



DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD
FORT BELVOIR, VIRGINIA 22060-6223

NOV 26 2008

IN REPLY DNDC-ME
REFER TO

J-6

U.S. Nuclear Regulatory Commission
Region 1, Commercial and R&D Branch
Division of Nuclear Materials Safety
ATTN: Ms Betsy Ullrich
475 Allendale Road
King of Prussia, PA 19406-1415

Re: License STC-133

Subject: Request For Additional Information-Docket No.
04000341

Dear Ms. Ullrich:

In response to your letter of August 26, 2008 concerning previously released sites operated by the Defense National Stockpile Center (DNDC) under the referenced license please be advised of the following:

1. Ravenna, OH- A search of our radiological files concerning areas around tank 1303 has resulted in our locating 3 records, copies of which we are enclosing.
2. Rossford, OH- We are unable to find any reference to this location in our radiological files other than the January 16, 1970 issue of license STC-133. Our copy of this document contains a handwritten note, "evacuated 1972".
3. Savanna Army Depot- Our records indicate that the DNDC discontinued use of this site in 2001. At present tank number 905 is on land known as Sandpiper Park, belonging to Jo-Carroll Depot Local Redevelopment Authority and is unused at this time. We are enclosing copies of 3 records and 2 additional documents which are pertinent to your request.

2008 DEC -1 PM 12:36

RECEIVED
REGION 1



Should you have any additional questions regarding this letter, please contact me.

Sincerely

A handwritten signature in black ink, appearing to read "Michael J. Pecullan". The signature is written in a cursive style with some loops and flourishes.

Michael J. Pecullan
Radiation Safety Officer

Attachments

GSA Form 226, 11/23/83, Ravenna Spec. #39
H. Szczepanski letter, 12/17/82, Ravenna
GSA Form 226, 4/29/83, Ravenna Spec. #40
AEC Radiation Survey, 7/18/57, Savanna
C. Hineman letter, 3/21/97, Savanna
C. Hineman letter, 4/4/97, Savanna
NRC Press release, 8/8/00, Savanna
EPA Region 5 Superfund Report, 7/08, Savanna

100 - 101
100 - 101-101
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1. NAME AND LOCATION OF DEPOT OR FACILITY Savannah A. A. Yacht Savannah, GA		2. NAME AND TYPE OF COMMODITY Empty Tanks, (removed)		3. SERIAL NO. Special 39
4. DATE A. LAST 7/10/75 B. THIS 11/22/82	5. TYPE OF STORAGE AND SPECIFIC DEPOT AREA Depot tank city area, tanks removed (see below)			6. WAREHOUSE ZONE Zone 2
7. NAME AND TITLE OF PERSON RESPONSIBLE FOR MATERIAL N/A			8. TEL. NO. OR CODE	9. EXTENSION

INSPECTION DATA (Check and complete. Explain negative responses)		OK	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 Contamination, Information, Contamination, Contaminating, Migration and Emission		
10. RECORDS	A. Depot Manager Confirmed that all entries have been Posted to the GSA Forms 46 B. GSA Forms 46 indicate last RR No. dated ; Last OSR No. dated		N/A
11. UNITS	Quantity indicated in Item 14h reflects GSA Forms 46 and agrees with actual or other computed count.		
12. SECURITY AND FIRE PROTECTION	Security and Fire Protection are being provided in accordance with GSA Handbook FMD P-4400 (Current Edition) and SCM Storage Manual Requirements (Appendix C)		
13. CONTAINERS, PILLS, OR OTHER UNITS	A. Material is Stored in Proper Containers (Check only if applicable) B. All Containers, Pills and/or Units Are Marked as Prescribed in the Storage Manual C. Condition of Containers (Give exact number in Class 1 under column 5)		

14. DESCRIPTION OF CONTAINERS, PILLS, OR OTHER UNITS	15. WEIGHT OF UNIT	TOTAL NUMBER OF UNITS	16. TOTAL WEIGHT	
			(1) GROSS	(2) NET
			a.	b.
former tank 1303				-0-
former tank 1305				-0-

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)

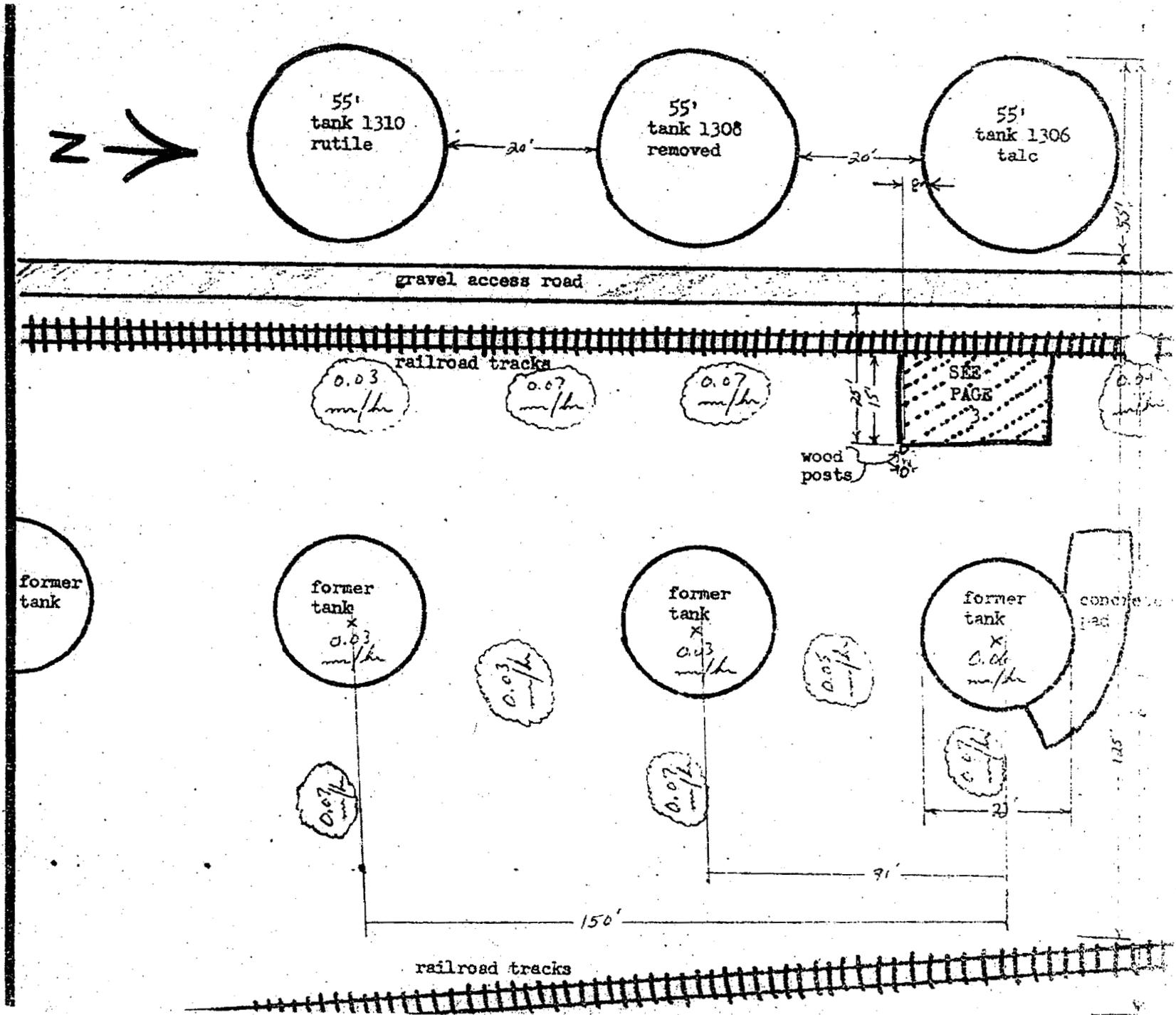
tank 1303 - Last RR D-16-47-8 dated 4/22/47 - last OSR 2985 dated 10/10/74.
 tank 1305 - " " D-23-47-8 " 12/12/46 - " " 3024 " 11/19/74.

All material has been removed from tanks and tanks have been removed from site. During a survey of the area I discovered readings above normal background. Further checking showed readings using an Eberline 500-B with shield closed of up to 02.5 mr/hr. See page 2 and 3 for sketches of the area in question and readings obtained. All readings are in mr/hr.

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

Appropriate action be determined by Zone 2 radiological officer.

