

## INTEROFFICE CORRESPONDENCE

DATE: October 12, 1994  
TO: R. Z. Houk, OU 1 Program Manager, Bldg. 080, X8714  
FROM: G. D. DiGregorio, Environmental Quality Support, Bldg. 080, X8734  
SUBJECT: OPERABLE UNIT 1 (OU 1) HOT SPOT REMOVAL - GDD-005-94  
DOE Order: 5700.6C  
Action: None

This letter is to formally inform you that an inspection was performed on the surface soil removal of radiologically contaminated soils. Attached is a copy of the report.

Significant issues will be discussed with you before placement into the Plant Action Tracking System (PATs) for ultimate correction and closure.

lmw

Attachment:  
As Stated

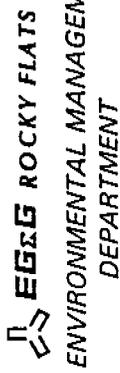
cc:

K. Bentzen  
R. S. Luker  
A. L. Primrose  
W.R. Sproles  
S. G. Stiger

~~ERPD Project File (2)~~

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REVIEW WAIVER PER  
CLASSIFICATION OFFICE

**ADMIN RECCRD**  
BZ -A-00225



### EM Inspection Report (EMIR)

EMIR No.: 94-057  
Page 1 of 6

Project Name: OU-1 Hot Spot Removal

Location: OU-1 881 Hillside

Activity Description: Surface soil removal of radiologically contaminated soils

Personnel Contacted (include company and title)

Zeke Houk - EG&G OU1 Program Manager      Rabecca Hinsch - EG&G Data Support for Hot Spot removal

Wayne Sproles - EG&G Project Manager for Hot Spot removal

Mike Peters - EG&G OU-1 Quality Assurance for Hot Spot removal

No.      References (include Revision/Date)

- 1      Environmental Management Radiological Guidelines Manual, 3-21000-OPS-EMRG, December 1991
- 2      Environmental Management Department Geotechnical, 5-21000-OPS-GT, March 1992
- 3      Environmental Management Department Field Operations, 5-21000-OPS-FO, March 1992
- 4      Environmental Management Administrative Procedures Manual, 3-21000-OPS-ADM, August 1991
- 5      OU-1 Sampling and Analysis Plan Hot Spot Removal, Final, Sept. 1994
- 6      OU-1 Health and Safety Plan, Final, September 15, 1994
- 7      EG&G Quality Assurance Project Plan, May 1991

Originated By: Greg DiGregorio  
Print Name

Greg DiGregorio  
Signature

9/28-9/29, 1994  
Inspection Date

**EM Inspection Report (EMIR)  
Continuation Sheet**

DEVIATIONS		[Use Continuation Sheet(s), If Necessary]	
DEV #	REF #	ISSUE	DISPOSITION
1	5	<p>The following forms were not filled out:                      FO.4A - Heavy Equipment Checklist                      FO.8A - Field Monitoring Results                      FO.9A - Residual Lab Soil Characterization Form                      FO.14C - Surface Soil Sample Form                      Form 1.15A - Calibration Form                      FO.16A - Results of Radiological Measurements in the Field                      FO.16B - Results of Radiological Measurements in the Field                      FO.18A - Sample Screening Form                      FO.18B - Sample Screening Form                      Form 3.1A - Radiological Contamination Survey Smear                      Counting Forms                      Form 9.1A - Posting Log Sheet</p>	Corrected on-site by PM on 9/29/94.
2	7	The Radiation Control Technician (RCTs) were operating to the Radiological Operating Instructions (ROIs) and not the Environmental Management Radiological Guidelines (EMRGs). The ROIs are not accepted under the Inter Agency Agreement (IAG).	
3	5	Volatile Organic Compound (VOC) and Semi-Volatile Organic Compound (SVOC) samples were left in the sun and heat after sampling instead of immediately placed in a cooler.	Samples collected on 9/28/94 for VOCs and SVOCs may not be valid due to incorrect preservation and should be qualified.

