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LIQUIDS STORED IN WHITE METAL BOXES AT BUILDING 71

02/24/97

DOE-0586-97
DOE-FEMP OEPA
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RESPONSE

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Department of Energy
Ohio Field Office
Fernald Area Office
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

FEB 24 1997

DOE-0586-97

Mr. Phillip C. Harris
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Harris:

LIQUIDS STORED IN WHITE METAL BOXES AT BUILDING 71

Reference: Letter, P. Harris to J. Reising, "U.S. DOE-FEMP Hazardous waste OH6890008976 Hamilton County," dated February 14, 1997.

In the referenced letter the Ohio Environmental Protection Agency (OEPA) indicated that, based upon information reported by the Department of Energy, Fernald Environmental Management Project (DOE-FEMP) regarding the storage of wastewater in nine white metal boxes at Building 71, violations of hazardous waste storage requirements were identified. The referenced letter further recognized that no apparent release nor enhanced threat to public health or the environment resulted from the violations and indicated that actions taken by DOE-FEMP had corrected the violations.

The referenced letter requested three items of additional information concerning the causes of the violations and FEMP actions to prevent their recurrence. This letter provides the requested information, as well additional detail regarding the generation and subsequent management of the waste in question.

Enclosure 1 provides a detailed chronology of the generation and subsequent management of the wastewater at Building 71. The nine white metal boxes were properly labeled as hazardous waste and moved to a designated storage area in Building 79 on February 11, 1997. The requested documentation of the movement of the containers to Building 79 is provided in Enclosure 2.

Your letter requested two items of information to clarify the causes of the identified violations and corrective actions to prevent their recurrence.

An explanation why characterization of this waste was not completed until almost a year after availability of analytical results.

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Between March and July 1995 eight sampling plans were developed to sample and characterize 23 containers of liquid generated from the trash sorting project during this time. All 23 containers were characterized as non-Resource Conservation and Recovery Act (RCRA) waste. As the project was finished and closed out in August 1995, an additional ten containers of liquids were generated. These containers were sampled in October 1995 and were placed in interim storage at Building 71 awaiting final characterization results for disposition.

Analytical results for the final sampling plan were received in November 1995. Statistical analysis of the data was completed in March 1996. Due to an oversight, no initial review of data was completed; therefore, no action to relocate or label the containers was taken based upon this initial characterization information.

It should be noted that, during this time, priority was being given to characterization of legacy waste to support its removal from the process area with the accelerated plan for remediation of the site. In Fiscal Year (FY) 1996, approximately 17,500 containers of legacy waste were characterized for disposition. The wastewater was considered a secondary (i.e., non legacy) waste generated as a result of the processing of legacy waste. In addition, it was assumed, based upon sampling and analysis of the first 23 containers generated during the project, that the analytical results for the final ten containers would likely confirm them to be non RCRA as well. Due to both factors, low priority was placed upon completion of statistical evaluation and characterization of the waste.

On October 25, 1996, the characterization was completed and the waste was determined to be RCRA characteristic hazardous waste for EPA Waste Codes D018-Benzene; D019-Carbon Tetrachloride; D034-Tetrachloroethylene; and D040-Trichloroethylene. However, the need to label the containers as hazardous waste was overlooked until February 4, 1997.

Corrective Action

1. The Waste Sampling Section and Waste Characterization Section has since reorganized into one group that will facilitate the transfer of data and communication of analytical /statistical results.

2. Waste Sampling and Characterization (WS&C) has identified and projectized all containers currently in inventory (SWIFTS).

3. Newly generated wastes are assigned to one of 18 characterization projects.

4. WS&C has assigned Project Managers to each of these 18 projects. These Project Managers are accountable to follow the wastes from generation through characterization to assure that characterization is completed in a timely manner.

5. Procedural changes are being made to insure that rather than delaying relocation of waste containers until final statistical evaluation of data and final characterization is completed, an initial review of wastes entering a project will be performed within 90 days of sampling. If preliminary information, such as process knowledge or initial

analytical results, indicates a likelihood that the final characterization will be hazardous waste, the containers will be relocated to appropriate storage based upon the initial information.

An explanation why this waste was placed into a storage area designated for non free liquids, and administrative and/or other management controls DOE-FEMP will use to prevent recurrence.

