" type="checkbox"/> DNSC-ME	<input type="checkbox"/> OTHER

18. NAME OF INSPECTOR (Type or print) William J. Till, QAS	18A. SIGNATURE <i>Wm J. Till</i>	18. DATE OF SIGNATURE 8/3/00
---	-------------------------------------	---------------------------------

**Continuation DLAH Form 30
DLA/DNSC Depot, New Haven, Indiana
Radiological Survey**

**Report No. 8
Date: 2 Aug 2000**

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 28 Feb 2010.

2. General:

Ms. Lois Huddleston, 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 40 F6		5-0002	12/20/00
Eberline Geiger	E-520	3135	5/9/01
FEMA Reader	Model 6/CVD-750	A 004264	N/A
Portable Radiation Monitor	E-600/Type SHP-380	with 180 Probe	4/25/01

All instruments were checked and are in good working condition.

b.) Individual Monitoring Devices:

Monitoring Device	No. of Unites
V-138 Dosimeter	15
Thermoluminescent Dosimeter (Film Badges)	18

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, as well as, transcribes this information into a permanent database for each individual with a badge submitted. Copies of the printouts are kept in the rolling file cabinet.

c.) Source Check: Cs 137

This is not a calibrated source check. Source chip has a serial no. of 951. All other source checks have been returned to DRMO.

4. Disposition of Licensable Commodities:

Ores and concentrates containing uranium and thorium are either stored in Warehouse 214, in various locations in section 3 or outside bulk storage in location piles 111 and 111A. Material is stacked and piled in accordance with DNS regulations and containers meet Class No. 1 specifications of DNSC 8200.9, Part 9, 3-903a.

Attached are three maps that graphically depict both the dispositions of the ore piles 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.

The attached pages document the location of the containerized material. Spreadsheets are sorted by warehouse/section/bay. References are made on the accompanying two maps which specifically depict the location of the material. The following list the disposition of the two ore piles included on the applicable licensed material in this report.

Pile Number	Width (ft)	Length (ft)	Height (ft)	Net lbs.
111	60	285	25	31,981,398
111A	45	100	20	2,783,706 comtaminated
Total :				34,765,104

The attached map graphically depicts the configuration of these piles.

5. Posting:

A barbed wire fence surrounds the two ore piles. The gate is padlocked as well. Appropriate signs are on all sides of the fence. The signs posted around the Ore Piles 111 and 111A on the fence read, "Caution Radiation Area".

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, NRC form 3 "Notice to Employees" with information denoting the location of the NRC License is posted. Also posted is the Energy Reorganization Act of 1974, Section 206. One copy of each form is posted in the main office area of the administration building.

Each bay containing radioactive material (bays 9,13,14,15,16,17,18,27,28,37,38,44 and 77) is marked with a yellow band saying, "Caution Radiation Hazard". There are signs in these areas that read, "Caution Radioactive Material".

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 normally located in the Storage Specialist Office. 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.
- b.) Individual exposure records are current and maintained in the rolling file cabinet. The quarterly exposure records are signed by the RPO. Each individual has signed the annual exposure records indicating that the information on the results was discussed and correct. Each individual on the program was given copies.
- 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 building.

- 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 MSDS's 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 29.2 - 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.)
 - i.) There is a letter on file at New Haven Depot with all the names of the personnel receiving Radiation Training dated 8/5/99.
5. This survey was conducted in accordance with the Defense National Stockpile Center Occupational Radiation Protection Program guidelines. The instrumentation used was a FAG 40 F6 Dosimeter, referenced in 4.a. above. See attached "Monitoring Radiation Report" for specific survey results and attached Maps for a graphic depiction of the analytic data.
6. 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 (excluding the restricted area around the two ore piles 111 & 111A) to be 0.02 mR/hr. Exposure levels on the restricted area fence were recorded to be 0.04 to 0.25 mR/hr. Measurements made in direct contact with the ore piles yielded readings from 0.03 to 0.270 mR/hr. Exposure levels in the controlled areas of warehouse 214, section 3 yielded reading from 0.05 to 0.60 mR/hr.
7. Attachments:
- 1. Radiological Readings at Zirconium Ore Pile
 - 2. Monitoring Radiation Report (for outside storage)
 - 3. Monitoring Radiation Report (for inside storage)
 - 4. Readings Taken In Contact With Material
 - 5. Readings Taken One Foot Away From Material
 - 6. Readings Taken At Warehouse Exit Doors
 - 7. Accountability of Tantalum in Storage (pages 1-4)

Monitors: Bill Till

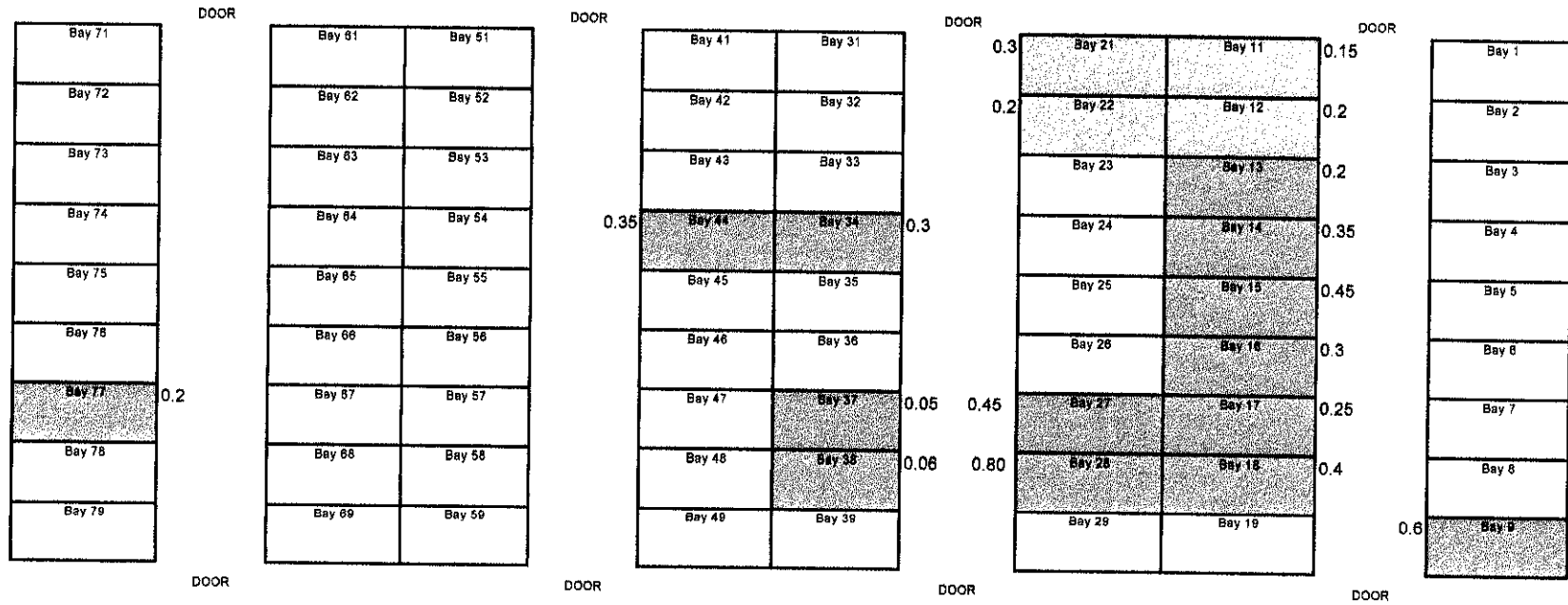
MONITORING RADIATION REPORT
(See para.4 of attached repo Temporary Storage for sampling)

Date: Jul-00 Report No.: 8

Time	vrwise 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	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	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	0.06 0.05
N/A	Section 3 Bay 37	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.06 0.05	0.06 0.05
N/A	Section 3 Bay 34	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.25 0.2	0.25 0.2
N/A	Section 3 Bay 28	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.8 0.7	0.8 0.7
N/A	Section 3 Bay 27	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.45 0.35	0.45 0.35
N/A	Section 3 Bay 22	Temporary Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.2 0.15	0.2 0.15
N/A	Section 3 Bay 21	Temporary Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.3 0.2	0.3 0.2
N/A	Section 3 Bay 18	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.45 0.4	0.45 0.4
N/A	Section 3 Bay 17	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.25 0.2	0.25 0.2
N/A	Section 3 Bay 16	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.3 0.25	0.3 0.25
N/A	Section 3 Bay 15	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.45 0.4	0.45 0.4
N/A	Section 3 Bay 14	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.3	0.35 0.3
N/A	Section 3 Bay 13	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.3	0.35 0.3
N/A	Section 3 Bay 12	Temporary Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.3	0.35 0.3
N/A	Section 3 Bay 11	Temporary Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.3	0.35 0.3
N/A	Section 3 Bay 9	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.35 0.3	0.35 0.3
N/A	Section 3	Doors-N9 N11,N12,S10,S11,S21,N-10,S-9	Radiation Meter FAG	N/A	Contact Contact		0.04 0.02	0.04 0.02

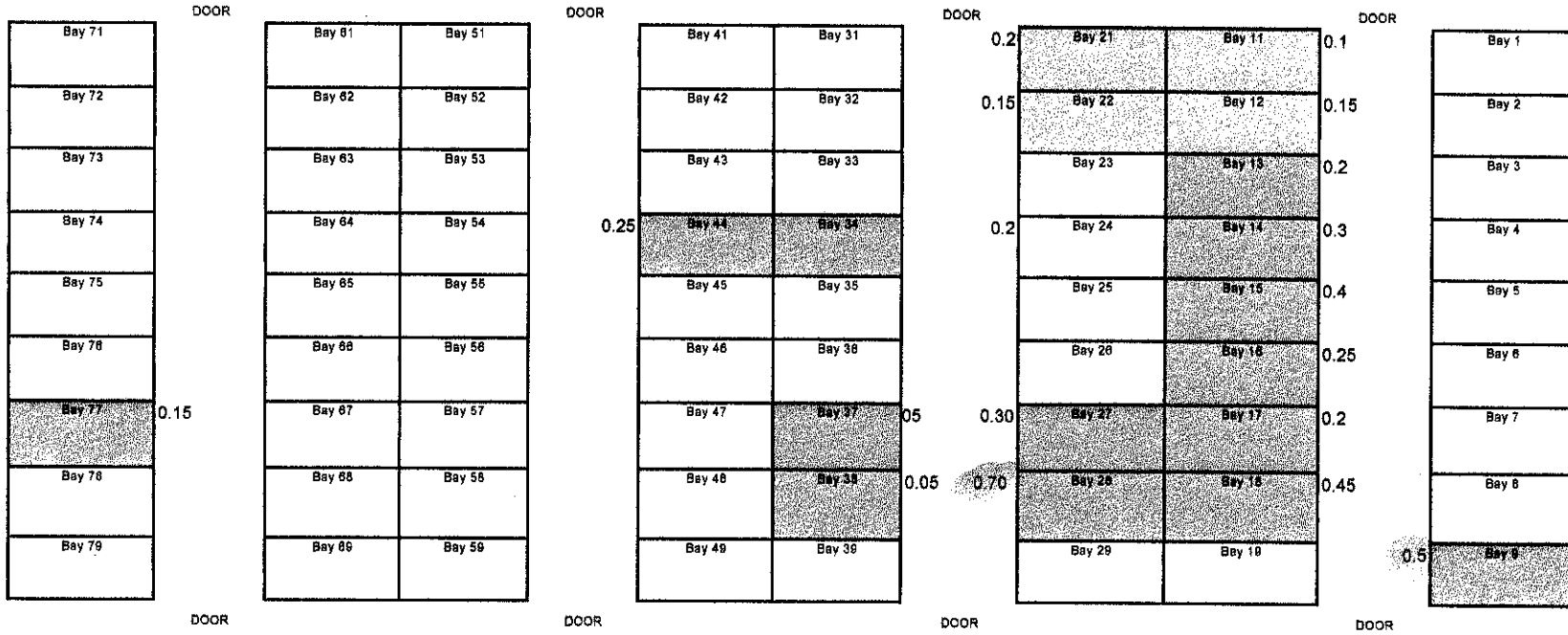
READINGS TAKEN IN CONTACT WITH MATERIAL
 (All readings in mR/hr)
 WAREHOUSE 214, SECTION 3

Temporary Storage
 Permanent Storage



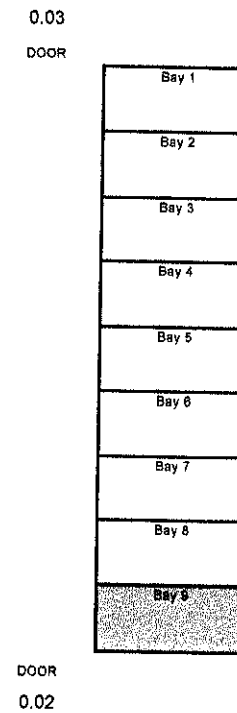
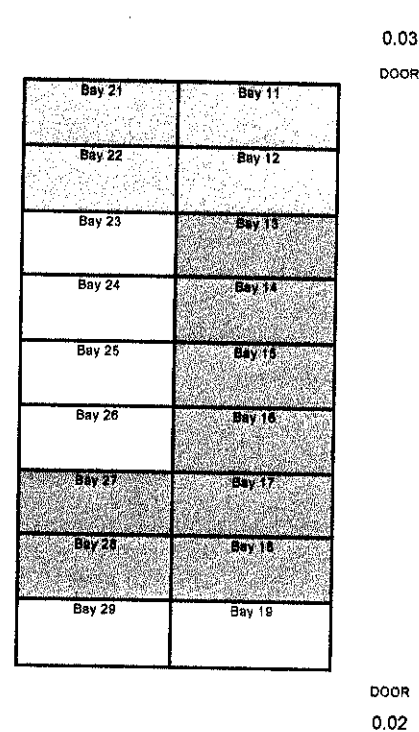
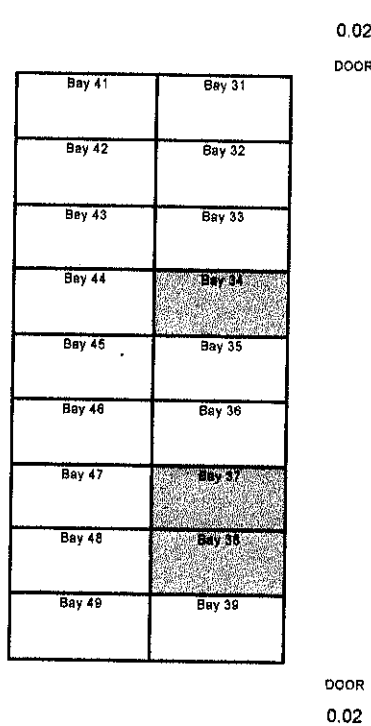
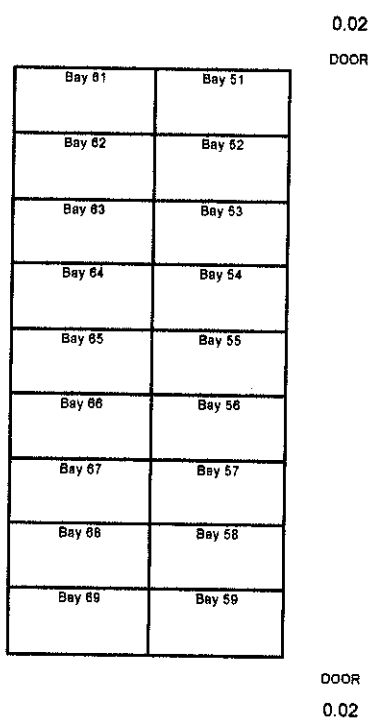
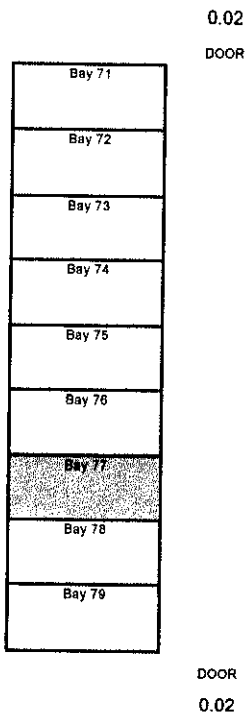
READINGS TAKEN ONE FOOT AWAY FROM MATERIAL
 (All readings in mR/hr)
 WAREHOUSE 214, SECTION 3

Temporary Storage
 Permanent



READINGS TAKEN AT WAREHOUSE EXIT DOORS
 (Readings in mR/hr)
 WAREHOUSE 214, SECTION 3

Temporary Storage
 Permanent Storage



CMAT	COMMODITY	TYPE	GRADE	MIF Lot #	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	Origin	Packaging
156	Tantalite	Natural Min.		001	1	3	Drums	8614	214	3	44	2, ST 1-8	659.80	GS-OOP-1059-1 (SCM)	American	25-gallon drums
156	Tantalite Ore Concentrates	Natural Min.		001	1	13	Drums	7870	214	3	44	2, ST 1-8	3,787.50	GS-OOP-1902-1F (SCM)	unknown	25-gallon drums
156	Tantalite	Natural Min.		001	1	13	Drums	8064	214	3	44	2, ST 1-8	3,143.76	GS-OOP-3872 (SCM) 1F	Sweden	25-gallon drums
156	Tantalite	Natural Min.		001	1	4	Drums	8065	214	3	44	2, ST 1-8	610.75	GS-OOP-3872 (SCM) 1F	Sweden	25-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		001	1	10	Drums	18884-A	214	3	15		3,000.00	Transfer Special Project FJO-935	unknown	15-gallon drums
155	Tantalite Ore	Natural Min.		002	2	9	Drums	8701	214	3	44	2, ST 1-8	2,266.80	GS-OOP-048-1F (SCM)	Nigeria	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		012	12	9	Drums	19104	214	3	18		4,379.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		013	13	16	Drums	18105	214	3	18		7,685.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		015	15	7	Drums	19106	214	3	18		3,280.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		020	20	13	Drums	19107	214	3	18		6,535.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		021	21	5	Drums	19108	214	3	18		2,178.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		022	22	5	Drums	19109	214	3	18		2,153.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		023	23	5	Drums	19110	214	3	9		2,182.00	Transfer Special Project FJO-935	Liquido Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		024	24	5	Drums	19111	214	3	9		2,200.00	Transfer Special Project FJO-935	Brazil	20-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		025	25	5	Drums	19112	214	3	9		2,202.00	Transfer Special Project FJO-935	Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		026	26	5	Drums	19113	214	3	18		2,184.00	Transfer Special Project FJO-935	Brazil	20-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		030	30	34	Drums	19114	214	3	18		16,043.00	Transfer Special Project FJO-935	Brazil	20-gallon drums
155	Tantalite Concentrates	Natural Min.		066	66	8	Drums	8476	214	3	44	1, ST 1-8	2,157.00	GS-OOP-10224(SCM)-1F	unknown	15-gallon drums
155	Tantalite Concentrates	Natural Min.		080	80	8	Drums	8476	214	3	44	1, ST 1-8	2,125.00	GS-OOP-10224(SCM)-1F	unknown	15-gallon drums
155	Tantalite	Natural Min.		105	105	8	Drums	8591	214	3	44	2, ST 1-8	2,192.00	GS-OOP-2923-1 (SCM)	Brazil	15-gallon drums
155	Tantalite	Natural Min.		106	108	10	Drums	8591	214	3	44	1, ST 1-8	4,285.00	GS-OOP-2923-1 (SCM)	Brazil	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		107	107	10	Drums	18115-A	214	3	18		3,930.80	Transfer Special Project FJO-935	Belgian Congo	15-gallon drums
155	Tantalite	Natural Min.		108	108	24	Drums	6910	214	3	44	1, ST 1-8	6,397.50	GS-OOP-2923-2F (SCM)	Brazil	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	19362	214	3	18	4, ST 1-5	6,990.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	19362	214	3	18	4, ST 1-5	6,803.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	19362	214	3	18	4, ST 1-5	6,448.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	4	Drums	19362	214	3	18	4, ST 1-5	2,264.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	19394	214	3	18	4, ST 1-5	6,568.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	18	Drums	19362	214	3	18	4, ST 1-5	10,635.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	35	Drums	19394	214	3	18	4, ST 1-5	22,888.00	Relocation Project DMO-00001	unknown	35,45 & 55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	3	Drums	19362	214	3	18	4, ST 1-5	2,043.00	Relocation Project DMO-00001	unknown	50-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111-Sweepings	2	Sweepings		214	3	18	4, ST 1-5	864.00		unknown	50-gallon drums
155	Tantalite	Natural Min.		118	118	31	Drums	6910	214	3	44	1, ST 1-8	6,550.00	GS-OOP-2923-2F (SCM)	Brazil	55-gallon drums
155	Tantalite	Natural Min.		207	207	7	Drums	7881	214	3	44	1, ST 1-8	1,898.80	GS-OOP-3627-1-Final	Belgian Congo	15-gallon drums
155	Tantalite	Natural Min.		053	1053	22	Drums	10698	214	3	44	2, ST 1-8	6,584.80	GS-OOP-10045(SCM)-1-Final	unknown	15-gallon drums
155	Columbium-Tantalum Ore	Tantalum Source Material		105	1105	43	Bags	12264D	214	3	14		3,086.00	GS-OOP-(D) 18002	Great Britain	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		138	1138	16	Bags	12427D	214	3	14		2,214.80	GS-OOP-10717-SCM	South Rhodesia	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		140	1140	183	Bags	12344 (D)	214	3	14		9,378.00	GS-OOP-(D) 18002	Australia	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		146	1146	40	Bags	12421D	214	3	14		4,497.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		147	1147	13	Bags	12287D	214	3	14		9,915.00	GS-OOP (D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Columbium Tantalum		165	1165	11	Drums	17163	214	3	14		4,347.00	GS-OOP-10717(SCM)	England	20-gallon drums
155	Tantalite	Natural Min.		272	2272	8	Drums	8726	214	3	44	2, ST 1-8	2,026.80	GS-OOP-3146-1F	Malaysia	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		329	2329	3	Drums	7224	214	3	44	2, ST 1-8	715.00	GS-OOP-3608-1F (SCM)	Australia	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		001	001080001	10	Drums	19394	214	3	18	1, ST 3	6,640.00	Relocation Project DMO-00001	unknown	56 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		002	001080002	13	Drums	19394	214	3	18	2, ST 5	8,755.00	Relocation Project DMO-00001	unknown	30 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		005	001080005	18	Drums	19394	214	3	18	2, ST 1,2	11,614.00	Relocation Project DMO-00001	unknown	30 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		013	11800013	10	Drums	19393	214	3	18	2, ST 2,3	5,364.00	Relocation Project DMO-00001	unknown	30 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		014	11800014	10	Drums	19393	214	3	18	2, ST 3	5,308.00	Relocation Project DMO-00001	unknown	30 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		001	0011820001	7	Drums	19372	214	3	77	4	4,378.80	Relocation Project DMO-00001	unknown	30 Gal Drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		533	0021871533	3	Drums	19371	214	3	34	4, ST 1-3	1,791.80	Relocation Project DMO-00001	unknown	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		001	0021890001	4	Drums	19370	214	3	18	1, ST 2	1,770.50	Relocation Project DMO-00001	unknown	50-gallon wooden kegs
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		574	0782362574	5	Drums	19398	214	3	18	1, ST 2	2,322.00	Relocation Project DMO-00001	unknown	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		878	0782362878	4	Drums	19398	214	3	18	1, ST 2	1,693.00	Relocation Project DMO-00001	unknown	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		00E	00107000E	6	Drums	19362	214	3	18	1, ST 1	3,454.00	Relocation Project DMO-00001	unknown	55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		00D	001107000D	2	Drums	19362	214	3	34	4, ST 1-3	1,032.00	Relocation Project DMO-00001	unknown	55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		00F	001107000F	6	Drums	19362	214	3	18	1, ST 4	3,761.00	Relocation Project DMO-00001	unknown	55-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		00G	001107000G	13	Drums	19362	214	3	18	1, ST 4,5	8,674.00	Relocation Project DMO-00001	unknown	65-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		589	1107(589)	3	Drums	19362	214	3	18	1, ST 1	1,868.50	Relocation Project DMO-00001	unknown	50-gallon drums
155	Tantalite	Natural Min.		53A	1053A	8	Drums	10898	214	3	44	2, ST 1-8	2,184.00	GS-OOP-10045(SCM)-1-Final	unknown	15-gallon drums
155	Tantalite	Natural Min.		53B	1053B	8	Drums	10898	214	3	44	2, ST 1-8	2,128.00	GS-OOP-10045(SCM)-1-Final	unknown	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		00A	1118000A	9	Drums	19367	214	3	18	2, ST 4	3,448.50	Relocation Project DMO-00001	unknown	50-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46A	1146A	40	Bags	12421D	214	3	14		4,426.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46B	1146B	40	Bags	12421D	214	3	14		4,404.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46C	1146C	40	Bags	12421D	214	3	14		4,395.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46D	1146D	40	Bags	12421D	214	3	14		4,391.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46E	1146E	50	Bags	12421D	214	3	14		5,493.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46F	1146F	50	Bags	12421D	214	3	14		5,485.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore	Tantalum Source Material		46G	1146G	80	Bags	12421D	214	3	14		6,818.00	GS-OOP-(D) 18002	Brazil	20-gallon drums
155	Columbium Tantalum Ore Concentrates	Tantalite		99A	199-A	12	Drums	7286	214	3	44	2, ST 1-8	3,325.00	GS-OOP-3774(SCM)-1-F	Belgian Congo	15-gallon drums
155	Tantalite	Natural Min.		99B	199-B	20	Drums	7286	214	3	44	2, ST 1-8	7,917.00	GS		

