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ULTRASONIC THICKNESS INSPECTION OF TANK T-5

07/14/89

DOE-1318-89

DOE-FN USEPA

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LETTER



Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-

6194 - 10

July 14, 1989
DOE-1318-89

Administrator
U. S. EPA Region V
230 South Dearborn Street
Chicago, Illinois 60604

Dear Sir:

ULTRASONIC THICKNESS INSPECTION OF TANK T-5

On June 16, 1989, the Feed Materials Production Center (FMPC) reported a release from an above ground hazardous waste tank. The estimated amount of release was less than one ounce.

This unit, T-5, stores a spent trichlorethane mixture (F001). A pinhole along a seam was detected during an ultrasonic thickness inspection. An additional inspection on June 16, 1989 detected an additional corroded area. The corroded areas in the welds measured approximately $\frac{1}{2}$ " diameter and were wet. The areas were damp at the point of the pinhole, and there was no evidence of dripping or release into the contaminant area. Patches consisting of adhesive RTV and aluminum were placed over both corroded areas to mitigate any release to the environment.

To prevent any potential release to the environment, the tank draining commenced June 27, 1989 after allowing time to obtain proper equipment, train personnel in the transfer operation, and to determine a container suitable for the characteristics of this material. The material will be placed in RCRA storage until shipment offsite to the K-1435 incinerator in Oak Ridge, Tennessee.

The regulations in Part 265.196(d)(3) require a report within 30 days of detection to the Regional Administrator. That report is attached. If there are any questions, please contact Jack Craig, of my staff, at (513) 738-6159 or FTS 774-5159.

Sincerely,


James A. Reafsnyder
FMPC Site Manager

DP-84:Craig

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Attachment: As stated

cc w/attachment:

M. J. Galper, WMCO

cc w/o attachment:

L. Sparks, SE-31, ORO

M. Wilson, DOE/FMPC

C. McCord, USEPA

G. Mitchell, OEPA

S. G. Schneider, WMCO

W. A. Weinreich, WMCO

FEED MATERIALS PRODUCTION CENTER

FERNALD, OHIO

The Feed Materials Production Center (FMPC) performed an ultrasonic thickness inspection on tanks T-5 and T-6. These units, located in the southwest corner of the production area, are 10,000 gallon tanks which store a spent trichlorethane mixture which is characterized as a hazardous waste (F001). The inventory of these tanks is 13,000 gallons. A pinhole in T-5 was detected during an inspection and an additional inspection on June 16 identified another corroded area. The corroded areas in the welds measured approximately 1/2" in diameter and were wet. The areas were damp at the point of the pinhole and there was no evidence of dripping or release into the containment area. A patch consisting of adhesive RTV and aluminum were placed over both corroded areas to mitigate any release to the environment.

The release was reported to U. S. EPA Region V and Ohio EPA on June 16, 1989. It was estimated that less than one ounce was released to the environment.

Pursuant to 40 CFR, Part 265.196(d)(3) a report to the Regional Administrator is required within 30 days of detection of the release. The following information meets the report requirements:

1. Likely route of migration of the release; The release migrated to the exterior of the tank and was visible as surface condensate. A stain of dampness, less than one ounce, surrounded the pinhole but there was no visible evidence of drippings or release into the containment area.
2. Characteristics of the surrounding soil (soil composition, geology, hydrology, climate); The FMPC is located in a two-mile wide valley filled with glacial deposits. This valley parallels the Great Miami River between the towns of Ross and Hooven, Ohio. At the land surface of the FMPC, a 20 to 50 foot thick layer of glacial till, composed of a dense, olive-gray silty clay, overlies the sand and gravel outwash deposits. The till varies in texture and composition, both laterally and vertically, and contains lenses of poorly sorted fine to medium grained sand and gravel (meltwater and channel sands). The base of the till occurs at the estimated elevation of 540 mean sea level (MSL) and overlies the sand gravel out wash deposits.

To the south and west of the FMPC production area, the silty clay till laterally grades into a sequence of silt and silty sand (Pleistocene lake deposits), with some layers of silty clay. The silty clay till is continuous to the north and east of the site, and directly overlies the bedrock in these areas. In the lower reaches of Paddy's Run and the storm sewer outfall ditch, the silty clay till and lake bed silts have been eroded to expose the underlying sand and gravel.

