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NCBC GULFPORT  
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MINUTES FROM 4 SEPTEMBER 1992 HERBICIDE ORANGE SITE MEETING NCBC  
GULFPORT MS  
9/4/1992  
NCBC GULFPORT

39501-SITE 8 INCINERATION  
21.02.08.0005

CTO 24 NCBC Gulfport, Mississippi  
Herbicide Orange Site

MEETING MINUTES

SOUTHERN DIVISION  
CHARLESTON, SC  
4 SEPTEMBER 1992

Attendees:

David Criswell	SOUTHDIV	(803) 743-0612
<del>Ken Barnes</del>	<del>SOUTHNAVFACECOM</del>	<del>(803) 743-0669</del>
Dan Owens	SOUTHDIV	(803) 743-0331
Frank Cater	ABB-ES - Tennessee	(615) 531-1922
Marland Dulaney, Jr.	ABB-ES - Tallahassee	(904) 656-1293
Willard Murray	ABB-ES - Wakefield	(617) 245-6606
Phil Stapleton	EMS	(203) 426-9163

Note: These minutes are not an official transcript. They are recreated to show only pertinent conversations and resulting action items.

Frank Cater started the meeting by introducing the ABB-ES members and Philip Stapleton of Environmental Management Services, and ABB-ES subcontractor hired for his regulatory expertise.

Willard Murray then gave a brief history of the site/sites as interpreted from the documents ABB-ES has on file. (See attached handout.)

Willard asked if sites B and C were filled with clean sand? The areas have been excavated, then is it safe to assume that it was filled?

Phil Stapleton presented the regulatory environment and options. (See attached handout.)

Phil asked the ash storage and what the original RD&D permit says about ash storage. Also we need to know how long this permit was for. ABB-ES does not have a copy of the actual permit. SOUTHDIV will check on this.

The documents state that there is 30,000 cubic yards but an EPA comment says there are two hundred piles with 10 to 15 cubic yards in a pile. This would imply that there are 3,000 cubic yards of ash. The amount of ash could make a difference in choosing the option of disposal over de-listing. There needs to be a survey performed to determine the actual amount of ash present.

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Burn Four was not verified nor could ABB-ES find a record of analysis. Will this create the need for ash re-sampling?

Marland Dulaney then presented risk consideration. The first item or question that needs to be answered is if the piles are uncovered, then is there any dust being spread by the wind. A  $5.7 \times 10^{-3}$   $\mu\text{g}/\text{cubic meter}$  concentration would equate to a  $10^{-6}$  Risk. It is important that the concentrations of the airborne particles be identified.

Marland stated he felt that the EPA made mistake in their letter dated January 1, 1992 to Lubozyrski on page 3. Equivalent toxic factors they used were from 1986 factors not the 1989 allowable factors.

The MCL for dioxin is .003 parts per trillion.

Marland stated that if we stay in the CERCLA venue, then would have to look at possible residential scenarios for the risk evaluation.

The state guidance would be for "uncontrolled sites." The  $10^{-6}$  risk would equate to 21 parts per quadrillion.

The Navy may want to consider the re-sampling of fish tissue and sediment, surface waters, and soils. The Navy needs to ask the State what they would like to see and the acceptable levels.

Ken Barnes said there might be a meeting with EPA in Atlanta on September 9, 1992. Ken stated that he has started discussions with the State to get them up to speed.

The question was asked that if the groundwater is contaminated, then how does it affect sites B and C. This would be a good question for the state. It would be hard to prove which site the contamination came from. Also contaminated groundwater could affect the de-listing petition.

One possibility might be that if solvents are found at sites B and C and in the groundwater, but not at site A, then a good case could be made that the ash is not causing the groundwater contamination.

Ken Barnes said that the Air Force may or may not leave the project, and that the funding may or may not be available. Until higher levels of the Air Force and the Navy make a decision, it will be difficult to take action. The Air Force may give the Navy \$1,000,000 for additional investigation.

Action Items presented:

1. Survey piles to get quantity of ash.
2. Action for dust control.
3. Air permit & EPA permit number is needed.

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4. The Landfill for possible disposal located in Colorado need to be check further.
5. A Waste Management Plan for the ash piles needs to be developed.
6. ABB-ES needs a copy of the original RD&D permit to review.
7. Need to verify whether or not Sites B & C were back-filled with fill.
8. Soil burn/incineration RD&D records need to be compiled and reviewed.
9. For a new risk assessment, the fish tissue and sediments will need to be re-sampled.