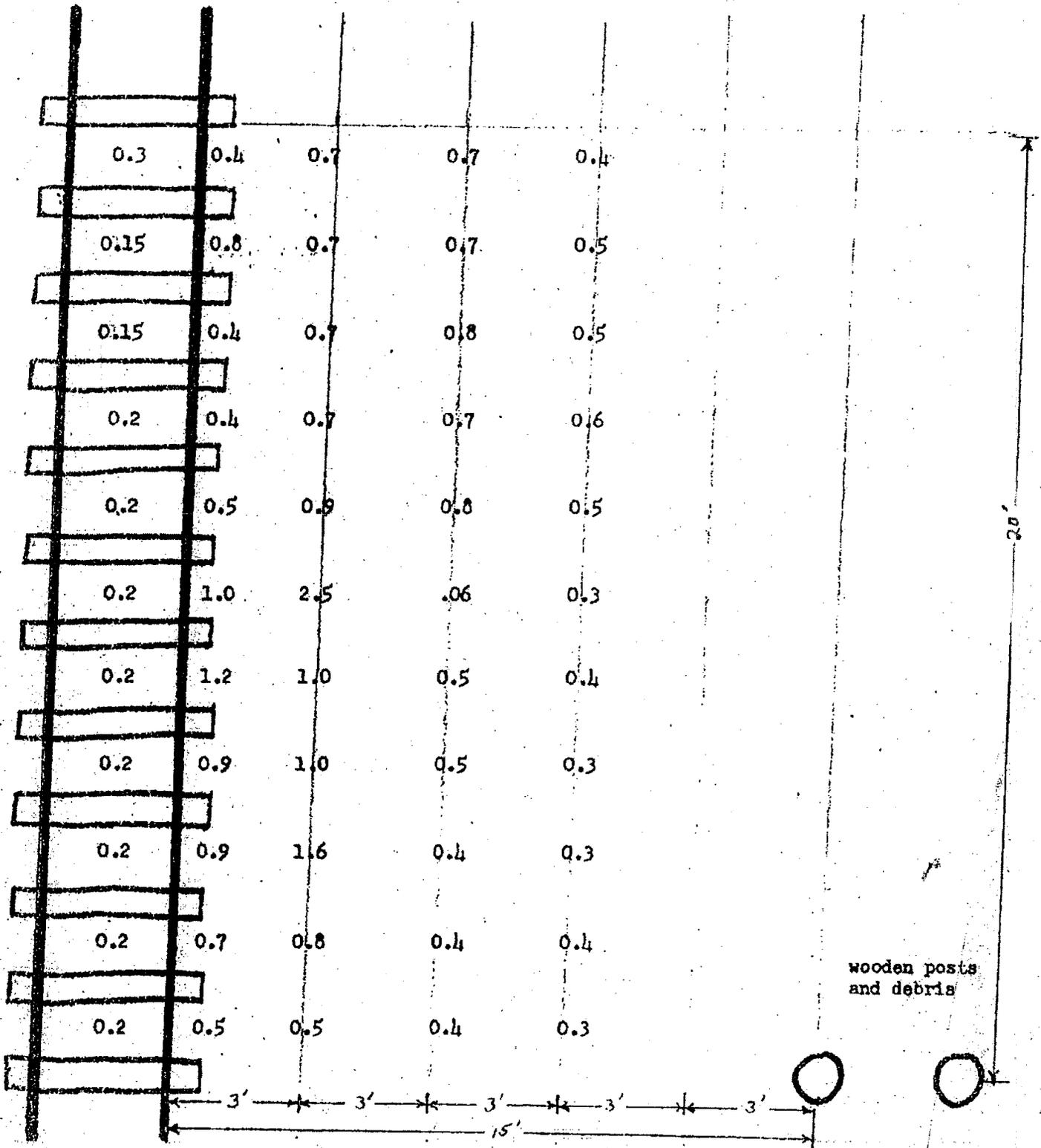
17. NAME OF INSPECTOR (Type or Print) Clifford E. Kinman	17A. SIGNATURE	17B. DATE OF SIGNATURE 11/23/82
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Attached to GSA Form 226 # 29
Monazite. Dated 11/23/52
Ravenna A. A. Plant, Ravenna, OH
Page 3 of 3

All readings in mr/hr.



GENERAL SERVICES ADMINISTRATION



DATE: December 17, 1982

REPLY TO
ATTN OF: DMS-5-HA

SUBJECT: Radiological Survey Report of former storage tank area of Monazite Sand at the Ravenna Army Ammunition Plant

TO: DMC

It has been called to my attention by Mr. Cliff Hineman, QAS, from Warren Depot of a recent survey made at the Ravenna Army Ammunition Plant. This survey was made in the storage tank area and at the sites where monazite sand was stored. It appears that an isolated area near the storage tank farm has survey readings that are above those set as a criteria by NRC guidelines. The area in question is contained in an approximate 15' x 20' section. In discussing this with Mr. Hineman it was suggested to him that another survey be conducted to include larger areas near the tank farm and up and down the rail track. This would satisfy the question of whether this area was an isolated spot or that other areas are contaminated.

The results of this survey proved to be negative in other areas and was definitely an isolated spot. The attached drawings of the contaminated area show the proximity of the area in question to the tracks and tank farm and a detailed drawing of the exact area with survey readings. Since Mr. Hineman is the Radiological Monitor for the Warren Depot it is suggested that he and some depot personnel help go to the Ravenna Army Ammunition Plant and do the following - several open top 55 gallon drums, flat shovels and survey meter be taken to the area. A spot from the survey report be picked, two (2) to three (3) inches of top soil skimmed off the top and a survey reading taken. Should the results of the survey drop dramatically, it would indicate surface contamination. Should this not be the case, indicating the material has leached into the soil, further skimming into the soil would have to be done. Survey readings would be taken until the readings dropped to acceptable levels. It may be that only the first 2 to 3 inches is all that is necessary to do with a few isolated spots needing further attention.

The material collected and accumulated in the drums would be sealed and transported to the Warren Depot for temporary storage and eventual disposition.


HARRY SZCZEPANSKI
Depot Manager

Attachment to GSA Form 226
Rare Earth, Monazite
Ravenna A. A. Plant, Ravenna, OH
Dated 4/26/83
Page 2 of 4

For background information on this report, see GSA Form 226 report on RARE EARTH, MONAZITE, SPECIAL #39 dated 11/23/82, Ravenna A. A. Plant, Ravenna, OH.

On 4/26/83 the monazite spill at the Ravenna A. A. Plant was cleaned up and removed from the plant site. One (1) 55 gallon drum of monazite contaminated soil was removed from the plant and transported to the GSA/FPRS Warren Depot, Warren, Ohio by a GSA operated truck.

Three (3) workers were involved, Clifford Hineman, QIS; Thomas McCormish, QIS; and Frank Hoffman, warehouseman, all from the Warren Depot.

On arrival, the previous radiological survey was verified and found correct using an Eberline E-120. The contaminated earth was dug with a common shovel and placed into a 5-gallon plastic pail. The pail was dumped into the drum which remained on the truck. Cleaning and resurveying was continued until all readings were well within limits with room for error. (see new survey)

At the end of the clean-up, approximately 50 gallons of contaminated earth had been picked up. All material was wet causing no detectible dust generated during clean-up. Foot coverings worn by workers were placed into the drum, the liner was tied off, and the drum sealed.

Coveralls, shovel, pail, gloves, and all other equipment was placed into plastic bags until returned to Warren and cleaned.

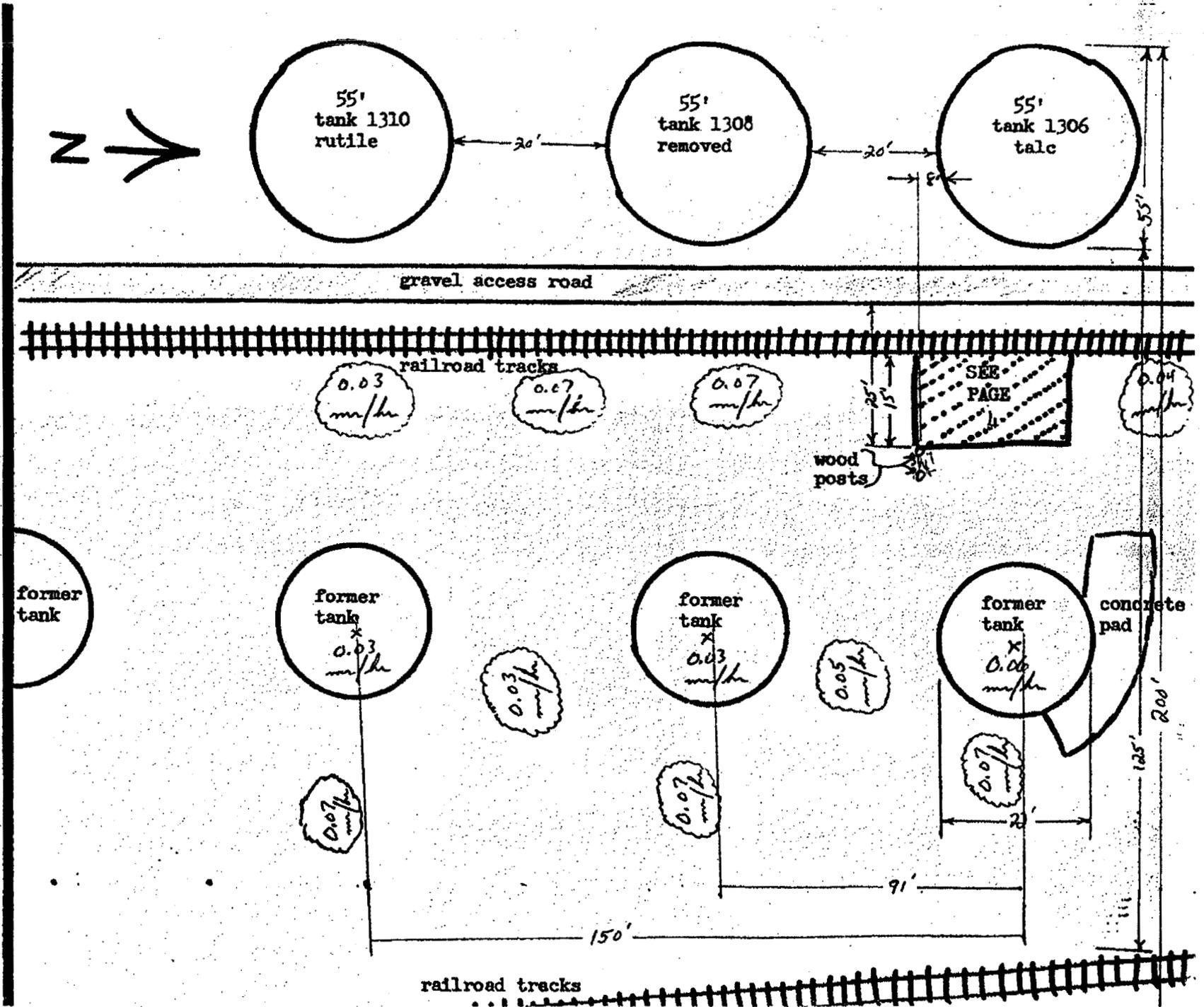
All workers wore dosimeters during the project, each dosimeter had a final reading of 1.0 mr exposure.

The removed drum is now stored at the GSA/FPRS Warren Depot, Warren, Ohio, warehouse # 2, section A. The warehouse is properly marked.