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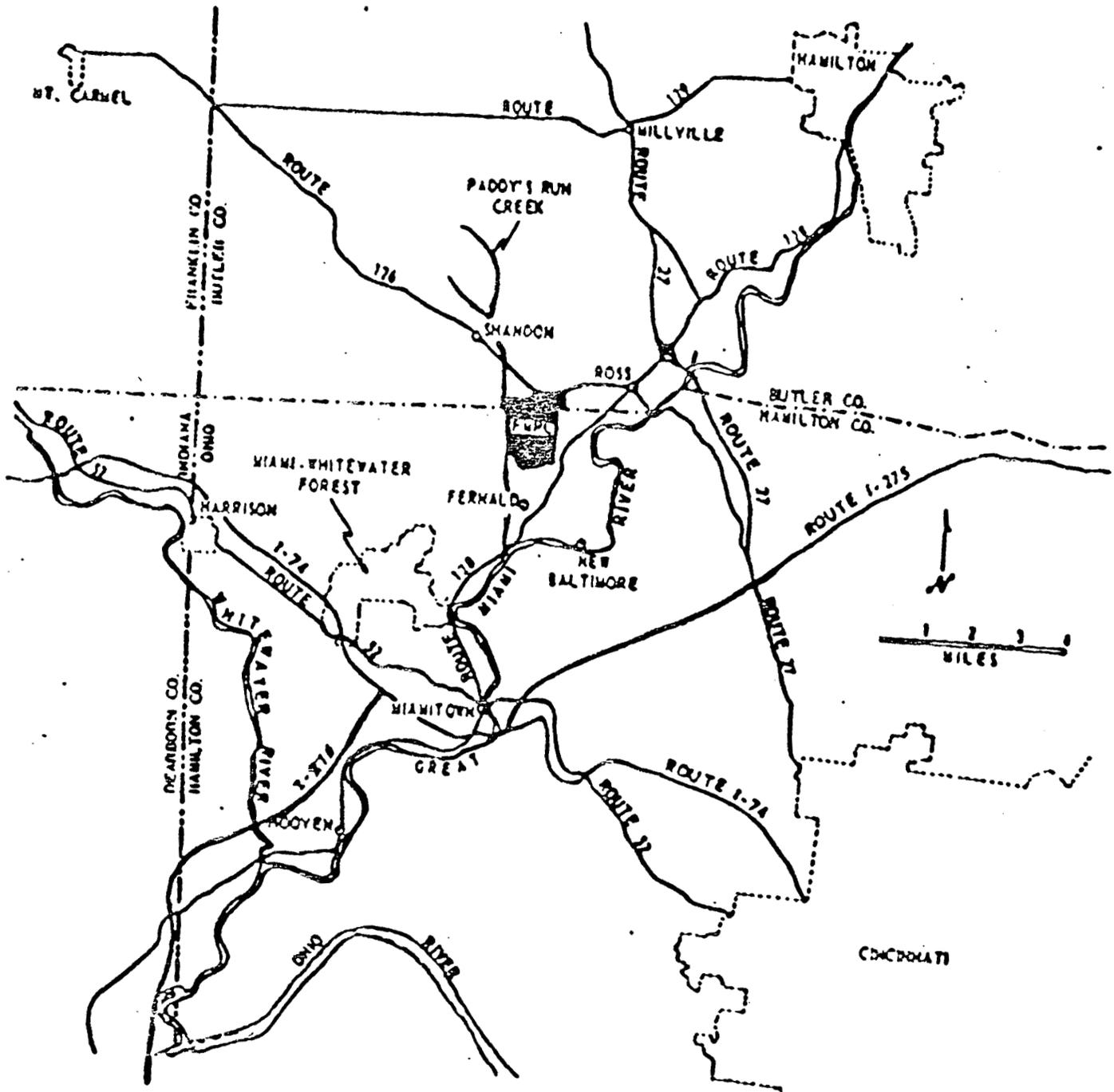
3. Results of any monitoring or sampling conducting in connection to the release; No monitoring or sampling was conducted since the release involved only surface condensate at the point of the detected pinholes.
4. Proximity to downgradient drinking water, surface water, and population areas; The FMPC is located in a rural area of southwest Ohio; a 1050 acre site situated near Fernald in both Hamilton and Butler Counties. It is approximately 20 miles northwest of Cincinnati and 8 miles southwest of Hamilton. The plant facility occupies about 136 acres of the center of the property. The site is bounded on the south by Willey Road, on the west by Paddy's Run Road, on the north by farmland and State Route 126, and the east by a dairy farm. (Attachment 1)

