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From: [redacted] P LRB
Sent: Wednesday, April 16, 2003 8:38 AM
To: [redacted])
Cc: [redacted]
Subject: Painesville Response to Comments

[redacted]

Attached are the responses to the Ohio Department of Health comments, dated March 10, 2003, on the Remedial Investigation/ Feasibility Study Report for the Painesville FUSRAP Site. We will revise the RI/FS Report in accordance with these comment responses. Please let me know if you have any questions. Thank you for your input.

[redacted]
Painesville PM

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[redacted]
Environmental Engineer
U.S. Army Corps of Engineers

RESPONSE TO OHIO DEPARTMENT OF HEALTH COMMENTS
REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
PAINESVILLE FUSRAP SITE

COMMENT 5: Section 3.1.4 Groundwater Sampling

You state that your computer model is verified by groundwater sampling performed in the past that showed no evidence of contamination presently in groundwater. Even the use of RESRAD default hydrological parameters will predict no contamination of groundwater presently. It does however predict groundwater to be a problem in the future. If we are to use your parameters, they should somehow be validated. Several of your parameters used in the groundwater model were labeled "measured or calculated". I was hoping to receive examples of calculations or procedures used in measuring the parameter that would assist us in evaluating the appropriateness of the use of the parameter.

RESRAD and SESOIL were both used to predict potential groundwater impacts 1,000 years into the future. Both RESRAD and SESOIL confirmed that there is no impact to groundwater within that 1,000 year time frame. Site-specific groundwater parameters used in RESRAD and SESOIL were obtained during the 1996 field investigation work, and are available in the **Characterization Report for the Painesville Site, May 1998.**

COMMENT 6: Section 6.65 Radiological Risk Summary

We agree that radon will not present a problem outdoors. However Ra-226 concentration in the Industrial and Residential could present a radon exposure problem indoors. We do not agree that making apriori assumptions about future construction practices alleviates this concern.

We agree that the wording in the response may not have been appropriate. We are simply unaware of any reliable method to model potential radon exposures after remediation for the industrial scenario. We believe that RESRAD, even with the Radon pathway turned off, is the most reliable method for calculating cleanup levels for the industrial scenario.

COMMENT 7: TABLE 7.3 Remedial Action Objectives for the Painesville Site

We agree that for the most part the appropriate parameters that match the values used for the Subsistence Farmer scenario at Luckey were used. The site specific

parameters however disagreed. We are not saying site specific parameters should not be used. We are saying we have no validation of those parameters.

You further state you would perform a thorough check of RESRAD runs and the results. Has this been done? In any event I did not receive them.

Consequently I tried to duplicate your results using your input parameters listed in Table 6.9. Runs for the Uranium, Thorium, and Radium nuclides were performed for the Subsistent Farmer and Industrial Worker scenarios using RESRAD version 6.2 There were considerable differences in some of the soil guidelines. Result will be included as an attachment to this communication.

Site-specific parameters for the Painesville Site we developed based on the results of the site characterization and remedial investigation activities, detailed in the **Characterization Report for the Painseville Site, May 1998** and the **Remedial Investigation/Feasibility Study Report**. We have reviewed the RESRAD runs and the input parameters, and found that the list of parameters in Table 6.9 of the RI Report dated September 27, 2003, had some errors in it. We will correct the errors in Table 6.9 in the final report, and will also forward the corrected table to you. The cleanup goals, however, were calculated with the correct input parameters.

COMMENT 9: Section 3.1 Soil Volume Estimation

The 25 mrem dose limit established in 10CFR20 contains an ALARA proviso which should be included in this statement. We agree that this should be inserted in the document. We do not agree however that the ALARA proviso is necessarily satisfied by over excavation and construction considerations. The ALARA process is an optimiztion. Optimization for radiological protection occurs when the total of the cost for radiological protection plus the cost of the detriment is minimal.which is also the condition for maximum benefit. These are variables that have estaablished mathematical relationships that are used in a Cost-Benefit Analysis. If,however, you have indeed performed this analysis for the aforementioned scenarios, please forward the material that documents it.

We agree that the wording in the response may not have been appropriate. We concur that the ALARA process is an important part of the remediation, and will follow it as we develop the remedial action plans. However, in the current stage of the remediation process (i.e., the Feasibility Study) we believe it is premature to begin the ALARA process.

One further comment which has been stated and restated but will be restated here once again, relative to Table 6.15 "Remedial Action Objectives for the

*Painesville Site. The citation of the OAC is correct, however it's use is incorrect in that the bureau does not sanction **NOR** does the Ohio Revised Code 3748 allow for any type of release other than an unrestricted release. Unrestricted is to be demonstrated by use of the RESRAD model for a residential farmer scenario. On our licensed facilities, if a licensee can not meet an unrestricted use (25 mrem/yr TEDE; resident farmer scenario) then they must maintain a license in perpetuity. Consequently an "industrial worker" scenario and a "resident scenario" are deemed inappropriate.*

It is acknowledged that if the site is remediated to a level that does not meet the unrestricted use standard, then the Ohio Revised Code requires that the site remain licensed in perpetuity. The "industrial worker" and "resident" scenarios are discussed in the FS as possible alternatives where compliance with the ARAR would be achieved by doing some remediation and then obtaining a perpetual license. The discussion was not intended to indicate that remediation to address those scenarios would achieve an "unrestricted release" of the site.