DOE-FEMP Response

Based upon sampling and analysis of the first 23 containers generated, it was assumed that the analyses would confirm the final ten containers to be non RCRA. The Building 71 storage location was appropriate for storage of non RCRA liquid material. Although the final characterization identifying the waste as hazardous waste was completed in October 1996, the need for labeling the containers as hazardous waste was overlooked until February 4, 1997.

Attempts to relocate the containers to appropriate storage were initiated in November 1996. The difficulties experienced in accomplishing movement of the containers are described in detail in Enclosure 1.

Corrective Action

1. As described in the first corrective action in the previous section, FDF has recently implemented a process of performing an initial review of waste(s) entering a project when initial data are available. Decisions to relocate containers to appropriate storage will be made on initial data rather than waiting for final characterization results.

2. The SWIFTS database has been modified to provide a report of changes to characterization status versus storage location on a monthly basis. This report will identify any waste containers characterized as hazardous waste during the previous month, along with their current location. Waste storage personnel will review this report each month to verify that all containers characterized as hazardous waste have been stored and labeled according to the RCRA Part B Permit Application and other applicable hazardous waste storage requirements.

If you have any questions or require additional information, please contact Robert Danner at (513) 648-3167, or Johnny Reising at (513) 648-3139.

Sincerely,

Jack R. Craig
Director

FEMP: Danner

Enclosures: As Stated

cc w/encs:

J Sattler, DOE-FEMP
S. Beckman, FDF/52-3
T. Hagen, FDF/65-2
T. Walsh, FDF/65-2
M. West, FDF/35-1
AR Coordinator/78

cc w/o encs:

EDC, FDF/52-7

Enclosure 1

BACKGROUND AND CHRONOLOGY

In February 1995, a project was initiated in Building 71 to sort the contents of approximately 7,000 containers of legacy trash into proper waste streams for characterization and disposition. The project involved opening containers of waste and segregating the contents into similar waste streams to allow characterization and disposition of waste materials. Waste streams that were segregated consisted of:

1) Process residues;
2) Prohibited items (aerosol cans, etc);
3) Compactable Trash;
4) Non-Compactable Trash; and,
5) Liquids.

Between March and July 1995 eight sampling plans were developed to sample and characterize 23 containers of liquid generated during this time period. All 23 containers were characterized as containing non-RCRA waste. As the project was finished and closed out in August 1995, an additional ten containers of liquids were generated. These containers were sampled in October 1995 and were placed in interim storage at Building 71 awaiting final characterization results for disposition.

Analytical results for the final sampling plan were received in November 1995. Statistical analysis of the data was completed in March 1996. No action to relocate or label the containers was taken based upon this initial characterization information.

FDF is committed to the removal of all legacy waste from the process area in conjunction with the accelerated plan for remediation of the site. In FY 1996, approximately 17,500 containers of legacy waste were characterized for disposition. The wastewater was considered a secondary (i.e. non legacy) waste generated as a result of the processing of legacy waste. In addition, it was assumed, based upon sampling and analysis of the first 23 containers generated during the project, that the analytical results for the final ten containers would likely confirm them to be non-RCRA as well. Due to both of these factors, low priority was placed upon completion of statistical evaluation and characterization of the waste.

On October 25 1996, the characterization was completed and the waste was determined to be RCRA characteristic hazardous for EPA waste Codes D018-Benzene; D019-Carbon Tetrachloride; D034-Tetrachloroethylene; and D040-Trichloroethylene. The sitewide Information Forecast and Tracking System (SWIFTS) database was updated to reflect the RCRA characterization of the material and was assigned to a mixed waste project code. The need to label the containers as hazardous waste was, however overlooked until February 4, 1997.

The material was evaluated for disposition options which included treatment through the onsite Volatile Organic (VOC) treatment system in Plant 8. However; upon review of the analytical data, it was determined that the content of Tetrachloroethylene was greater than the Waste Acceptance Criteria for the VOC system.

The material was then assigned to the Oak Ridge TSCA incineration project (Batch 7) for bulking and treatment in FY 1997.