TANTALUM

CMAT	COMMODITY	TYPE	GRADE	MIF Lot #	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	Origin	Packaging
156	Tantalite	Natural Min.		52C	C-DMS-C-1	21	Drums	8480	214	3	44	2 ST 1-6	5,670.00	GS-OOP-2427-1(F) SCM	Belgian Congo	15-gallon drums
156	Tantalite	Natural Min.		01F	DMS-137	50	Drums	5881	214	3	44	1 ST 1-6	13,728.50	GS-OOP-1318-1F SCM	unknown	15-gallon drums
156	Tantalite Concentrates	Natural Min.		13B	DMS-137	52	Drums	5903	214	3	44	1 ST 1-6	14,010.00	GS-OOP-1528-1F SCM	unknown	15-gallon drums
156	Columbium Tantalum Ore	Natural Min.		03B	DMS-203-B	8	Drums	7280	214	3	44	2 ST 1-6	2,434.00	GS-OOP-3793(SCM)-1-F	Belgian Congo	15-gallon drums
156	Columbium Tantalum Ore	Tantalite		206	DMS-206	30	Drums	7628	214	3	44	1 ST 1-6	6,061.50	GS-OOP-3822(SCM)-1-F	unknown	15-gallon drums
156	Columbium Tantalum Source Material	Tantalite		216	DMS-216	13	Drums	7707	214	3	44	1 ST 1-6	3,322.50	GS-OOP-3963(SCM)-1-F	Belgian Congo	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		809	GEO-809	98	Drums	18893	214	3	16		19,848.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		22C	GEO-822C	18	Drums	18065	214	3	15		2,442.50	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		831	GEO-831	16	Drums	18063	214	3	15		3,007.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		832	GEO-832	16	Drums	18064	214	3	15		3,080.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Tantalite	Tantalum Nat. Min.		104	MSK-104	22	Boxes	11148	214	3	37	4	1,981.00	GS-OOP-10047(SCM)-1F	unknown	40-gallon fiber drums
156	Tantalite	Tantalum Nat. Min.		108	MSK-108	14	Drums	11149	214	3	37	4	3,480.00	GS-OOP-10047(SCM)-1F	unknown	8-gallon wooden kegs
156	Tantalite	Tantalum Nat. Min.		110	MSK-110	8	Drums	11146	214	3	37	4	3,273.00	GS-OOP-10047(SCM)-1F	unknown	8-gallon wooden kegs
156	Tantalite	Tantalum Nat. Min.		112	MSK-112	15	Boxes	11149	214	3	37	4	2,162.00	GS-OOP-10047(SCM)-1F	unknown	8-gallon wooden kegs
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		100	MRC-100	11	Drums	18988	214	3	15		3,300.00	Transfer Special Project FJO-935	Rhodesia	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		113	MRC-113	23	Drums	18068	214	3	16		6,842.00	Transfer Special Project FJO-935	Brazil	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		117	MRC-117	8	Drums	19000	214	3	15		2,150.00	Transfer Special Project FJO-935	Brazil	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		126	MRC-126	11	Drums	19015	214	3	15		2,829.00	Transfer Special Project FJO-935	Belgian Congo	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		129	MRC-129	22	Drums	19018	214	3	15		6,424.00	Transfer Special Project FJO-935	Liquido Brazil	9 & 8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		138	MRC-138	10	Drums	19017	214	3	16		2,853.00	Transfer Special Project FJO-935	Liquido Brazil	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		139	MRC-139	6	Drums	18989	214	3	15		1,995.00	Transfer Special Project FJO-935	Liquido Brazil	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		144	MRC-144	6	Drums	18001	214	3	15		952.00	Transfer Special Project FJO-935	Nigeria	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		150	MRC-150	5	Drums	18990	214	3	15		1,282.00	Transfer Special Project FJO-935	Australia	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		151	MRC-151	6	Drums	18066	214	3	15		1,270.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		153	MRC-153	1	Drum	19002	214	3	15		300.00	Transfer Special Project FJO-935	Sydney, Australia	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		162	MRC-162	10	Drums	19003	214	3	15		2,026.00	Transfer Special Project FJO-935	Rhodesia	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		164	MRC-164	2	Drums	19004	214	3	15		486.00	Transfer Special Project FJO-935	Nigeria	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		166	MRC-166	15	Drums	19005	214	3	15		3,053.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		173	MRC-173	11	Drums	19018	214	3	15		2,200.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		174	MRC-174	11	Drums	19019	214	3	15		2,188.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		175	MRC-175	8	Drums	19020	214	3	15		2,206.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		176	MRC-176	11	Drums	18021	214	3	15		2,159.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		177	MRC-177	11	Drums	19022	214	3	15		2,188.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		178	MRC-178	11	Drums	19023	214	3	15		2,188.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		179	MRC-179	8	Drums	19070	214	3	15		2,185.00	Transfer Special Project FJO-935	unknown	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		180	MRC-180	11	Drums	18024	214	3	15		2,166.00	Transfer Special Project FJO-935	unknown	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		183	MRC-183	8	Drums	18071	214	3	16		2,208.00	Transfer Special Project FJO-935	unknown	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		186	MRC-186	12	Drums	19072	214	3	15		2,443.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		187	MRC-187	11	Drums	19025	214	3	9		2,201.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		189	MRC-189	11	Drums	18073	214	3	15		2,280.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		190	MRC-190	8	Drums	18991	214	3	15		2,197.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		193	MRC-193	10	Drums	19006	214	3	15		2,078.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		195	MRC-195	9	Drums	19007	214	3	15		2,190.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		196	MRC-196	9	Drums	19008	214	3	16		2,250.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		199	MRC-199	7	Drums	19074	214	3	15		2,100.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		206	MRC-206	8	Drums	18075	214	3	15		2,200.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		213	MRC-213	13	Drums	18078	214	3	15		3,215.00	Transfer Special Project FJO-935	Salt Lake City	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		216	MRC-216	22	Drums	19077	214	3	15		4,428.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		217	MRC-217	22	Drums	19026	214	3	15		4,376.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		218	MRC-218	22	Drums	19078	214	3	15		4,360.00	Transfer Special Project FJO-935	Liquido Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		219	MRC-219	21	Drums	19078	214	3	15		4,311.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		222	MRC-222	22	Drums	19027	214	3	15		4,393.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		223	MRC-223	22	Drums	19028	214	3	15		4,397.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		224	MRC-224	15	Drums	18090	214	3	15		4,594.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		226	MRC-226	8	Drums	18029	214	3	16		4,600.00	Transfer Special Project FJO-935	Brazil	20-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		227	MRC-227	15	Drums	19081	214	3	16		4,356.00	Transfer Special Project FJO-935	Brazil	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		228	MRC-228	10	Drums	19030	214	3	16		4,676.00	Transfer Special Project FJO-935	Brazil	20 & 8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		229	MRC-229	11	Drums	19031	214	3	9		2,216.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		238	MRC-238	8	Drums	19032-A	214	3	15		2,177.00	Transfer Special Project FJO-935	Brazil	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		239	MRC-239	8	Drums	19033	214	3	15		2,182.00	Transfer Special Project FJO-935	Liquido Brazil	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		243	MRC-243	16	Drums	19082-A	214	3	15		4,366.00	Transfer Special Project FJO-935	Brazil	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		244	MRC-244	21	Drums	19034	214	3	15		4,247.00	Transfer Special Project FJO-935	unknown	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		246	MRC-246	15	Drums	19035	214	3	15		4,604.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		248	MRC-248	12	Drums	19036	214	3	16		3,524.00	Transfer Special Project FJO-935	Liquido Brazil	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		247	MRC-247	4	Drums	18992	214	3	15		843.00	Transfer Special Project FJO-935	Nigeria	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		251	MRC-251	12	Drums	18993	214	3	15		2,470.00	Transfer Special Project FJO-935	Australia	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		254	MRC-254	7	Drums	19037	214	3	15		1,940.00	Transfer Special Project FJO-935	Rhodesia	9-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		256	MRC-256	9	Drums	19038-A	214	3	16		2,194.00	Transfer Special Project FJO-935	Brazil	9 & 8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		259	MRC-259	11	Drums	19039	214	3	15		2,181.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		260	MRC-260	8	Drums	19040	214	3	15		2,180.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		261	MRC-261	9	Drums	18041	214	3	15		2,182.00	Transfer Special Project FJO-935	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		263	MRC-263	15	Drums	19042	214							

TANTALUM

CMAT	COMMODITY	TYPE	GRADE	MIF Lot #	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	Origin	Packaging	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		269	MRC-269	22	Drums	19047	214	3	15		4,412.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		270	MRC-270	18	Drums	19048	214	3	15		4,791.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		271	MRC-271	22	Drums	18094	214	3	15		4,387.00	Transfer Special Project FJO-835	Liquido Brazil	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		272	MRC-272	7	Drums	18048	214	3	9		1,320.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		273	MRC-273	2	Drums	19085-A	214	3	15		596.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		274	MRC-274	2	Drums	19009	214	3	15		522.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		275	MRC-275	3	Drums	19086	214	3	15		559.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		276	MRC-276	10	Drums	19087	214	3	15		2,820.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		277	MRC-277	3	Drums	18994	214	3	18		879.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		278	MRC-278	22	Drums	18050	214	3	15		6,487.00	Transfer Special Project FJO-835	Nigeria	15-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		279	MRC-279	15	Drums	19098	214	3	18		4,388.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		282	MRC-282	3	Drums	19010	214	3	15		739.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		283	MRC-283	4	Drums	19051	214	3	18		1,041.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		284	MRC-284	7	Drums	18995	214	3	18		1,835.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		285	MRC-285	3	Drums	19089	214	3	18		735.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		286	MRC-286	5	Drums	18090	214	3	15		1,096.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		290	MRC-290	16	Drums	18011	214	3	15		3,541.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		291	MRC-291	12	Drums	19052	214	3	15		2,400.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		286	MRC-296	7	Drums	19053	214	3	15		1,388.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		287	MRC-297	7	Drums	19054	214	3	9		1,385.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		299	MRC-299	1	Drum	19091	214	3	9		277.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		300	MRC-300	2	Drums	19012	214	3	9		311.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		301	MRC-301	1	Drum	19013	214	3	9		265.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		303	MRC-303	33	Drums	19092	214	3	15		8,047.00	Transfer Special Project FJO-835	Rhodesia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		305	MRC-305	2	Drums	19093	214	3	15		411.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalite Ore		308	MRC-308	3	Drums	18875	214	3	18		612.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		309	MRC-309	8	Drums	19084	214	3	15		1,005.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		309	MRC-309	10	Drums	18095	214	3	15		2,312.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		311	MRC-311	3	Drums	19096	214	3	15		849.00	Transfer Special Project FJO-835	Dixon, NM	9-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		312	MRC-312	1	Drum	19087	214	3	15		241.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		313	MRC-313	1	Drum	19098	214	3	8		235.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		314	MRC-314	2	Drums	18878	214	3	15		408.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		315	MRC-315	11	Drums	18877	214	3	15		3,096.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		317	MRC-317	7	Drums	18878	214	3	15		1,459.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		318	MRC-318	11	Drums	19098	214	3	15		3,080.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		320	MRC-320	2	Drums	18879	214	3	15		408.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		321	MRC-321	15	Drums	18890	214	3	15		4,475.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		322	MRC-322	5	Drums	18981	214	3	15		1,329.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		323	MRC-323	3	Drums	18190	214	3	15		781.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		325	MRC-325	9	Drums	19055	214	3	9		1,740.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		328	MRC-328	3	Drums	18866	214	3	15		723.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		333	MRC-333	1	Drum	18882	214	3	15		160.00	Transfer Special Project FJO-835	Australia	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		343	MRC-343	43	Drums	18056	214	3	15		8,953.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		348	MRC-348	2	Drums	19057	214	3	15		314.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		350	MRC-350	4	Drums	18068	214	3	15		838.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		352	MRC-352	8	Drums	19058	214	3	15		1,824.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		353	MRC-353	6	Drums	19060	214	3	15		1,235.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		354	MRC-354	9	Drums	19061	214	3	9		1,685.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		355	MRC-355	67	Drums	19082	214	3	16		13,388.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		356	MRC-356	2	Drums	18101	214	3	15		347.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		359	MRC-359	12	Drums	18887	214	3	15		2,393.00	Transfer Special Project FJO-835	Belgian Congo	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		077	MRC-77	8	Drums	18888	214	3	15		1,174.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		081	MRC-81	2	Drums	18888	214	3	15		462.00	Transfer Special Project FJO-835	Nigeria	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		086	MRC-86	22	Drums	19086	214	3	15		4,352.00	Transfer Special Project FJO-835	Uganda	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		087	MRC-87	28	Drums	18907-A	214	3	15		7,700.00	Transfer Special Project FJO-835	Brazil	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		091	MRC-91	95	Drums	18014	214	3	15		28,340.00	Transfer Special Project FJO-835	Rhodesia	15 & 20-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		092	MRC-92	8	Drums	18098	214	3	15		1,604.00	Transfer Special Project FJO-835	Liquido Brazil	8-gallon drums	
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		094	MRC-94	22	Drums	19087	214	3	15		4,334.00	Transfer Special Project FJO-835	unknown	8-gallon drums	
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		179	ONSP-4E179	7	Drums	19361	214	3	77	4		2,847.00	Relocation Project DMC-00001	Brazil	8-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		180	ONSP-4E180	4	Drums	19385	214	3	19	1, ST 2		1,982.00	Relocation Project DMC-00001	unknown	15-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		181	ONSP-4E181	6	Drums	19396	214	3	77	4		2,110.00	Relocation Project DMC-00001	unknown	15-gallon drums
156	Tantalite Ore	Natural Min.		IOE	Rib E	47	Drums	10288	214	3	44	1, ST 1-6		10,798.00	GS-OOP-10032(SCM)-1F	unknown	15-gallon drums
156	Tantalite Ore	Natural Min.		01F	RPS	1	Drum	5916	214	3	37	4		1,486.60	GS-OOP-1087-1F (SCM)	Brazil	8-gallon drums
156	Columbium Tantalum Source Material	Tantalum Natural Minerals		A-8	VA-9	1	Drum	19103-A	214	3	9		167.75	Transfer Special Project FJO-835	Australia	8-gallon wooden kegs	
						TOTAL											
						3,248	Units							814,457.25	Lbs		
						3,248	Units							815,321.25	Lbs		
155	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		-20	M 1-20 New York	20	Kegs	7017	214	3	37	1, 2, 3		2,006.00	GS-OOP-3418-1F(SCM)	German	8-gallon wooden kegs
155	Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		-50	P-902	50	Kegs	7402	214	3	37	1, 2, 3		5,012.00	GS-OOP-3592(SCM)-1	German	8-gallon wooden kegs
156	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		902	P-902	50	Kegs	7481	214	3	37	1, 2, 3		5,014.00	GS-OOP-3692(SCM)2F	German	8-gallon wooden kegs
156	Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		992	S-992	50	Kegs	7864	214	3	37	1, 2, 3		5,007.00	GS-OOP-3883-2 (SCM)	German	8-gallon wooden kegs
156	Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		992	S-992	30	Kegs	7838	214	3	37	1, 2, 3		5,004.00	GS-OOP-3883(SCM) 3F	German	8-gallon wooden kegs
155	Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		048	S-1048-New York	60	Kegs	8017	214	3							

TANTALUM

CMAT	COMMODITY	TYPE	GRADE	MIF Lot #	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	Origin	Packaging
155	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		200 & 250	S-1138	100	Kegs	8092	214	3	37	1,2,3	10,005.00	GS-OOP-7248(SCM)-4F	German	8-gallon wooden kegs
155	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		401	S-1138/F	60	Kegs	8971	214	3	37	1,2,3	6,020.00	GS-OOP-7248(SCM)-7F	German	8-gallon wooden kegs
155	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		361	S-1138/G	50	Kegs	8808	214	3	37	1,2,3	5,831.50	GS-OOP-7248(SCM)-6	German	8-gallon wooden kegs
155	Tantalum Oxide	Chemically Precipitated Tantalum Oxide		350	S-1138	100	Kegs	10573	214	3	37	1,2,3	10,017.00	GS-OOP-7248(SCM)-5	German	8-gallon wooden kegs
		TOTAL				890	Kegs						82,330.68			Lbs
155	Tantalum Pentoxide	Natural Concentrates		001	1	84	Drums	19411	214	3	27		42,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		002	2	84	Drums	19412	214	3	27		42,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		003	3	84	Drums	19418	214	3	27		42,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		004	4	36	Drums	19419	214	3	27		18,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		004	4	48	Drums	19419	214	3	28		24,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		005	5	84	Drums	19420	214	3	28		42,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		006	6	84	Drums	19428	214	3	28		42,000.00	DLA300-80-C-0031	unknown	35-gallon drums
155	Tantalum Pentoxide	Natural Concentrates		007	7	59	Drums	19428	214	3	28		28,500.00	DLA300-80-C-0031	unknown	35-gallon drums
		TOTAL				563	Drums						281,500.00			Lbs
155	Columbium-Tantalum Concentrates	Chemically Processed		190	MGK-190	24	Drums	17200	214	3	13		13,267.50	GS-OOP-10716(SCM)	unknown	55-gallon drums
155	Columbium-Tantalum Concentrates	Chemically Processed		190	MGK-190	1	Cont Sweep	17200	214	3	13		84.00	GS-OOP-10716(SCM)	unknown	55-gallon drums
		TOTAL				25	Drums						13,351.50			Lbs
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	357	MRC-357	15	Drums	18946	214	3	16		3,082.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	833	GEO-833	108	Drums	18947	214	3	17		21,228.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	834	GEO-834	111	Drums	18946	214	3	17		22,037.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	837	GEO-837	111	Drums	18940	214	3	17		22,031.50	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	838	GEO-838	111	Drums	18950	214	3	17		22,127.50	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	839	GEO-839	111	Drums	18961	214	3	17		22,056.50	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	840	GEO-840	111	Drums	18962	214	3	17		22,056.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	843	GEO-843	110	Drums	18963	214	3	17		21,828.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	817	GEO-817	106	Drums	18964	214	3	17		21,785.25	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	818	GEO-818	109	Drums	18955	214	3	16		21,456.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	821	GEO-821	107	Drums	18968	214	3	17		21,111.50	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	838	GEO-838	108	Drums	18967	214	3	17		21,617.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	280	MRC-280	3	Drums	18958	214	3	17		849.50	Transfer Special Project FJO-935	De Staffany Canada	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	292	MRC-292	8	Drums	18956	214	3	16		1,865.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	340	MRC-340	44	Drums	18960	214	3	17		13,222.00	Transfer Special Project FJO-935	Belgian Congo	9 & 15 gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	351	MRC-351	14	Drums	18961	214	3	16		2,728.00	Transfer Special Project FJO-935	unknown	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	11A	816	GEO-816	110	Drums	18962	214	3	17		22,432.90	Transfer Special Project FJO-935	Belgian Congo	8 & 20 gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	282	MRC-282	21	Drums	18963	214	3	16		4,448.00	Transfer Special Project FJO-935	Brazil	8 & 9 gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	289	MRC-289	28	Drums	18964	214	3	9		5,676.00	Transfer Special Project FJO-935	India	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	287	MRC-287	7	Drums	18965	214	3	18		1,808.00	Transfer Special Project FJO-935	India	15-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	283	MRC-283	3	Drums	18966	214	3	17		800.00	Transfer Special Project FJO-935	India	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	293	MRC-293	20	Drums	18967	214	3	18		3,986.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	294	MRC-294	49	Drums	18968	214	3	16		6,022.00	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	324	MRC-324	3	Drums	18969	214	3	16		683.00	Transfer Special Project FJO-935	Sydney, Australia	15-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	339	MRC-339	4	Drums	18970	214	3	17		1,221.00	Transfer Special Project FJO-935	Belgian Congo	9-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	342	MRC-342	4	Drums	18972	214	3	17		1,081.00	Transfer Special Project FJO-935	Belgian Congo	15 & 8-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	356	MRC-356	83	Drums	18973	214	3	16		24,863.00	Transfer Special Project FJO-935	Nigeria	15-gallon drums
155	Columbium Tantalum Source Materials	Columbium Natural Minerals	2A	819	GEO-819	107	Drums	18974	214	3	16		21,269.80	Transfer Special Project FJO-935	Belgian Congo	8-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals	ONG	3 NONG		3	Drums	19357	214	3	34	4, ST 1-3	1,187.80	Relocation Project DMO-00001	unknown	15-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		811	ONSP-30811	275	Drums	19358	214	3	77	2	84,898.00	Relocation Project DMO-00001	unknown	30-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		178	ONSP-4E178	23	Drums	19359	214	3	77	3	9,223.00	Relocation Project DMO-00001	unknown	30-gallon drums
155	Columbium Tantalum Source Material	Tantalum Natural Minerals		182	ONSP-4E182	48	Drums	19360	214	3	77	3	19,321.00	Relocation Project DMO-00001	unknown	30-gallon drums
		TOTAL				2,086	Drums						448,704.25			Lbs
155	AMP INFORMATION UNCOMMITTED QUANTITIES					8,754	Drums	includes sweepings					1,641,207.50	Lbs		
													820.88	ST		
157	Columbium Carbide Powder			ITEM#												
157	Columbium Carbide Powder			20	9	3	Boxes	18298	213	4	Vault		830.00	GS-OOP-22828(SCM)-2	Albany, OR	Wooden Boxes
157	Columbium Carbide Powder			21	10	3	Boxes	18300	213	4	Vault		830.00	GS-OOP-22828(SCM)-2	Albany, OR	Wooden Boxes
157	Columbium Carbide Powder			18	1	4	Boxes	18315	213	4	Vault		720.00	GS-OOP-22831(SCM)-13	Latrobe, PA	Wooden Boxes
157	Columbium Carbide Powder			19	2	4	Boxes	18316	213	4	Vault		720.00	GS-OOP-22831(SCM)-13	Latrobe, PA	Wooden Boxes
				AMP INFORMATION UNCOMMITTED QUANTITIES		14	Boxes						2,708.00	Lbs		
													1.35	ST		
522	Tantalum Carbide Powder			ITEM#												
522	Tantalum Carbide Powder			2	2	3	Boxes	18306	213	4	Vault		900.00	GS-OOP-22831(SCM)-4	Latrobe, PA	Wooden Boxes
					2	3	Boxes	18396	213	4	Vault		1,350.00	GS-OOP-22928(SCM)-2	Albany, OR	Wooden Boxes
522	AMP INFORMATION UNCOMMITTED QUANTITIES					6	Boxes	AMP QUANTITY UNCOMMITTED					2,250.00	Lbs		
													1.13	ST		
525	Tantalum Oxide	Standard Grade R		ITEM#												
525	Tantalum Oxide	Standard Grade R		1	1	82	Drums	18470A	214	3	38		25,010.00	DLA-300-81-C-0017	unknown	35-gallon drums
				2	2	82	Drums	18472A	214	3	38		25,010.00	DLA-300-81-C-0017	unknown	35-gallon drums

CMAT	COMMODITY	TYPE	GRADE	MIF Lot #	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	Origin	Packaging
525	Tantalum Oxide	Standard Grade R		3	3	82	Drums	19473	214	3	38		25,010.00	DLA-300-81-C-0017	unknown	35-gallon drums
525	Tantalum Oxide	Standard Grade R		4	4	82	Drums	19474	214	3	38		25,010.00	DLA-300-81-C-0017	unknown	35-gallon drums
		TOTAL				328	Drums						100,040.00			
525		AMP INFORMATION											50.02	ST		
		UNCOMMITTED QUANTITIES														

pecullan, michael

From: pecullan, michael
Sent: Wednesday, February 07, 2001 7:37 AM
To: Till, William
Subject: RE: Radiological Survey #8, New Haven

Bill,

Thanks for the info below; just one point, if the signs you are referring to are the one's stating "Caution Radioactive Materials" then you cannot eliminate them. If you need any added info regarding the signs please let me know.

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

From: Till, William
Sent: Wednesday, February 07, 2001 7:26 AM
To: pecullan, michael
Subject: RE: Radiological Survey #8, New Haven

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

From: pecullan, michael
Sent: Tuesday, January 30, 2001 10:36 AM
To: Till, William
Cc: reilly, kevin; porton, peter
Subject: Radiological Survey #8, New Haven

Bill,

I've had occasion to re-read the survey. There are some items which are unclear to me. Would you please advise of the following:

Par. 6.b. What was the date of the last individual review of annual exposure records? [Till, William]
4/28/2000

Par. 6.i. What was the date of the last annual radiation training for stockpile employees? [Till, William]
3/28 thru 9/5/2000

Readings taken @ 1 foot : Is the material in Bay 28 (0.70 mR/hr) in a restricted area?

Please respond NLT 2/8/01. [Till, William] Yes... Warehouse doors are locked and sealed. Film badges are worn by personnel when there activity in the warehouse section. During the upcoming sampling operation, a combined effort between Operations and QA to put Tantalum back in storage can eliminate the need for caution signs to be in the aisle ways. I am open to any comments or instructions. bill till

Mike P.

CODE

NOTIFICATION OF STOCKPILE INSPECTION

1. NAME AND LOCATION OF DEPOT OR FACILITY DLA/DNSC New Haven Depot, IN 46774-9644		2. NAME AND TYPE OF COMMODITY Annual Radiological Report		3. SERIAL NO. 7
				4. REGION

DATE D A T E	A. LAST 06-May-98	6. TYPE OF STORAGE AND SPECIFIC DEPOT AREA Zirconium Ore Piles 111 and 111A Warehouse 214, Section 3
	B. THIS 27-May-99	

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

INSPECTION DATA (Check and complete. Explain negative responses.)		N/A	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 and/or computed count.			
12. SECURITY AND FIRE PROTECTION	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 remarks)	(1) CLASS I %	(2) CLASS II %	(3) CLASS III %

14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS										N/A	
PRO-GRAM	TYPE (Pile, case, ingot, bale, etc.)	WIDTH c.	LENGTH d.	HEIGHT e.	DIAM-ETER	g. WEIGHT OF		TOTAL NUMBER OF UNITS	i. TOTAL LBS WEIGHT		
						UNIT	(1)		WEIGHT		

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 ATTACHMENTS

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 ATTACHMENTS

17. DISTRIBUTION	<input checked="" type="checkbox"/> DNSC-MQ <input checked="" type="checkbox"/> DNSC-MONH <input type="checkbox"/> DNSC-MH	<input checked="" type="checkbox"/> DNSC-MQBR <input type="checkbox"/> DNSC-MO <input type="checkbox"/> CONTRACTOR	<input checked="" type="checkbox"/> DNSC-MQNH <input type="checkbox"/> DNSC-MH <input type="checkbox"/> OTHER
------------------	--	--	---

18. NAME OF INSPECTOR William J. Till, QAS	18A. SIGNATURE <i>William J. Till</i>	18. DATE OF SIGNATURE 27-May-99
---	--	------------------------------------

**Continuation DLAH Form 30
DLA/DNSC Depot, New Haven, Indiana
Radiological Survey**

**Report No. 7
Date: 27 May 1999**

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. 20, expires 31 Oct 99.

2. General:

Ms. Lois Huddleston, 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 40 F6		5-0002	11/13/98 11/13/99 w/jf
Emberline Geiger	E-520	3135	4/13/99
Reader Victoreen	357/6V-138 Dosimeter	39403/50793	N/A

All instruments were checked and are in good working condition.

b.) Individual Monitoring Devices:

<u>Monitoring Device</u>	<u>No. of Unites</u>
V-138 Dosimeter	15
Thermoluminescent Dosimeter (Film Badges)	18

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, as well as, transcribes this information into a permanent database for each individual with a badge submitted. Copies of the printouts are keep in the rolling file cabinet.

c.) Source Check: Cs 137

This is not a calibrated source check. Source chip has a serial no. of 951. All other source checks have been returned to DRMO.

4. Disposition of Licensable Commodities:

Ores and concentrates containing uranium and thorium are either stored in Warehouse 214, in various locations in section 3 or outside bulk storage in location piles 111 and 111A. Material is stacked and piled in accordance with DNS regulations and containers meet Class No. 1 specifications of DNSC 8200.9, Part 9, 3-903a.

Attached are three maps that graphically depict both the dispositions of the ore piles 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.

The attached pages document the location of the containerized material. Spreadsheets are sorted by warehouse/section/bay. References are made on the accompanying two maps which specifically depict the location of the material. The following list the disposition of the two ore piles included on the applicable licensed material in this report.

File Number	Width (ft)	Length (ft)	Height (ft)	Net lbs.
111	60	285	25	31,981,398
111A	45	100	20	2,783,706 contaminated
Total :				34,765,104

The attached map graphically depicts the configuration of these piles.

5. Posting:

A barbed wire fence surrounds the two ore piles. The gate is padlocked as well. Appropriate signs are on all sides of the fence. 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. NRC form 3 "Notice to Employees" with information denoting the location of the NRC License is posted. Also posted is the Energy Reorganization Act of 1974, Section 206. One copy of each form is posted in the main office area of the administration building.

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 normally located in the Storage Specialist Office. 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.
- b.) Individual exposure records are current and maintained in the rolling file cabinet. The quarterly exposure records are signed by the RPO. Each individual signed the annual exposure records that the information on the results was discussed and correct. Each individual on the program was given copies.
- 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. These forms are posted in the administration building.
- 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 MSDS's and the commodity location is available in a locks box at the Security Guard Office.
- f.) On file in the " Radiological Data Handbook" are calibration certificates and prior radiological surveys. Also available at this depot are DLAR 1000.28, DLAR 4145.23, 10 CFR 20 & 40, 29 CFR Part 1910 and 49 CFR Parts 171 through 189.