The drum has been labeled - RADIOACTIVE LSA

MONAZITE CONTAMINATED SOIL
RAVENNA A. A. PLANT
4/26/83

Attachment to GSA Form 226
Rare Earth, Monazite
R. mne A. A. Plant, Ravenna, OH
Dated 4/26/83
Page 3 of 3

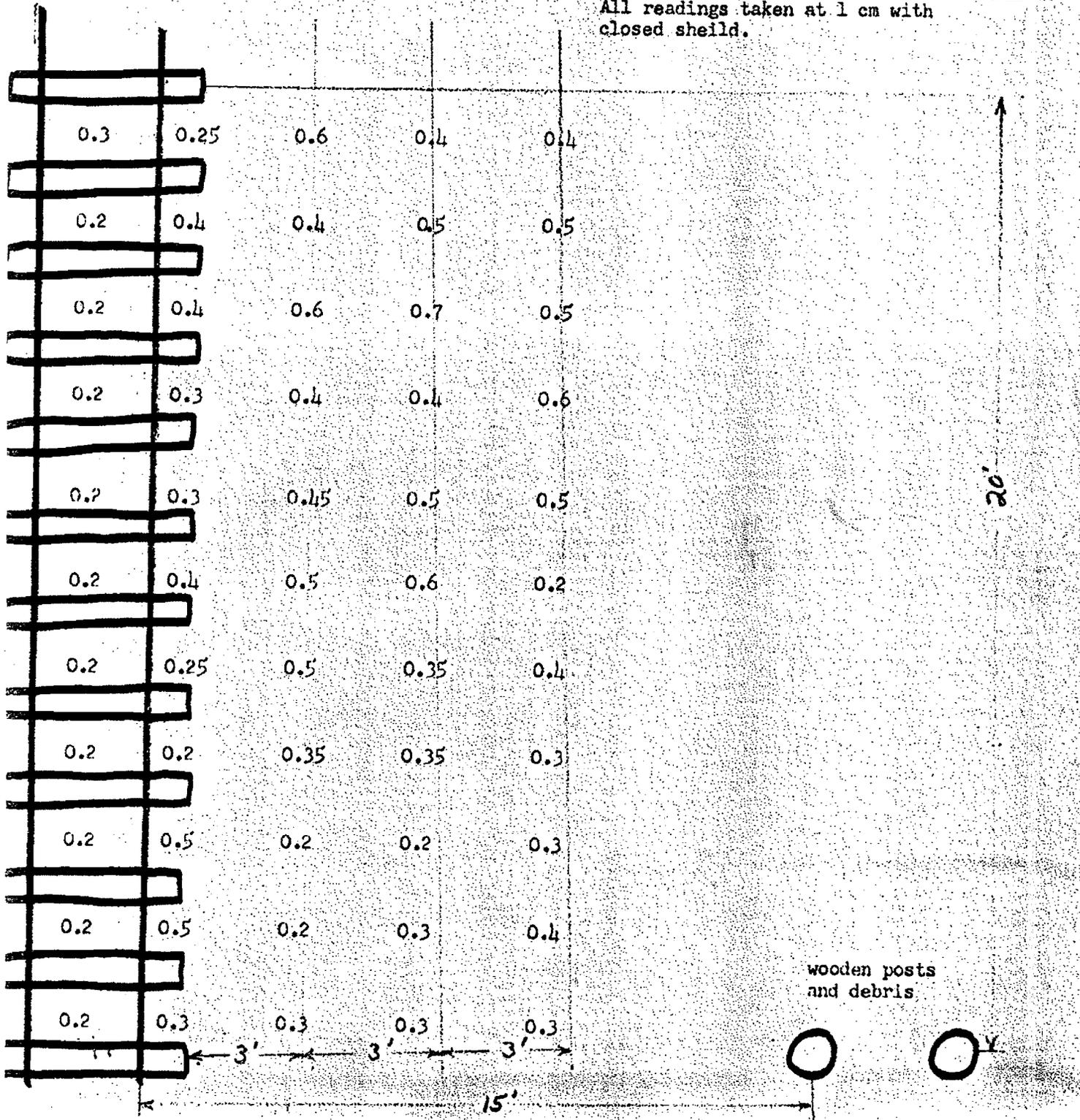




Attachment to GSA Form 226
Rare Earth, Monazite
Ravenna A, Plant, Ravenna, OH
Dated 4/26/03
Page 4 of 4

All readings in mr/hr.
All readings taken with Eberline E-120.

All readings taken at 1 cm with
closed shield.



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C O P Y

RADIATION SURVEY REPORT

Place: Savanna Ordnance Depot, Savanna, Illinois

Date: July 18, 1957

Survey Made by: William A. Probst, Radiological Physicist, U. S. Atomic Energy Commission, Chicago Operations Office

General

Stockpiled tantalite, columbite and other rare earth ores are stored in steel or fiber drums in warehouses D-2 and D-2 in the inner area. Monazite ore is stored in a small steel storage tank outside of and distant from these warehouses.

Of the material in the warehouses, only the columbite in the H/D-2 area was of any significance. Radiation levels in the aisle spaces averaged 3 to 4 mr/hr. Levels immediately adjacent to the drums were about 6 to 7 mr/hr. These aisles are too narrow to be commonly used, however, and radiation levels in the aisles more often used were essentially zero. Readings in the tantalite and other rare earth storage areas were less than 1 mr/hr.

Radiation levels adjacent to the monazite storage tank were in the order of 15 mr/hr. At a distance of 15 feet, the levels had dropped to less than 2 mr/hr.

Discussion and Recommendations

Due to the relative inaccessibility of the tantalite and columbite ores in their present location together with the fairly low radiation levels, no significant hazard is present. The material is well sealed and no external contamination was found.

It was indicated that the monazite ore was received in burlap bags. These bags were opened and dumped into the tank. The vented tank is located in a remote area, and no special precautions are felt necessary during storage. During inspections where personnel enter the tank, face masks or respirators should be worn to filter out fine radioactive dust particles. When the material is transferred out of this tank for shipping, the same type of dust mask should be worn. The significant hazard of this material is through inhalation into the lungs or ingestion into the GI tract through contamination of the hands, face, food, cigarettes, etc. For this reason, there should be no smoking or eating in the vicinity of this material. All persons who enter this tank should insure that their hands and clothing are free of material before eating or smoking.

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DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
PINE STREET EXTENSION
WARREN, OH 44482-9999



IN REPLY
REFER TO

CORRESPONDENCE SYMBOL DNSC MQWG

21 Mar 97

MEMORANDUM FOR Kevin Reilly, DNSC ME

SUBJECT Radiological survey, tank 905, Savanna, IL

Per your request, a radiological survey was performed on tank # 905 and surrounding area at Savanna Army Depot, Savanna, Illinois.

The survey was performed by Clifford Hineman, QAS at DLA/DNSC Warren Depot, Warren, Ohio and Judith Muff, QAS at DLA/DNSC Hammond Depot, Hammond, Illinois.

The survey was performed on the 19th of March, 1997.

This survey was conducted to confirm the findings of a decontamination project performed by Health Physics Associates Ltd. in 1974. This project consisted of decontaminating an above ground, steel storage tank that had contained monazite sand (5.5% ThO₂). All easily recoverable sand had been removed. This cleaning removed the remaining sand inside and outside the tank and removed the cleanup material from site. Sand blasting, vacuuming, and pressure washing of the tank were used in the cleaning.

As this tank was decontaminated in 1974 and released, it is not listed on the NRC Source License STC-133.

The tank in question (tank #905) was decontaminated September 25 and 26, 1974. Attached to this report is the 1974 report from Health Physics Associates Ltd. and a copy of a letter from Mr. Charles Beeler. Mr. Beeler was then Director of Property Management Division, Federal Supply Service, General Services Administration. This agency was responsible for the material prior to transfer to Defense Logistics Agency in the late 80's. This letter released the tank to Savanna Army Depot in 1975 for restricted use.

Due to the length of time since last survey, changes in personnel, and the intent to dismantle tank # 905, a final survey was deemed appropriate.

Equipment used:

The main survey instrument used was a FAG Kugelfischer dosimeter model 5-0002, serial no. SN76-390. Last calibration date was 7 January 1997.

Pocket dosimeters were worn. Dosimeters were CD V-138's.

Clifford Hineman sn WA-4 start 8 mr / finish 8 mr total change -0-

Judith Muff sn WA-8 start 9 mr / finish 9 mr total change -0-

Survey notes:

All readings are the AVERAGE of 10 instant readings taken at 10 second intervals. All readings are in mr/hr and all distances are in feet.

Weather was clear and sunny with temperatures in the 40 to 50 degree range. Weather was not a factor during this survey.

All readings were taken at contact.

Initial readings were taken at the main compass points at 100', 75', 50' and 25' intervals. These showed no spread of contamination and were background only.

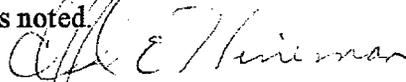
Normal background at this site was approximately 0.015 mr/hr.