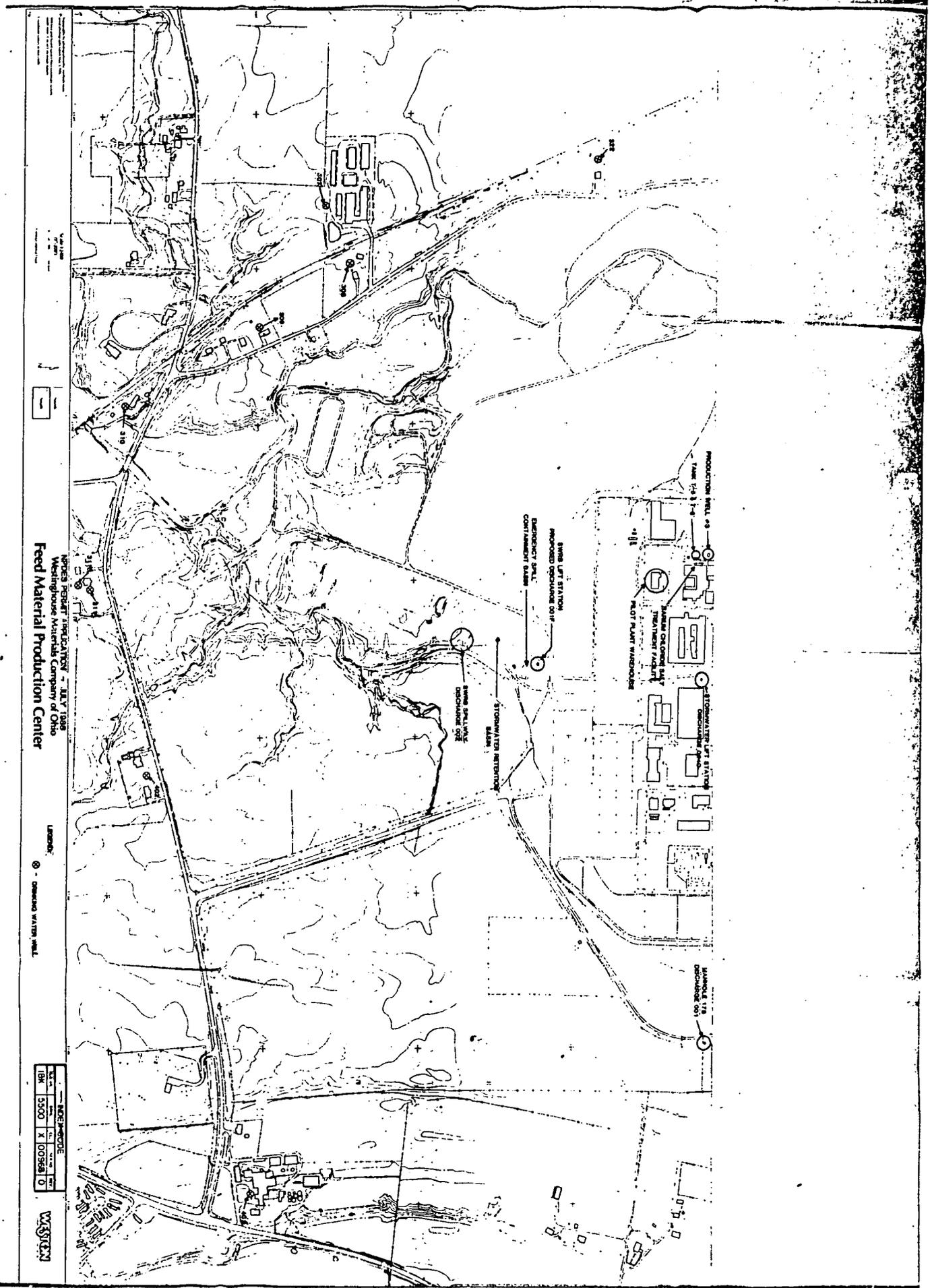
The only drinking water wells within one-quarter mile of the Production Area are those that supply the FMPC. The drinking water wells downgradient from the production area are shown on Attachment 2.

Surface waters include the Paddy's Run Creek, west of the facility, which runs into the Great Miami River.

5. Description of response actions taken or planned. To mitigate any further release to the environment a patch consisting of adhesive RTV and aluminum was placed on each corroded area. Tank draining commenced on June 27, 1989 to allow time to obtain proper equipment, train personnel in proper transfer techniques, and to determine a container suitable for the characteristics of this material. Inspections of the tank are conducted daily until the tank is drained.

The draining of Tank T-5 is expected to be completed by July 14, 1989. The 160 drums will be placed in RCRA storage until shipment offsite to the K-1435 incinerator in Oak Ridge, Tennessee. The FMPC will begin RCRA closure activities rather than repair the tank. A closure plan will be forwarded and the tank will remain inactive.





HODGE'S FEEDS, INC. - LAY OUT
 Feed Material Production Center
 Westinghouse Materials Company of Ohio

DATE	NO. OF SHEETS
10/1/50	1 OF 1
10/1/50	1 OF 1
10/1/50	1 OF 1

WESTINGHOUSE

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