- g.) Records are on file at this depot that documents that the annual physicals have been completed. 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.)
5. This survey was conducted in accordance with the Defense National Stockpile Center Occupational Radiation Protection Program guidelines. The instrumentation used was a FAG 40 F6 Dosimeter, referenced in 4.a. above. See attached "Monitoring Radiation Report" for specific survey results and attached Maps for a graphic depiction of the analytic data.
6. 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 (excluding the restricted area around the two ore piles 111 & 111A) to be 0.02 mR/hr. Exposure levels on the restricted area fence were recorded to be > 0.02 mR/hr. Measurements made in direct contact with the ore piles yielded readings from 0.03 to 3.00 mR/hr. Exposure levels in the controlled areas of warehouse 214, section 3 yielded readings from 0.05 to 0.65 mR/hr.
7. Attachments:
- 1. Radiological Readings at Zirconium Ore Pile
 - 2. Monitoring Radiation Report (for outside storage)
 - 3. Monitoring Radiation Report (for inside storage)
 - 4. Readings Taken In Contact With Material
 - 5. Readings Taken One Foot Away From Material
 - 6. Readings Taken At Warehouse Exit Doors
 - 7. Accountability Of Tantalum In Storage (pages 1-4)

MONITORING RADIATION REPORT

Monitors: Bill Till

(See para. 4 of attached report)

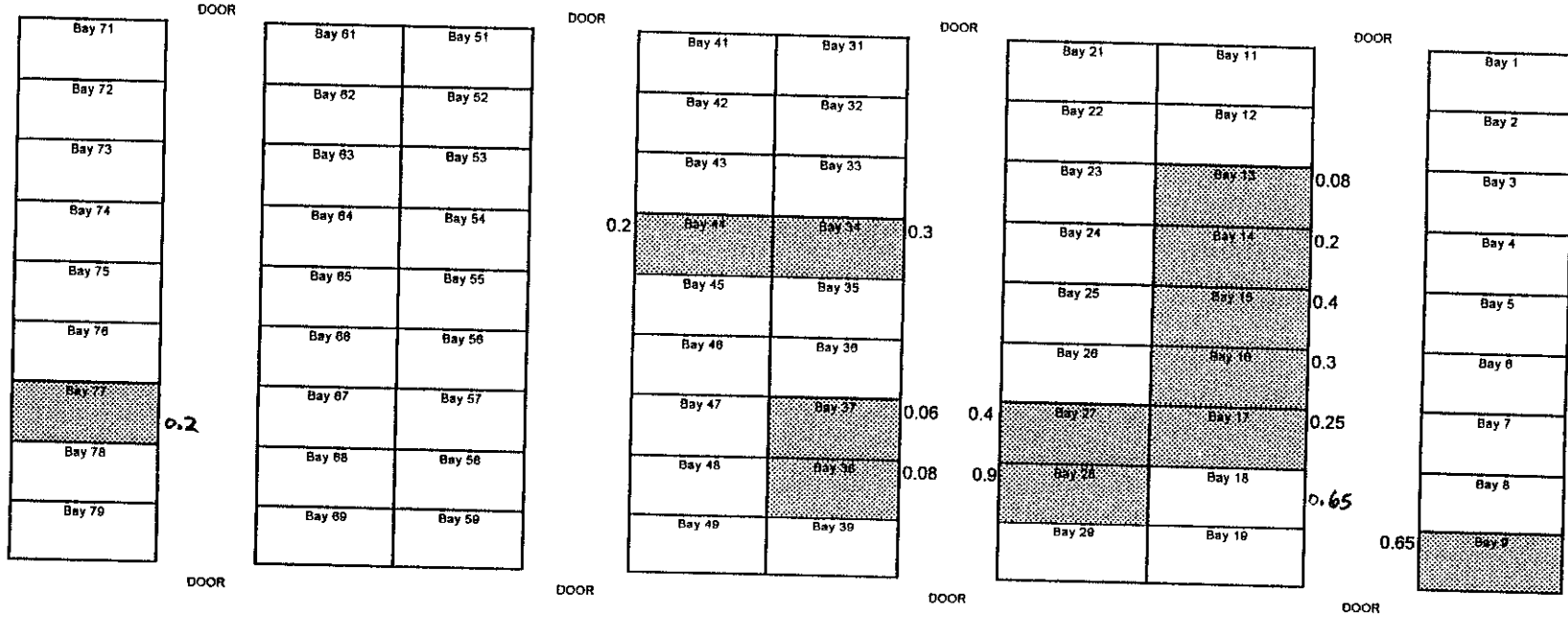
Date: 27-May-99

Report No.: 7

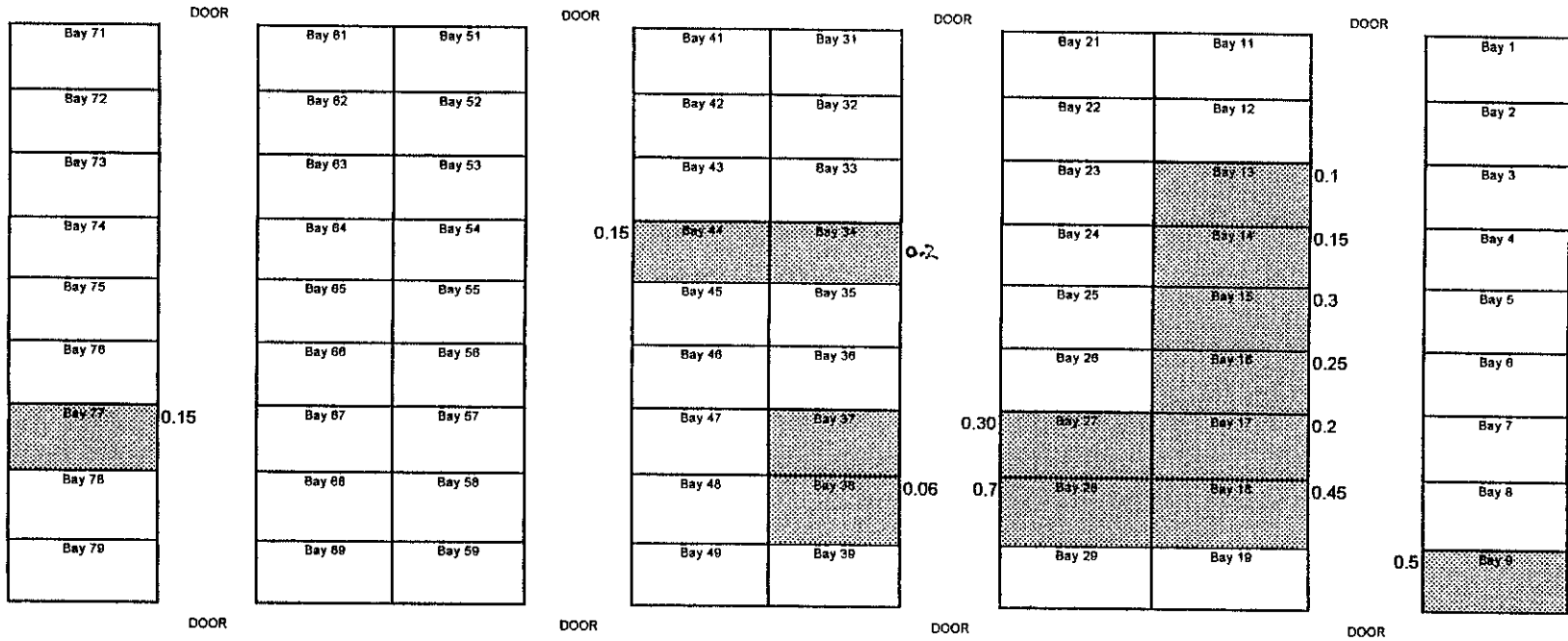
< ...mR/hr >

Time	Whse 214	Object or Person Monitored	Instrument Use	Shield	Distance	Range	Reading	Dose Rate
N/A	Section 3 Bay 77	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.2 0.15	0.2 0.15
N/A	Section 3 Bay 44	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.2 0.15	0.2 0.15
N/A	Section 3 Bay 34	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.3 0.2	0.3 0.2
N/A	Section 3 Bay 37	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.06 0.05	0.06 0.05
N/A	Section 3 Bay 38	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.08 0.06	0.08 0.06
N/A	Section 3 Bay 27	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.4 0.3	0.4 0.3
N/A	Section 3 Bay 28	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.9 0.7	0.9 0.7
N/A	Section 3 Bay 13	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.08 0.1	0.08 0.1
N/A	Section 3 Bay 14	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.2 0.15	0.2 0.15
N/A	Section 3 Bay 15	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.4 0.3	0.4 0.3
N/A	Section 3 Bay 16	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.3 0.25	0.3 0.25
N/A	Section 3 Bay 17	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.25 0.2	0.25 0.2
N/A	Section 3 Bay 18	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.65 0.45	0.65 0.45
N/A	Section 3 Bay 9	Inside Storage Columbium Tantalum	Radiation Meter FAG	N/A	Contact 1 foot		0.65 0.5	0.65 0.5
N/A	Section 3	Doors-N 9,N10,S 9 Doors-N11,N12,S10,S11,S	Radiation Meter FAG	N/A	Contact Contact		0.04 0.02	0.04 0.02

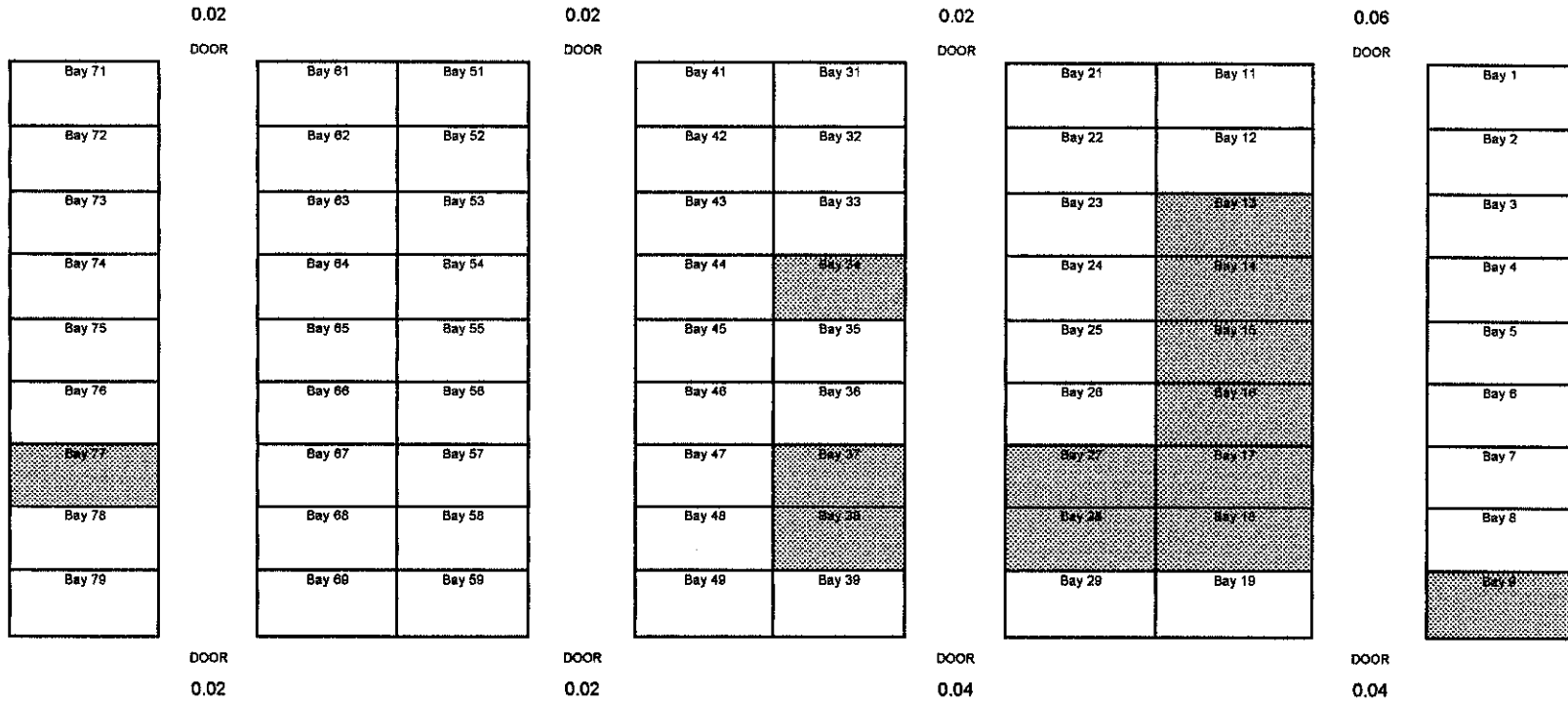
READINGS TAKEN IN CONTACT WITH MATERIAL
 (All readings in mR/hr)
 WAREHOUSE 214, SECTION 3



READINGS TAKEN ONE FOOT AWAY FROM MATERIAL
 (All readings in mR/hr)
 WAREHOUSE 214, SECTION 3



READINGS TAKEN AT WAREHOUSE EXIT DOORS
 (Readings in mR/hr)
 WAREHOUSE 214, SECTION 3



COMMODITY	TYPE	ORIGIN	GRADE	MIF Lot #	DRUM LOT	LOT #	QUANTITY	UNIT	RR #	WHSE	SEC	BAY	ROW	NET WT.	CONTRACT #	
															Lbs	
	TOTAL						25	Drums						13,352	Lbs	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	357		MRC-357	15	Drums	18946	214	3	16		3,082	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	833		GEO-833	106	Drums	18947	214	3	17		21,228	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	834		GEO-834	111	Drums	18948	214	3	17		22,037	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	837		GEO-837	111	Drums	18949	214	3	17		22,031.5	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	836		GEO-838	111	Drums	18950	214	3	17		22,127.5	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	839		GEO-839	111	Drums	18951	214	3	17		22,056.5	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	840		GEO-840	111	Drums	18952	214	3	17		22,056	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	843		GEO-843	110	Drums	18953	214	3	17		21,826	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	817		GEO-817	109	Drums	18954	214	3	17		21,785.28	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	816		GEO-819	108	Drums	18955	214	3	16		21,466	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	821		GEO-821	107	Drums	18956	214	3	17		21,115	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	836		GEO-836	106	Drums	18957	214	3	17		21,617	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Canada	11A	280		MRC-280	3	Drums	18958	214	3	17		860	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	292		MRC-292	6	Drums	18959	214	3	16		1,666	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	340		MRC-340	44	Drums	18960	214	3	17		13,222	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	351		MRC-351	14	Drums	18961	214	3	16		2,726	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	11A	816		GEO-816	110	Drums	18962	214	3	17		22,432.5	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Brazil	2A	262		MRC-262	21	Drums	18963	214	3	16		4,446	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Brazil	2A	281		MRC-281	28	Drums	18964	214	3	9		5,676	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	India	2A	286		MRC-286	7	Drums	18965	214	3	16		1,909	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	India	2A	287		MRC-287	3	Drums	18966	214	3	16		600	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	293		MRC-293	20	Drums	18967	214	3	16		3,986	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	294		MRC-294	40	Drums	18968	214	3	16		8,022	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Australia	2A	324		MRC-324	3	Drums	18969	214	3	16		683	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	336		MRC-336	4	Drums	18970	214	3	17		1,221	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	339		MRC-339	24	Drums	18971	214	3	16		7,220	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Nigeria	2A	342		MRC-342	4	Drums	18972	214	3	17		1,061	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	358		MRC-358	83	Drums	18973	214	3	16		24,863	Transfer Special Project FJO-935	
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	2A	819		GEO-819	107	Drums	18974	214	3	16		21,298.5	Transfer Special Project FJO-935	
Columbium Tantalum Source Material	Tantalum Natural Minerals			ONG		3 NONG	3	Drums	19357	214	3	34	4, ST 1-3	1,189	Relocation Project DMO-00001	Drums
Columbium Tantalum Source Material	Tantalum Natural Minerals			811	GEO-811	ONSP-30811	275	Drums	19358	214	3	77	2	54,866	Relocation Project DMO-00001	Drums
Columbium Tantalum Source Material	Tantalum Natural Minerals			178	E-178	ONSP-4E178	23	Drums	19359	214	3	77	3	8,223	Relocation Project DMO-00001	Drums
Columbium Tantalum Source Material	Tantalum Natural Minerals			182	E-182	ONSP-4E182	46	Drums	19360	214	3	77	3	19,321	Relocation Project DMO-00001	Drums
	TOTAL						2,088	Drums						448,705	Lbs	
	AMP INFORMATION						6,754	Drums		Includes sweepings				1,641,228	Lbs	
	UNCOMMITTED QUANTITIES													821	ST	
				ITEM#												
Tantalum Oxide	Standard Grade R			1		1	82	Drums	19470A	214	3	38		25,010	DLA-300-91-C-0017	
Tantalum Oxide	Standard Grade R			2		2	82	Drums	19472A	214	3	38		25,010	DLA-300-91-C-0017	
Tantalum Oxide	Standard Grade R			3		3	82	Drums	19473	214	3	38		25,010	DLA-300-91-C-0017	
Tantalum Oxide	Standard Grade R			4		4	82	Drums	19474	214	3	38		25,010	DLA-300-91-C-0017	
	TOTAL						328	Drums						100,040	Lbs	
														30	ST	

Author: michael pecullan at ccpo14
Date: 6/9/99 1:24 PM
Priority: Normal
TO: William Till
CC: Charles Delhoste, allen bixler
Subject: Radiological Survey-New Haven

Bill-

I've read rept No. 7 & have a few questions:

What signs (nomenclature) are posted at the ore piles?

Are any radiation signs posted on or in the warehouses, what do they say?

Is the material in bays 9, 18, 38 of warehouse 214, section 3 within a "Restricted Area"?

What was the date of the last radiological training given to depot personnel?

The date (11/13/98) you provided for the FAG 40 indicates that it was overdue for calibration, is this correct?

Author: Lois Huddlestun at ccpo14
Date: 6/1/98 2:05 PM
Priority: Normal
Receipt Requested
TO: kevin reilly at ccpo14
CC: michael pecullan at ccpo14, Frederic Brooks at ccpo14
Subject: Annual Radiological Survey

Kevin -

Attached you will find the radiological survey I performed at the depot. The format is that presented by Mr Pecullan at the DNSC Radiation Orientation in November of 1997. This will be entered into the radiation notebook as an inspection performed by the RPO. All discrepancies that are able to be corrected at the depot level are targeted to be corrected by the end of CY 1998. The discrepancies that are above depot level will be on hold until you or your representatives get back with us.

I do intend to attempt a survey such as this at least annually, with results being discussed with Fred and forwarded to you. I have attempted to be as thorough and as objective as possible. You will see that there are several Findings and several Recommendations.

If you have any comments or suggestions, please feel free to call.

annual-1.doc is the written portion of the survey

orepil-1.xls is the map of the ore piles showing the readings taken

whse_r-1.xls is the map of the warehouse showing the readings taken

readings.xls is the written documentation of all the readings

The best way to view or print these files is to download them to the hard drive and print them off in the actual program that it pertains to, e.g. annual-1.doc is a MS Word file, the remainder of the files are Microsoft Excel files and will not print off properly from cc:mail. The Excel files must be downloaded and printed from Excel. If you have any questions, please feel free to call.

Thanks,

Annual Radiological Survey for NRC License No. STC-133
 DLA-DNSC-MONH New Haven Depot
 15411 Dawkins Road
 New Haven, IN 46774
 DATED: 01 Jun 98

1. Radiological Officers: (Ref: DNSC ORPP Appendix E)

A. Radiological Protection Officer (RPO): Lois Mae Huddlestun, (219)-749-9544

B. Radiological Safety Officer (RSO): William Till, (219)-749-8291

2. Training:

A. (Ref: DNSC ORPP par. 3.3, 4.8; DLAR 4145.23, par. 4-2; DLAR 6055.4 par. XII.B.10; 10 CFR 19.12) Records indicating annual training are maintained in the Radiation Program Notebook. The only documentation to date is for 1994, 1995, and an unknown date (estimated to be in 1988).

NOTE: *The RPO is in the process of creating a training program and will implement the same upon completion at some point during the 1998 calendar year, at which time training will be documented and maintained in the Radiation Program Notebook. The RPO is also in the process of creating an initial training package to be included as part of the incoming package for new employees beginning work at New Haven Depot.*

B. (Ref: DNSC ORPP par 5.5) In March of 1998 employees received their annual respiratory protection training at the same time that they received their annual respirator fit testing by the Respiratory Protection Designee – William Till.

NOTE: One employee has been eliminated from respirator use until such time as a properly fitted respirator can be located and another employee cannot wear a respirator without allowing for a fresh air break every 30 minutes.

3. Instrumentation:

A. (Ref: DNSC ORPP par. 4.4 and 13.3)

<u>Radiological Instruments</u>	<u>Model/Type</u>	<u>Serial No.</u>	<u>Calibration Due</u>
Dosimeter/(Fagmeter)	5-0002/FH 40F6	77-390	Being Calibrated
Eberline Geiger Counter	E-120	10122	23 Apr 99
Eberline Geiger Counter	E-520	3135	23 Apr 99

NOTE: All other equipment listed in previous reports is in the process of being excessed by DRMS.

Source Chips

Gamma Source Chip	Cs137	Serial Number 951
Alpha Source Chip	unknown	Serial Number 377

Monitoring Devices

<u>Monitoring Devices</u>	<u>Model/Type</u>	<u>Number of Units</u>
Thermoluminescent Dosimeters	(TLD Badges)	26
Pocket Dosimeter	FEMA CDV-750	15
Pocket Dosimeter Charger	Model 6	1

NOTE: Four of the pocket dosimeters have been identified as drifters and have been separated from the others.

Annual Radiological Survey for NRC License No. STC-133
DLA-DNSC-MONH New Haven Depot
15411 Dawkins Road
New Haven, IN 46774
DATED: 01 Jun 98

- B. (Ref: DNSC ORPP par. 13.4) TLD badges are processed by US Army Aviation Missile Command, ATTN: AMSAM-TMD-SR-D (USAIRDB), Bldg 5417, Redstone Arsenal, AL 35898-5000. Thermoluminescent Dosimeters are exchanged on a quarterly basis and all individuals assigned to the depot (except the secretary) are on the dosimetry program.
- C. Radiological Instruments and Monitoring Devices are stored in Building T-136 in a room known as "the radiation store room". This room is locked at all times. Keys to open this room by special permission may be obtained from the Depot Manager, the RSO, or the key custodian. The radiological instruments are to be utilized only by the RPO or RSO.
- D. The monitoring devices are to be signed out only by the RPO, RSO, or Depot Manager (in the absence of the RPO and RSO). A form is completed showing the date, employees name, SS#, DOB, badge #, location of potential exposure, reason for exposure, starting and ending time (Initial and final readings for the pocket dosimeters), and the monitor's name. Normally a TLD and a pocket dosimeter are issued at the same time. The pocket dosimeter is utilized as a quick reference only.
- E. Source chips are stored in the vault in a file drawer labeled "dosimetry Program".
4. Dosimetry:
- A. (Ref: DNSC ORPP par. 4.2; DLAR 1000.28 par 6-3a) DD Forms 1141 for each potentially exposed employee was began by the RPO.
NOTE: During an inspection by SSG Collins of the US Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD, a suggestion was made to discontinue creation of the remainder of the DD Forms 1141 until the DNSC ORPP Manager, Kevin Reilly has a chance to read the recommendations. SSG Collins' recommendation is that the DD Form 1141 be discontinued since the ADRs are provided by the US Army, Redstone Arsenal, AL. These forms have previously been approved by the NRC. Since New Haven Depot already receives ADRs from US Army, the DD Form 1141 creates a duplication of paperwork.
- B. (Ref: DNSC ORPP par. 4.6; DLAI 1000.30 par. 4-3) Quarterly reviews are documented on the ADR by the Depot RPO (Last date annotated - 06 May 98).
NOTE: *DD Forms 1141 are on hold until a final decision is rendered by DNSC ORPP Manager, Kevin Reilly*
- C. (Ref: DNSC ORPP par 16.2; DLAR 1000.28 par. 6-6a.; DLAR 4145.23 par. 5-6a.; 10 CFR 19.13) There are no records to date documented to indicate the last time that exposure notifications were discussed with each employee.
NOTE: *The RPO is going to present copies of exposure documentation to each employee during the annual radiation training session before the end of the 1998 calendar year.*

Annual Radiological Survey for NRC License No. STC-133
DLA-DNSC-MONH New Haven Depot
15411 Dawkins Road
New Haven, IN 46774
DATED: 01 Jun 98

5. Posting:
- A. (Ref: DNSC ORPP par. 4.3; 10 CFR 40.7(e)(2); 10 CFR 19.11; 10 CFR 21.6) The following required documents are posted in Building T-136, directly over the employee sign-in logbook.
 - 1. Section 206 of Public Law 93-438 "Energy Reorganization Act of 1974
 - 2. NRC Form 3, "Notice to Employees" (dated 8/1997)
 - 3. The location of the NRC License
 - B. (Ref: DNSC ORPP par 8; 10 CFR 20.1902(a)) CONTROLLED AREA - NFPA 704 signs displaying the radiation symbol are posted on the north and south outside of Warehouse 214, Sections 3 and 4. The warehouses are locked and sealed at all times restricting entry to unauthorized personnel. The bays inside the warehouse containing the radioactive material referenced on the license (Tantalum) are posted with yellow and magenta labels and/or yellow and magenta signs containing a radiation symbol and the language "Caution, Radioactive Materials" or "Caution, Radiation Area". In addition, each of the bays in the warehouse containing the radioactive material on the license has been surrounded with yellow and magenta barricade tape with the radiation symbol and the language "Caution, Radiation Hazard".
 - C. (Ref: DNSC ORPP par 8; 10 CFR 20.1902(a)) RESTRICTED AREA - For the outside storage, the zirconium ore is completely surrounded by four strands of barbed wire fence with a gate and a combination padlock. Posted on the fence are also yellow and magenta signs containing a radiation symbol and the language "Caution, Radiation Area".
6. Rolling Radiation Library: The rolling radiation library is currently stored in the RPO's office during non-duty hours, but is available during duty hours to all employees. The records containing personal privacy act information are maintained in the locked top file portion of the library. Access to these files may be obtained through the RPO or Depot Manager IAW DLAR 1000.28 par.6-8.
- A. Copies of the following are available in the "DNSC ORPP" notebook:
 - 1. DNSC ORPP, dated 25 Jun 97
 - 2. Recommendations of the International Commission on Radiological Protection, ICRP, Publication 26, adopted January 17, 1977.
 - 3. US NRC License STC-133 with Amendments 1-20
 - 4. Radioactive Materials Inventory for New Haven Depot
 - 5. Decommissioning File
 - 6. DLAR 1000.28, dated 30 Jun 95
 - 7. DLAI 1000.30, dated 30 Jun 95
 - 8. DLAR 4145.23, dated 20 Aug 93
 - 9. DLAR 6055.4, dated 21 Jun 93
 - 10. DLAR 5400.21, dated 26 Mar 85
 - 11. DLAM 4145.8, dated 19 Apr 85

Annual Radiological Survey for NRC License No. STC-133
DLA-DNSC-MONH New Haven Depot
15411 Dawkins Road
New Haven, IN 46774
DATED: 01 Jun 98

B. Copies of the following are available in the "New Haven Depot Radiation Surveys" notebook

1. NRC Transaction Reports
2. Fagmeter Calibration Certifications
3. Geiger Counter (E-520) Calibration Certifications
4. Geiger Counter (E-120) Calibration Certifications
5. Annual Leakage Evaluations for Pocket Dosimeters
6. Annual Radiological Surveys

C. Copies of the following are available in the "Radiation Program" notebook

1. Local Emergency/Security Notifications
2. Training Documents
3. General Correspondence
4. NVLAP Certificates of Accreditation (Ref: 10 CFR 20.1502 par. (c)(1))
5. TLD Services Correspondence

D. Copies of the following are available in the library (Revised versions to be purchased after July of 1998):

1. 10 CFR Parts 0-199, revised as of January 1, 1997
2. 40 CFR Parts 190-259, revised as of July 1, 1996
3. 49 CFR Parts 100-185, revised as of October 1, 1997
4. 49 CFR Parts 186-199, revised as of October 1, 1996
5. 29 CFR Part 1926, revised as of July 1, 1996
6. 29 CFR Parts 500-899, revised as of July 1, 1996
7. 29 CFR Parts 1900-1910.999, revised as of July 1, 1996
8. 29 CFR Parts 1910 (1910.1000 to END), revised as of July 1, 1996
9. Respiratory Protection Program, revised as of 27 May 97

7. Personal Protection:

A. The decontamination facility is located in building T-214, section 1, west end. This facility is divided into three sections. The facility contains showers, toilets, wash basin, washer and dryer, and lockers. All air in this area is filtered with a self contained filtering system. The filtering system was originally set up for asbestos particulate.