Meeting was adjourned.

NCBC Gulfport H.O. Site Meeting  
Friday, September 4, 1992  
SouthDIV, Charleston, SC

AGENDA

- |      |  |                 |
|------|--|-----------------|
| 1015 | Introduction   | Frank Cater     |
| 1030 | Review Site H.O. History <ul style="list-style-type: none"><li>- compliance requirements</li><li>- previous work</li><li>- apparent options</li></ul>                | Willard Murray  |
| 1100 | Regulatory Issues and Options  | Phil Stapleton  |
| 1130 | Risk Assessment Issues and Options   | Marland Dulaney |
| 1200 | Open Discussion on How to Proceed <ul style="list-style-type: none"><li>- What is the Navy's primary objective?</li><li>- How will we meet that objective?</li></ul> |                 |
| 1400 | Review Action Items and Adjourn  |                 |

## A Brief History of the H.O. Site

1. From 1968 to 1977, DOD stored H.O. in 15,400 drums on sites A, B, and C; 13 acres. Sites B and C were used for short term storage, while Site A was used for long term storage.
2. In 1977 all H.O. drums removed and incinerated at sea.
3. During storage on site, leakage occurred to cause TCDD contamination on 2 to 4 acres:
  - soil - 100 to 500 ppb,
  - sediment - 0 to 5 ppb,
  - tissue - 0 to 10 ppb.
4. Off site sediment and fish tissue samples were both found to have 0.02 ppb TCDD in Canal #1, and both were ND in Turkey Creek.
5. Soil stabilization during the 1940's created a layer (6" to 12") of hardened soil which prevented significant vertical migration, so contamination is primarily limited to the upper two feet of soil.
6. In the early 1980's over 1700 soil samples defined the extent of soil contamination, and it was found that soil down to a depth of two feet would have to be excavated to clean up to a level of 1 ppb at the 95% confidence level - about 30,000 cu. yds.
7. The Air Force obtained an <sup>RCRA RHD</sup> R&D permit to incinerate soils on site. After several verification burns, a trial burn on May 1987 demonstrated a destruction and removal efficiency of 99.9999% or better. This was followed by the incineration of 30,000 yds. of soil on site using a mobile incinerator.
8. The ash from the incineration of the soil has been placed in piles on the storage site A, and the excavations on sites B and C have been filled with clean sand.
9. EPA and MSDEQ have apparently changed their minds a few times about what regulatory requirements have to be met for closure of the H.O. site:
  - full RCRA compliance,
  - RCRA and CERCLA,
  - Delist the ash,
  - or what?
10. It appears that at the present both EPA and MSDEQ are agreeable to a CERCLA closure of sites B and C under the Navy IR program, but site A which contains the ash needs separate attention and perhaps must be dealt with under RCRA.

11. A delisting petition for the ash on site A was submitted to the EPA in 1988 with an addendum in 1989.
12. Sampling and analysis plans in support of site closure were prepared by Versar for the Air Force in late 1990, assuming the ash would be delisted.
13. In early 1991 EPA recommends denial of the delisting petition.
14. A June 1991 Jim Dragun was asked to assess the adequacy of the delisting petition submission; he suggested that a better job should have been done in supplying backup to the petition and proposed a different approach to delisting.
15. In October 1991 after EPA denied the delisting petition, a plan for additional ash and groundwater sampling was prepared to support a renewed delisting effort. The Air Force and Versar now think that, with certain changes made by EPA since the earlier petition, this additional sampling and analysis of ash and groundwater will be able to achieve a 10 ppt level for TCDD in the ash (from a proposed standard for paper mill sludge) and the new drinking water MCL of 0.05 ppt in the groundwater. (The MCL is now 0.03 ppt for drinking water)  
The changes are:
  - a. Change groundwater model from VHS/OLM to CML or MULTIMED,
  - b. Different interpretation of PQLs,
  - c. Requirement for groundwater monitoring, and
  - d. Change to TCLP instead of EP data.
16. In December 1991 the EPA review of the 1990 sampling and analysis plans requested additional sampling and questioned some of the proposed work. They also suggested postponing work on site A until a regulatory decision on the ash is made.
17. In April 1992 Versar prepared a response to the EPA review of their 1990 sampling and analysis plans in support of site closure. This response agrees with most of the EPA's requests for more sampling to support closure of sites B and C. It also agrees that an assessment of site A will not be conducted until a final regulatory determination about the ash is made.