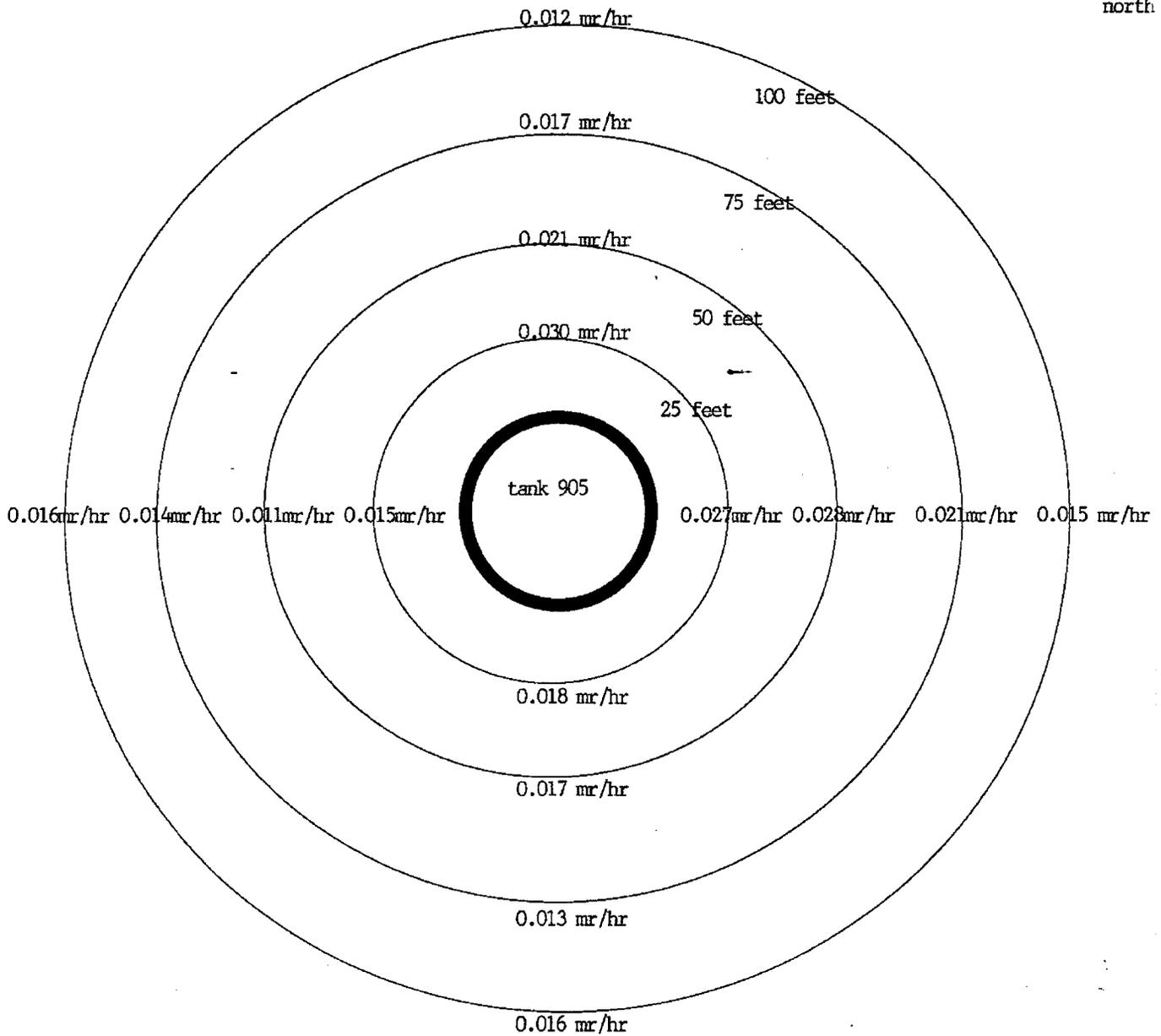
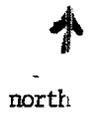
The tank was found to be in very good condition. From the outside it appears to have been well maintained and painted. No problems were noted.

The entrance hatch was found securely bolted with bolts around the entire perimeter of the hatch. I also noted that the entire tank, including the roof appeared to have no missing bolts. The hatch was unbolted with some difficulty. A few bolts had to be chiseled off the sides. The bottom row of bolts could not be unscrewed nor was removing them with a cold chisel a timely option, therefore, the upper row and both side rows were removed and the panel bent from the tank to allow entry. At the end of the project, the panel was bent back into place and secured using the lower bolts and replacing the entire upper row of bolts. The side bolts were not reapplied as the clips holding the screws in place failed allowing the screws to fall back into the tank.

The entire area surrounding the tank is very sandy with very little vegetation.

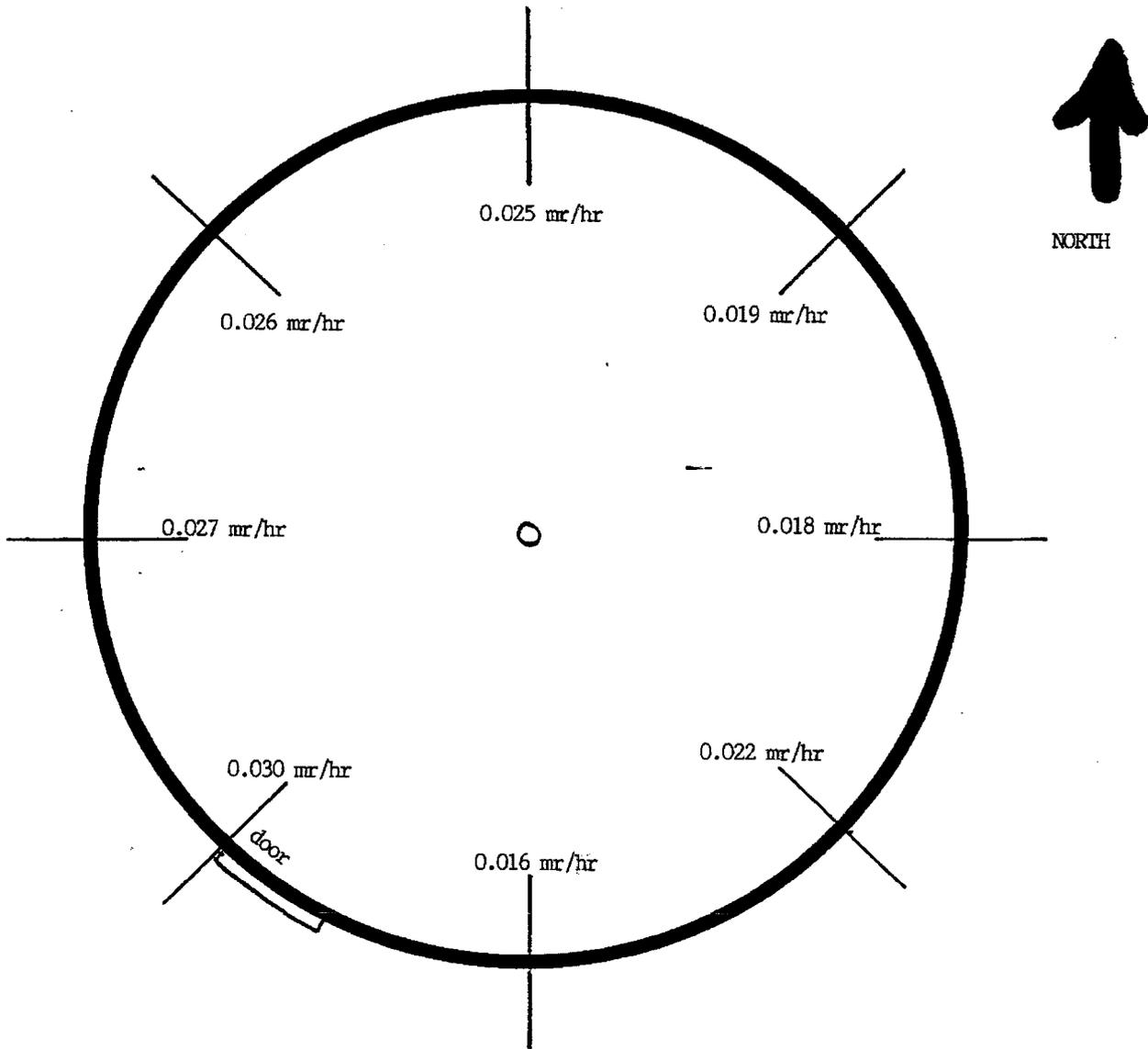
The inside of the tank was found to be in good condition. The side walls were silver painted except where the monazite was against the walls where the only remaining paint was green. The ceiling paint was peeling on approximately 5% of the surface. The floor paint was peeling on approximately 30 % of the surface. No serious rust was noted.


Clifford E. Hineman, QAS

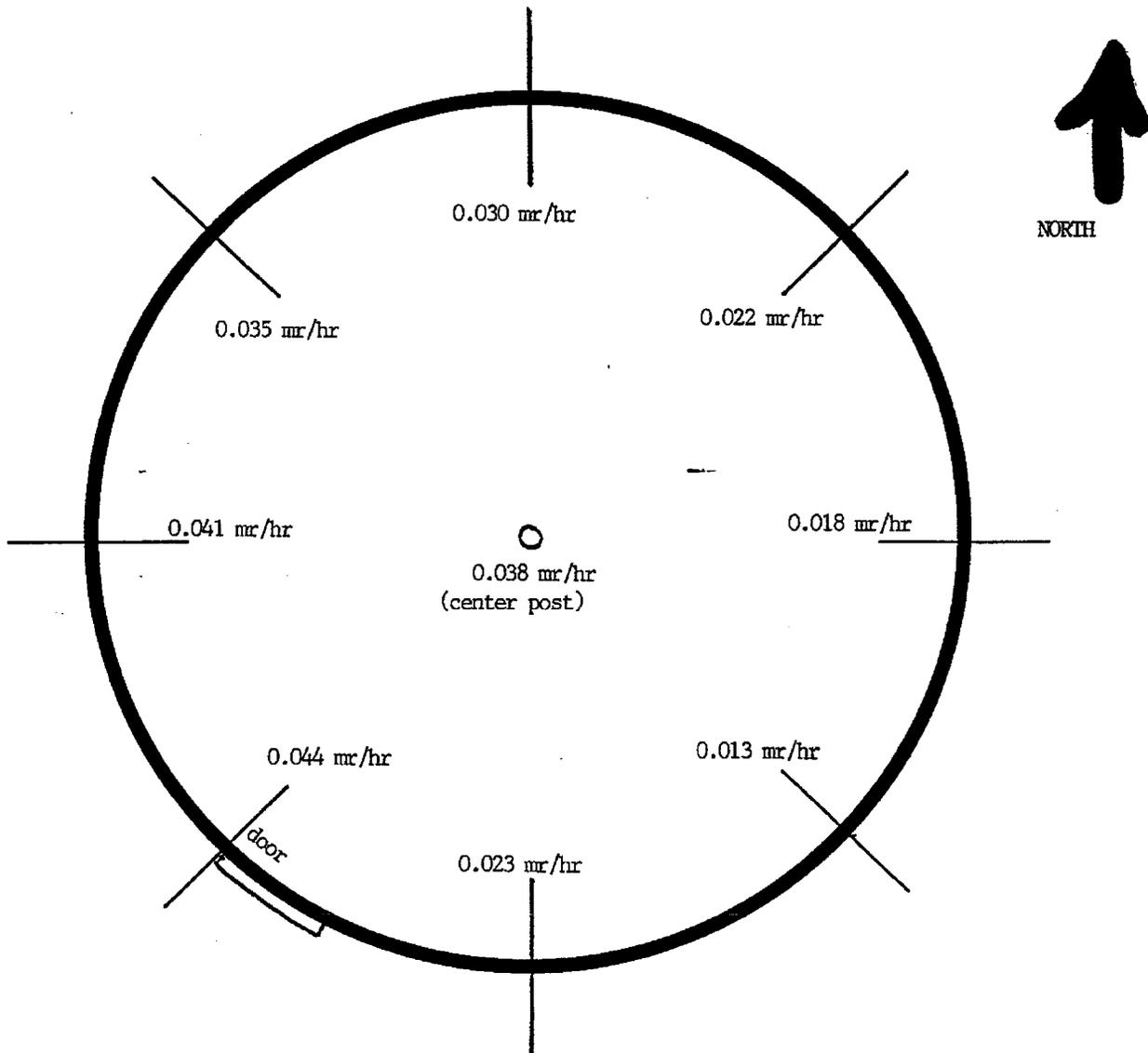


Ground contact readings taken at 25', 50', 75', and 100' from edge of tank 905.