B. Personal Protective Equipment, in addition to the basic PPE issued, includes but is not limited to:

1. Tyvek coveralls
2. CPF II coveralls
3. Rubber gloves
4. Disposable respirators
5. Half-face respirators issued to each individual

Annual Radiological Survey for NRC License No. STC-133
DLA-DNSC-MONH New Haven Depot
15411 Dawkins Road
New Haven, IN 46774
DATED: 01 Jun 98

8. (Ref: DNSC ORPP par.11) Annual radiological survey is attached.
9. (Ref: DNSC ORPP par 9.1.2; 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."
 - A. See paragraphs 5B and 5C of this report for detailed descriptions of where restricted areas have been established.
 - B. The depot is secured by a seven foot high chainlink fence with three strands of barbed wire canted inward. The perimeter fence is six miles enclosing 268 acres of depot property. In addition, there is 24-hour manned guard service contracted by GSA. All warehouse doors are locked and sealed restricting entry to unauthorized individuals. Security guards are prohibited from entering restricted/controlled areas by Memo to District Commander, Federal Protective Services, dated 3 Mar 98.
10. Storage:
 - A. The zirconium ore pile is in bulk form. The tantalum is containerized according to specifications at the time of acquisition. All containers appear to be in good condition.
 - B. Storage and handling procedures are IAW DNSCM 4145.1, Defense National Stockpile Center Operations Manual.
 - C. Inventory is maintained on the ACIS (Automated Commodity Inventory System) as well as on DLAH Form 45, Material Locator Cards as required by DNSCM 4145.1.
 - D. There is no radioactive waste generated at the facility.
 - E. The warehouse in which the tantalum is stored is 180' X 960' and is divided into four separate 180' X 240' sections with 79 bays for each section. Each section has four overhead doors on the north side and four overhead doors on the south side. Section four also contains an overhead door on the east side as well as a personnel door.
 - F. See attached listing of all licensed materials showing their locations and quantities.
11. Emergency Procedures:
 - A. (Ref: DNSC ORPP par.14.1) Emergency procedures are located in the Defense Logistic Agency, Defense National Stockpile Center Occupant Emergency Plan (OEP), New Haven Depot, New Haven, IN, dated May 98 in section II paragraph D. Hazardous Material; Leak/Spill/Personal Contamination. This OEP is forwarded annually to DNSC ORPP Manager, Kevin Reilly for approval. The OEP is disseminated annually to all employees on depot during a safety meeting to allow for any questions to be answered.
 - B. (Ref: DNSC ORPP par.14.2) Arrangements are made with the local emergency response organization (New Haven Adams Township Fire Department) annually. The fire department makes an annual survey of the depot and discusses any possible hazards, which may be present. A knox box is located at the guardshack for use by the fire department should they be summoned to the depot for an emergency (Keys are maintained in the depot lock box and one

Annual Radiological Survey for NRC License No. STC-133
DLA-DNSC-MONH New Haven Depot
15411 Dawkins Road
New Haven, IN 46774
DATED: 01 Jun 98

key is encased in an emergency glass box that can be broken in case of an emergency). The knox box is updated semi-annually. The knox box contains folders for each warehouse and one for outside storage of commodities. On the outside of each folder are the NFPA 704 signs that are on each warehouse. There is also a listing showing all of the commodities stored in each section, then there are copies of the MSDS for each commodity in each section. Suggestion by SSG Collins is to document this arrangement by sending a letter to the fire department annually informing them of the knox box, etc. This suggestion will be completed by the end of CY 1998.

12. Medical Exams: (Ref: DNSC ORPP par. 15) Annual physicals for all personnel were conducted in 1998. For further information regarding annual physicals or results should be directed to Russell Bywaters, DLA-DNSC-MH, 703-767-6519. Mr Bywaters has sent to the Depot Manager via cc:mail, dated 1/5/98, a listing of personnel on depot and their restrictions or lack thereof based on the annual physicals.

FINDINGS ARE AS FOLLOWS:

1. (Ref: DNSC ORPP par. 3.1) Position Description of RPO has not been annotated to reflect the additional duty.
2. (Ref: DNSC ORPP par. 4.2) DD Forms 1141 are on hold as instructed by the DNSC ORPP Manager, Kevin Reilly.
3. (Ref: DNSC ORPP par. 4.5) US NRC license located at the depot is incomplete. It does not contain the attachments necessary to complete each amendment.
4. (Ref: DNSC ORPP Par. 4.5) The diagrams provided in past annual radiological surveys appear to be reprints from previous audits.
5. (Ref: DNSC ORPP Par. 4.6) DD Forms 1141 have not been reviewed as they are on hold per DNSC ORPP Manager, Kevin Reilly.
6. (Ref: DNSC ORPP Par. 4.8 and Par. 16.2; DLAR 6055.4 par. XII.B.10; DLAM 4145.8 par 4-3) Past radiation training (initial and annual) has not been documented so is unavailable for the program's records.
7. (Ref: DNSC ORPP Par. 14.2) Documentation showing the prior arrangements with the local fire department should be maintained in the Radiation Notebook.
8. (Ref: DNSC ORPP Par. 16.2; DLAR 1000.28 par. 6-6.a.; DLAR 4145.23 section 1, par. 5-6A; 10 CFR 19.13) Documentation showing annual radiation exposure notifications has not been documented in the past so is unavailable for the program's records.
9. (Ref: DNSC ORPP Par 16.2; DLAR 6055.4 par. IX.D.2.) Documentation showing quarterly exposure reviews has not been documented in the past so is unavailable for the program's records.
10. (Ref: DLAR 1000.28 Appendix B, par. B.(1)) Blocks 11-20 are not completed on the DD Forms 1952 as instructed during DNSC Radiation Orientation Program.
11. (Ref: DLAR 1000.28 par. 6-1; DLAI 1000.30, par. 4-1; DLAR 4145.3 par. V.2.m.) A document is not available at the depot designating in writing the individual(s) responsible to serve as a dose record custodian.
12. (Ref: DLAR 6055.4 par. IX.A.5.) A document is not available at the depot designating the storage location for the personnel dosimetric devices.

RECOMMENDATIONS: (Awaiting decision from the DSNC ORPP Manager, Kevin Reilly)

1. *It is good practice to send for calibration the source chip with the radiological instrument for constancy values.*
2. *It is good practice to stagger the calibration of radiological instruments throughout the year so that a calibrated instrument can be maintained on site at all times.*
3. *When the radiological instruments are sent in for calibration it is good practice to specify on the paperwork the calibration range (i.e. + or - 20%)*
4. *There is no longer an alpha meter in use at the depot, it would be a good idea to properly dispose of or transfer the alpha emitting check source.*
5. *(DLAR 6055.4, par. IX.3.) Pocket Dosimeters should only be used as a reference and not as an official reading for records.*
6. *Dispose of the four pocket dosimeters labeled as drifters.*
7. *A leakage evaluation report for the pocket dosimeters should be performed and documented on a periodic basis.*

ANNUAL RADIOLOGICAL SURVEY FOR US NRC LICENSE NO. ST-133

NEW HAVEN DEPOT

NEW HAVEN, IN

Printed: 6/9/98

Operation check with Cs137
source chip gave reading of
3.5 mR/hr - correct

LOCATION	SOURCE	INSTRUMENT USED	SHIELD POSITION	DISTANCE FROM SOURCE	SCALE FACTOR (RANGE)	METER READING	DOSE RATE
214-3 Door N-09	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	2.80	0.03
214-3 Door N-10	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	2.50	0.03
214-3 Door N-11	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.30	0.01
214-3 Door N-12	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.30	0.01
214-3 Door S-09	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.80	0.02
214-3 Door S-10	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.40	0.01
214-3 Door S-11	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.40	0.01
214-3 Door S-12	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	2.20	0.02
214-3-13	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.01	5.20	0.05
214-3-13	Tantalum	Eberline E-520	CLOSED	CONTACT	0.01	6.00	0.06
214-3-14	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	3.20	0.32
214-3-14	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	3.80	0.38
214-3-15	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	2.70	0.27
214-3-15	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	4.30	0.43
214-3-16	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	3.10	0.31
214-3-16	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	4.20	0.42
214-3-17	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	1.90	0.19
214-3-17	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	2.30	0.23
214-3-27	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	2.50	0.25
214-3-27	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	4.00	0.40
214-3-28	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	6.50	0.65
214-3-28	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	9.00	0.90
214-3-9	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	3.10	0.31
214-3-9	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	5.10	0.51

ANNUAL RADIOLOGICAL SURVEY FOR US NRC LICENSE NO. ST-133
 NEW HAVEN DEPOT
 NEW HAVEN, IN

Operation check with Cs137
 source chip gave reading of
 3.5 mR/hr - correct

Printed: 6/9/98

LOCATION	SOURCE	INSTRUMENT USED	SHIELD POSITION	DISTANCE FROM SOURCE	SCALE FACTOR (RANGE)	METER READING	DOSE RATE
214-4 Door E-01	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.30	0.01
214-4 Door N-13	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.40	0.01
214-4 Door N-14	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.20	0.01
214-4 Door N-15	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.50	0.02
214-4 Door N-16	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	1.30	0.01
214-4 Door S-13	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	3.50	0.04
214-4 Door S-14	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	2.20	0.02
214-4 Door S-15	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	4.50	0.05
214-4 Door S-16	Tantalum	Eberline E-520	CLOSED	1 Foot inside door	0.01	4.60	0.05
214-4-11	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	2.20	0.22
214-4-11	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	3.70	0.37
214-4-21	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	1.00	0.10
214-4-21	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	1.50	0.15
214-4-31	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	1.10	0.11
214-4-31	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	2.70	0.27
214-4-41	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	3.10	0.31
214-4-41	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	4.10	0.41
214-4-42	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.01	5.70	0.06
214-4-42	Tantalum	Eberline E-520	CLOSED	CONTACT	0.01	10.00	0.10
214-4-45	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.01	5.20	0.05
214-4-45	Tantalum	Eberline E-520	CLOSED	CONTACT	0.01	7.00	0.07
214-4-51	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	2.30	0.23
214-4-51	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	2.60	0.26
214-4-61	Tantalum	Eberline E-520	CLOSED	1 FOOT	0.10	1.50	0.15
214-4-61	Tantalum	Eberline E-520	CLOSED	CONTACT	0.10	2.20	0.22

ANNUAL RADIOLOGICAL SURVEY FOR US NRC LICENSE NO. ST-133
 NEW HAVEN DEPOT
 NEW HAVEN, IN

Operation check with Cs137
 source chip gave reading of
 3.5 mR/hr - correct

Printed: 6/9/98

LOCATION	SOURCE	INSTRUMENT USED	SHIELD POSITION	DISTANCE FROM SOURCE	SCALE FACTOR (RANGE)	METER READING	DOSE RATE
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.10	1.00	0.10
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.10	1.00	0.10
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.10	2.10	0.21
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.10	1.00	0.10
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.01	3.50	0.04
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.01	5.00	0.05
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.01	2.80	0.03
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.01	2.00	0.02
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.10	2.20	0.22
Area 7	FENCELINE	Eberline E-520	CLOSED	CONTACT	0.01	11.00	0.11

ANNUAL RADIOLOGICAL SURVEY FOR US NRC LICENSE NO. ST-133

NEW HAVEN DEPOT

NEW HAVEN, IN

Operation check with Cs137
source chip gave reading of
3.5 mR/hr - correct

Printed: 6/9/98

LOCATION	SOURCE	INSTRUMENT USED	SHIELD POSITION	DISTANCE FROM SOURCE	SCALE FACTOR (RANGE)	METER READING	DOSE RATE
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.80	1.80
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.50	1.50
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	2.00	2.00
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.90	1.90
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.90	1.90
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.90	1.90
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.80	1.80
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	2.00	2.00
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	2.00	2.00
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	1.00	1.80	1.80
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.20	2.20
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.10	2.10
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.70	2.70
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.80	2.80
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.10	2.10
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	1.90	1.90
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.10	2.10
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.50	2.50
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.20	2.20
Area 7	Pile111, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	1.00	2.00	2.00

ANNUAL RADIOLOGICAL SURVEY FOR US NRC LICENSE NO. ST-133

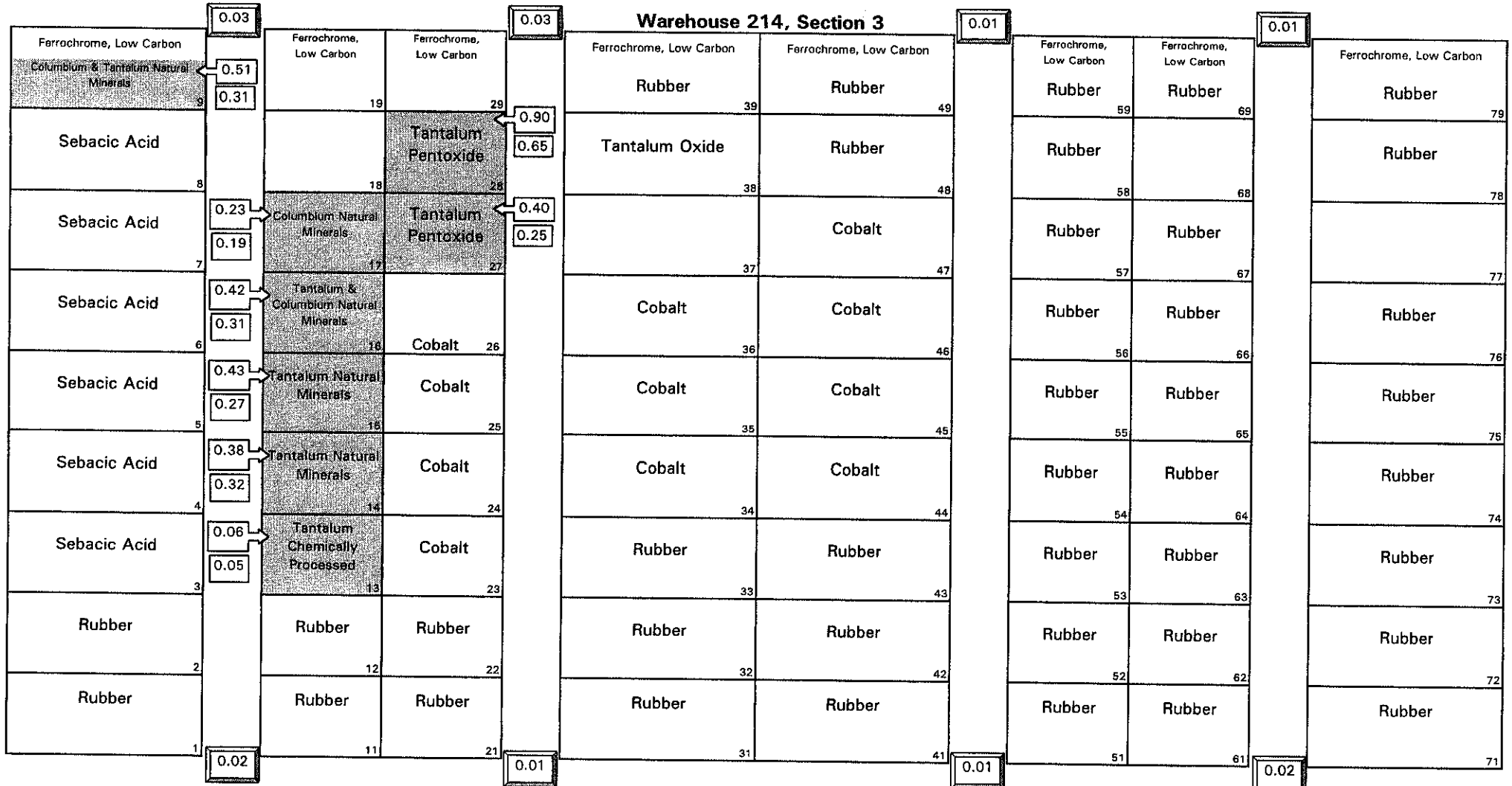
NEW HAVEN DEPOT

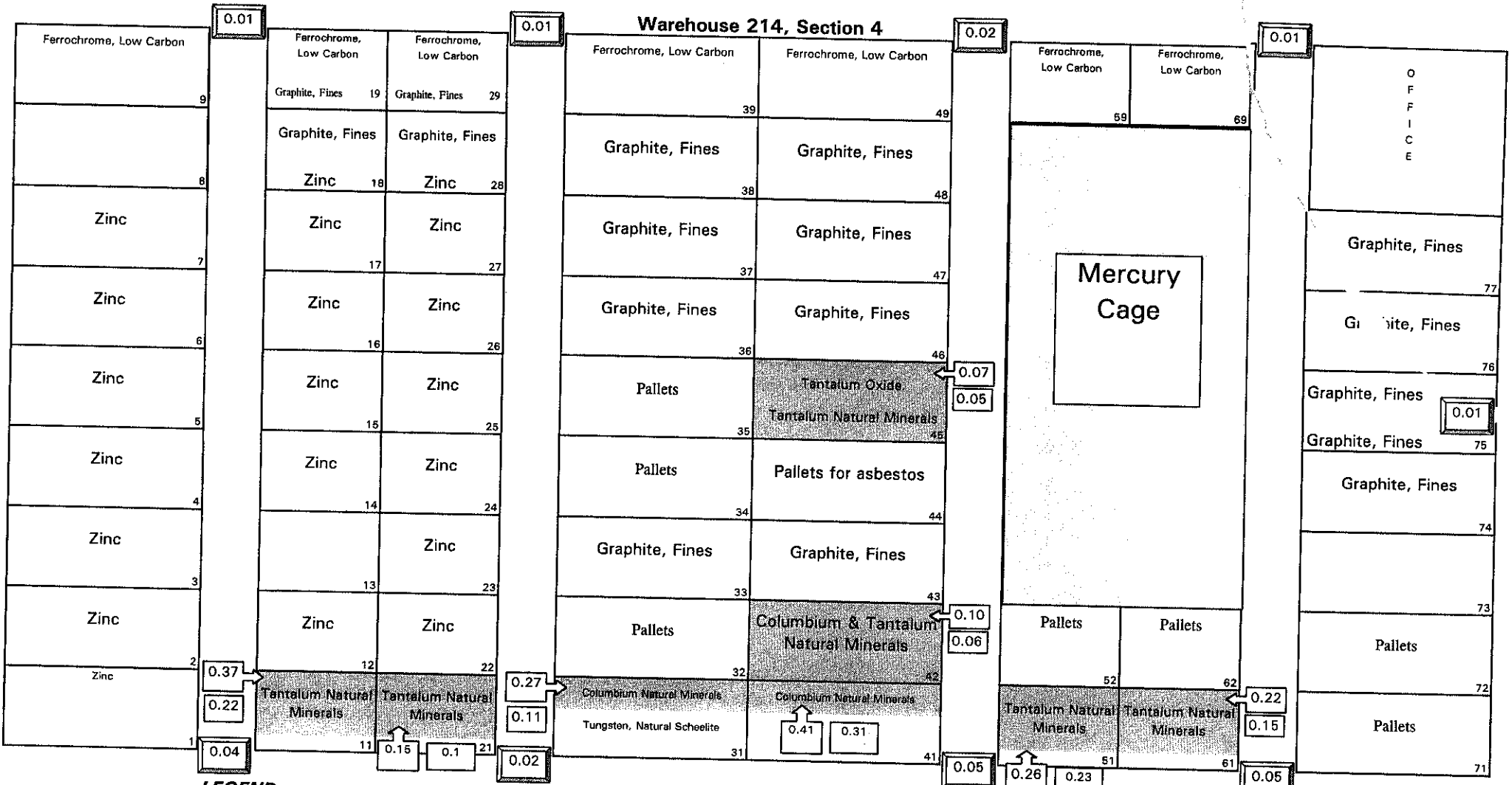
NEW HAVEN, IN

Operation check with Cs137
source chip gave reading of
3.5 mR/hr - correct






Printed: 6/9/98

LOCATION	SOURCE	INSTRUMENT USED	SHIELD POSITION	DISTANCE FROM SOURCE	SCALE FACTOR (RANGE)	METER READING	DOSE RATE
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.01	4.00	0.04
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.10	1.20	0.12
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.01	13.00	0.13
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.10	2.20	0.22
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.01	12.00	0.12
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.10	2.00	0.20
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	1 FOOT	0.01	10.00	0.10
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.01	6.00	0.06
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.10	1.80	0.18
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.01	17.00	0.17
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.10	3.40	0.34
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.01	14.00	0.14
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.10	3.00	0.30
Area 7	Pile111A, Zirconium Ore	Eberline E-520	CLOSED	CONTACT	0.01	13.00	0.13





LEGEND:

-  (Material on US NRC License STC-133)
-  Readings on contact  (mR/hr)
-  Readings at 1 foot (mR/hr)
-  Readings at door (mR/hr)



NOTIFICATION OF STOCKPILE INSPECTION

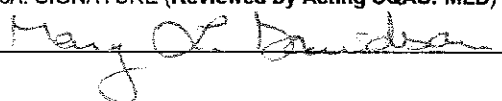
1. NAME & LOCATION OF DEPOT OR FACILITY DLA/DNSC Depot New Haven, Indiana			2. NAME AND TYPE OF COMMODITY Annual Radiological Report			3. SERIAL NO. 6			
5A. Date of Last Inspection 08 Apr 97			6. TYPE OF STORAGE AND SPECIFIC DEPOT AREA OUTSIDE STORAGE: Zirconium Ore Piles 111 and 111-A INSIDE STORAGE: Warehouse 214, Sections 3 and 4						
5B. Date of This Inspection 06 May 98			7. NAME AND TITLE OF PERSON RESPONSIBLE FOR MATERIAL Mr. Frederic W. Brooks, Depot Manager			7A. TEL. NO. OR CODE (219)749-5953		7B. EXTENSION N/A	
INSPECTION DATA (Check and complete. Explain negative responses) N/A									
8. STORAGE	A. Storage Facilities Are of the Type Prescribed in the Storage Manual							YES	NO
	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 14h reflects Depot Posting and agrees with actual and/or computed count								
12. SECURITY AND FIRE PROTECTION	Security and Fire Protection are being provided in accordance with Quality Assurance and Material 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 remarks)					(1) Class I %	(2) Class II %	(3) Class III %	
14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS N/A									
PRO-GRAM	TYPE (Pile, case, ingot, bale, etc.)	Nominal Size			Diameter	g. AVERAGE WEIGHT OF UNIT		TOTAL NUMBER OF UNITS	
a.	b.	Width	Length	Height	f.	(1) Gross	(2) Net	h.	i. Total Weight
		c.	d.	e.					(1) Gross (2) Net

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 CONTINUATION SHEETS

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

SEE CONTINUATION SHEETS

17. DISTRIBUTION	[1] DNSC-MQ <input checked="" type="checkbox"/>	[1] SUPERVISORY QA
	[1] ORIGINATING DEPOT	[4] OTHER (SPECIFY) DNSC-MQBI, ME, MQBR, MQNH
	[] STOCKPILE OP. DIVISION	
18. NAME OF QUALITY ASSURANCE SPECIALIST (Type of print) Mary L. Davidson, Acting SQAS		18A. SIGNATURE (Reviewed by Acting SQAS: MLD) 
		18B. DATE OF SIGNATURE 6 Aug 98

1.) Purpose:

This report is issued to document the required annual radiological survey at the above listed DLA/DNSC Depot, New Haven, 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. 20, expires 31 Oct 99.

Accompanying me on this survey were both Bill Till (RSO-New Haven Depot), and Lois Huddlestun (RPO-New Haven). Bill Till was present during the entire survey while Lois Huddlestun accompanied us as time and workload permitted.

2.) Disposition of Licensable Commodities:

Licensed material at this installation is either stored in outside bulk ore piles or containerized. Material is stacked/piled in accordance with DNS regulations and containers meet the specifications of Class No. 1 containers (DNSCM 8200.9, Part 9, 3-903a.). The warehouses containing the licensed material appear to be in excellent condition. Attached are three maps that graphically depict both the dispositions of the ore piles and of the material stored within warehouse 214, Sections 3 and 4.

The two bulk ore Piles are surrounded by a fence. A padlocked gate controls access to the fenced area. Cognizant Depot personnel maintain control of the combination in accordance with Chapter 3, Section VI, Paragraph 3-32 of the Physical Security Manual DLAI 5710.1. Additionally cognizant Depot personnel in compliance with the above referenced directive also maintain access to the warehouses.

Reserve samples of the Columblum/Tantalum batch samples from previous samplings are being stored in Warehouse 213 Section 1. For specifics of sampling techniques see DLAH FORM 32 Report 1F-New Haven dated 04 May 94. Based on these results, memo from DNSC-ME dated 25 Feb 98 requests a License Amendment which would reduce the amount of material housed at this installation on Source License STC-133 to 32,885,420 pounds including the bulk ore piles. Since no further information is known concerning this request, Source License STC-133 Amendment No. 20 will be the referenced document for this report and the following information will be based on the information presented in that amendment.

2.) *Disposition of Licensable Commodities (Cont'd):*

The attached pages document the location of the containerized material. Spreadsheets are sorted by warehouse/section/bay. Reference should be made to the accompanying two maps which spatially depict the location of the material in each of the respective warehouses. The following lists the disposition of the two ore piles included on the applicable source license referenced in this report:

File Number	Width (ft)	Length (ft)	Height (ft)	Net Lbs.
111	60	285	25	31,981,398
111A	45	100	20	2,783,706
			Total:	34,765,104

The attached map graphically depicts the configuration of these piles.

3.) *Safety:*

A decontamination facility is maintained at this depot which contains changing rooms, showers, toilets, and laundry facilities. All of the equipment appeared to be in good working condition. Respiratory equipment and protective clothing are also available.

4.) *Instrumentation:*

a.) Survey Instruments:

<u>INSTRUMENT</u>	<u>MODEL/TYPE</u>	<u>SERIAL NO.</u>	<u>CALIBRATION DUE</u>
Fag 40 F6 Dosimeter		5-0002	See Note 1
Eberline Geiger Counter	E-120	10122	4/23/98
Eberline Geiger Counter	E-520	3135	4/23/98
Charger Dosimeter	FEMA-750	A-004264	N/A
Minometer II	687-0	357	See Note 2
Transistorized Charger	362		See Note 2
Reader Victoreen V-750	357 6V-138	39403/50793	N/A See Note 2
	Dosimeter		

4.) *Instrumentation (Cont'd):*

*Cognizant Depot personnel are aware of calibration date.

Note 1: Instrument was sent in for calibration prior to date of survey.

Note 2: Instruments were not at this installation. The absence of these instruments/equipment does not cause a deficiency. L. Huddleston advised this writer they were submitted to DRMS.

b.) Individual Monitoring Devices:

<u>Monitoring Device</u>	<u>No. of Units</u>	<u>Disposition</u>
Pocket Dosimeter Victoreen	9	See Note 2 above
V-138 Dosimeter	15	See Note 2 above
Thermoluminescent Dosimeter		
Film Badges	26	

The Film badges documented above are on a quarterly rotational program from the USAIRDC, US Army TMDE Activity, Redstone Arsenal, AL. This program provides the submitter with a printout of exposures, as well as, transcribes this information into a permanent database for each individual with a badge submitted. Copies of these printouts are maintained by the Depot RPO.

c.) Source Check: Cs¹³⁷

The source check has not been calibrated since issuance. Source chip has a serial number of 951. NOTE: Since the initial investigation it has been brought to this writer's attention that another Source Check is available at this installation, simply with the numerical designation 377.