Where does this leave us ?

1. Close sites B and C under CERCLA through the Navy IR program.
  - a. How much additional sampling and analysis? Hasn't enough been done?
  - b. Notes: If the new standard of 11 ppt for soil is based on a 10<sup>-6</sup> risk, then a 10<sup>-4</sup> risk would give 1.1 ppb which we have already achieved!! Is this good enough for a non-residential site?

Dioxin is 6.5 times less mobile than PCB; its practically immobile!

2. Options for the ash and site A:
  - a. Delist - long and complicated process
  - b. Remove ash to permitted landfill - Colorado, \$250/yd
  - c. Apply for permit to dispose of ash on site
  - d. ? Special consideration like the R&D burn ?

## **REGULATORY EVALUATION**

### **GENERAL**

**SOIL WAS A HAZARDOUS WASTE UNDER RCRA (F027)  
VIA THE "MIXTURE RULE"\***

**SOIL WAS INCINERATED ON-SITE UNDER A RCRA R & D  
PERMIT BETWEEN 12/86 and 11/88**

**ASH IS A LISTED HAZARDOUS WASTE UNDER RCRA  
(F028)**

**ASH CURRENTLY MANAGED ON-SITE IN PILES**

**R & D PERMIT ALLOWS FOR ASH TO BE STORED ON-SITE  
(VERSAR, 11/88)**

### **ISSUES**

**R & D PERMIT:**

- STORAGE CONDITIONS?**
- DURATION OF PERMIT?**

**APPLICATION OF LDR'S**

**\*HWIR PROPOSAL BY EPA (5-20-92)**

## REGULATORY EVALUATION

### REGULATORY OPTIONS FOR MANAGING ASH

#### MAIN OPTIONS

PURSUE DELISTING

DISPOSE OF AT OFF-SITE TSDF - *Amount \$10,000,000*

OBTAIN PERMIT FOR ON-SITE DISPOSAL

#### OTHER POTENTIAL OPTIONS

EMERGENCY PERMIT (40 CFR 270.61)?

WAIVER FROM RCRA REGULATIONS 40 CFR 260.20)?

PRESIDENTIAL EXEMPTION?

CLEAN-UP UNDER CERCLA (NPL LISTED?)

- ARAR VARIANCE?

**REGULATORY EVALUATION**

**OPTION 1- PURSUE DELISTING**

**DEVELOPMENTS SINCE ORIGINAL PETITION**

- EPACML VS. VHS
- MCL FOR 2,3,7,8-TCDD
- DIOXIN REASSESSMENT UNDERWAY

**GROUNDWATER MONITORING DATA MAY BE REQUIRED**

**OTHER (NON-GROUNDWATER) EXPOSURE ROUTES  
COULD BE CONSIDERED**

**STATE CAN REQUIRE MANAGEMENT AS HW EVEN IF EPA  
DELISTS**

## REGULATORY EVALUATION

### DELISTING VIA EPACML

EPACML USED TO GENERATE DILUTION-ATTENUATION FACTORS (DAF)