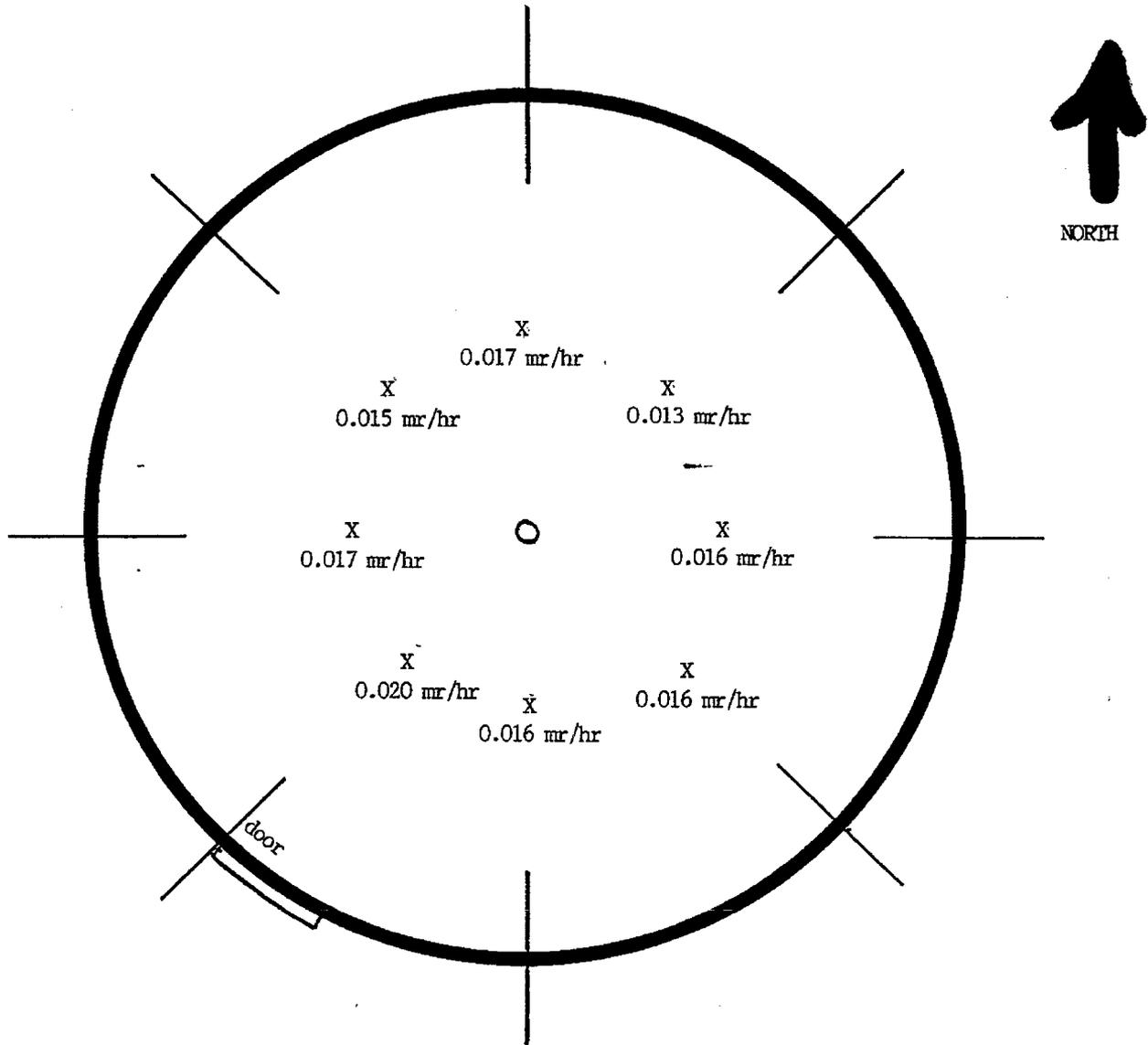
(readings to the west were slightly doglegged to the south due to neighboring tank)



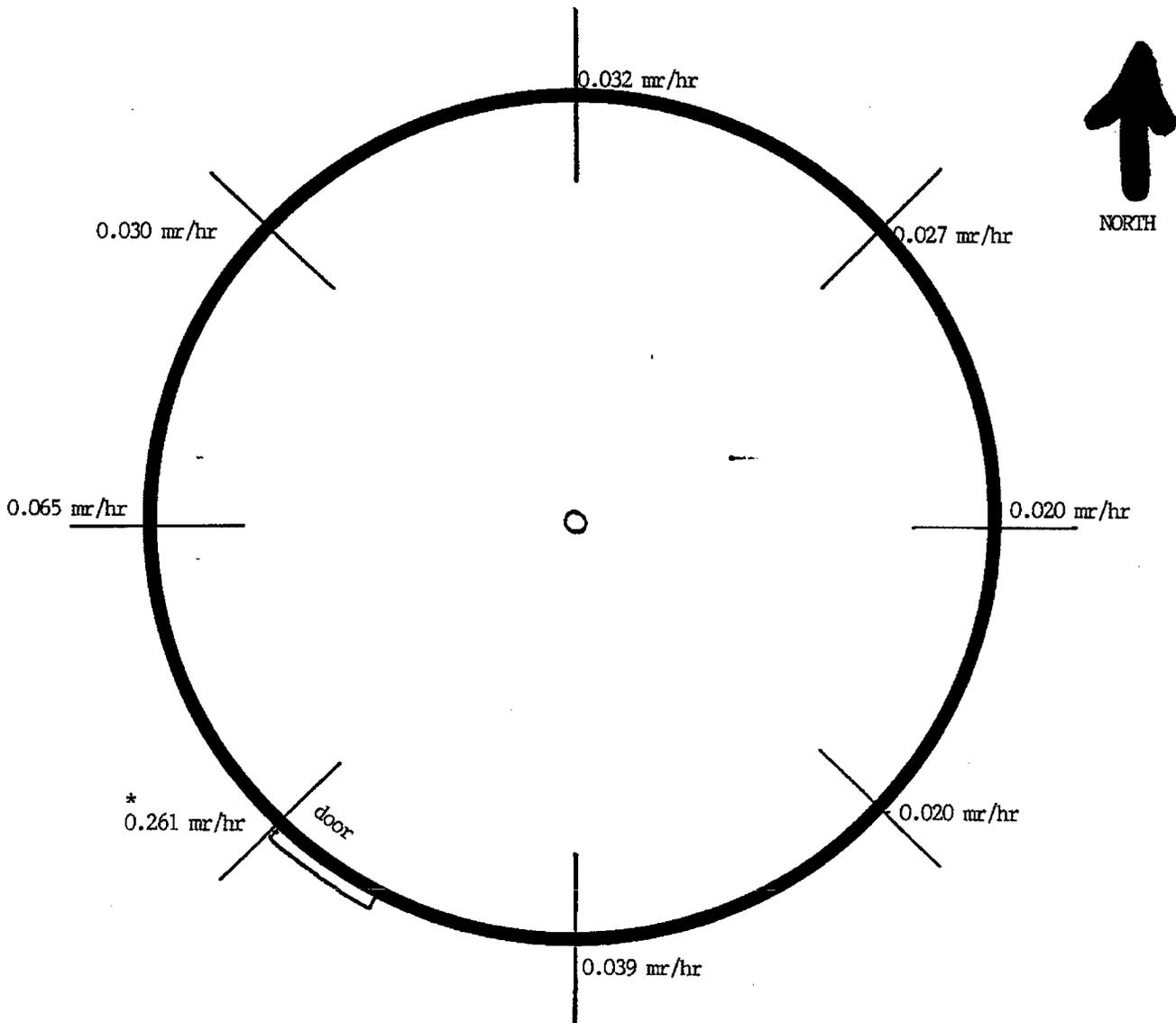
Inside tank 905, 5' high on walls.



Inside tank 905, floor/wall intersect on contact.