5.) *Records Inspection:*

The following information is based on evaluation of the "Radiological Data Book" (ORPP para 16.2). This book is maintained by the Depot RPO in the Storage Specialist's Office, until such time that a permanent place can be established. This "book" was in excellent order and contained most of the information necessary for compliance with DNSC-ORPP regulations, except that information referenced below.

Additionally it is noted that SSG Collins of USACHPPM visited the New Haven Depot 29-30 April 1998. This writer was not present during his visit, but I was supplied with a copy of his exit briefing. It was documented in this brief that he did inspect every aspect of the DNSC ORPP at this installation. Some of the information documented below reflects the findings of his investigation and deserves mention.

5.) *Records Inspection (Cont'd):*

a.) Radiological Officer: Appendix E of the DNSC ORPP designates: Lois Huddlestun (RPO) and Bill Till (RSO). Depot RPO can be reached at 219/749-5953 and Depot RSO can be reached at 219/749-8291.

b.) Documentation of all training received by Depot personnel is not included in the above referenced book (memo from DNSC-M to dated Jun 13 1997). When time and workload permit this will be done (personal communication L. Huddlestun, 6 May 1998). Documentation of RPO and RSO training is also not included in the above referenced book.

c.) Directive DNSC ORPP par. 4.2 mandates use of individual exposure records DD Form 1141's. This writer did not see any DD Form 1141's due to privacy concerns; however, I was informed by the Depot RPO (L. Huddlestun) that forms had been created, but were not up-to-date. Based on information included in the exit briefing SSG Collins said that there is no need for completing the 1141's because the paperwork provided by the USAIRDC, US Army TMDE Activity, Redstone Arsenal, AL meets compliance standard DLAR 100.28, 6-3a; therefore, the Depot RPO did not update the 1141 Forms.

d.) There is no documentation of neither quarterly nor annual review of the 1141's (ORPP par. 4.6). Again, the 1141's are not up-to-date at this installation. However, all of the information provided by the USAIRDC, US Army TMDE Activity, Redstone Arsenal, AL is kept on file by the Depot RPO, although not viewed by this writer. There is no documentation in file that this paperwork was reviewed by the RPO/RSO or the information was given to/discussed with Depot personnel.

e.) DD Form 1952's have been compiled for all Depot personnel at the New Haven Depot (per L. Huddlestun RPO); however, the blocks 11-20 have been left blank per DNSC directive.

f.) In compliance with ORPP par. 4.3 NRC Form 3 (8/97) "Notice to Employees" with information denoting the location of the NRC License is posted. Also posted is the Energy Reorganization Act of 1974, Section 206. One copy of each form is posted in the main office area of the administrative building.

5.) Records Inspection (Cont'd):

g.) An emergency plan has been established for the New Haven Depot. This plan includes reference to all commodities, but does not specify radiologic commodities (ORPP par. 14.1) (they are included with hazardous commodities). Prior arrangements have been coordinated with local fire and emergency response organizations. Meetings/coordination with local authorities will be documented in the above referenced "Radiologic Book" as time and workload permit (personal communication L. Huddleston 6 May 1998).

h) Included within the "Radiologic Data Book" are copies of pertinent documents that supplement the DNSC ORPP. These documents include but are not limited to: DLAR 1000.28, DLAR 4145.23, calibration certificates and prior radiological surveys. Also 10 CFR part 20 & 40, 29 CFR Part 1910, and 49 CFR Parts 171 through 189 are available at the Depot. In reference to the prior radiologic surveys, SSG Collins documented that these reports were not original and simply photocopied from year to year. It appears that some of the reports in the "Book" were simply amendments, therefore, the data would remain the same. There was however one report that did have erroneous data, this has been addressed and will be corrected in the future.

i) Records are on file at the Depot that document both the respiratory fit testing and annual physicals have been completed for each of the applicable Depot employees. It should be noted that the Depot only has information documenting that personnel have had physicals, not the outcome of said physicals.

6.) Physical Inspection:

a). Licensed materials at this facility are located in Warehouse 214, Sections 3 and 4 or in bulk ore piles. Maps that graphically depict current storage locations are attached. Warehouse doors were "sealed" with embossed numbered plastic strip seals maintained and controlled by designated depot personnel.

6.) *Physical Inspection (Cont'd):*

b.) The New Haven Depot is a "controlled area" by definition because it is an area that lies between the edge of the restricted area and the Depot perimeter. The DNSC Exposure Criteria 9.1.2 of the Occupational Radiation Protection Program (updated Feb 92), DNSC states the maximum permissible dose rate within a "Controlled area" shall not exceed 0.5 mr/hr. Data attached documents the fact those gamma emissions in Warehouse 214, Section 3, bays 27 and 28 exceed this reading of 0.5 mR/hr., as well as, the outside bulk Zirconium ore piles. All other inside storage has readings beneath 0.5 mR/hr (see attached). The area surrounding the ore piles has been defined as a "restricted area" and access had been limited for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials. The physical means used to make this area was the placement of a fence with signage designating the area to have controlled access. Warehouse 214, Section 3, bays 27 and 28 are not contained within a "restricted" area, however, Kevin Reilly DNSC-MH has determined that since these readings are only at contact (therefore, not defined as a dose rate) no further action is required.

c.) This survey was conducted in accordance with the Defense National Stockpile Center Occupational Radiation Protection Program guidelines. The instrumentation utilized was an Eberline E-120 Geiger Counter, referenced in 4.a. above, with the beta shield in the "closed" position. It should be noted that although the above referenced guideline stipulates that readings should be taken at 1 foot from commodity, it would be impractical to take readings at 1 foot from an outside ore pile. Due to the irregular shape of the stored commodity. This would require climbing the Pile and taking readings in areas that are not encountered by personnel. Both the RPO and the RSO were present during this investigation. See attached "Monitoring Radiation Report" for specific survey results and attached maps for a graphic depiction of the analytic data.

7.) Security Door Seal(s):

- 1.) All seal (s) embossed red plastic door seals.
- 2.) Seal(s) removed were during this writer's absence.
- 3.) New seal(s) were affixed by Depot personnel during this writer's absence.

8.) Observances:

a). The Radiation Protection Program at New Haven Indiana is fundamentally in compliance with all DNSC directives; however, it appears based on SSG Collins review that there remains some discrepancies. Since most of the Depots have been investigated by SSG Collins, there may be changes in the DNS Program based on his findings; however, the DNS ORPP is still in effect. If and when changes are made to the DNSC ORPP then changes can be instituted at the Depot level, until such time caution must be taken in applying SSGT Collin's recommendations.

b). Although material in warehouse 214, Section 3, bays 27 and 28 has readings above 0.5 mR/hr, no action is require per K. Reilly DNSC-MH, because readings were only in contact.

c). Proper information dissemination is critical to any Occupational Safety and Health program. Communication between Depot personnel and DNSC representatives should continue and bridge any informational/technical deficiencies that may be present (Reference: Internal Management Review criteria).

9.) Conclusions:

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

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

c.) The maximum permissible occupational dose rate of 5.0 rems per year was not reached or exceeded by any employee (personal communication with L. Huddlestun 06 May 1998)

d.) To the best knowledge of this writer, the dose rate within the "controlled area" (exclusive of the "restricted area") does not exceed 0.50 mr/hr nor does the dose rate at the perimeter fence of the Depot exceed background.

e.) A draft copy of this report was submitted to both the Depot Radiation Protection Officer and the Depot Radiation Safety Officer for edit. This report was then generated after edit.

10.) *Recommendations:*

a.) The source Cs¹³⁷ should be submitted with the Geiger counter at the time of factory calibration for calibration.

b.) The unknown source (noted as number 377) should be submitted with a. above for calibration.

c.) Documentation of Depot training records should be kept in the "Radiological Data Book".

d.) Documentation of annual and quarterly review of individual exposure records should be kept in the "Radiological Data Book".

e.) Documentation of coordination between DNS New Haven and fire/emergency response teams should be kept in the "Radiological Data Book".

f.) Occupational Radiation Protection Program information that is not protected by privacy regulations, should be disseminated and shared with all Depot personnel. This information should be kept in the Depot Library (Reference: Internal Management Review criteria).

MONITORING RADIATION REPORT

Monitors M.L. Davidson, B. Till, L. Huddleston

Date: 06 May 1998

(See para. 2 of attached report)

Report No.: 6

<-----mR/hr----->

Time	Whse 214	Object or Person Monitored	Instrument Used	Shield Open Closed	Distance	Range	Reading	Dose Rate
N/A	Section 3 BAY 38	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	0.8 0.7	0.08 0.07
"	Section 3 BAY 27	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	3 2	0.3 0.2
"	Section 3 BAY 28	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	6 5	0.6 0.5
"	Section 3 BAY 13	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	0.5 0.5	0.05 0.05
"	Section 3 BAY 14	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	2.2 2	0.22 0.2
"	Section 3 BAY 15	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	4 2	0.4 0.2
"	Section 3 BAY 16	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	4 3	0.4 0.3
"	Section 3 BAY 17	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	2.5 2	0.25 0.2
"	Section 3 BAY 09	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	3 3	0.3 0.3
"	Section 4 BAY 11	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	2 1.2	0.2 0.12
"	Section 4 BAY 21	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	1.4 0.8	0.14 0.08
"	Section 4 BAY 31	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	0.2 0.2	0.02 0.02
"	Section 4 BAY 41	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	3.2 2	0.32 0.2
"	Section 4 BAY 42	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	2.5 2	0.25 0.2
"	Section 4 BAY 45	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	0.2 0.2	0.02 0.02
"	Section 4 BAY 51	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	3.5 1.8	0.35 0.18
"	Section 4 BAY 61	INSIDE STORAGE: Columbium/Tantalum	Eberline E-120	X X	Contact 1 foot	0.1 0.1	1.8 1.2	0.18 0.12
"	Section 3 Section 4	Doors Doors	Eberline E-120	X X	Contact Contact	0.1 0.1	0.2 0.2	0.02 0.02

COMMENTS: Background Reading: Approximately 50' from storage warehouse: 0-0.02 mR/hr.

MONITORING RADIATION REPORT

Monitors M.L. Davidson, B. Till, L. Huddlestun

Date: 06 May 1998

(See para. 2 of attached report)

Report No.: 6

<-----mR/hr----->

Time		Object or Person Monitored	Instrument Used	Shield		Distance	Range	Reading	Dose Rate
				Open	Closed				
N/A	Pile 111	OUTSIDE STORAGE: Zirconium Ore Pile	Eberline E-120		X	Contact	1	1.7-3.0	1.7-3.0
"	Pile 111A	OUTSIDE STORAGE: Zirconium Ore Pile	Eberline E-120		X	Contact	1	0.03-2.2	0.03-2.2
"		FENCE SURROUNDING PILES	Eberline E-120		X	Contact	1	0.02-0.28	0.02-0.28

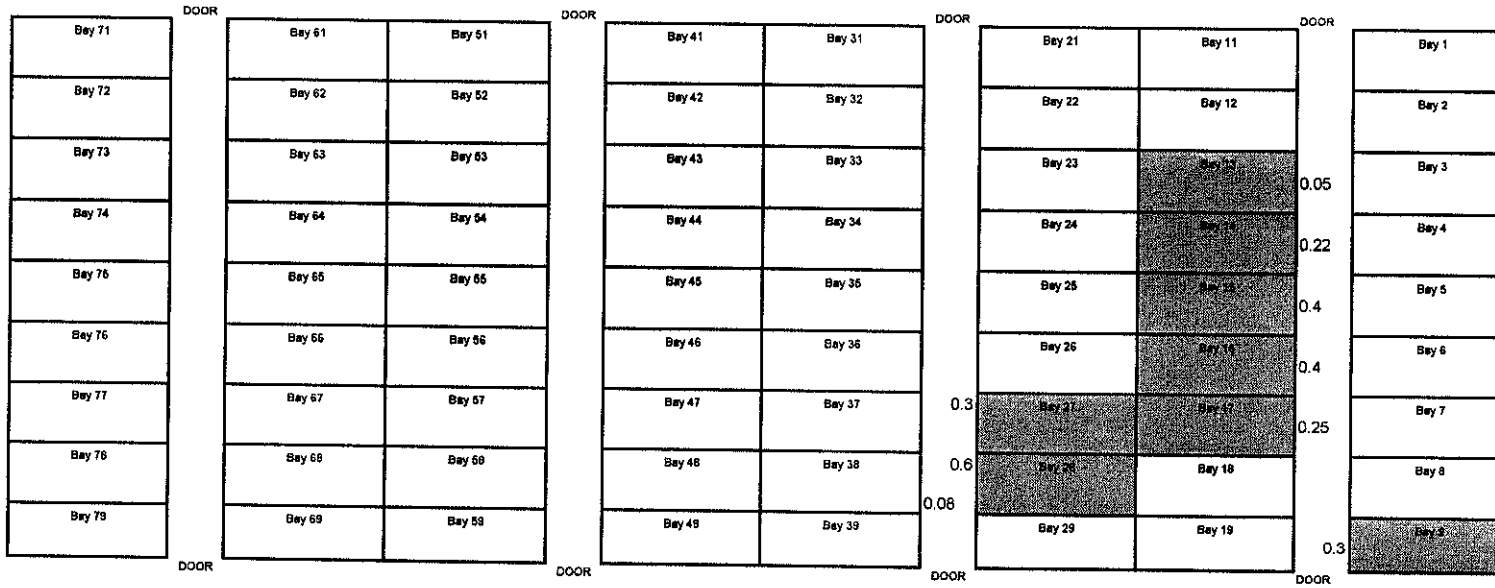
COMMENTS: Background Reading: Approximately 50' from storage warehouse: 0-0.02 mR/hr.

READINGS TAKEN IN CONTACT WITH MATERIAL

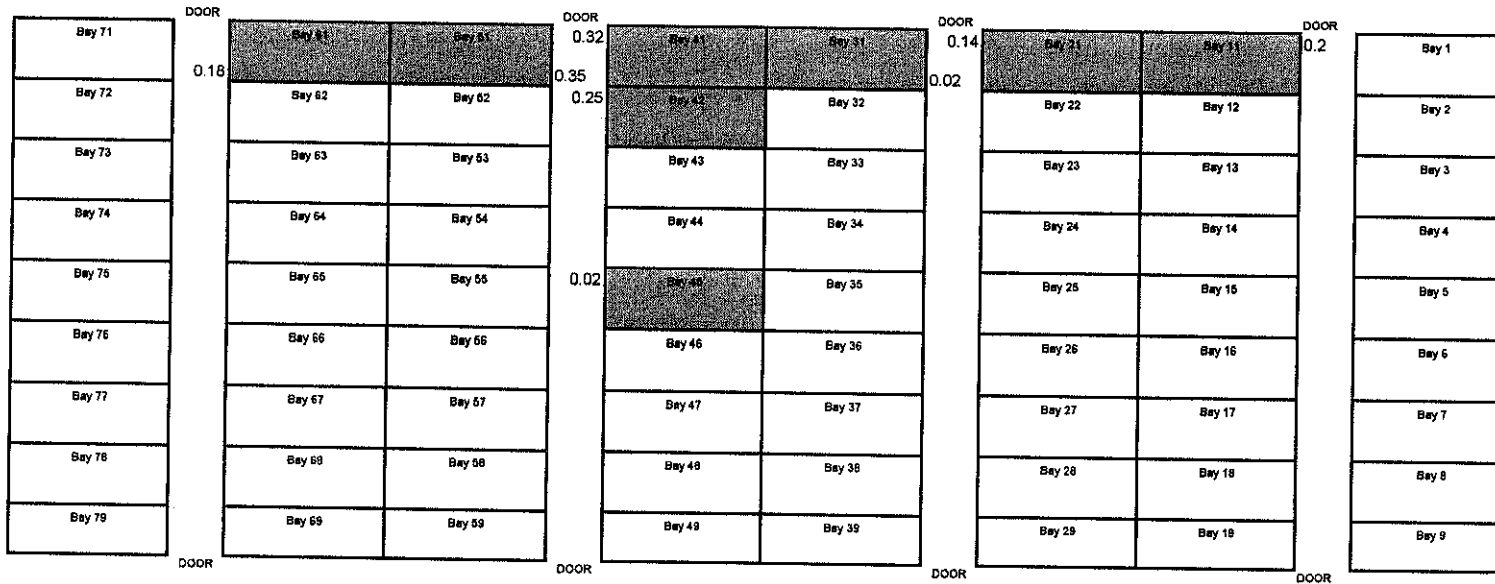
(All readings in mR/hr)



WAREHOUSE 214, SECTION 3



WAREHOUSE 214, SECTION 4



= Material included on STC-133 Source License

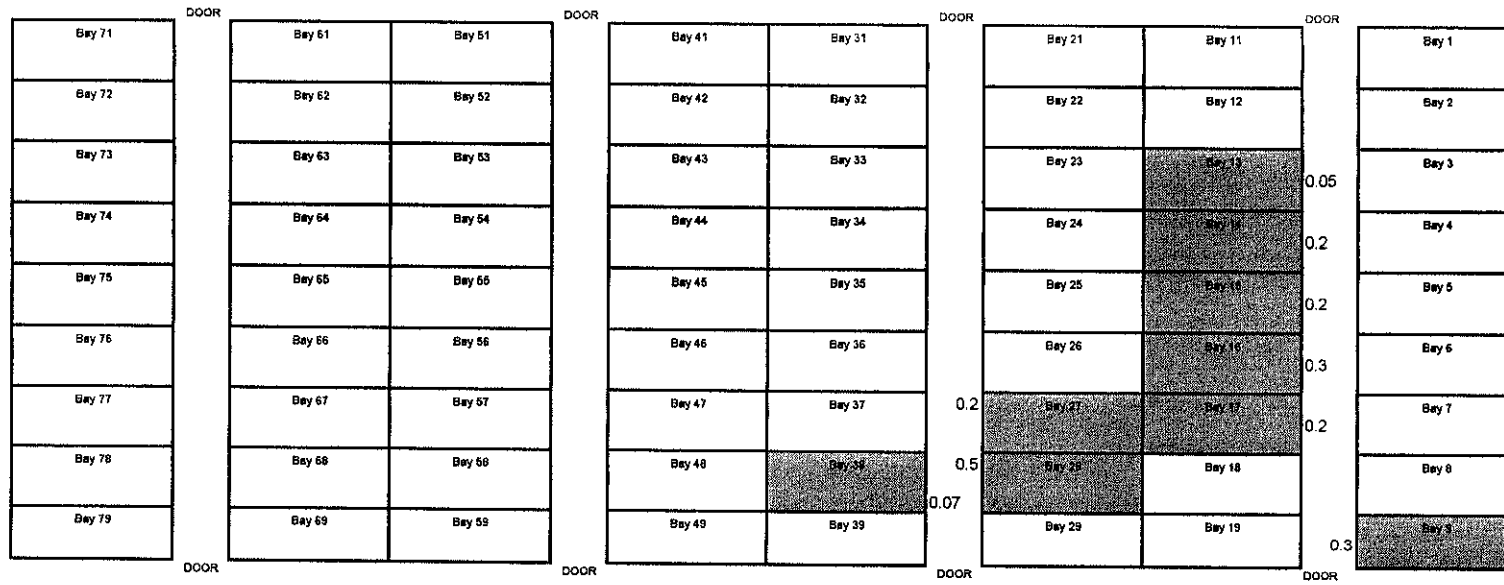
BACKGROUND=0.02mR/hr

READINGS TAKEN ONE FOOT AWAY FROM MATERIAL

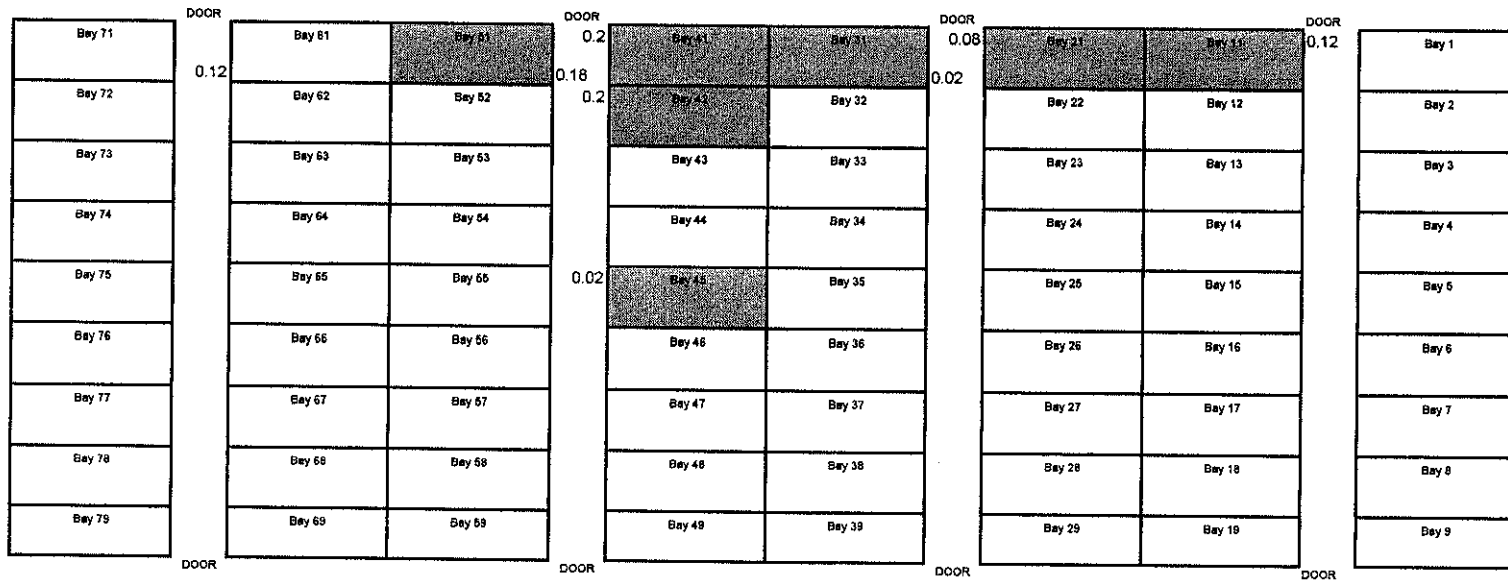
(All readings in mR/hr)



WAREHOUSE 214, SECTION 3



WAREHOUSE 214, SECTION 4



= Material included on STC-133 Source License

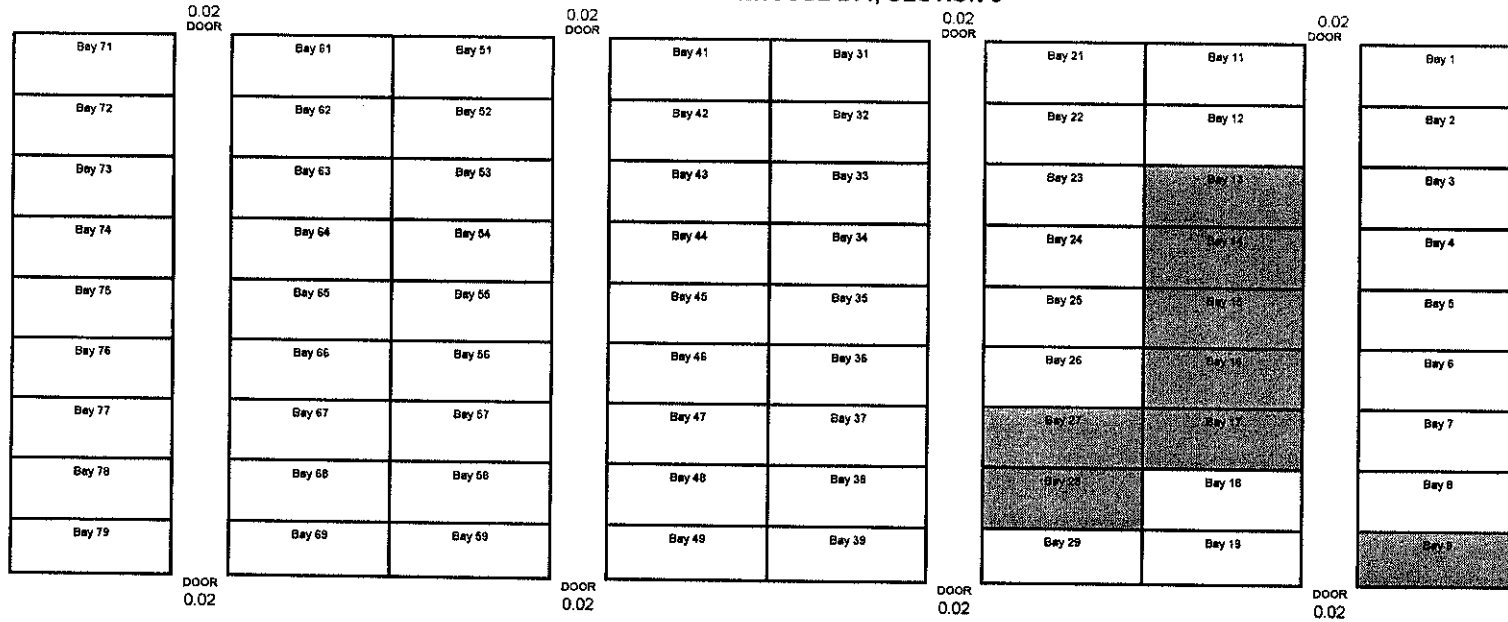
BACKGROUND=0.02mR/hr

READINGS TAKEN AT WAREHOUSE EXIT DOORS

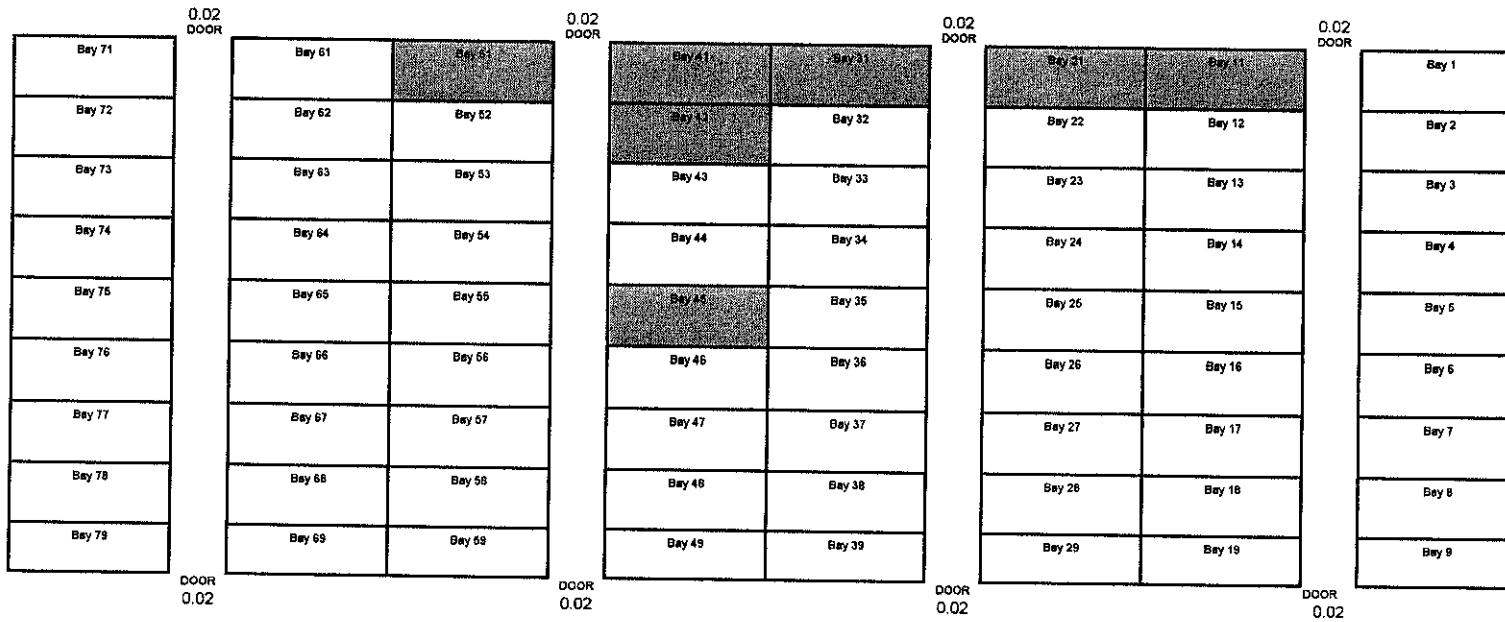
(All readings in mR/hr)

