

**AGENDA
SOIL & WATER PROJECTS WORKSHOP**

The Plantation

**May 27, 1997
7:00 - 9:00 p.m.**

- | | | |
|------|---|-------------------------------|
| 7:00 | INTRODUCTION | Gary Stegner |
| 7:10 | SOIL CLEANUP PROJECT
Overview of Project Scope and Schedule <ul style="list-style-type: none"> - Status of Soil Certification in OSDF Footprint - Sitewide Excavation Plan - Path Forward - Questions/Feedback | Rob Janke/Arlen Hunt |
| 7:40 | OSDF PROJECT
Overview of Project Scope and Schedule <ul style="list-style-type: none"> - OSDF Construction Schedule - North Entrance Road - Waste Acceptance Criteria (WAC) Plan - OSDF Monitoring Plan - Category 5 Material Placement Plan - Questions/Feedback | Rod Warner/Mike Hickey |
| 8:40 | AQUIFER RESTORATION
Overview of Project Scope and Schedule <ul style="list-style-type: none"> - Remedial Design Fact Sheet - Groundwater Strategy - Near Term Groundwater Activities - Groundwater/Wastewater Treatment - O&M Plan - Questions/Feedback | Rob Janke/Dave Brettschneider |
| 8:55 | Concluding Remarks/Review of Action Items | Gary Stegner |

DOE and FDF personnel will be available after the meeting to discuss with the public any of the projects presented tonight.

FEMP

Soil and Water Public Meeting

May 27, 1997

**Soils Characterization and
Excavation Project**

R. Janke

A. Hunt

REMEDIATION OF SOIL AND SUBSURFACE DEBRIS (1030 ACRES)

- Soil Beneath Waste Pits (OU1)
- Southern Waste Units (OU2)
- Soil and Subsurface Debris in Production Area (OU3)
- Soil Beneath Silos (OU4)
- Soil Outside Production Area (OU5), Including Administration Area, Paddy's Run, West

REMEDIATION STRATEGY: THE SITE WIDE EXCAVATION PLAN

- Pre-Design Investigation
- Remedial Design
- Remedial Action
- Pre-Certification Scan
- Certification
- Grading and Restoration

REAL TIME MEASUREMENTS

- Rapid, Non-Intrusive Methods for Primary Radiological Contaminants
- Identify Likely Areas of Contamination by Measuring Gamma Radiation
- Two Types:
 - ▶ HPGe
 - ▶ RTRAK

REMEDIAL DESIGN

- **Integrated Remedial Design Package (IRDP) contains Drawings, Specifications, and the Implementation Plan**
- **Will be Submitted for Agency Approval**
- **IRDP for Area 2, Phase I (Southern Waste Units) and Area 1, Phase II (Sewage Treatment Plant and OSDF Borrow area) Under Development**

FEMP PROPOSED EXCAVATION SCHEDULE: ACCELERATED BASELINE

LOCATION	COMPLETION DATE
Area 1-11 & 1-11(A)	First Quarter, 1999
Area 1-11(B)	Third Quarter, 2003
Area 2	Third Quarter, 2000
Area 3	First Quarter, 2003
Areas 4,5, & 6	First Quarter, 2006
Area 7	After 2006

FIRST SOILS REMEDIAL ACTION: Area 1, Phase I (A1P1)

Objectives

- Remediate 121 Acres
- Demonstrate Contaminants are Less Than Final Remedial Limits (FRLs)
- Stockpile Soil and Debris for OSDF Disposal
- Certify Area
- Control Access (Maintain Certification)

REMEDIAL ACTION

- Excavation of Area 1, Phase I
- A1, P1 Includes Footprint of the First Section of On-Site Disposal Facility
- Separate Stockpiles for Soil vs. Debris and East vs. West Side of Access Road

AREA 1, PHASE I CERTIFICATION

- 121 Acres in Northeast Corner of FEMMP
- Northern Footprint of OSDF
- 10 Contaminants of Concern (COCs):

Total Uranium	Arsenic
Thorium-232	Aroclor
Thorium-230	Beryllium
Thorium-228	Radium-228
Cesium	Radium-226

CERTIFICATION PROCESS

- **Collection of Samples**
- **Laboratory Analysis**
- **Data Validation**
- **Data Entry**
- **Statistical Analysis**

Note: All data collection activities are complete for Area 1, Phase I

CERTIFICATION CRITERIA

- **Average COC Concentration Lower Than Final Remediation Level**
- **No Single Sample Exceeds 2X the Final Remediation Level**