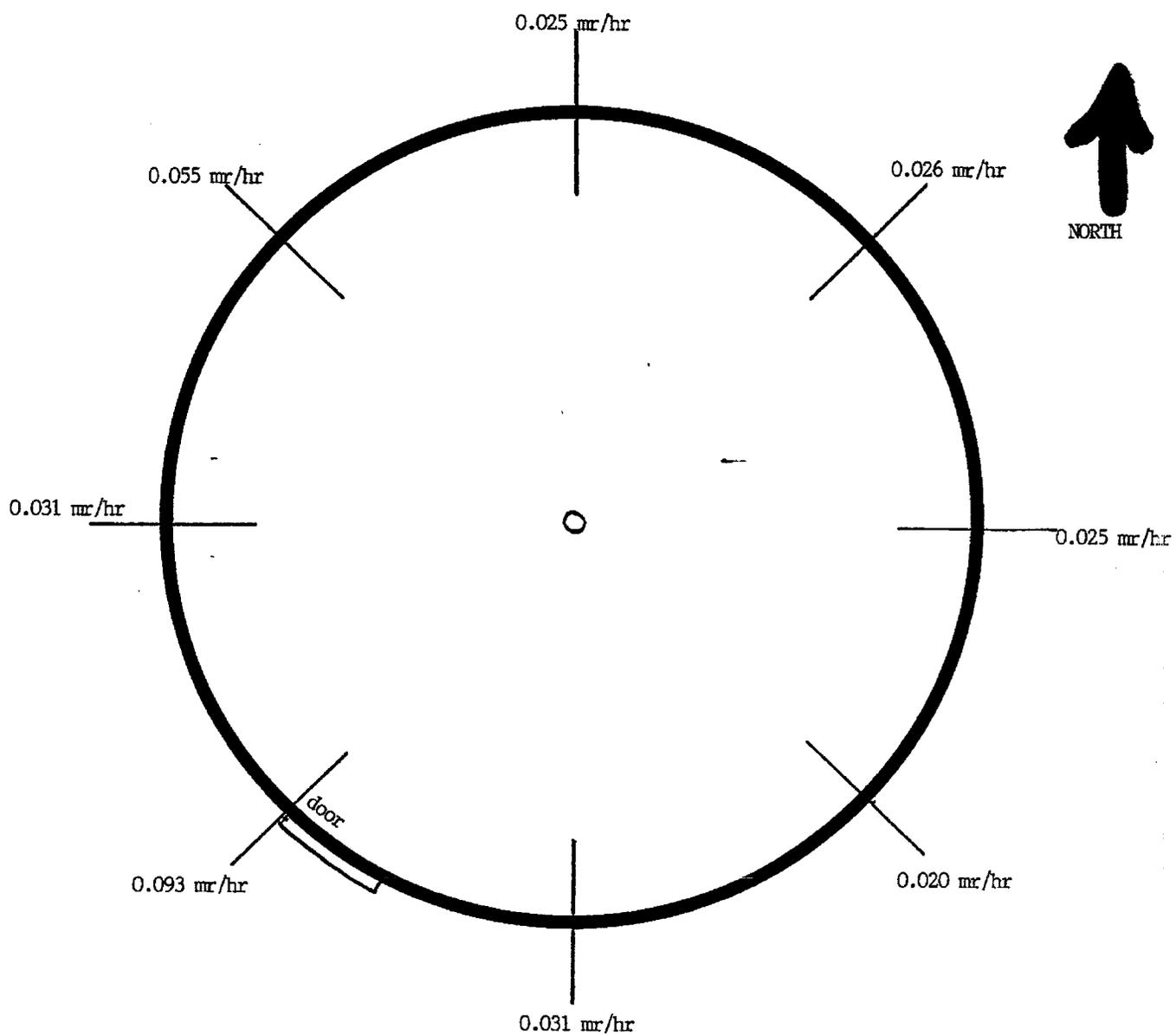


Inside tank 905, floor at X. X intersects the compass points and is midway between the center post and the wall of the tank. Readings are contact.

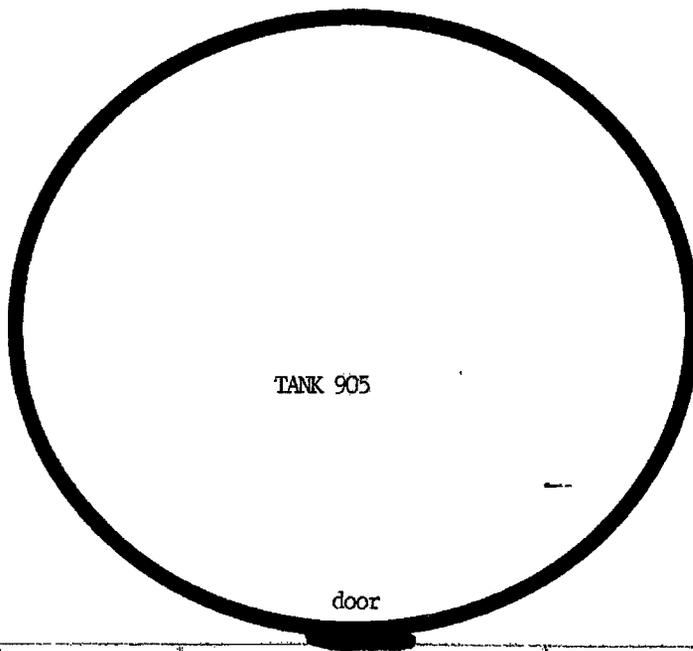


* reading is highest reading of survey.

Outside tank 905, at contact with base of tank.



Outside and 5' from base of tank. Readings are contact.



0.048	0.154	0.044	0.111	0.035	0.031
0.040	0.057	0.132	0.077	0.025	0.027
0.026	0.032	0.047	0.037	0.160 (correct)	0.055
0.021	0.025	0.028	0.024	0.029	0.027

Area just outside door of tank 905. grid is 5' squares. Readings are contact at center of squares. All readings are in mr/hr.



DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
PINE STREET EXTENSION
WARREN, OH 44482-9999



IN REPLY
REFER TO

CORRESPONDENCE SYMBOL DNSC MQWG

4 Apr 97

MEMORANDUM FOR Kevin Reilly, DNSC ME

SUBJECT: Radiological cleanup, tank 905, Savanna, IL

Per your request, a radiological cleanup was performed around tank # 905 at Savanna Army Depot, Savanna, Illinois.

The cleanup was performed by Clifford Hineman, QAS at DLA/DNSC Warren Depot, Warren, Ohio on 2 April 1997.

FAG Kugelfischer dosimeter model 5-0002, serial no. SN76-390 was used during the cleanup survey. Last calibration date was 7 January 1997.

A CD V-138 pocket dosimeter was worn.
sn WA-4 start 1 mr / finish 2 mr total change -1 mr-

*NOTE of EXPOSURE
GIVEN TO RPO-WARREN
for LOG 4/4/97 C274*

Survey notes:

All readings are the AVERAGE of 10 instant readings taken at 10 second intervals. All readings are in mr/hr and all distances are in feet.

Weather was clear and sunny with temperatures in the 50 to 60 degree range. Weather was not a factor during this cleanup survey.

All readings were taken at contact.

Normal background at this site was approximately 0.015 mr/hr.

During the initial survey performed on 19 March 97, it was found that the area immediately outside the tank door was above 0.06 mr/hr. In addition, in the gridded area outside the tank door (an area of 5 foot squares 20' X 30') there were 3 additional areas of readings above 0.06mr/hr. These readings were for the center of each 5' square.

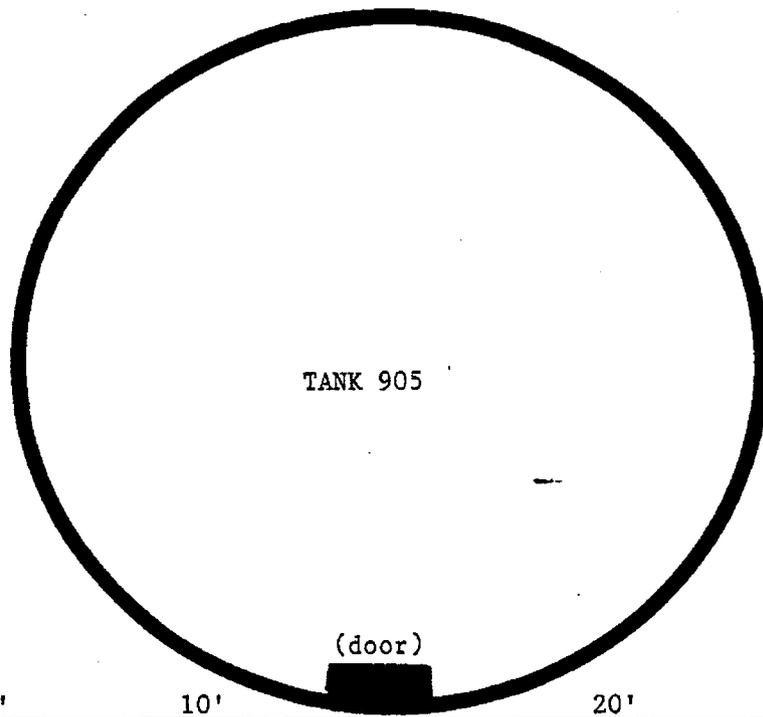
This cleanup consisted of digging and filling, moving, blending, and raking the sand and gravel surrounding the tank to obtain average readings of 0.06 mr/hr or less in each of these areas.

The reading shown on the plot plan is the average of the four corners of the square and the center reading. Each of these five readings used to determine the average is an average of 10 instant readings taken at 10 second intervals.

The original report also showed one point on the west side of the tank (diagram: outside tank 905, at contact with base of tank) with a reading of 0.065 mr/hr. No further work was performed at this physical point as the average reading for a one meter square area was far below 0.065 mr/hr.

See attached diagram for final average readings.


Clifford E. Hineman, QAS



NORTH

	0'	5'	10'	20'	25'	30'
0'	0.055 mr/hr	0.058 mr/hr	0.051 mr/hr	0.053 mr/hr	0.045 mr/hr	0.034 mr/hr
5'	0.039 mr/hr	0.053 mr/hr	0.053 mr/hr	0.055 mr/hr	0.045 mr/hr	0.047 mr/hr
10'	0.038 mr/hr	0.050 mr/hr	0.050 mr/hr	0.053 mr/hr	0.048 mr/hr	0.035 mr/hr
15'	0.032 mr/hr	0.036 mr/hr	0.034 mr/hr	0.037 mr/hr	0.034 mr/hr	0.031 mr/hr
20'						

AREA JUST OUTSIDE DOOR OF TANK 905. GRID IS 5' SQUARES. READINGS ARE CONTACT.
READINGS ARE AVERAGES OF EACH CORNER AND THE CENTER OF EACH SQUARE.


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A

U.S. Nuclear Regulatory Commission

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This is not the Official Agency Record. See the image file for the Official Agency Record.

