

2807

**RESPONSE TO OHIO EPA COMMENTS**

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## RESPONSE TO OHIO EPA COMMENTS

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The comments provided by OEPA in the referenced letter refer to clarifications required for previously submitted comments. The comment resolution provided forthwith identifies the new comment submitted in the referenced letter, the original comment and resolution followed by the clarification/response to comment and the appropriate resolution.

### 1. COMMENT

Comment 1C: The response to the comment states that "All sampling activities will be performed in accordance with (at a minimum) the RI/FS QAPP...". The text of the sampling plan does not contain this statement. Include the response in the sampling plan.

### RESPONSE

The above comment refers to the response to comment as submitted on December 10, 1991. The following is the original comment followed by the response and resolution.

#### Comment 1C

Section 2, p. 2, 1st paragraph: The methods to be used for sampling in support of the RCRA closure actions (Appendix VIII and IX) within these waste pits should be detailed within this work plan. Will these samples be collected using methods similar to those proposed in this work plan? Will the samples be collected at depth and in various locations in order to assure representative samples?

#### Response

The samples that will be collected from the Waste Pits 5, 6 and Clearwell will be analyzed for constituents similar to those for the other waste pits as performed by ASI/IT as part of the RI/FS characterization. The samples will be analyzed for the following items or constituents:

- Full Radiological                      Parameters listed in RI/FS QAPP Table 4.3 plus Pb-210.
- HSL +                                      Plus boron, cobalt, & thallium
- Full Appendix IX                      May be an overlap with the HSL + This covers analysis for all diox-ins, furans, vols, semi-vols, metals, PCB's, & pesticides
- TCLP

- General Chemistry Includes total phosphates, TBP, ammonia, pH, total Kiedahl nitrogen, total organic nitrogen, oil & grease, bromide, chloride, nitrate, and sulphate
- Physical & Misc Parameters Moisture content, Total Organic Carbon, Specific Gravity, Particle Size, Cation Exchange Capacity, Atterberg Limits

Representative samples of the waste pit will be obtained using a random sampling procedure. In addition, for Waste Pit 5 and the Clearwell a directed sample at the outflow into the units have been designated. These directed samples will be used to evaluate heavier contaminants (such as residues of ores containing heavy metals) which would be subject to rapid settling. Pit 6 did not receive a liquid discharge, therefore, no directed sample locations are designated.

The primary intent of this sampling effort is to collect bulk material from the waste pits to be used in the development of treatability protocols for the waste material. A secondary effort is to provide additional data for the RI/FS characterization of the waste pits. In addition, the information will augment the characterization of Waste Pit 5 and the Clearwell since they have been declared Hazardous Waste Management Units (HWMUs) and are subject Resource Conservation Recovery Act (RCRA) regulations. It is recognized that the collection of stratified representative samples will be difficult utilizing several of the bulk sample collection methods identified in the Sampling Plan. However where it is practical, a true representative stratified sample will be collected. In order to accommodate this, a computer program has been used to determine the stratified random sample locations. The computerized model is based upon EPA Document SW-846 " Test Method for the Evaluation of Solid Waste, Physical/Chemical Methods". Eight sample locations (random and directed as applicable) were identified for Waste Pits 5, 6 and the Clearwell. The sample grids and coordinates were generated.

A minimum of eight 55-gallon drums will be collected from each pit. Samples will be collected from each drum to be used to characterize the waste material. All samples will be collected, labeled, and sealed consistent with the requirements identified in EPA Document SW-846 " Test Method for the Evaluation of Solid Waste, Physical/Chemical Methods". All samples will then be transported to the appropriate laboratory for analysis accompanied by the required Analysis Request/Custody Record form. All sampling activities will be performed in accordance with (at a minimum) the RI/FS Quality Assurance Project Plan (QAPP) and EPA Document SW-846 " Test Method for the Evaluation of Solid Waste, Physical/Chemical Methods".

### Resolution

A section will be added discussing the requirements for the sampling of the drummed wastes and the type of analysis that will be performed on the material. Refer to Sections 5.1 and 5.3.

The response as stated above is still valid. The identification of the sampling locations and sampling depths is determined utilizing random generation for sampling as identified in SW-846. The sentence as stated in the comment was previously incorporated into the sampling plan.

### RESOLUTION

Refer to section 5.2.

### 2. COMMENT

Comment 1D: The response to this comment is not clearly worded. Rewrite/rework this response.

### RESPONSE

The above comment refers to the response to comment as submitted on December 10, 1991. The following is the original comment followed by the response and resolution.

#### Comment 1D

Section 2, p. 2, 1st paragraph: Although this is not a characterization sampling effort, samples to be collected for treatability studies must be representative of the waste pit contents. The collection of representative samples from the waste pits should be clearly stated as an objective within this section. Discussions supporting the ability of the proposed sampling methods to collect representative samples should be included.

#### Response

The samples that will be collected will be used to augment the RCRA characterization of the pits as well as provide additional characterization data of Waste Pits 5, 6 and the Clearwell in support of the RI/FS program. Although it is recognized that utilizing several of the sample collection methods identified in the Sampling Plan will not provide true stratified samples, the random generation of the sample locations will provide a representative sample from the waste pits. Utilizing the computer generated random sampling

location plan identified in the response to comment 1C, samples will be collected from a minimum of eight randomly selected locations at varying depths (where the sample collection method assures that a true stratified sample can be collected) to assure that a truly representative sampling of the waste pit is being performed.

### Resolution

Additional discussion will be added to Section 2 identifying the need for the sampling to collected representative stratified samples to allow for the full characterization of the waste pits. Refer to Section 2.

It is recognized that the ability to collect a representative sample from the waste pits lies in the ability to collect samples from various locations within the pit and at varying depths. To accomplish this, the procedure outlined in EPA Document SW-846 " Test Method for the Evaluation of Solid Waste, Physical/Chemical Methods" has been utilized to randomly locate the sampling points and depths. Also to be representative of the waste pits, the sample should provide a cross-section stratification of the entire waste pit. It is fully understood that this is extremely difficult utilizing some of the proposed sample collection techniques. However, it is felt that through an understanding of the method by which the pits were filled and by collecting samples at varying depths, that a representative sample of the bulk waste contained within the entire waste pit will be obtained. In addition, based upon the data collected by Weston as part of the CIS, it is evident that little variation exists between the material content at selected depths. This combined with the understanding of how the material was introduced into the pits, assures that there is sufficient confidence that a representative sampling of the entire waste pit for use in developing treatability protocols for the waste material.

The number of samples that will be collected from each waste pit was chosen based upon knowledge of the contents of the waste pits, the method by which they were filled, and of how the stratification of the waste material in the pits has taken place. Based upon this information, it is projected that the collection and characterization of samples from eight (8) distinct locations will provide sufficient diversity such that a representative sampling exhibited by the entire waste pit will be developed.

### RESOLUTION

The above comment response will be partially incorporated into the text. Refer to section 2.0 paragraph 4 for resolution.