AREA 1, PHASE I CERTIFICATION UNITS

44 Radiological CUs

30 Inorganic CUs

7 PCB CUs

81 Total CUs

CERTIFICATION STATUS

- 78 CUs Passed Certification
- 3 CUs Require Corrective Action
- 81 Pass after Corrective Action

CORRECTIVE ACTIONS

P17-32

- Average Concentration for Arsenic >FRL
- Excavated Additional 6 inches and Recertified

Q18-40

- Average Concentration for Radium-226 > FRL
- Divided CU in Half: Resampled Northern Half;
- Excavation of Southern Portion Underway

O-20

- Failed Hot Spot Criteria for Total Uranium
- Excavated Hot Spot; Collecting Additional Samples for Analysis of Radium-228

CERTIFICATION

- Certification of Area 1, Phase I Nearing Completion
- A1, P1 Certification Report will be Submitted to Agencies July 1, 1997
- Lessons Learned in A1, P1 will Improve Processes in Future Remedial Actions

GRADING AND RESTORATION

- Grading Plan: Restore Landscape to 1950 Contours; Control Stormwater and Sediment; Establish Wetlands and Riparian Areas; etc.
- Guidance for Restoration Specified in the Natural Resource Restoration Plan (NRRP)
- NRRP Developed Under Direction of the Natural Resource Trustees

SCSEP SCHEDULE

<u>ACTIVITY</u>	<u>DELIVERY TO EPA</u>
Certification Report	July 1, 1997
Sitewide Excavation Plan	July 14, 1997
Comparability Study:	
HPGe	June, 1997
RTRAK	July 14, 1997
IRDp for SWUs	Oct. 20. 1997
IRDp for A1,PII	Nov., 1997
Site Prep. for SWUs	Aug., 1997
Excavation of SWUs	March, 1998

SOILS AND WATER PROJECTS

WORKSHOP

THE PLANTATION

MAY 27, 1997

ON-SITE DISPOSAL FACILITY

OVERVIEW OF PROJECT

SCOPE AND SCHEDULE

OSDF PROJECT

FEMP

- **Project Scope**
- **Current Year Construction Schedule**
- **North Entrance Road**
- **Waste Acceptance Criteria Plan**
- **OSDF Groundwater/Leak Detection and Leachate Monitoring Plan**
- **Category 5 Oversized Material Discussion**

PROJECT SCOPE

FEMP

- **Construct the OSDF**
- **Construct the Leachate Conveyance System**
- **Construct Roads**
 - **Haul Road**
 - **Rerouted North Entrance Road**

ON-SITE DISPOSAL FACILITY

CURRENT YEAR

CONSTRUCTION SCHEDULE

CURRENT YEAR CONSTRUCTION SCHEDULE FEMP

	Start	End
Leachate Conveyance System	01/27/97	09/16/97
Haul Road	02/24/97	11/11/97
Groundwater Wells	03/31/97	09/30/97
North Entrance Road	07/01/97	10/31/97
OSDF Phase I	07/01/97	12/31/97

RELOCATED

NORTH ENTRANCE ROAD

NORTH ENTRANCE ROAD

FEMP

- **Currently, North Entrance Road is in the Footprint of the OSDF**
- **Relocated in Two Phases**
- **Phase I Starts July 1, 1997**
- **Complete October 31, 1997**
- **Phase II Planned for Fiscal Year 2001**

WASTE ACCEPTANCE CRITERIA PLAN

FEMP

- Waste Acceptance Criteria established in OU2, OU3, and OU5 Record of Decisions
- Waste Acceptance Criteria Plan Includes:
 - Soils
 - Debris
 - Ancillary Remediation Waste

WASTE ACCEPTANCE CRITERIA PLAN

• FEMP

- **Umbrella Document to define Characterization Systems to place Impacted Material in OSDF**
- **Material Tracking System**

ON-SITE DISPOSAL FACILITY

GROUNDWATER/LEAK DETECTION

AND

LEACHATE MONITORING PLAN

GROUNDWATER MONITORING REQUIREMENTS

- Ohio Administrative Code (OAC) 3745-27-10 - Groundwater Monitoring Program for a Solid Waste Landfill Facility
- Requires that a Groundwater Monitoring Program be implemented that is capable of determining the impact of the disposal facility on the quality of groundwater
- An appropriate number of wells must be installed at appropriate locations and depths to yield groundwater samples that represent the quality of groundwater both upgradient and downgradient of the disposal facility