Press Release-III-00-044: NRC Environmental Team, Mobile Laboratory To Visit Illinois Army Site Aug. 15-16

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NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF PUBLIC AFFAIRS, REGION III

801 Warrenville Road Lisle IL 60532

Web Site: <http://www.nrc.gov/OPA>

No. III-00-44 August 8, 2000

CONTACT: Jan Strasma (630)829-9663/e-mail: rjs2@nrc.gov

Pam Alloway-Mueller (630)829-9662/e-mail: pla@nrc.gov

NRC ENVIRONMENTAL TEAM, MOBILE LABORATORY TO VISIT ILLINOIS ARMY [?] SITE AUG. 15-16

** Open for Public Visits on Tuesday, August 15 **

A Nuclear Regulatory Commission environmental monitoring team and its mobile laboratory will be at the **Savanna Army [?] Depot [?]** near **Savanna [?]**, Illinois, on August 15 and 16 to verify that low level radioactive contamination at the site has been successfully removed.

The mobile laboratory will be open to visitors from 4:30 to 6 p.m. on Tuesday, August 15, and the team members will be available to answer questions on the NRC's inspection and environmental monitoring program.

A small area on the site was contaminated with **monazite [?]** sand, which contains thorium, a naturally occurring radioactive material. The **monazite [?]** sand, which had been stored at the site, was sold to a private company, the Atomic Energy Commission, in the mid-1970's. The contamination apparently occurred during the removal of **monazite [?]** material.

The **monazite [?]** contamination was found by the **Army [?]** during a survey of the **Army [?] Depot [?]** site. The **Army [?]** has now completed removal of the contaminated material, and the NRC team will perform radiation monitoring and collect environmental samples to verify the effectiveness of the clean up.

The mobile laboratory will be parked adjacent to the Welcome Center at the main gate, which is on the **depot road** off of Illinois Highway 84, north of **Savanna [?]**, IL

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<http://www.epa.gov/region5/superfund/npl/illinois/IL3210020803.htm>
Last updated on Monday, September 8th, 2008.
Region 5 Superfund (SF)

You are here: [EPA Home](#) [Region 5](#) [Superfund](#) [NPL fact sheets](#) [Illinois](#) SAVANNA
ARMY DEPOT ACTIVITY

SAVANNA ARMY DEPOT ACTIVITY

EPA ID# IL3210020803

Last Updated: July, 2008

U.S. EPA REGION 5
JO DAVIESS COUNTY
SAVANNA

Congressional District # 16

Site Description

The Savanna Army Depot Activity (SVDA) Site is a 13,062-acre installation, located on the eastern bank of the Mississippi River, in Carroll and Jo Daviess counties, approximately seven miles north of Savanna, Illinois. The property was purchased by the U.S. Army in 1917 for use as a proof and test facility for artillery weapons and ammunition. Operations at the installation expanded to include the storing of ordnance and the loading and renovating of shells and bombs. The mission of the installation changed to that of a depot facility in 1921. The facility has handled, processed, and stored munitions, explosives, and industrial chemicals since operations began. Renovation and loading of artillery shells and bombs began in the 1930s and occurred intermittently from then until the termination of the facility's mission in 1995.

Several areas of SVDA have been used for the demolition and burning of obsolete ordnance. Other areas have been used for waste disposal purposes (e.g., landfills). Approximately 650 people live within three miles of the site. And the Site, located adjacent to the Upper Mississippi Valley National Wildlife and Fish Refuge, has had at least one observed year-round nesting pair, and a large wintering population, of bald eagles.

Site Responsibility

The U.S. Army/Department of Defense (DoD) is responsible for the SVDA Site. US. EPA and Illinois EPA provide oversight, review and approval of the investigation and cleanup work that the Army performs at the site according to the requirements of the Federal Facility Agreement among the three parties.

Threats and Contaminants

Multiple media (soils, groundwater, surface water and sediment) have been found to be contaminated at various areas across the facility. Soils are contaminated with metals, pesticides, explosives, lead-based paint chips, and polycyclic aromatic hydrocarbons (PAHs). Groundwater is contaminated with various pesticides, explosives, solvents, and petroleum-related contaminants. Sediments and surface water are contaminated with various explosives, PAHs, and metals. Multiple areas throughout the facility have been found to contain Munitions and Explosives of Concern/Unexploded Ordnance (MEC/UXO). These areas include the Old Burning Ground/Open Burn/Open Detonation (OBG) area, the 75 mm/155 mm High Explosive (HE) Range Fans, the Grenade Burial Area and the Sites 15 and 33 disposal areas.

Potential health risks include coming into contact with contaminated surface water, soils, or sediments and drinking contaminated groundwater. Bald eagles and other ecological receptors may also be affected by site contamination. Some of the MEC/UXO areas may pose potential acute (explosive) risks.

Cleanup Progress

In September 1989, a three-party federal facility agreement (FFA) was signed by the Department of the Army (DA or the Army), the Illinois Environmental Protection Agency (IEPA), and the United States Environmental Protection Agency (U.S. EPA). The Army, as the lead agency, is conducting the investigation and cleanup of the facility under the oversight of IEPA and U.S. EPA. Seventy-three areas of potential concern were identified across the facility in the 1992 facility-wide Remedial Investigation (RI). Of these, 41 required additional investigation.

In September 1995, the facility was included in the Department of Defense Base Realignment and Closure (Base Realignment and Closure or BRAC) List. The intent for the SVDA Site has been, and continues to be, the transfer of the property to other entities, including the Local Reuse Authority (LRA) to allow for productive reuse. During subsequent reviews for the base closure process, approximately 200 additional areas of potential concern were identified for further evaluation prior to transferring facility property. A facility reuse plan was developed for SVDA, which specifies the Army's intention to transfer the property to the Local Reuse Authority (LRA), the U.S. Fish & Wildlife Service, and the U.S. Corps of Engineers.

The areas of concern across the facility are in various stages of investigation with significant environmental progress having taken place in numerous areas, including the following:

Sites 1, 21 & 22/TNT Washout Facility - In March 1992, a Record of Decision (ROD) was signed, specifying a remedy to clean up the explosives- contaminated soils and sediments at these sites. The cleanup, completed in December 1993, included the onsite incineration of approximately 67,805 tons of explosives-contaminated soils and required the treatment of approximately 10,000,000 gallons of contaminated surface water. A remedy to address the explosives-contaminated groundwater has not yet been selected.

Site 67/Fire Training Area (FTA) - In May 1995, an action memorandum was signed, specifying a non-time critical removal to address contaminated soils at this site. The removal was completed in May 1997 and required onsite incineration of approximately 26,000 tons of solvent and petroleum-contaminated soils. Additionally, during the time period that the excavation exposed the groundwater table, efforts were made to remove a floating oil layer.

Sites 13 & 14/Open Burning Grounds (OBG) - Between August 1995 and January 1996, a demonstration project was conducted to evaluate the feasibility and cost effectiveness of sifting ordnance-related debris, including unexploded ordnance, from soils. This project included the excavation of approximately seven acres of the site to remove visible debris above the water table. The debris was then separated from the soils and further separated and categorized. Separation of the debris recovered 1,578 live ordnance items, ranging from small arms (1164 total items) to 155mm projectiles (two items). Other items encountered included mortar rounds, projectiles, rifle grenades, rockets, hand grenades, land mines, and fuzes.

The excavation recovered approximately 620 tons of debris and approximately 19,300 cubic

yards of soil. The soils were later determined to be significantly contaminated. A non-time critical removal was initiated in July 1999 and completed in September 1999 to treat and dispose of the soils generated from the demonstration project. This action removed 15,500 tons of contaminated solid waste and 450 tons of hazardous waste from the bottomland area. These wastes were disposed in a permitted offsite landfill. Ongoing activities include a comprehensive ecological risk assessment which is currently under regulatory review. Additionally, an investigation to more adequately assess the threats from ordnance and potential chemical weapons disposal is currently underway. Once these efforts are completed, a feasibility study (FS) and a Record of Decision (ROD) will be developed to select the final remedy for this site.

Site 89/Pesticide Disposal Area - As a result of the environmental baseline survey (EBS), a pesticide burial site was identified in the northwestern part of the facility. During the 1950s, approximately 800 tons of di-nitro-ortho-cresol (DNOC) were buried in a trench and covered with soil northwest of the ammunition storage area. The pesticide burial trench was found, and the local groundwater was determined to have been impacted by DNOC contamination. A time-critical removal action was implemented at the site to remove the pesticide material and appropriately dispose of it in an offsite permitted landfill. The removal began in July 2002, and excavation of the material was completed in October 2002. A report documenting these activities has been completed.

Sites 76AD (APE Dock Area), 44 (Nitric Acid Storage Area) and 25 (CF Plant Melt and Pour Facility Sump) - The Army completed a removal action at the Site in the Fall of 2003. The purpose of the action was to remove soils contaminated with solvents. The Army also completed a removal action at Site 44 to remove volatile and semivolatile organic-contaminated soils. Major excavation activities were completed in 2003, with some additional excavation in 2004. Finally, the Army completed an action at Site 25 to remove explosive residuals and contaminated soils. As with Site 44, major excavation activities were completed in 2003, with some additional excavation in 2004. The Final Removal Action Completion Report was approved in 2006.

Sites 15 and 33 Removal Action - Sites 15 and 33 are located in the Lower Post industrial area. Various types of debris, including UXO debris, were dumped at these sites in two areas at Site 15 and in 11 areas at Site 33. The debris areas contained elevated levels of lead to which the Army has responded with a non-time critical removal action. The Army began the removal action in summer 2003. The removal action was completed during the early part of 2004, and a final report submitted in mid-2006.

Current cleanup activities include:

Sites 1 (TNT Washout Facility), 90 (H-Area Landfill Cells), 111 (Outdoor Washout Plant) and 192 (Manganese Ore Storage Mounds) - RI/FS reports have been completed for these sites. These reports are currently (2008) under review by the regulators. Proposed Plans/RODs are expected to be completed in 2009, with remedial action expected to take place by the end of 2010.