Originated By: Greg DiGregorio / Greg DiGregorio Signature  
 Print Name: \_\_\_\_\_ Inspection Date: 9/28-9/29, 1994

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**EM Inspection Report (EMIR)  
Continuation Sheet**

DEVIATIONS		[Use Continuation Sheet(s), If Necessary]	
DEV #	REF #	ISSUE	DISPOSITION
4	7	No Operating Procedures were available for the HPGe survey. The GT.30 OP did not pertain to this operation since that procedure is used for the truck mounted HPGe survey. The HPGe survey was performed with a tri-pod mounted HPGe detector that uses a thinner germanium crystal and therefore has a smaller angle of view. Personnel conducting the survey referenced Radiation Engineering Procedure RE 1401 - Operation of Portable Gamma Spectroscopy System (PGSS), RE 1402 Characterization of PGSS and RE Analysis of Data (not written as of yet). These procedures are not approved in accordance to the IAG.	
5	3	Personnel wearing respirators were collecting drum samples outside of the exclusion zone and next to the decontamination line (approximately 10' away) where personnel were not wearing any respirators.	Corrected on-site by the PM (9/29/94)
6	2	The backhoe used to excavate a hot spot was moved from the exclusion zone and the bucket was placed directly on the ground before being decontaminated. The project manager had the operator place a plastic bag underneath the bucket. The soil where the bucket was placed was not screened for potential contamination.	

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Print Name

[Signature]  
Signature

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**EM Inspection Report (EMIR)**  
**Continuation Sheet**

		[Use Continuation Sheet(s), If Necessary]	
DEV #	REF #	ISSUE	DISPOSITION
7	1, 3, 6	Personnel are not well trained on the issues of health and safety with respect to working with radioactive contamination. Problems identified were: - handling used PPE without gloves - taking off respirators without screening and doffing other PPE first - tyvek not properly taped and exposing blue coveralls to contaminated soil while shoveling the soil into white drums - personnel handling swipes with gloved hands (not a tweezers) and then operating radioactive detection instruments without changing gloves (cross contaminating samples and equipment)	Issues concerning the handling of PPE, the removal of respirators prior to being screened and collecting samples outside of the exclusion zone have not been corrected. The remaining issues have not been addressed.
8	1	Personnel operating the backhoe in an Radiation Work Permit (RWP)/Radiological Controlled Area (RCA) were not dressed out in blue coveralls.	
9	1	Entrance and exit points were not identified for the Radiologically Controlled Area (RCA). Personnel were entering and exiting the RCA from numerous points at any given time.	

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Continuation Sheet**

		[Use Continuation Sheet(s), If Necessary]	
		DEVIATIONS	
DEV #	REF #	ISSUE	DISPOSITION
10	1, 3	Smear surveys were conducted on sample jars, drums, sampling instruments but none of the smears were appropriately logged with the smear number, sample location, item/equipment and area smeared. The smears were numbered but values were not written down. The smears were then deposited into a plastic bag for disposal.	
11	4	Based upon observation, it appeared that personnel were not trained on ER procedures. Documentation was not available in the field to verify that personnel were trained to the procedures.	
12	2, 3	Used sampling equipment (coring equipment, picks and shovels) were decontaminated outside of the exclusion zone. The operation of equipment decontamination is suppose to take place within the exclusion zone.	
13	3, 7	Verification that samples were cooled to 4°C± 2°C was not performed for the samples collected during the first 2 days of sampling.	The sample collected on 9/28/94 should be qualified if the chain of custody recieved from the lab indicates that the samples were not sufficiently cooled. The samples collected there after were checked with daily coolant blanks.

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**EM Inspection Report (EMIR)**  
Continuation Sheet

**OBSERVATIONS**

- Personnel removing contaminated soil from location SS100493 were standing in the excavated hole (the main hot spot) using a pick and shovel. After the soil was removed from the location, the persons stepped out of the hole and walked within various areas of the exclusion zone without removing the protective booties and potentially spreading radiological contamination. The used pick and shovel were also placed directly on the ground and may have contaminated the area. These areas were not screened with the FIDLER after these events took place.

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