↑
N

WAREHOUSE 214, SECTION 3



WAREHOUSE 214, SECTION 4

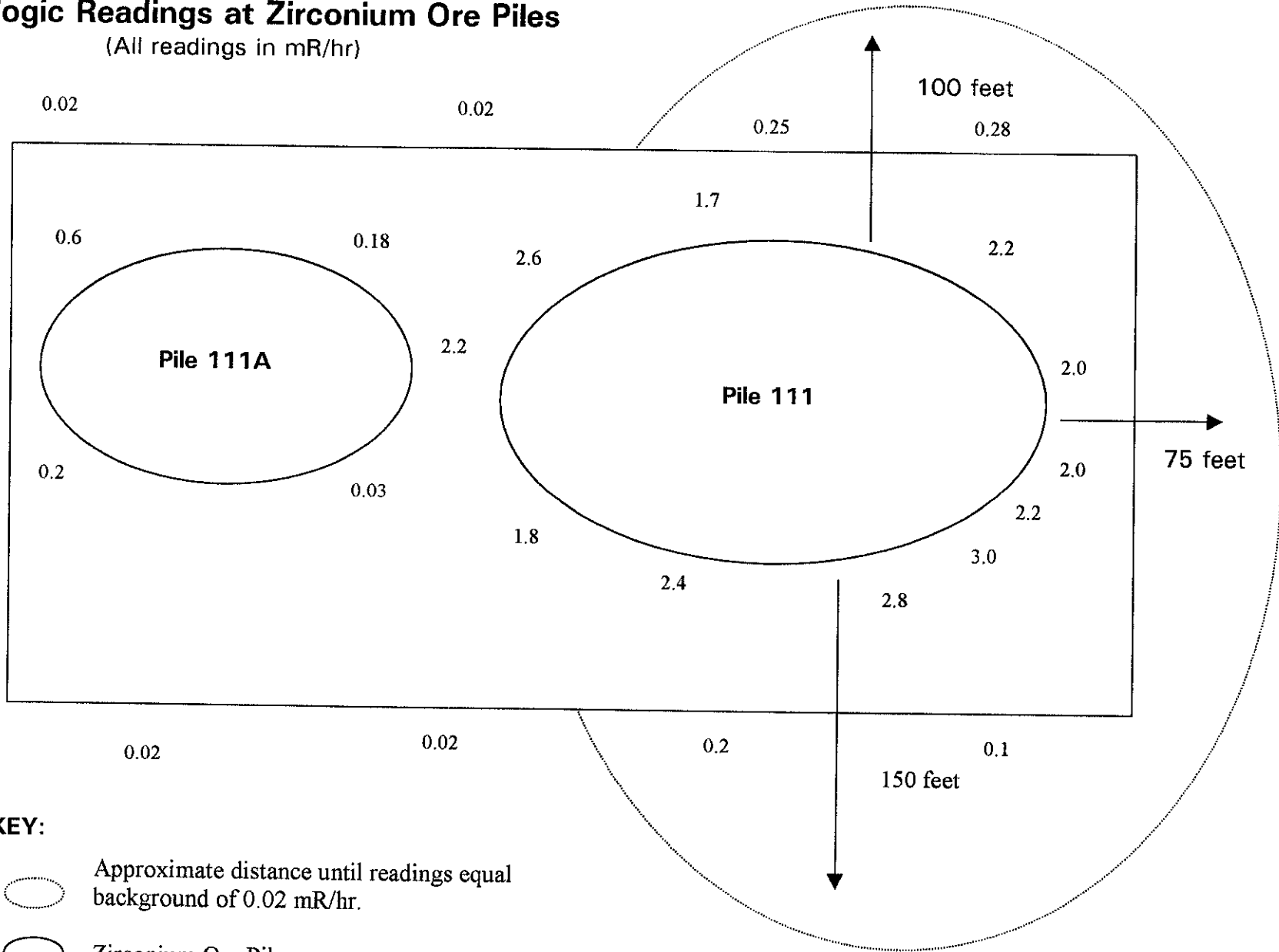


 = Material included on STC-133 Source License




BACKGROUND=0.02mR/hr

Radiologic Readings at Zirconium Ore Piles

(All readings in mR/hr)



KEY:

-  Approximate distance until readings equal background of 0.02 mR/hr.
-  Zirconium Ore Pile
-  Fence Surrounding Ore Piles

CONTACT READINGS

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	023	23	5	Drums	214	3	9	2,182
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	024	24	5	Drums	214	3	9	2,200
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	025	25	5	Drums	214	3	9	2,202
Columbium Tantalum Source Material	Tantalum Natural Minerals		113	83/113	38	Drums	214	3	9	21,282
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	187	MRC-187	11	Drums	214	3	9	2,201
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	229	MRC-229	11	Drums	214	3	9	2,218
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	264	MRC-264	9	Drums	214	3	9	4,435
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	272	MRC-272	7	Drums	214	3	9	1,320
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	297	MRC-297	7	Drums	214	3	9	1,385
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	299	MRC-299	1	Drum	214	3	9	277
Columbium Tantalum Source Material	Tantalum Natural Minerals	Rhodesian	301	MRC-301	1	Drum	214	3	9	265
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	313	MRC-313	1	Drum	214	3	9	235
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	325	MRC-325	9	Drums	214	3	9	1,740
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	354	MRC-354	8	Drums	214	3	9	1,655
Columbium Tantalum Source Material	Tantalum Natural Minerals		A-9	VA-9	1	Drum	214	3	9	167.75
Columbium Tantalum Source Materials	Columbium Natural Minerals	Brazil	281	MRC-281	28	Drums	214	3	9	5,676
Columbium-Tantalum Concentrates	Chemically Processed		199	MGK-199	24	Drums	214	3	13	13,268
Columbium-Tantalum Concentrates	Chemically Processed		199	MGK-199	1	Cont Sweep	214	3	13	84
Columbium Tantalum Ore	Tantalum Source Material	S. Rhodesian	138	1138	16	Bags	214	3	14	2,215
Columbium Tantalum Ore	Tantalum Source Material	Australian	140	1140	153	Bags	214	3	14	9,379
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	146	1146	40	Bags	214	3	14	4,407
Columbium Tantalum Ore	Columbium Tantalum	English	165	1165	11	Drums	214	3	14	4,347
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46A	1146A	40	Bags	214	3	14	4,326
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46B	1146B	40	Bags	214	3	14	4,404
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46C	1146C	40	Bags	214	3	14	4,395
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46D	1146D	40	Bags	214	3	14	4,381
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46E	1146E	50	Bags	214	3	14	5,493
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46F	1146F	50	Bags	214	3	14	5,485
Columbium Tantalum Ore	Tantalum Source Material	Brazilian	46G	1146G	60	Bags	214	3	14	6,618
Columbium-Tantalum Ore	Tantalum Source Material	British	105	1105	43	Bags	214	3	14	3,098
Columbium-Tantalum Ore	Tantalum Source Material	Brazilian	147	1147	113	Bags	214	3	14	9,915
Columbium Tantalum Source Material	Tantalum Natural Minerals		001	1	10	Drums	214	3	15	3,000
Columbium Tantalum Source Material	Tantalum Natural Minerals		A+2	1A&2	3	Drums	214	3	15	694
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	22C	GEO-822C	13	Drums	214	3	15	2,443
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	831	GEO-831	15	Drums	214	3	15	3,007
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	832	GEO-832	16	Drums	214	3	15	3,090
Columbium Tantalum Source Material	Tantalum Natural Minerals	Rhodesian	100	MRC-100	11	Drums	214	3	15	3,300
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	117	MRC-117	8	Drums	214	3	15	2,150
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	126	MRC-126	11	Drums	214	3	15	2,629
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	129	MRC-129	22	Drums	214	3	15	6,424
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	139	MRC-139	6	Drums	214	3	15	1,595
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	144	MRC-144	5	Drums	214	3	15	952
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	150	MRC-150	5	Drums	214	3	15	1,282
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	151	MRC-151	6	Drums	214	3	15	1,270
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	153	MRC-153	1	Drum	214	3	15	300
Columbium Tantalum Source Material	Tantalum Natural Minerals	Rhodesian	162	MRC-162	10	Drums	214	3	15	2,026
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	164	MRC-164	2	Drums	214	3	15	486
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	166	MRC-166	15	Drums	214	3	15	3,053
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	173	MRC-173	11	Drums	214	3	15	2,200
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	174	MRC-174	11	Drums	214	3	15	2,168
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	175	MRC-175	8	Drums	214	3	15	2,266
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	176	MRC-176	11	Drums	214	3	15	2,158

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	177	MRC-177	11	Drums	214	3	15	2,188
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	178	MRC-178	11	Drums	214	3	15	2,188
Columbium Tantalum Source Material	Tantalum Natural Minerals		179	MRC-179	8	Drums	214	3	15	2,185
Columbium Tantalum Source Material	Tantalum Natural Minerals		180	MRC-180	11	Drums	214	3	15	2,196
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	186	MRC-186	12	Drums	214	3	15	2,443
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	189	MRC-189	11	Drums	214	3	15	2,280
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	190	MRC-190	8	Drums	214	3	15	2,197
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	193	MRC-193	10	Drums	214	3	15	2,078
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	195	MRC-195	8	Drums	214	3	15	2,190
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	199	MRC-199	7	Drums	214	3	15	2,100
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	206	MRC-206	8	Drums	214	3	15	2,200
Columbium Tantalum Source Material	Tantalum Natural Minerals	Salt Lake City	213	MRC-213	13	Drums	214	3	15	3,215
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	216	MRC-216	22	Drums	214	3	15	4,426
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	217	MRC-217	22	Drums	214	3	15	4,375
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	218	MRC-218	22	Drums	214	3	15	4,380
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	219	MRC-219	21	Drums	214	3	15	4,311
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	222	MRC-222	22	Drums	214	3	15	4,393
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	223	MRC-223	22	Drums	214	3	15	4,397
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	224	MRC-224	15	Drums	214	3	15	4,394
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	238	MRC-238	8	Drums	214	3	15	2,177
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	239	MRC-239	8	Drums	214	3	15	2,192
Columbium Tantalum Source Material	Tantalum Natural Minerals		244	MRC-244	21	Drums	214	3	15	4,247
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	245	MRC-245	15	Drums	214	3	15	4,504
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	247	MRC-247	4	Drums	214	3	15	843
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	251	MRC-251	12	Drums	214	3	15	2,470
Columbium Tantalum Source Material	Tantalum Natural Minerals	Rhodesian	254	MRC-254	7	Drums	214	3	15	1,940
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	259	MRC-259	11	Drums	214	3	15	2,191
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	260	MRC-260	8	Drums	214	3	15	2,190
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	261	MRC-261	8	Drums	214	3	15	2,182
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	263	MRC-263	15	Drums	214	3	15	4,404
Columbium Tantalum Source Material	Tantalum Natural Minerals		265	MRC-265	22	Drums	214	3	15	4,386
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	266	MRC-266	22	Drums	214	3	15	4,393
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	267	MRC-267	15	Drums	214	3	15	4,395
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	268	MRC-268	15	Drums	214	3	15	4,380
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	269	MRC-269	22	Drums	214	3	15	4,412
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	270	MRC-270	16	Drums	214	3	15	4,791
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	271	MRC-271	22	Drums	214	3	15	4,387
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	273	MRC-273	2	Drums	214	3	15	595
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	274	MRC-274	2	Drums	214	3	15	522
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	275	MRC-275	3	Drums	214	3	15	559
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	276	MRC-276	10	Drums	214	3	15	2,920
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	278	MRC-278	22	Drums	214	3	15	6,487
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	282	MRC-282	3	Drums	214	3	15	739
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	284	MRC-284	7	Drums	214	3	15	1,935
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	290	MRC-290	5	Drums	214	3	15	1,066
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	291	MRC-291	18	Drums	214	3	15	3,541
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	295	MRC-295	12	Drums	214	3	15	2,400
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	296	MRC-296	7	Drums	214	3	15	1,369
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	300	MRC-300	2	Drums	214	3	15	311
Columbium Tantalum Source Material	Tantalum Natural Minerals		303	MRC-303	33	Drums	214	3	15	6,647
Columbium Tantalum Source Material	Tantalum Natural Minerals		305	MRC-305	2	Drums	214	3	15	411
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	308	MRC-308	5	Drums	214	3	15	1,005

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Columbium Tantalum Source Material	Tantalum Natural Minerals	New Mexican	309	MRC-309	10	Drums	214	3	15	2,312
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	312	MRC-312	1	Drum	214	3	15	241
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	314	MRC-314	2	Drums	214	3	15	406
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	315	MRC-315	11	Drums	214	3	15	3,086
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	317	MRC-317	7	Drums	214	3	15	1,456
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	318	MRC-318	11	Drums	214	3	15	3,080
Columbium Tantalum Source Material	Tantalum Natural Minerals		320	MRC-320	2	Drums	214	3	15	408
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	321	MRC-321	15	Drums	214	3	15	4,475
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	322	MRC-322	5	Drums	214	3	15	1,329
Columbium Tantalum Source Material	Tantalum Natural Minerals	Australian	326	MRC-326	3	Drums	214	3	15	723
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	333	MRC-333	1	Drum	214	3	15	160
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	343	MRC-343	43	Drums	214	3	15	8,653
Columbium Tantalum Source Material	Tantalum Natural Minerals		348	MRC-348	2	Drums	214	3	15	314
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	350	MRC-350	4	Drums	214	3	15	838
Columbium Tantalum Source Material	Tantalum Natural Minerals		352	MRC-352	9	Drums	214	3	15	1,824
Columbium Tantalum Source Material	Tantalum Natural Minerals		353	MRC-353	6	Drums	214	3	15	1,235
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	356	MRC-356	2	Drums	214	3	15	347
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	359	MRC-359	12	Drums	214	3	15	2,303
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	077	MRC-77	6	Drums	214	3	15	1,174
Columbium Tantalum Source Material	Tantalum Natural Minerals	Ugandan	081	MRC-81	2	Drums	214	3	15	452
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	086	MRC-86	22	Drums	214	3	15	4,352
Columbium Tantalum Source Material	Tantalum Natural Minerals		091	MRC-91	95	Drums	214	3	15	28,340
Columbium Tantalum Source Material	Tantalum Natural Minerals		092	MRC-92	8	Drums	214	3	15	1,604
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	094	MRC-94	22	Drums	214	3	15	4,324
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	012	12	9	Drums	214	3	16	4,379
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	013	13	16	Drums	214	3	16	7,665
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	015	15	7	Drums	214	3	16	3,280
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	020	20	13	Drums	214	3	16	6,535
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	021	21	5	Drums	214	3	16	2,178
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	022	22	5	Drums	214	3	16	2,153
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	026	26	5	Drums	214	3	16	2,184
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	030	30	34	Drums	214	3	16	16,643
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	107	107	10	Drums	214	3	16	3,831
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	809	GEO-809	98	Drums	214	3	16	19,648
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	113	MRC-113	23	Drums	214	3	16	6,642
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	138	MRC-138	10	Drums	214	3	16	2,853
Columbium Tantalum Source Material	Tantalum Natural Minerals		183	MRC-183	8	Drums	214	3	16	2,208
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	196	MRC-196	8	Drums	214	3	16	2,250
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	226	MRC-226	9	Drums	214	3	16	4,500
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	227	MRC-227	15	Drums	214	3	16	4,358
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	228	MRC-228	10	Drums	214	3	16	4,676
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	243	MRC-243	15	Drums	214	3	16	4,368
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	246	MRC-246	12	Drums	214	3	16	3,524
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	256	MRC-256	9	Drums	214	3	16	2,194
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	277	MRC-277	3	Drums	214	3	16	879
Columbium Tantalum Source Material	Tantalum Natural Minerals	Brazilian	279	MRC-279	15	Drums	214	3	16	4,388
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	283	MRC-283	4	Drums	214	3	16	1,041
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	285	MRC-285	3	Drums	214	3	16	738
Columbium Tantalum Source Material	Tantalite Ore	Nigerian	306	MRC-306	3	Drums	214	3	16	612
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	311	MRC-311	3	Drums	214	3	16	849
Columbium Tantalum Source Material	Tantalum Natural Minerals	Nigerian	323	MRC-323	3	Drums	214	3	16	781
Columbium Tantalum Source Material	Tantalum Natural Minerals	Belgian	355	MRC-355	67	Drums	214	3	16	13,388

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Columbium Tantalum Source Material	Tantalum Natural Minerals	Rhodesian	087	MRC-87	25	Drums	214	3	16	7,700
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	357	MRC-357	15	Drums	214	3	16	3,082
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	818	GEO-818	108	Drums	214	3	16	21,466
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	292	MRC-292	8	Drums	214	3	16	1,665
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	351	MRC-351	14	Drums	214	3	16	2,728
Columbium Tantalum Source Materials	Columbium Natural Minerals	Brazil	262	MRC-262	21	Drums	214	3	16	4,446
Columbium Tantalum Source Materials	Columbium Natural Minerals	India	286	MRC-286	7	Drums	214	3	16	1,909
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	293	MRC-293	20	Drums	214	3	16	3,986
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	294	MRC-294	40	Drums	214	3	16	8,022
Columbium Tantalum Source Materials	Columbium Natural Minerals	Australia	324	MRC-324	3	Drums	214	3	16	683
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	339	MRC-339	24	Drums	214	3	16	7,220
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	358	MRC-358	83	Drums	214	3	16	24,863
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	819	GEO-819	107	Drums	214	3	16	21,298.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	833	GEO-833	106	Drums	214	3	17	21,228
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	834	GEO-834	111	Drums	214	3	17	22,037
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	837	GEO-837	111	Drums	214	3	17	22,031.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	838	GEO-838	111	Drums	214	3	17	22,127.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	839	GEO-839	111	Drums	214	3	17	22,056.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	840	GEO-840	111	Drums	214	3	17	22,056
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	843	GEO-843	110	Drums	214	3	17	21,826
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	817	GEO-817	109	Drums	214	3	17	21,785.25
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	821	GEO-821	107	Drums	214	3	17	21,111.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	836	GEO-836	108	Drums	214	3	17	21,617
Columbium Tantalum Source Materials	Columbium Natural Minerals	Canada	280	MRC-280	3	Drums	214	3	17	650
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	340	MRC-340	44	Drums	214	3	17	13,222
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	816	GEO-816	110	Drums	214	3	17	22,432.5
Columbium Tantalum Source Materials	Columbium Natural Minerals	India	287	MRC-287	3	Drums	214	3	17	600
Columbium Tantalum Source Materials	Columbium Natural Minerals	Belgian Congo	336	MRC-336	4	Drums	214	3	17	1,221
Columbium Tantalum Source Materials	Columbium Natural Minerals	Nigerian	342	MRC-342	4	Drums	214	3	17	1,061
Tantalum Pentoxide	Natural Concentrates		001	1	84	Drums	214	3	26	42,000
Tantalum Pentoxide	Natural Concentrates		002	2	84	Drums	214	3	26	42,000
Tantalum Pentoxide	Natural Concentrates		003	3	84	Drums	214	3	26	42,000
Tantalum Pentoxide	Natural Concentrates		004	4	36	Drums	214	3	26	18,000
Tantalum Pentoxide	Natural Concentrates		004	4	48	Drums	214	3	28	24,000
Tantalum Pentoxide	Natural Concentrates		005	5	84	Drums	214	3	28	42,000
Tantalum Pentoxide	Natural Concentrates		006	6	84	Drums	214	3	28	42,000
Tantalum Pentoxide	Natural Concentrates		007	7	59	Drums	214	3	28	29,500
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	3	Drums	214	4	11	2,043
Columbium Tantalum Source Material	Tantalum Natural Minerals		001	001060001	10	Drums	214	4	11	6,640
Columbium Tantalum Source Material	Tantalum Natural Minerals		001	0021980001	4	Drums	214	4	11	1,771
Columbium Tantalum Source Material	Tantalum Natural Minerals		574	0782362574	5	Drums	214	4	11	2,322
Columbium Tantalum Source Material	Tantalum Natural Minerals		678	0782362678	4	Drums	214	4	11	1,693
Columbium Tantalum Source Material	Tantalum Natural Minerals		00E	0010700E	5	Drums	214	4	11	3,454
Columbium Tantalum Source Material	Tantalum Natural Minerals		00F	001107000F	6	Drums	214	4	11	3,781
Columbium Tantalum Source Material	Tantalum Natural Minerals		00G	001107000G	13	Drums	214	4	11	8,674
Columbium Tantalum Source Material	Tantalum Natural Minerals		180	0NSP-4E180	4	Drums	214	4	11	1,988
Columbium Tantalum Source Material	Tantalum Natural Minerals		002	001060002	13	Drums	214	4	21	8,765
Columbium Tantalum Source Material	Tantalum Natural Minerals		005	001060005	18	Drums	214	4	21	11,014
Columbium Tantalum Source Material	Tantalum Natural Minerals		013	11080013	10	Drums	214	4	21	5,364
Columbium Tantalum Source Material	Tantalum Natural Minerals		014	11080014	10	Drums	214	4	21	5,308
Columbium Tantalum Source Material	Tantalum Natural Minerals		00A	1116000A	9	Drums	214	4	21	3,146
Columbium Tantalum Source Material	Tantalum Natural Minerals		533	0021671533	3	Drums	214	4	31	1,762

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Columbium Tantalum Source Material	Tantalum Natural Minerals		00D	001107000D	2	Drums	214	4	31	1,032
Columbium Tantalum Source Material	Tantalum Natural Minerals		ONG	3 NONG	3	Drums	214	4	31	1,188
Columbium Tantalum Ore	Tantalite	Belgian	206	DMS-206	30	Drums	214	4	41	8,052
Columbium Tantalum Ore	Tantalite	Belgian	216	DMS-216	13	Drums	214	4	41	3,323
Columbium Tantalum Ore Concentrates	Tantalite	Belgian	99A	199-A	12	Drums	214	4	41	3,325
Tantalite	Natural Min.		001	1	3	Drums	214	4	41	660
Tantalite	Natural Min.	Brazilian	106	106	16	Drums	214	4	41	4,265
Tantalite	Natural Min.	Brazilian	108	108	24	Drums	214	4	41	6,397.5
Tantalite	Natural Min.	Brazilian	118	118	31	Drums	214	4	41	8,550
Tantalite	Natural Min.	Belgian	207	207	7	Drums	214	4	41	1,699
Tantalite	Natural Min.	Malayan	272	2272	8	Drums	214	4	41	2,026
Tantalite	Natural Min.	Australian	329	2329	3	Drums	214	4	41	715.5
Tantalite	Natural Min.	Belgian	52A	A-DMS-123	31	Drums	214	4	41	8,553
Tantalite Concentrates	Natural Min.	Belgian	52B	B-DMS-B1	14	Drums	214	4	41	3,685
Tantalite Concentrates	Natural Min.		059	59	8	Drums	214	4	41	2,157
Tantalite Concentrates	Natural Min.		060	60	8	Drums	214	4	41	2,125
Tantalite Ore	Natural Min.		03B	DMS-203-B	9	Drums	214	4	41	2,434.5
Tantalite Ore Concentrates	Natural Min.	Nigerian	002	2	9	Drums	214	4	41	2,257
Columbium Tantalum Source Material	Tantalum Natural Minerals		001	1	13	Drums	214	4	41	3,768
Columbium Tantalum Source Material	Tantalum Natural Minerals		179	ONSP-4E179	7	Drums	214	4	42	4,379
Columbium Tantalum Source Material	Tantalum Natural Minerals		181	ONSP-4E181	6	Drums	214	4	42	2,847
Columbium Tantalum Source Material	Tantalum Natural Minerals		811	ONSP-30811	275	Drums	214	4	42	2,110
Columbium Tantalum Source Material	Tantalum Natural Minerals		178	ONSP-4E178	23	Drums	214	4	42	54,866
Columbium Tantalum Source Material	Tantalum Natural Minerals		182	ONSP 4E182	46	Drums	214	4	42	9,223
Tantalite	Tantalum Nat. Min.		104	MGK-104	22	Boxes	214	4	45	1,981
Tantalite	Tantalum Nat. Min.		108	MGK-108	14	Drums	214	4	45	3,660
Tantalite	Tantalum Nat. Min.		110	MGK-110	8	Drums	214	4	45	3,273
Tantalite	Tantalum Nat. Min.		112	MGK-112	15	Boxes	214	4	45	2,162
Tantalum Oxide	Tantalum Nat. Min.	Australian	01F	RPS	1	Drum	214	4	45	1,487
Tantalum Oxide	Chemically Precipitated Tantalum Oxide	German	-20	M 1-20 New York	20	Kegs	214	4	45	2,000.5
Tantalum Oxide	Chemically Precipitated Tantalum Oxide	German	902	P-902	50	Kegs	214	4	45	5,014
Tantalum Oxide	Chemically Precipitated Tantalum Oxide		138	S-1138	50	Kegs	214	4	45	5,004
Tantalum Oxide	Chemically Precipitated Tantalum Oxide	German	200 & 250	S-1138	100	Kegs	214	4	45	10,005
Tantalum Oxide	Chemically Precipitated Tantalum Oxide	German	401	S-1138/F	60	Kegs	214	4	45	6,020
Tantalum Oxide	Chemically Precipitated Tantalum Oxide	German	351	S-1138G	50	Kegs	214	4	45	5,031.5
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	350	S-1138	100	Kegs	214	4	45	10,017
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	-50	P-902	50	Kegs	214	4	45	5,012
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	992	S-992	50	Kegs	214	4	45	5,007
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	992	S-992	50	Kegs	214	4	45	5,004
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	048	S-1048-New York	50	Kegs	214	4	45	4,980
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide	German	050	S-1048	100	Kegs	214	4	45	9,196
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		101 OR /50	S-1138	50	Kegs	214	4	45	5,020
Tantalum Pentoxide	Chemically Precipitated Tantalum Oxide		101 OR /50	S-1138	50	Kegs	214	4	45	5,020
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	214	4	51	6,590
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	214	4	51	6,603
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	214	4	51	6,448
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	4	Drums	214	4	51	2,284
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	10	Drums	214	4	51	6,566
Columbium Tantalum Source Material	Tantalum Natural Minerals		569	1107(569)	3	Drums	214	4	51	1,567
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	16	Drums	214	4	61	10,635
Columbium Tantalum Source Material	Tantalum Natural Minerals		111	111	35	Drums	214	4	61	22,988

COMMODITY	TYPE	ORIGIN	MIF Lot #	LOT #	QUANTITY	UNIT	WHSE	SEC	BAY	NET WT.
Tantalite	Natural Min.	Swedish	001	1	13	Drums	214	4	41/42	3,144
Tantalite	Natural Min.	Swedish	001	1	4	Drums	214	4	41/42	911
Tantalite	Natural Min.	Brazilian	105	105	8	Drums	214	4	41/42	2,192
Tantalite	Natural Min.		053	1053	22	Drums	214	4	41/42	6,594
Tantalite	Natural Min.		53A	1053A	8	Drums	214	4	41/42	2,184
Tantalite	Natural Min.		53B	1053B	8	Drums	214	4	41/42	2,128
Tantalite	Natural Min.	Belgian	99B	199-B	29	Drums	214	4	41/42	7,917
Tantalite	Natural Min.	Belgian	99C	199-C	22	Drums	214	4	41/42	5,356
Tantalite	Natural Min.	Belgian	99D	199-D	11	Drums	214	4	41/42	2,851
Tantalite	Natural Min.	Belgian	52C	C-DMS-C-1	21	Drums	214	4	41/42	5,670
Tantalite	Natural Min.		01F	DMS-137	50	Drums	214	4	41/42	13,729.5
Tantalite Concentrates	Natural Min.	Belgian	138	DMS-138	52	Drums	214	4	41/42	14,010
Tantalite Ore	Natural Min.	Brazilian	0AS	AS	4	Drums	214	4	41/42	925
			IOE	Rio E	47	Drums	214	4	41/42	10,798.5
				Grand Total:	6752	Drums				1,640,356

SEP 04 1998

DNSC-MQ

MEMORANDUM FOR DNSC-MO

SUBJECT: Annual Radiological Report
DLAH Form 30, S/N 6, dtd Aug 6, 1998
New Haven, IN

The attached report indicates a somewhat incomplete inspection because the Radiological Safety Officer was apparently denied access to some depot records under the guise of Public Law No. 93-579, Privacy Act of 1974. Please direct depot personnel to provide all requested documents during future annual surveys. Failure to do so prevents us from fulfilling our responsibilities mandated by the DNSC Occupational Radiation Protection Program.