Sites 155 and 186 (CF Plant Buildings 729 and 707) - Engineering Evaluation/Cost Analysis (EE/CA) reports for non-time critical removal action have been reviewed and approved for these sites. The Army is currently (2008) drafting an Action Memorandum to initiate the selected removal actions, excavation and disposal of contaminated soils, which are expected to be complete by the end of FY 2008.

Other remediation efforts that have taken place across the facility include:

Site 16/Deactivation Furnace APE 1236 - A cleanup at this site was conducted between September 1995 and January 1996 under the Resource Conservation and Recovery Act (RCRA) closure authorities. This cleanup removed approximately 7,100 cubic yards of soils, contaminated with heavy metals, primarily lead.

Igloo Storage Areas - The igloos were inspected and closed under RCRA closure plans.

Site 42/Monazite Sand Storage Tanks - Storage tanks which had historically stored monazite sand were investigated under the Nuclear Regulatory Commission (NRC) and the Illinois Department of Nuclear Safety (IDNS) authorities. The investigation of the areas, surrounding the tanks, indicated that residual, radioactive contamination remained, and a cleanup was conducted. The cleanup was completed in September 2000 and resulted in the excavation and offsite disposal of approximately 26,000 cubic feet of thorium-contaminated soils.

Site 75/Army Reserve Motor Pool - A small housekeeping action was conducted at Site 75 in October 1999 and involved the excavation and offsite disposal of 102 tons of lead-contaminated soils and concrete.

Site 61/Open Rubble Dump - A housekeeping action at Site 62 removed surface construction debris and asphalt and disposed in an offsite landfill in an attempt to expedite potential transfer of the surrounding lands.

Current Investigations

Multiple remedial investigation activities are either in process or close to completion at SVDA. The most significant of these are:

1) Lower Post RI - The Army originally submitted the Lower Post RI Report for regulatory review in 2002 and received comments on the document in early 2003. Issues relating to the adequacy of the Lower Post RI have been resolved and the final report completed in the fall of 2004. Supplemental investigations in the lower post area, including the CL/CN and CF Plant Areas, were completed in 2005, with the follow on reports either completed or in draft final form as of the fall of 2006. Ultimately, remedial and/or removal actions will be implemented as decision documents (RODs and Action Memoranda) are developed for those areas where cleanups are determined to be necessary.

2) Other Lower Post Reports - Area-specific reports on additional investigations in the Lower Post include the Final Cl/CN Plant RI (April 2007), Final CF Plant Area RI (August 2007), Supplemental Plant Area RI (May 2007), and Plant Area No Further Action Decision Document (May 2007). In addition to these documents, numerous site-specific investigations have been completed, for which Final RIs have been approved or for which draft final RIs are currently under investigation. The Army and its contractors are currently (2008) in the process of following up these investigations with feasibility studies, which are anticipated to fall into three categories: those recommending no further action; institutional controls; and site-specific active remedies. The current schedule calls for these feasibility studies to be completed by 2010.

3) Upper Post RI - The contaminant investigations of the Upper Post RI address sites located on property which is scheduled to be transferred to the U.S. Fish and Wildlife Service (USFWS). The Draft Final (April 2005) has been reviewed by the regulators and the Army is currently in the process of responding to the regulators' comments.

5) The Army completed a Phase I Ordnance and Explosives (OE) investigation during the summer of 2003. Based on the results of this investigation, which evaluated the SVDA site for a variety of munitions and explosives of concern (MEC) (previously described as ordnance and explosives/unexploded ordnance [OE/UXO]). In the fall of 2004 the Army began a follow-on Phase II investigation to characterize, with a high degree of confidence, the residual MEC risk at the site and facilitate future land use decisions. Field work was completed in the fall of 2006.

Subsequent to the Phase I and II investigations, the Army initiated multiple MEC detailed followup investigations of multiple areas. These investigations included geophysical followed by intrusive investigations of: a) the 155 mm HE Proof Range, Grenade Burial Area, A-Area Demolition Pits, Graze Impact Range Fa, Primm's Pond, River Road, Zone F, Zones L1, L2 and L3, Upper Function Test Area and the Old Burning Ground. As of 2008, the Army has developed, and the regulators have reviewed or are currently reviewing, work plans for the expanded characterization of the Graze Impact Range Fan, Upper Function Test Area and the surface clearance of Site 83.

6) Decontamination of Explosives-Contaminated Buildings and Well Abandonment - Because of the SVDA site's BRAC status, the Army has contracted for the explosives decontamination (decon) of multiple buildings located on parcels scheduled to be transferred to the Local Reuse Authority. The decon method to be used is thermal heating. This activity will be overseen by the regulators to the extent of ascertaining that the decon process does not result in contaminant releases to the environment. In addition to the building decon, the Army's contractor will abandon groundwater monitoring wells which are no longer needed, subject to regulatory approval. These activities will begin in 2008.

Base Closure and Reuse Efforts

Progress of the standard Superfund cleanup process at the SVDA Site has been delayed due to the shift in focus brought about by the realignment and closure (BRAC) land transfer goals. BRAC, with its emphasis on expediting reuse of the facility, generally focuses on the lesser contaminated areas which have, in many cases, not been previously investigated. To date, BRAC efforts have included failed attempts to transfer a 150-acre parcel, known as the prison parcel, to the Illinois Department of Corrections for use as a medium security prison in 1998 and an area, known as the YSI site, approximately 40 acres, for a youth adjudication facility. However, some reuse has already been initiated. A finding of suitability to lease (FOSL) was developed in December 1998, allowing for the leasing of 28 buildings for various uses and all railroad lines/tracks within the parcel, intended to be transferred to the Local Reuse Authority (LRA). Another FOSL (#2) was developed for approximately 180 additional buildings on the LRA parcel in December 1999. Additionally, FOSL #3, addressing 266 additional buildings, was completed in 2001. In combination these FOSLs allow leasing of all the buildings that are located on the property, intended for transfer to the LRA.

In September 2003, the Army successfully negotiated the transfer of approximately 3,000 acres of the SVDA site in the upper post area to the U.S. Fish and Wildlife Service. FWS will manage this acreage as part of the Upper Mississippi Valley Wildlife and Fish Refuge. Additional acreage in the upper post area was transferred to FWS in 2004, with an ultimate total addition to the Refuge of approximately 9,000 acres.

The Army had developed a workplan to investigate most of the upland areas, identified by the Archive Search Report (ASR) with a potential to contain MEC/UXO. The Army's utilized this information to evaluate the potential for non-time critical removals in areas confirmed to

contain MEC/UXO. Proceeding under their removal authorities, the Army initiated field work late in 1999, which continued through most of 2000. Preliminary results identified 14 MEC/UXO areas and various OE waste or debris sites in many of the areas investigated.

In an effort to reach an agreement on the scope and methods utilized to characterize the extent of MEC/UXO contamination, the Army, U.S. EPA, and Illinois EPA jointly announced in August 2000 the formation of a SMART (Strategic Management, Analysis, Requirements, and Technology) Team. The SMART Team represents an effort to bring together decision makers and their staffs from each of the stakeholders (LRA, U.S. Fish and Wildlife Service, and the local community), with the intent of reaching an agreement on a satisfactory approach to MEC/UXO characterization. The SMART Team initially met on a quarterly basis. As agreements were developed, and as more aggressive MEC investigation approaches acceptable to all parties began, the SMART Team agreed to meet less frequently, at least until the investigations have been completed and a comprehensive set of data are available to be evaluated.

As a result of the preliminary findings of the MEC/UXO investigations, the Army has prohibited public access to areas on the facility where MEC/UXO are known or suspected to be present. As a result of comprehensive reviews conducted by the SMART Team, the total area where MEC/UXO are known or suspected was reduced and modified. These efforts allowed the Army to open up access to some of the backwater areas of the Mississippi River, located within the facility in May 2002. The access restrictions elsewhere on the facility will remain in place for the foreseeable future or until information is gathered which clearly identifies areas of concern.

Currently (2008) active investigation is proceeding at the Old Burning Ground (OBG) Area. This area, which is located in the Mississippi River floodplain in the northwest portion of the site, was used for the disposal and burning of a wide variety of MEC at various times during the operational history of SVDA. A comprehensive geophysical MEC investigation has been completed and a detailed intrusive investigation to characterize the types of items found there, and evaluate the status of those items (i.e., scrap, live, fired, inert, etc.) is underway.

Community Involvement

SVDA has a Restoration Advisory Board composed of citizens interested in the progress of cleanup at the site. The RAB was formed in 1996 and currently (2008) meets approximately six times per year. The RAB is interested in all aspects of the SVDA cleanup, including cleanup for MEC. The SVDA RAB has also expressed strong interest in the impact of the plans for reuse of the SVDA property on the cleanup of the Site.

Congressional Interest

Substantial local interest in the future and future development of SVDA has attracted the interest of the local Congressional delegation in general and the office of Congressman Manzullo, in particular. Much of this interest stems from the desire of the local communities to see the redevelopment of the SVDA property proceed.

Property Reuse

Management of over 9,000 acres of the SVDA property has been transferred to the U.S. Fish and Wildlife Service, which manages the property as part of the Upper Mississippi Valley National Wildlife and Fish Refuge. Three thousand of those acres have been transferred to the FWS, with the remaining six thousand acres actively managed by the FWS for public

benefit through a Memorandum of Agreement with the Army. Ultimately, the goal is to transfer title of all 9,000 acres, which has been designated as the Lost Mound Unit of the Refuge.

Significant portions of the industrial area have been leased to the Local Reuse Authority (LRA). Overall, the industrial area will eventually be transferred to the LRA, which will market the property in pursuit of economic development of the local community(ies).

The Army and the LRA continue to work toward the goal of completing the transfer of the industrial property of the Lower Post for the beneficial use of the community. This process has been assisted by the determination of several areas as uncontaminated. The process will be further assisted by the expeditious placement of effective land use controls on other areas that provide opportunities for industrial use.

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Aliases

US ARMY SAVANNA ARMY DEPOT ACTIVITY
SAVANNA ARMY DEPOT

Site Profile Information

This profile provides you with information on EPA's cleanup progress at this Superfund site.