EPACML YIELDS HIGHER DAF PER GIVEN VOLUME OF WASTE THAN VHS MODEL

-ADDITION OF UNSATURATED ZONE

DAF GENERATED FOR A SPECIFIC VOLUME OF WASTE

HEALTH-BASED NUMBER X DAF (FOR WASTE VOLUME) YIELDS COMPLIANCE POINT CONCENTRATION

LEACHATE VALUES (TYPICALLY VIA TCLP) COMPARED TO COMPLIANCE POINT CONCENTRATIONS

SCALING FACTOR (20) SHOULD NOT BE APPLIED TO ONE-TIME EXCLUSIONS

↑  
Because  
of this it  
is not 30,000 c/ydr,  
but one 1500 c/ydr

**REGULATORY EVALUATION**

**RECENT DELISTINGS**

**APTUS, INC., KANSAS (EFFECTIVE 12/27/91)**

**KILN RESIDUE/BAGHOUSE RESIDUE**

**F027**

**ARKANSAS DEPT. OF POLLUTION CONTROL & ECOLOGY  
(EFFECTIVE 8/24/90)**

**ASH/INCINERATION RESIDUES**

**F020, F023**

**MERCK, VIRGINIA (EFFECTIVE 5/12/89)**

**INCINERATOR ASH**

**WWTP SLUDGE**

**SYNTEX AGRIBUSINESS, MISSOURI (EFFECTIVE 6/2/88)**

**ASH, SLUDGE, WASTEWATERS**

**F020**

**REYNOLDS METALS, ARKANSAS (PROPOSED 7/18/92,  
EFFECTIVE 12/30/91)**

**INCINERATOR ASH/KILN RESIDUE**

**SPENT POTLINERS**

**USE OF EPACML FORMALLY PROPOSED**

## **REGULATORY EVALUATION**

### **OTHER DELISTING CONSIDERATIONS**

**EVEN IF SUCCESSFUL, STILL NEED TO MANAGE ASH AS  
NON-HAZARDOUS (SOLID) WASTE PER STATE REGS**

**COST OF GENERATING ANY ADDITIONAL DATA**

**TIME REQUIRED**

- RE-SUBMIT PETITION**
- EPA REVIEW**
- PROPOSAL IN FR**
- PUBLIC COMMENT**
- FINAL IN FR**

**STATE COULD REGULATE AS HAZARDOUS WASTE**

**REGULATORY EVALUATION**

**OPTION 2- TRANSFER TO OFF-SITE TSDF**

**ONE PERMITTED LANDFILL FOR ACCEPTING DIOXIN WASTES (< 1 PPB)**

- **HIGHWAY 36 LAND DEVELOPMENT COMPANY  
DEER TRAIL, CO**

*CONCORD RESOURCE GROUP,*

**COST OF OFF-SITE DISPOSAL AT HIGHWAY 36 SITE  
APPROXIMATELY \$250 PER CUBIC YARD OF ASH  
(PHONE QUOTE ON 9/2/92)**

**COST OF PACKAGING AND TRANSPORT WOULD BE  
ADDITIONAL**

**COST ESTIMATE ASSUMES THAT ASH ALREADY MEETS  
LDR'S**

- IS EXISTING SAMPLING SUFFICIENT TO ESTABLISH  
THIS FOR ALL F028 LDR CONSTITUENTS?**

**NAVY MAY ASSUME SOME (UNQUANTIFIED) LIABILITY  
FOR OFF-SITE DISPOSAL OF WASTE**

**"CLEAN CLOSURE" MAY BE REQUIRED FOR SITE A**

**-CLOSURE PLAN**

**-CONTINGENT POST-CLOSURE PLAN**

**REGULATORY EVALUATION**

**OPTION 3- OBTAIN PERMIT TO DISPOSE ON-SITE AS HW**

**OPENS SITE TO POSSIBLE CORRECTIVE ACTION AT  
SWMU'S**

**REQUIRES 30 YEARS OF GROUNDWATER MONITORING  
(UNLESS A VARIANCE IS GRANTED)**

**PUBLIC HEARING REQUIRED**

**NEED TO MEET LDR'S PRIOR TO DISPOSAL**

## REGULATORY EVALUATION

### COMPARING OPTIONS

	OPTION 1 DELIST	OPTION 2 OFF-SITE DISPOSAL	OPTION 3 PERMIT ON-SITE
TIME	1 YEAR+	MONTHS	2 YEARS+
COST	0.5-5.0 MILLION	8-10 MILLION	?
PUBLIC INPUT	FR NOTICE	NONE	PUBLIC HEARING
SITE IMPACT	MAJOR	MINOR	MAJOR
CHANCE	50%	100%*	< 50%?

\* ASSUMES THAT TSDF IS ACCEPTABLE TO DOD

## **REGULATORY EVALUATION**

### **RECOMMENDATIONS**

#### **DELISTING**

- **EVALUATE NEED FOR ADDITIONAL SAMPLING AND ANALYSIS**
- **EVALUATE USE OF EPACML USING WORST CASE VALUES FROM EXISTING DATA**
- **DISCUSS CONCERNS WITH STATE AND EPA**
- **2,3,7,8-TCDD VS. DIOXIN HOMOLOGS?**

#### **OFF-SITE DISPOSAL**

- **CONFIRM AVAILABILITY OF OFF-SITE DISPOSAL**
- **DEVELOP DETAILED COST ESTIMATE**
- **AUDIT FACILITY**
- **IDENTIFY ON-SITE CLOSURE REQUIREMENTS**

#### **ON-SITE DISPOSAL PERMIT**

- **DEFER ACTION AT THIS TIME**

#### **CONSIDER INTERIM MEASURES FOR ON-SITE MANAGEMENT**

**CONTAINMENT BUILDING? (FR 8-18-92)**