TYPES OF MONITORING

FEMP

- **Two types of monitoring will comprise the complete OSDF groundwater monitoring system:**
 - **Great Miami Aquifer Monitoring**
 - **Glacial Till Monitoring**

GREAT MIAMI AQUIFER MONITORING

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- After the baseline for each GMA groundwater monitoring well has been established, wells will be sampled monthly (during waste placement)

- Analysis for the following proposed list:

- Uranium (total)
- Technetium-99
- Baron
- Mercury
- pH
- Specific Conductance
- Total Organic Carbon
- Total Organic Halogens
- Alpha-Chlordane
- Bis(2-Chloroisopropyl)ether
- Bromodichloromethane
- Carbazole
- 1,1-Dichloroethene
- 1,2-Dichloroethene
- 4-Nitroaniline
- Tetrachloroethene
- Trichloroethene
- Vinyl Chloride

GREAT MIAMI AQUIFER MONITORING (cont.)

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- Wells will be installed in a phased approach concurrent with OSDF construction
- Results from OSDF groundwater monitoring will be reported quarterly and also included in the Integrated Environmental Monitoring Program (IEMP) Reports

GLACIER TILL MONITORING

FEMP

- In addition to monitoring of the Great Miami Aquifer, horizontal wells will be installed to provide an early detection system.
- Horizontal wells will be installed at the low point of each cell in the OSDF (anticipate 8 horizontal wells).
- Wells will monitor at the most likely place for a leak to occur.
- A leak would be detected by the horizontal well earlier than one of the Great Miami Aquifer monitoring wells.

DATA EVALUATION

FEMP

- Qualitative evaluation of data
- Perform trend analysis
- Compare sample results from the horizontal wells, leachate collection system, and leak detection system with results from Great Miami Aquifer monitoring
- "Holistic Approach" - evaluating the whole system together rather than each individual part

CATEGORY 5 MATERIAL PLACEMENT

FEMP

- **Category 5 Materials are materials that require special handling. Examples are:**
 - **Highly-Compressible Impacted Materials (e.g. Double Bagged Asbestos).**
 - **Sludges**
 - **Piping Insulation**

OVERSIZED MATERIAL DISCUSSION

FEMP

- OSDF Volume 2.5 Million Cubic Yards
- Oversize Material estimated at 10,000 to 20,000 cubic yards
- Less than 1 Percent of Total Volume

OVERSIZED MATERIAL DISCUSSION

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- **Inventory Performed on Potential Items**
 - **Vessels**
 - **Gear Boxes**
 - **Motor-Generator Sets**
 - **Mill Rolls**
 - **Mill Stands and Housings**
 - **Lathe Beds**
 - **White Metal Boxes**

OVERSIZED MATERIAL DISCUSSION

FEMP

- Geosyntec Consultants Inc. performed assessment.
- Evaluation
 - Static Performance
 - Dynamic Performance

OVERSIZED MATERIAL DISCUSSION

FEMP

- 95 Percent (9,500 - 19,000 cubic yards) of oversized material will be either shipped off site or will meet physical WACs
- 5 Percent (500 - 1,000 cubic yards) open for discussion

OVERSIZED MATERIAL DISCUSSION

FEMP

- **Mill Rolls**
- **Mill Stands and Housings**
- **Lathe Beds**
- **Category "A" (Structural Steel)**

257
1

OVERSIZED MATERIAL DISCUSSION

FEMP

- 5 Percent represents the most likely material for recycling, including Category "A"
- Why are these items being discussed
 - Conserve Resources
 - Safety Issues

SOIL & WATER PROJECTS WORKSHOP

May 27, 1997

Evaluation Survey

Thank you for attending the workshop to discuss projects in the Soil & Water Division. Please take a few minutes to answer the questions below:

1. Did you receive a notification postcard of this workshop? If not, you are probably not on our key stakeholder mailing list. If you want to be added to the list, please ask at the registration table for a Mailing List Request form.
2. Was the presentation on the Soil Cleanup Project adequate and understandable?
3. Was the presentation on the On-Site Disposal Facility adequate and understandable?
4. Was the presentation on the Aquifer Restoration Project adequate and understandable?
5. How satisfied were you with responses to questions asked this evening?
6. Do you have any other constructive comment/criticism about tonight's meeting?

Optional:

Name _____ Phone _____