Notwithstanding the above, we concur with the following recommendations in the attached subject report:

Calibrate two check sources maintained at the depot.

Include documentation of radiation safety training in the depot's "Radiological Data Book".

Include documentation of coordination with emergency response personnel in the depot's "Radiological Data Book".

Place copies of the DNSC Occupational Radiation Protection Program, DLA and NRC Regulations, and the DNSC Source Materials License in the depot library so they are available to all personnel without requiring them to request access.

Review individual exposure records quarterly, document the reviews, advise employees and document the annual advisories. Include documentation in the depot's "Radiological Data Book."

/S/ Peter O.I.M. Porton

PETER O.I.M. PORTON
Chief, Quality Assurance &
Technical Services Division

Attachment

cc: Off. file - MQ DNSC-ME, DNSC-MQBI, DNSC-MQBR, DNSC-MQNH

DNSC-MQ/Mpecullan:mjp/767-7620/9/3/98

CODE-

NOTIFICATION OF STOCKPILE INSPECTION

1. NAME AND LOCATION OF DEPOT OR FACILITY DLA/DNSC New Haven Depot, IN 46774-9644		2. NAME AND TYPE OF COMMODITY New Haven Depot Radiological Survey		3. SERIAL NO. 5 Amended
D	A. LAST 31-Jul-96	6. TYPE OF STORAGE AND SPECIFIC DEPOT AREA Whse. 214 and 215 Zirconium Ore Pile 111 & 111-A Entire Perimeter Fence		4. REGION
A	B. THIS 08-Apr-97			
7. NAME AND TITLE OF PERSON RESPONSIBLE FOR MATERIAL FREDERIC W. BROOKS, DEPOT MANAGER			7A. TEL. NO. OR CODE 219 749-5953	7B. EXTENSION

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 and/or computed count.		
12. SECURITY AND FIRE PROTECTION	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 remarks)	(1) CLASS %	(2) CLASS II %

14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS

PRO-GRAM	TYPE (Pile, case, ingot, bale, etc.)	WIDTH c.	LENGTH d.	HEIGHT e.	DIAM-ETER	g. WEIGHT OF UNIT		TOTAL NUMBER OF UNITS	i. TOTAL WEIGHT LBS	
						(1) GROSS	(2) NET			

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 pages 1 thru 4 and Exhibits 1 thru 4
 Note: See Amendment on page 4 of this report.

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

None

17. DISTRIBUTION	<input checked="" type="checkbox"/> Q.A. DIVISION	<input checked="" type="checkbox"/> DNSC-MQF	<input checked="" type="checkbox"/> SUPERVISORY Q.A.
	<input checked="" type="checkbox"/> ORIGINATING DEPOT	<input type="checkbox"/> STOCKPILE OP. DIVISION	<input type="checkbox"/> CONTRACTING OFFICER
	<input type="checkbox"/> FINANCE	<input type="checkbox"/> CONTRACTOR	<input checked="" type="checkbox"/> OTHER MQFNH
18. NAME OF INSPECTOR William J. Till, QAS (Type or print)		18A. SIGNATURE <i>Wm J. Till</i>	18. DATE OF SIGNATURE 15-Aug-97

RADIOLOGICAL SURVEY

Apr 8, 1997

Purpose:

This report is to document the annual Radiological survey conducted at New Haven Depot. The depot has in storage seven (7) commodities which are covered on the NRC Source licenses STC-133, expiration date 31 Oct. 1999. The licensable commodities are Columbium Tantalum, Source Material, Natural Minerals; Columbium Tantalum, Source Material, Chemically Processed; Columbium Tantalum, Source Material; Tantalum Oxide, Columbium Tantalum, Source Material; Rear Earth(Sodium Sulfate); Zirconium Ore, (Baddeleyite Material) of which are all stored in Whs. 214, 215 and Area 7A.

Disposition of licensable commodity: The warehouse sizes are 180' X 960' and is divided into four (4) separate 180' X 240' sections with 79 bays with eight (8) roll-up doors per section. Licensable commodities are stored in accordance with the storage manual. Specification and stack cards (DLAH-1660) are visible and accessible. Warning signs, labels, marking and placards are in place. Accessibility is controlled by the Depot Manager and RPO on location, warehouse doors are locked for security. The depot has chain link fencing with three strands of barbed wire for additional security. This depot is also provided with twenty fours a day, seven days a week guard service.

2. Safety:

This depot installation maintains a decontamination area in section 1, warehouse 214, west end, which is divided into two sections. This facility is furnished with showers, toilets, wash basins, laundry facilities, change room and locker rooms. All the air in this area is filtered with a self contained filtering system and set up for asbestos particulate.

3. Equipment Procedure:

The procedure utilized during this survey involved three integral parts.

1. Instrumentation/Calibration
2. Equipment
3. Source Chip Check

All radiological equipment is checked for calibration and proper operation using a CS-137 source chip.

4. Physical Survey:

The subject materials were surveyed in two separate warehouses and one open storage area. They were monitored using the FAG 40F6 Dosimeter model 50002. Additional equipment available are Eberline E-120 and E-520 Geiger counters . Calibration dates on the FAG meter is 3/97 due 3/98, E-120 is 3/97 due 3/98 and the E520 calibration date is 3/97 and due 3/98, In-house calibration check is accomplished prior to use.

(a) The first survey involves the random selection of seventeen (17) locations along the perimeter fence. At each location three (3) readings were taken. All readings were recorded on a chart of the perimeter fence. The average background readings were well within the depot background level of detection of 0.02 - 0.03 mr/hr. (See exhibit # 1)

(b) The second portion of this survey involves the readings at two (2) Zirconium (Baddeleyite) Ore piles, one being the base material which is mostly stone and dirt from a previously stored location. Material is completely fenced with a gate and pad lock. All radioactive signs are in place. Readings for pile 111 on

contact were 3.50 mr/hr max. The contaminated pile 111-A were 0.09 mr/hr max. (See exhibit # 2 attached.)

(c) The third portion of this survey involves recorded reading at each entrance of warehouse # 214, and # 215 where licensable goods are stored, by bay and section, for location and list of four (4) readings at each location. (See exhibit # 3 page 1 & 2)

(d) The fourth portion of the survey involves recording readings on the warehouse stored commodities. Four (4) separate readings were taken. (See the attached exhibit for data information). Readings were 0.9 mr/hr max. and 0.06 mr/hr min. (See exhibit # 4 attached page 1 & 2.)

Conclusion:

The perimeter fence line readings indicates that concentration of radiation released does not exceed the background reading for any of the locations selected at random. Background is 0.02 - 0.03 mr/hr for New Haven Depot. The background radiation reading was established during survey from (30 to 50 feet) to the nearest building using the Dosimeter FH40F6 and the E-120 Geiger Counter as backup.

The overall storage of these licensable commodities is satisfactory and in compliance with DLA/DNSC directives and NCR revised 10CFR part 20 Sub part F.

5. Equipment List and Information:

<u>Instrument</u>	<u>Model/Type</u>	<u>Serial No.</u>	<u>Calibration Due Date</u>
FAG 40 F6 Dosimeter		5-0002	(3/24/98)
Eberline-Geiger-Counter	E-120	10122	(3/21/98)
Eberline - Geiger Counter	E-520	3135	(3/21/98)
Charger, Dosimeter	FEMA-750	A-004264	(Meters are out
Minometer II	687-0	357	for Re-calibration)
Transistorized Charger	362		
Reader Victoreen	357		
V-750	6 V-138 Dosimeter	39403/50793	

6. Personnel Equipment consisting of:

- (9) ea. Pocket Dosimeter Victoreen
- (15) ea. V-138 Dosimeter used for backup
- (16) ea. Thermoluminescent Dosimeter LTD
(Film Badges) Rotated Quarterly with the Army

Pocket dosimeters are assigned only when duties require actual exposure in the handling of stored licensable commodities. Film badges are issued each time personnel are in the general vicinity of source material. Evaluation of film badges is provided by USAIRDC, DS Army TMDE ACT., Lexington, KY.

a. Records Inspection:

Accurate records are maintained by the RPO and are in satisfactory condition.

b. Training:

All personnel are trained as to commodities and level of radiation in each area of responsibility, in addition to Data Safety Sheet and Hazardous Material.

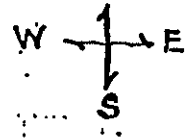
AMENDMENT dtd 14 Aug 1997

1. Radiological Protection Officer : Lois Huddleston, Depot RPO
William Till, RSO (alt.)
2. Annual safety training is conducted on a yearly basis during the depot monthly safety training meeting. Records are available for all safety meetings.
3. All dosimeters and counters were checked for operation during the annual radiological survey.
4. All employees here at New Haven Depot has a history of radiation exposure. There is no record of any exposure being maintained on a DD Form 1141. Quarterly reviews are maintained and keep on file. The March 1997 report has individual signatures.
5. The current NRC Form 3 (1-96) is posted.
6. Restricted areas are all established. These areas and readings are referenced in Exhibit # 2 & 4 of this report. The barriers have "Caution Radioactive Material" signs posted.
7. Available Specifications and Regulations:
 - a. DNSC Occupational Radiation Protection Program (dtd 25 Jun 1997)
 - b. NRC License STC-133 (lt. dtd 17 Jul 1996)
 - c. DLAR 1000.28 (dtd 15 Mar 1982)
 - e. Code of Federal Reg's 10 (dtd 1993)
Code of Federal Reg's 49 (dtd 1992)
8. Protective clothing available:
 - a. Tyvex coveralls with gloves, hood and boots.
9. Protective equipment:
 - a. Confo respirators are available to all employees that would have a need to be in restricted areas or would work with radioactive material that presents dust.
 - b. Employees who ware respirators received annual training and medical exams.

Note: Readings are in mr/hr

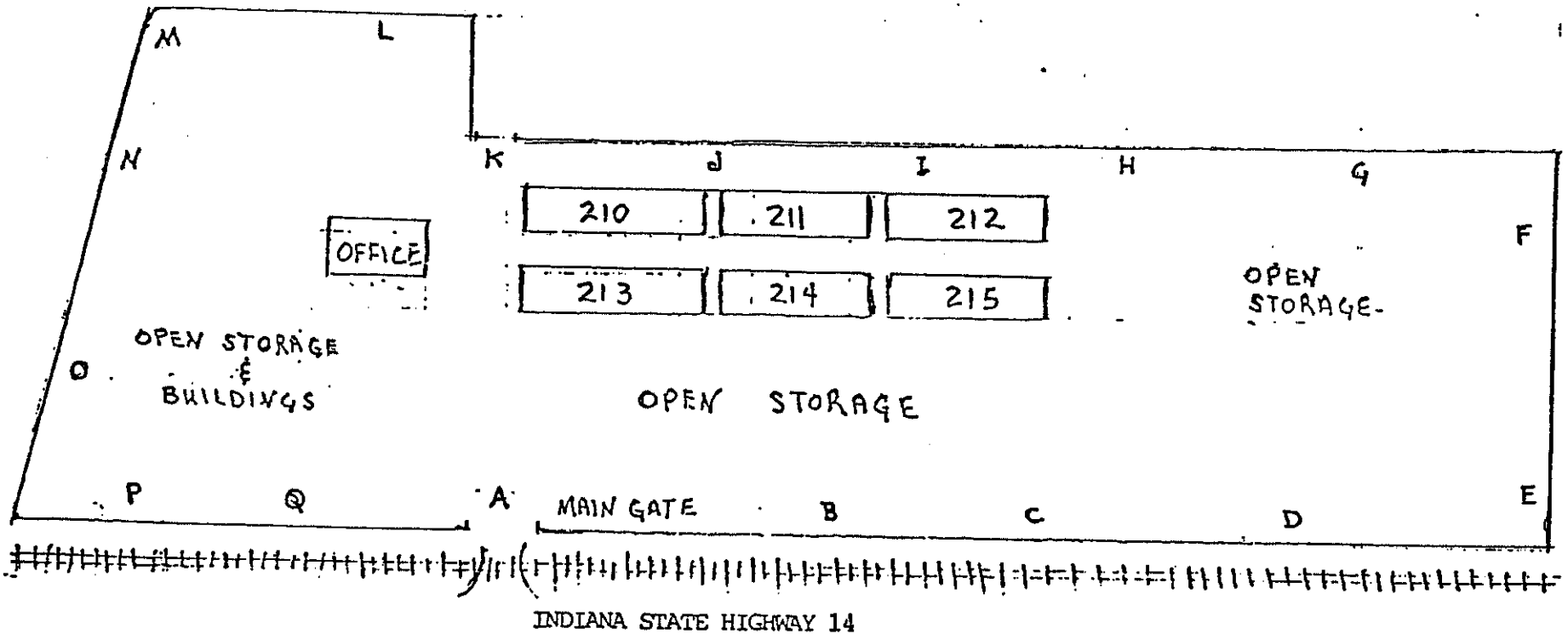
RADIOLOGICAL MONITOR SURVEY
PERIMETER FENCELINE
NEW HAVEN DEPOT

Exhibit # 1



Locations

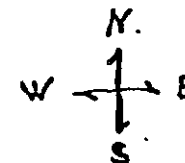
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	.014	.013	.018	.017	.016	.015	.013	.017	.014	.016	.015	.016	.016	.014	.013	.017	.013
	.020	.018	.020	.022	.023	.018	.018	.019	.019	.018	.017	.019	.018	.020	.019	.021	.019
	.020	.023	.022	.024	.024	.021	.022	.023	.023	.020	.021	.023	.022	.025	.021	.024	.023
Ave:	.018	.018	.020	.021	.021	.018	.017	.019	.018	.018	.017	.019	.018	.019	.017	.020	.018



Note: Readings are in mr/hr

RADIOLOGICAL MONITOR SURVEY
Zirconium Ore Pile - 111 & Base Material

Exhibit # 2
"Restricted Area"



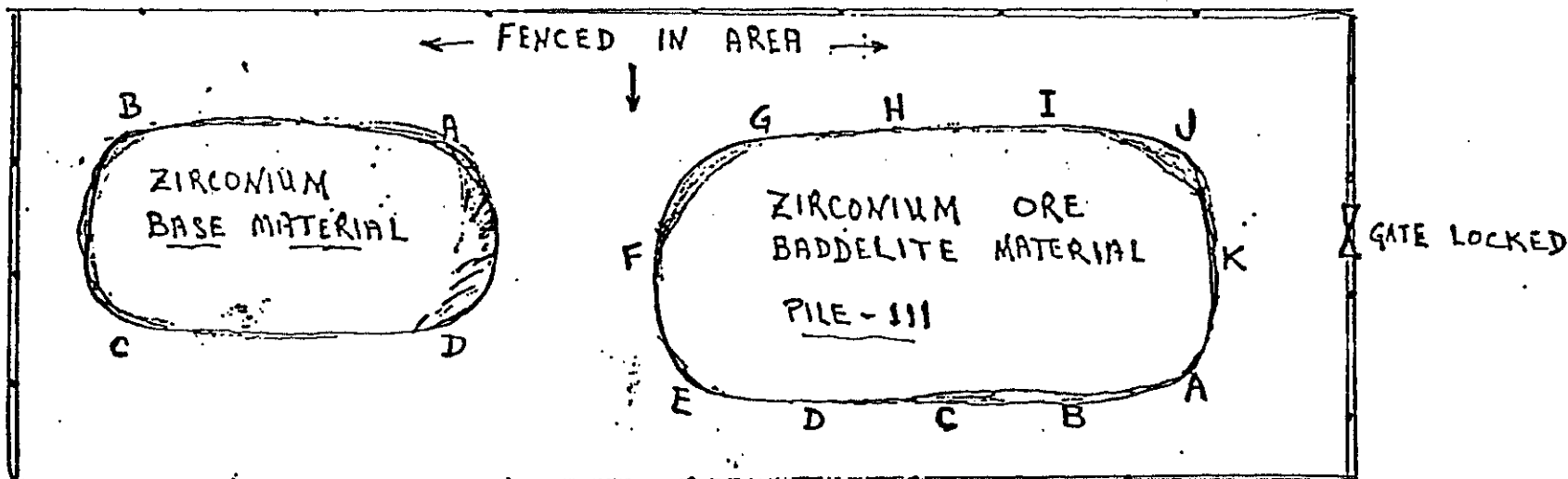
File # 111	A	B	C	D	E	F	G	H	I	J	K
Contact Reading	2.45	2.20	2.50	3.30	2.40	2.35	2.20	2.95	2.80	2.60	3.50
1 Foot "	1.20	1.40	1.35	1.40	1.50	1.10	1.40	1.35	1.35	1.40	1.60
6 Foot "	.60	.70	.70	.70	.80	.55	.70	.75	.75	.70	.80
9 Foot "	.40	.50	.50	.50	.60	.40	.50	.60	.60	.60	.60
At Fence "	.23	.25	.25	.24	.30	.20	.30	.30	.30	.35	.25

Base File 111A	A	B	C	D
Contact Reading	.06	.10	.30	.09
1 Foot "	.04	.08	.10	.05
6 Foot "	.04	.05	.08	.04
9 Foot "	.03	.02	.03	.02
At Fence "				

File # 111A

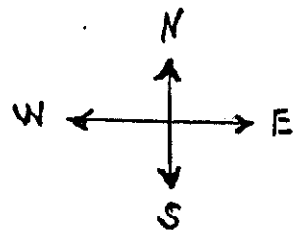
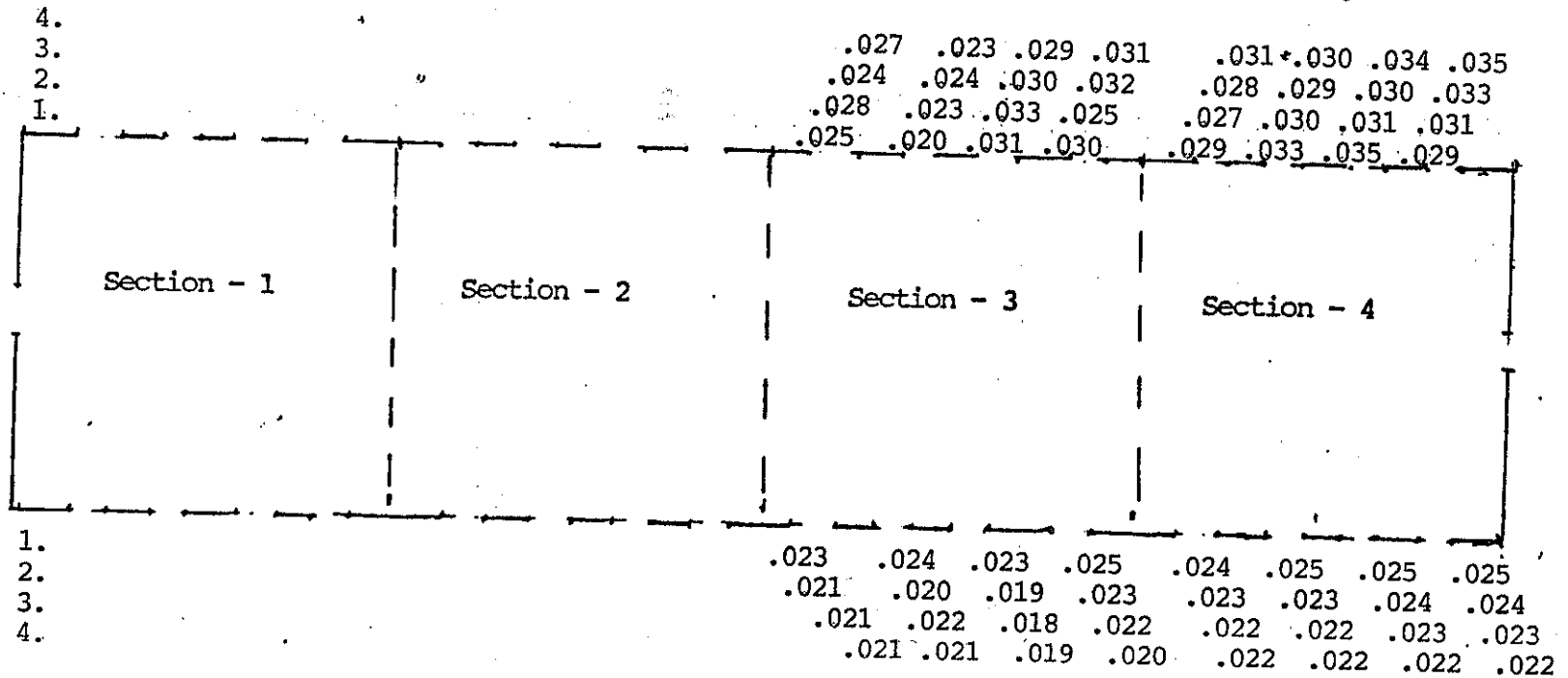
Base Material (more stone than ore)

"Caution Radioactive Material" signs posted on perimeter fence



Warehouse # 214
 New Haven Depot, IN
 Each WHSE has (4) sections 180' wide X 240' long
 Radioactive material is located in section
 Date of readings
 All readings are in mr/hr
 High average at door interance is .02 - .03

- At door entrance
- 1. = 1 ft.
 - 2. = 3 ft.
 - 3. = 6 ft.
 - 4. = 9 ft.



Warehouse # 215

New Haven Depot, IN

Each WHSE has (4) sections 180' wide X 240' long

Radioactive material is located in section

All readings are in mr/hr

High average at door interance is .02 - .03

At door entrance

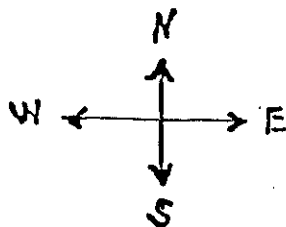
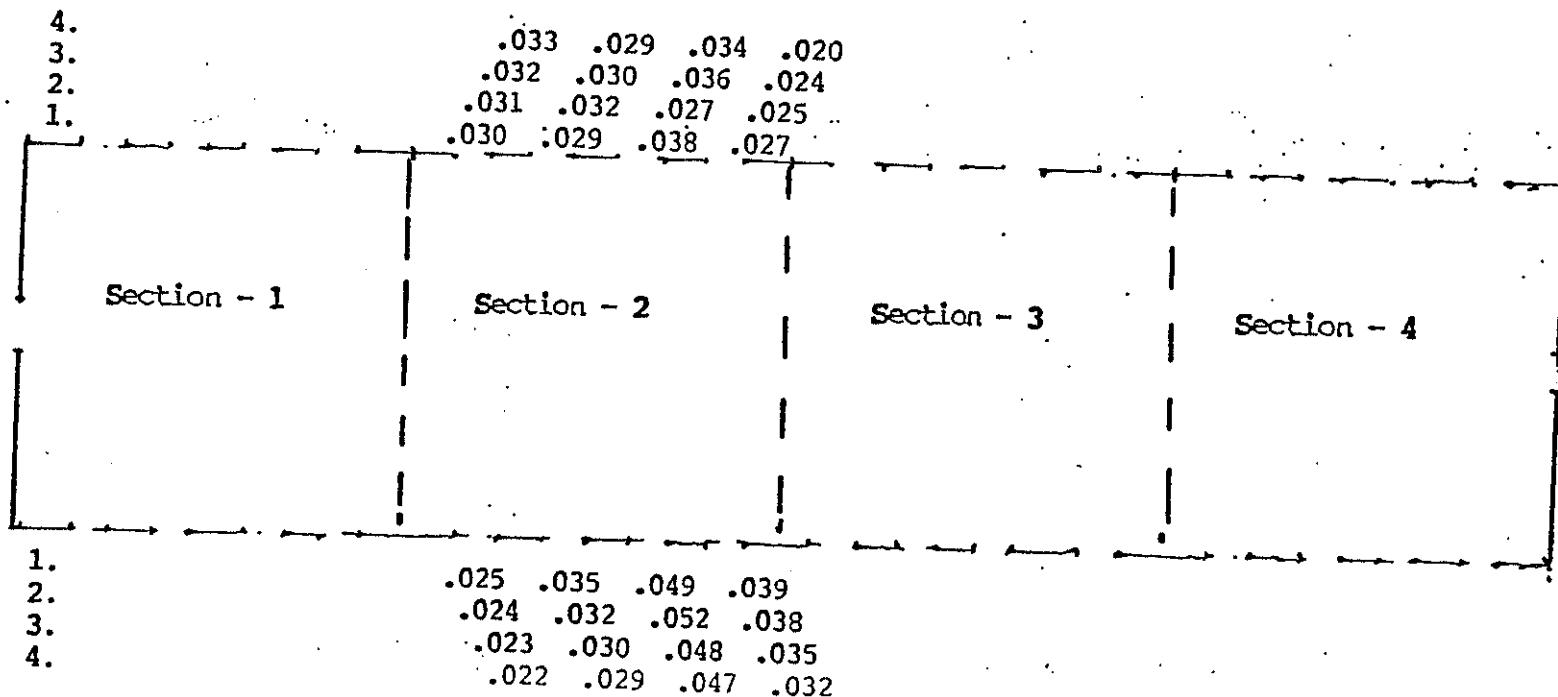
Exhibit # 3 Page 2 of 2

1. = 1 ft.

2. = 3 ft.

3. = 6 ft.

4. = 9 ft.