In November 1996, a task order to move the containers from Building 71 to Building 79 was initiated. The material was stored in white metal boxes (WMB). The supervisor at Building 71 attempted to move the boxes in accordance with the task order, however; was concerned with the possibility of spilling liquid from the containers during movement. The supervisor then pumped the contents of two of the ten WMB into two water dumpsters designed for transport of liquids onsite. One of the two dumpsters was moved to Building 79.

Upon receipt of the dumpster, the dumpster was placed upon the unloading platform next to the bulking tank. Because of the location of the platform within the diked area of the bulking tank, the fork truck driver was required to maneuver an unstable load into position to allow unloading of the dumpster. The dumpster was pumped into the bulking tank. Because of the size and weight of the dumpster, this method of container placement was deemed unsafe by the supervisor and operations staff. The supervisor requested that no other material be transported by this method.

In December 1996, a second task order was developed and approved to transfer the material into the bulk tank at Building 79. The task order specified use of the VOC tanker truck to deliver the waste to the Bulking area.

During this time period, as a result of an ongoing reorganization within the site's Waste Management function, supervisory personnel who were cognizant of the operation was transferred to other operations and responsibility for the work was not properly transferred.

On February 4, 1997, the task order was being reviewed for approval and implementation when it was determined that the remaining nine containers of material (one of the original ten containers was successfully moved to Building 79 in November 1996) were being stored in an unauthorized location and was not labeled properly. Upon discovery, the containers were immediately labeled and placed into a temporary diked area in Building 71 for storage until a task order for movement was developed and implemented.

Ohio EPA was notified by telephone and fax message of discovery of the containers on February 7, 1997.

On February 11, 1997 a task order was approved to move the containers to Building 79 for proper storage and labeling. All nine containers were moved without incident.

Due to the seasonal effect on the containers, (i.e. partially frozen) the contents of the containers will be pumped into the bulk tanks once the weather changes to allow direct pumping into the bulk tanks. Disposition at the TSCA incinerator is scheduled for FY97.

ENCLOSURE 2

DOCUMENTATION OF MOVEMENT OF WHITE METAL BOXES TO BUILDING 79

IV.NO	SERIAL	P.O.	SRC	C	MAT	SEQ	ITEM#	GROSS	LOC_DATE	MBA_DATE	MBA	STATUS	LOCATION	INVENTORY_DESCRIPTION
161671	082164	R075	100	V	012	A407	000001	4784.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	AQUEOUS LIQUIDS ACCUMULATED FROM TRASH SORTING LINE (HA
156945		R075	100	V	012	A407	000002	0.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
161672	082175	R075	100	V	012	A407	000003	6034.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	AQUEOUS LIQUIDS ACCUMULATED FROM TRASH SORTING LINE (HA
136338	191030	R075	100	V	012	A407	000004	5194.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
135652	188185	R075	100	V	012	A407	000005	5056.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
136296	195501	R075	100	V	012	A407	000006	5144.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
136308	191011	R075	100	V	012	A407	000007	5012.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
135275	165587	R075	100	V	012	A407	000008	4030.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
134888	738644	R075	100	V	012	A407	000009	5810.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
OTAL:	9													

000008

INV.NO	SERIAL	P.O.	SRC	C	MAT	SEQ	ITEM#	GROSS	LOC_DATE	MBA_DATE	MBA	STATUS	LOCATION	INVENTORY_DESCRIPTION
161671	482164	R075	100	V	012	A407	000001	4784.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	AQUEOUS LIQUIDS ACCUMULATED FROM TRASH SORTING LINE (HA
156945		R075	100	V	012	A407	000002	0.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
161672	482175	R075	100	V	012	A407	000003	6034.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	AQUEOUS LIQUIDS ACCUMULATED FROM TRASH SORTING LINE (HA
136338	191030	R075	100	V	012	A407	000004	5194.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
135652	188185	R075	100	V	012	A407	000005	5056.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
136296	195501	R075	100	V	012	A407	000006	5144.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
136308	191011	R075	100	V	012	A407	000007	5012.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
135275	165587	R075	100	V	012	A407	000008	4030.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	
134888	738644	R075	100	V	012	A407	000009	5810.00	11-FEB-97	11-FEB-97	990	ACTIVE	0079	

OTAL: 9

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