Radiation Monitoring Survey

Note: All readings are in mr/hr
 Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
214-3 Bays	Columbium Tantalum Columbium Natural	Fag-FH40 Meter-F6	Listed Below		
9, 13, 14, 15, 16, 17	Minerals Tantalum Pentoxide		Contact	900	0.9
27 & 28	Columbium Tantalum Tantalum Natural		1 ft	600	0.6
	Minerals		6 ft	200	0.2
			12 ft	100	0.1

Radiation Monitoring Survey

Note: All readings are in mr/hr
 Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
214-4 Bays	Columbium Tantalum Columbium Natural	FAG-FH40 Meter-F6	Listed Below		
11-21, 45 41 - 42	Minerals Tantalite Columbium		Contact	600	0.6
51 - 61	Source Material Tantalum Pentoxide		1 ft	400	0.4
	Chemically Processed		6 ft	200	0.2
			12 ft	100	0.1

Radiation Monitoring Survey

Note: All readings are in mr/hr
 Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
215-2	Rare Earth Sodium Sulfate	Fag-FH40 Meter-F6	Listed below		
Bays 36,41,42, 46,52,53 54 & 62		Yes	Contact	700	0.7
		Yes	1 ft	500	0.5
		Yes	6 ft	300	0.3
		Yes	12 ft	60.0	0.06

Radiation Monitoring Survey

Note:
 Open document

Note: All readings are in mr/hr

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
		Fag-FH40 Meter-F6			
			Contact		
			1 ft		
			6 ft		
			12 ft		



DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN RD. SUITE. 4616
FT. BELVOIR, VA 22060-6223



IN REPLY

REFER TO DNSC-MQ

July 2, 1997

MEMORANDUM FOR DNSC-MQF

SUBJECT: Radiological Survey
DLAH Form 30, S/N 5, dtd April 8, 1977
New Haven, IN

A review of the subject survey report (attached) indicates that we need additional data for the record. Please have an addendum submitted which includes the following information as of the date of the survey:

1. Identify the depot Radiological Protection Officer (RPO). ✓
2. Are records available indicating that the depot Radiological Protection Officer (RPO) has conducted annual radiation safety training? ✓
3. Was an operational check of all dosimeters conducted during the survey? ✓
4. Are individual exposure records maintained on DD Form 1141? ^{NO} Is there a record of quarterly reviews by the depot RPO? Do records indicate the last time these were discussed with each employee? When?
5. Is a current version of NRC Form 3 posted as required? ✓
6. Have restricted areas been established? Where? What are the perimeter barriers? Are the perimeters posted with proper signs (see DNSC Occupational Radiation Protection Program)? Have measurements of dose rates been taken at the perimeters of restricted areas?
7. Are copies available at the depot of:
 - a. DNSC Occupational Radiation Protection Program? ✓
 - b. NRC License STC-133? ✓
 - c. DLAR 1000.28? ✓
 - d. Applicable Parts of Titles 10 and 49 of the Code of Federal Regulations? ✓

- ✓ 8. Is protective clothing available? Specify.
- ✓ 9. Is protective equipment (respirators) available? Have employees received annual training and medical exams?

/s/ James D. Jenkins

JAMES D. JENKINS, SR.
Chief, Quality Assurance &
Technical Services Division

Attachment

cc: Official ✓
Reading

MPecullan/MQ/767-7620/July 1, 97/mjp

CÓDE-

NOTIFICATION OF STOCKPILE INSPECTION

1. NAME AND LOCATION OF DEPOT OR FACILITY DLA/DNSC/MOWE New Haven Depot New Haven, IN 46774-9644		2. NAME AND TYPE OF COMMODITY New Haven Depot Radiological Survey		3. SERIAL NO. 5
D A T E	A. LAST 31-Jul-96 B. THIS 08-Apr-97	6. TYPE OF STORAGE AND SPECIFIC DEPOT AREA Warehouse 214 and 215 Zirconium Ore Pile 111 & 111-A Entire Perimeter Fence		4. REGION

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

INSPECTION DATA (Check and complete. Explain negative responses.)

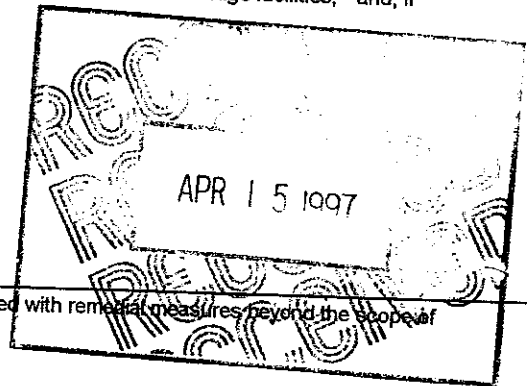
		YES	NO
8. STORAGE	A. Storage Facilities Are of the Type Prescribed in the Storage Manual		
	B. Storage Facilities Are Maintained in Good Order.		
9. MATERIAL	A. Material Is Stored in the Manner Prescribed in the Storage Manual.		
	B. Material is Free of Deterioration, Infestation, Contamination, Commingling, 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. _____ None _____ Dated _____ None _____		
11. UNITS	Quantity indicated in Item 14. reflects Depot Postings and agrees with actual and/or computed count.		
12. SECURITY AND FIRE PROTECTION	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 remarks)	(1) CLASS I %	(2) CLASS II %

14. DESCRIPTION OF CONTAINERS, PILES, OR OTHER UNITS

PRO-GRAM	TYPE (Pile, case, ingot, bale, etc.)	WIDTH c.	LENGTH d.	HEIGHT e.	DIAM-ETER	g. WEIGHT OF UNIT		TOTAL NUMBER OF	i. TOTAL WEIGHT LBS	
						(1) GROSS	(2) NET		NET	
							Avg. 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 pages 1 - 3 and Exhibits 1 - 4



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

None

ced 4/15/97

17. DISTRIBUTION	<input checked="" type="checkbox"/> Q.A. DIVISION	<input checked="" type="checkbox"/> Q. A. CHIEF (MQF)	<input checked="" type="checkbox"/> SUPERVISORY Q.A.(MQFBR)
	<input checked="" type="checkbox"/> ORIGINATING DEPOT	<input type="checkbox"/> STOCKPILE OP. DIVISION	<input type="checkbox"/> CONTRACTING OFFICER
	<input type="checkbox"/> FINANCE	<input type="checkbox"/> CONTRACTOR	<input checked="" type="checkbox"/> OTHER, MQFNH, DNSC-ME
18. NAME OF INSPECTOR Clarence McDaniel, QAS DLAH FORM 30, Jul 93		18A. SIGNATURE <i>Clarence McDaniel</i>	18. DATE OF SIGNATURE 8-Apr-97

RADIOLOGICAL SURVEY

Apr 8, 1997

Purpose:

This report is to document the annual Radiological survey conducted at New Haven Depot. The depot has in storage seven (7) commodities which are covered on the NRC Source licenses STC-133, expiration date 31 Oct. 1999. The licensable commodities are Columbium Tantalum, Source Material, Natural Minerals; Columbium Tantalum, Source Material, Chemically Processed; Columbium Tantalum, Source Material; Tantalum Oxide, Columbium Tantalum, Source Material; Rear Earth(Sodium Sulfate); Zirconium Ore, (Baddeleyite Material) of which are all stored in Whs. 214, 215 and Area 7A.

Disposition of licensable commodity: The warehouse sizes are 180' X 960' and is divided into four (4) separate 180' X 240' sections with 79 bays with eight (8) roll-up doors per section. Licensable commodities are stored in accordance with the storage manual. Specification and stack cards (DLAH-1660) are visible and accessible. Warning signs, labels, marking and placards are in place. Accessibility is controlled by the Depot Manager and RPO on location, warehouse doors are locked for security. The depot has chain link fencing with three strands of barbed wire for additional security. This depot is also provided with twenty fours a day, seven days a week guard service.

2. Safety:

This depot installation maintains a decontamination area in section 1, warehouse 214, west end, which is divided into two sections. This facility is furnished with showers, toilets, wash basins, laundry facilities, change room and locker rooms. All the air in this area is filtered with a self contained filtering system and set up for asbestos particulate.

3. Equipment Procedure:

The procedure utilized during this survey involved three integral parts.

1. Instrumentation/Calibration
2. Equipment
3. Source Chip Check

All radiological equipment is checked for calibration and proper operation using a CS-137 source chip.

4. Physical Survey:

The subject materials were surveyed in two separate warehouses and one open storage area. They were monitored using the FAG 40F6 Dosimeter model 50002. Additional equipment available are Eberline E-120 and E-520 Geiger counters. Calibration dates on the FAG meter is 3/97 due 3/98, E-120 is 3/97 due 3/98 and the E520 calibration date is 3/97 and due 3/98, In-house calibration check is accomplished prior to use.

(a) The first survey involves the random selection of seventeen (17) locations along the perimeter fence. At each location three (3) readings were taken. All readings were recorded on a chart of the perimeter fence. The average background readings were well within the depot background level of detection of 0.02 - 0.03 mr/hr. (See exhibit # 1)

(b) The second portion of this survey involves the readings at two (2) Zirconium (Baddeleyite) Ore piles, one being the base material which is mostly stone and dirt from a previously stored location.

Material is completely fenced with a gate and pad lock. All radioactive signs are in place. Readings for pile 111 on contact were 3.50 mr/hr max. The contaminated pile 111-A were 0.09 mr/hr max. (See exhibit # 2 attached.)

(c) The third portion of this survey involves recorded reading at each entrance of warehouse # 214, and # 215 where licensable goods are stored, by bay and section, for location and list of four (4) readings at each location. (See exhibit # 3 page 1 & 2)

(d) The fourth portion of the survey involves recording readings on the warehouse stored commodities. Four (4) separate readings were taken. (See the attached exhibit for data information). Readings were 0.9 mr/hr max. and 0.06 mr/hr min. (See exhibit # 4 attached page 1 & 2.)

Conclusion:

The perimeter fence line readings indicates that concentration of radiation released does not exceed the background reading for any of the locations selected at random. Background is 0.02 - 0.03 mr/hr for New Haven Depot. The background radiation reading was established during survey from (30 to 50 feet) to the nearest building using the Dosimeter FH40F6 and the E-120 Geiger Counter as backup.

The overall storage of these licensable commodities is satisfactory and in compliance with DLA/DNSC directives and NCR revised 10CFR part 20 Sub part F.

5. Equipment List and Information:

Instrument	Model/Type	Serial No.	Calibration Due Date
FAG 40 F6 Dosimeter		5-0002	(3/24/98)
Eberline-Geiger-Counter	E-120	10122	(3/21/98)
Eberline - Geiger Counter	E-520	3135	(3/21/98)
Charger, Dosimeter	FEMA-750	A-004264	(Meters are out
Minometer II	687-0	357	for Re-calibration)
Transistorized Charger	362		
Reader Victoreen	357		
V-750	6 V-138 Dosimeter	39403/50793	

6. Personnel Equipment consisting of:

- (9) ea. Pocket Dosimeter Victoreen
- (15) ea. V-138 Dosimeter used for backup
- (16) ea. Thermoluminescent Dosimeter LTD
(Film Badges) Rotated Quarterly with the Army

Pocket dosimeters are assigned only when duties require actual exposure in the handling of stored licensable commodities. Film badges are issued each time personnel are in the general vicinity of source material. Evaluation of film badges is provided by USAIRDC, DS Army TMDE ACT., Lexington, KY.

a. Records Inspection:

Accurate records are maintained by the RPO and are in satisfactory condition.

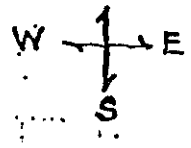
b. Training:

All personnel are trained as to commodities and level of radiation in each area of responsibility, in addition to Data Safety Sheet and Hazardous Material.

Note: Readings are in mr/hr

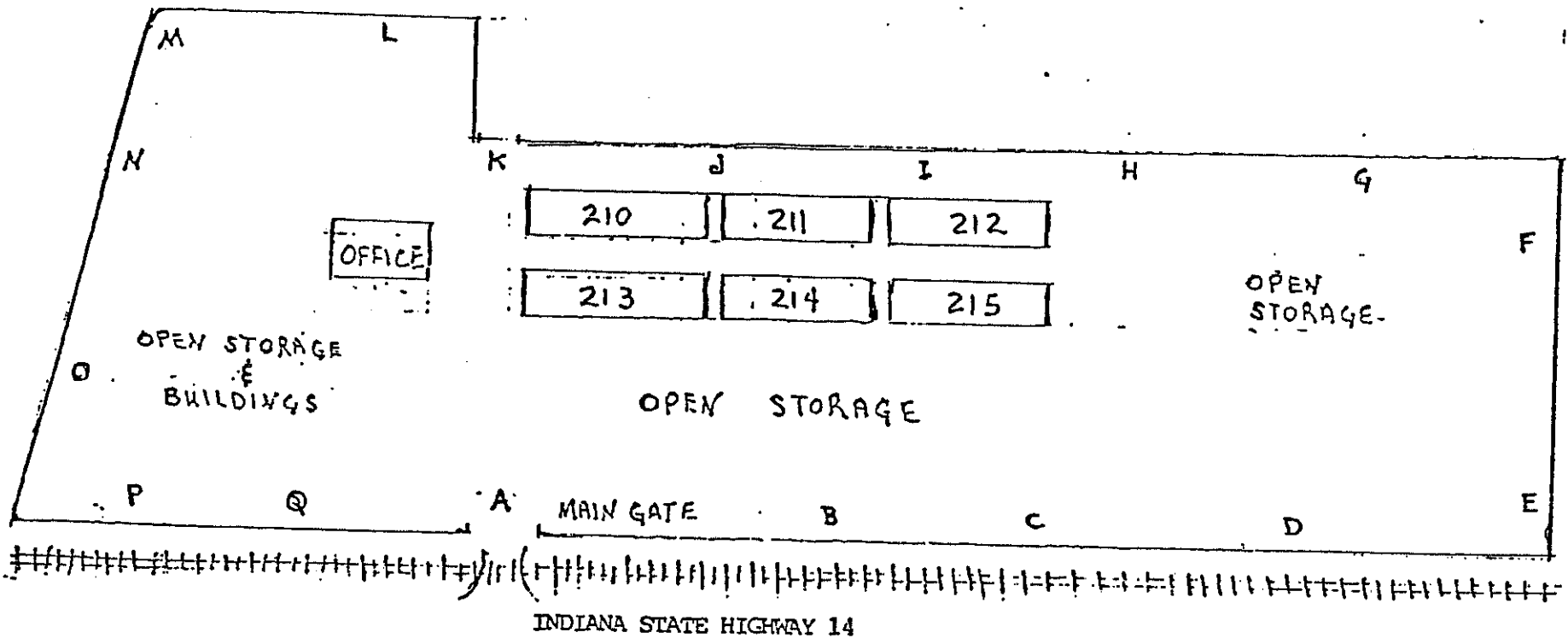
RADIOLOGICAL MONITOR SURVEY
PERIMETER FENCELINE
NEW HAVEN DEPOT

Exhibit # 1



Locations

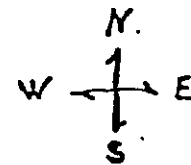
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	.014	.013	.018	.017	.016	.015	.013	.017	.014	.016	.015	.016	.016	.014	.013	.017	.013
	.020	.018	.020	.022	.023	.018	.018	.019	.019	.018	.017	.019	.018	.020	.019	.021	.019
	.020	.023	.022	.024	.024	.021	.022	.023	.023	.020	.021	.023	.022	.025	.021	.024	.023
Ave:	.018	.018	.020	.021	.021	.018	.017	.019	.018	.018	.017	.019	.018	.019	.017	.020	.018



Note: Readings are in mr/hr

RADIOLOGICAL MONITOR SURVEY
Zirconium Ore Pile - 111 & Base Material

Exhibit # 2

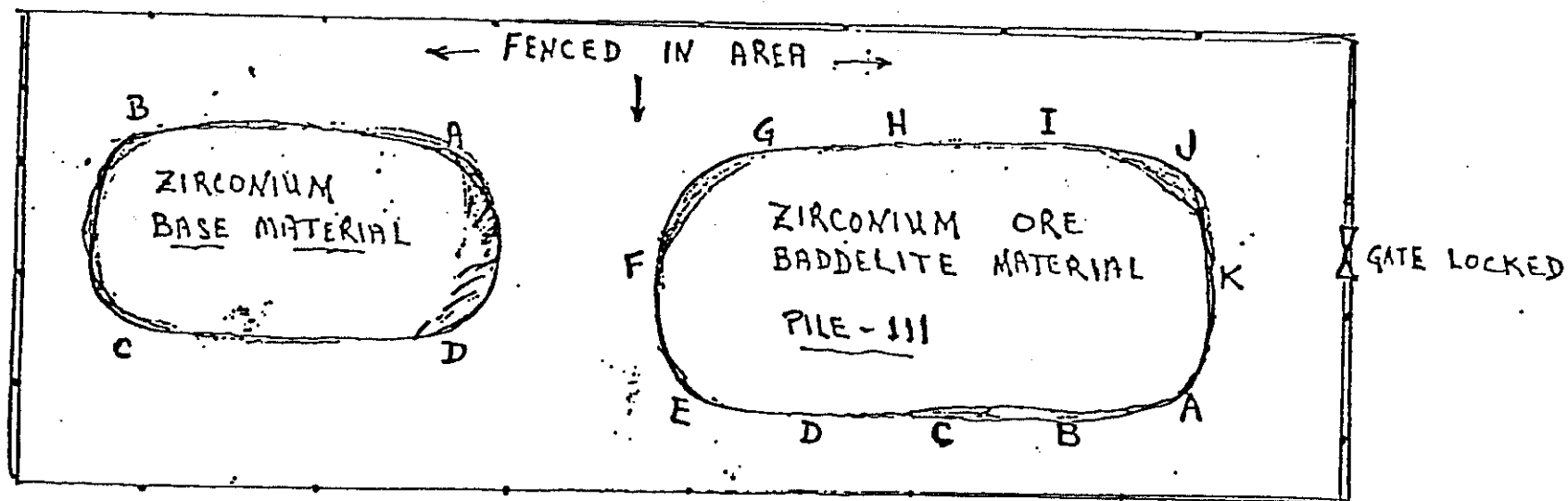


File # 111	A	B	C	D	E	F	G	H	I	J	K
Contact Reading	2.45	2.20	2.50	3.30	2.40	2.35	2.20	2.95	2.80	2.60	3.50
1 Foot "	1.20	1.40	1.35	1.40	1.50	1.10	1.40	1.35	1.35	1.40	1.60
6 Foot "	.60	.70	.70	.70	.80	.55	.70	.75	.75	.70	.80
9 Foot "	.40	.50	.50	.50	.60	.40	.50	.60	.60	.60	.60
At Fence "	.23	.25	.25	.24	.30	.20	.30	.30	.30	.35	.25

Base Pile 111A	A	B	C	D
Contact Reading	.06	.10	.30	.09
1 Foot "	.04	.08	.10	.05
6 Foot "	.04	.05	.08	.04
9 Foot "	.03	.02	.03	.02
At Fence "				

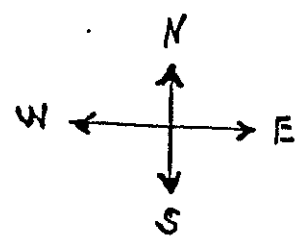
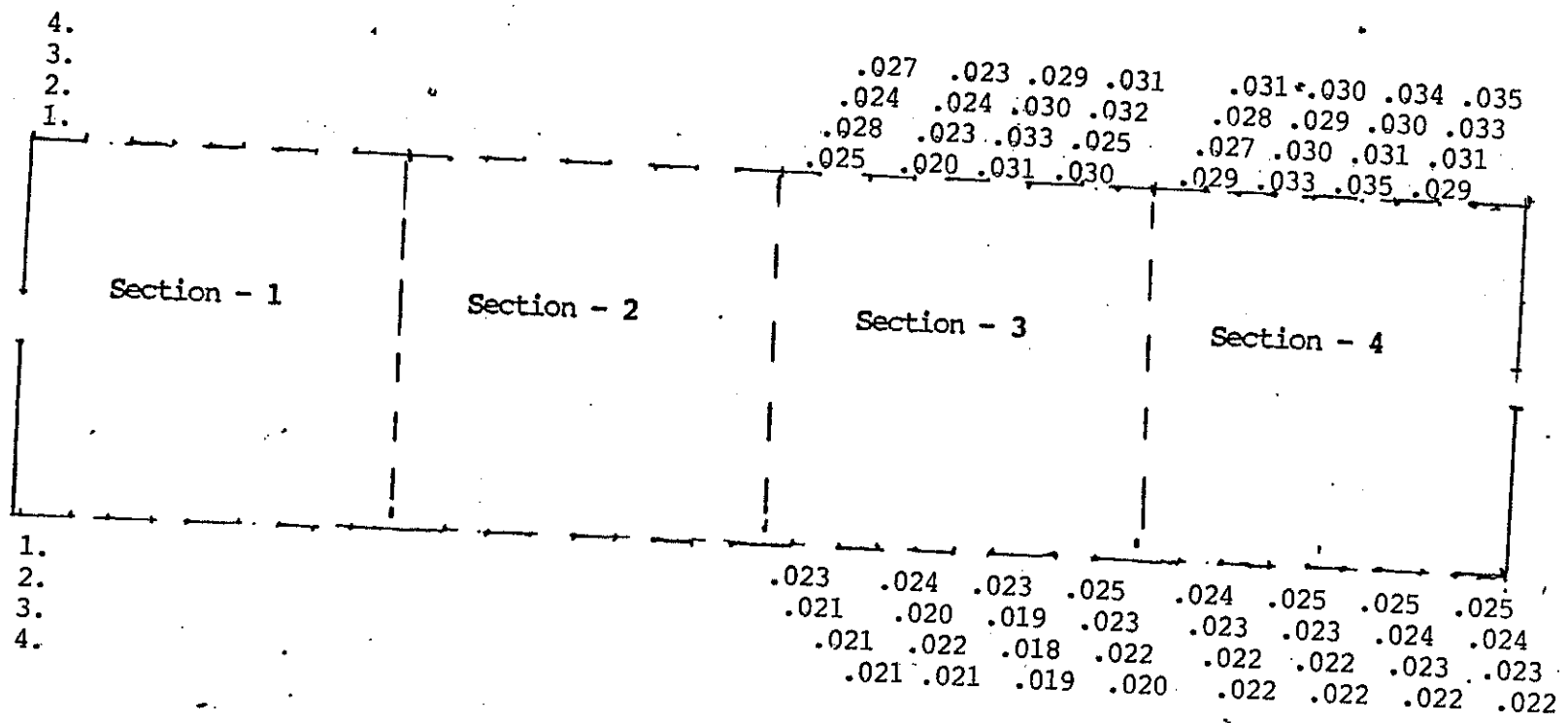
File # 111A

Base Material (more stone than ore)



Warehouse # 214
 New Haven Depot, IN
 Each WHSE has (4) sections 180' wide X 240' long
 Radioactive material is located in section
 Date of readings
 All readings are in mr/hr
 High average at door interance is .02 - .03

- At door entrance
- 1. = 1 ft.
 - 2. = 3 ft.
 - 3. = 6 ft.
 - 4. = 9 ft.



Radiation Monitoring Survey

Note: All readings are in mr/hr
Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
214-3 Bays	Columbium Tantalum Columbium Natural	Fag-FH40 Meter-F6	Listed Below		
9, 13, 14, 15, 16, 17	Minerals Tantalum Oentoxide		Contact	900	0.9
27 & 28	Columbium Tantalum Tantalum Natural		1 ft	600	0.6
	Minerals		6 ft	200	0.2
			12 ft	100	0.1

Radiation Monitoring Survey

Note: All readings are in mr/hr
Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
214-4 Bays	Columbium Tantalum Columbium Natural	FAG-FH40 Meter-F6	Listed Below		
11-21, 45 41 - 42	Minerals Tantalite Columbium		Contact	600	0.6
51 - 61	Source Material Tantalum Pentoxide		1 ft	400	0.4
	Chemically Processed		6 ft	200	0.2
			12 ft	100	0.1

Warehouse # 215

New Haven Depot, IN

Each WHSE has (4) sections 180' wide X 240' long

Radioactive material is located in section

All readings are in mr/hr

High average at door interance is .02 - .03

At door entrance

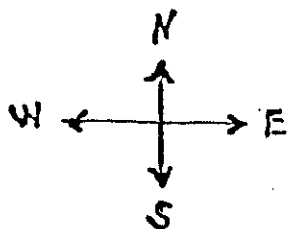
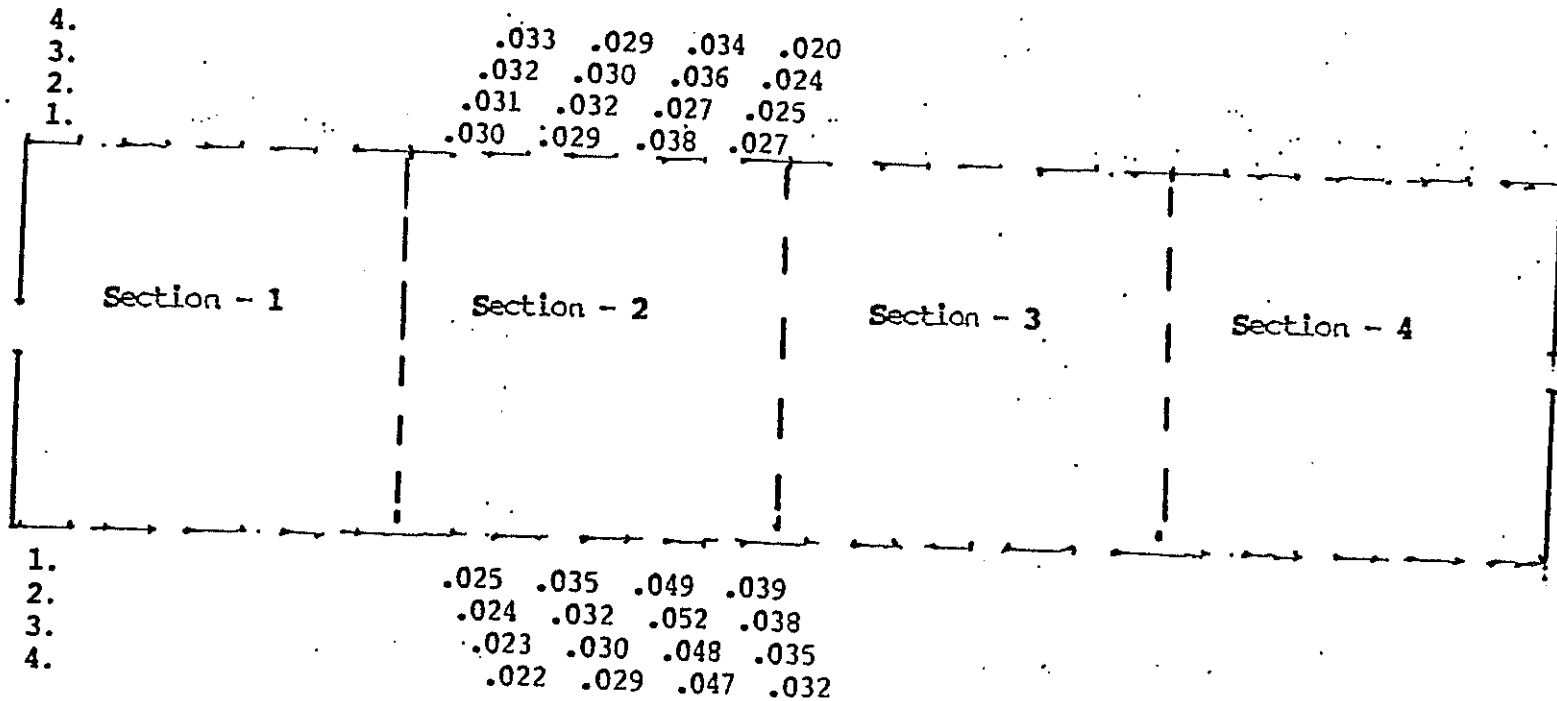
Exhibit # 3 Page 2 of 2

1. = 1 ft.

2. = 3 ft.

3. = 6 ft.

4. = 9 ft.



Radiation Monitoring Survey

Note: All readings are in mr/hr
Max and Min reading for total bays listed

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
215-2	Rare Earth Sodium Sulfate	Fag-FH40 Meter-F6	Listed below		
Bays 36,41,42, 46,52,53 54 & 62		Yes	Contact	700	0.7
		Yes	1 ft	500	0.5
		Yes	6 ft	300	0.3
		Yes	12 ft	60.0	0.06

Radiation Monitoring Survey

Note:
Open document

Note: All readings are in mr/hr

WHSE Location	LSA Commodity	Monitor Used	Distance	Reading ur/hr 1000	Dose Rate is Converted to mr/hr
		Fag-FH40 Meter-F6			
			Contact		
			1 ft		
			6 ft		
			12 ft		