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[redacted]

March 7, 2003

RE: DIAMOND MAGNESIUM,
RI/FS REPORT COMMENTS

03/07/2003 Via Electronic Mail

[redacted]
Environmental Project Manager
U.S. Army Corps of Engineers, Buffalo District
1776 Niagra Street
Buffalo, New York 14207-3199

[redacted]:

The Ohio Environmental Protection Agency (Ohio EPA) has completed its review of the United States Army Corps of Engineers (ACE), Buffalo District's Painesville FUSRAP site (a.k.a. Diamond Magnesium) "*Remedial Investigation and Feasibility Study Response to Comments*" letter, received on February 19, 2003.

Ohio EPA was disappointed in the ACE response to the technical comments. Many of the responses failed to address the technical or administrative issues raised by the original comment. The ACE responses, such as "comment acknowledged," do not provide any type of technical indication regarding the ACE acceptance or disagreement of the issues raised by the original comment, nor the actions to be taken by the ACE to address and correct the deficiency noted by the comment. The purpose of the review of the technical documents by the stakeholders (i.e., property owner and regulatory agencies) is to ensure compliance with regulations, maintain consistency throughout the State, and ensure both the short- and long-term protection of human health and the environment. Serious issues were raised by the stakeholders through the review/comment process. Based on the response to comments, a wide difference in opinion exists between the ACE approach to the investigation and subsequent cleanup of the site versus Ohio EPA and the Ohio Department of Health.

A major area of disagreement is the ACE assertion that the site has been fully characterized. In the ACE response to Crompton's comment # A.1, the ACE asserts the CERCLA definition of a potentially responsible party is "someone who owned or conducted operations on a site, or disposed of materials or arranged to have another party dispose of material at a site." The ACE assertion that the site has been fully characterized is based on a predefined FUSRAP study area. This is inconsistent with CERCLA. CERCLA defines a site using the term facility as "*any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located.*" Remedial activities have found that hazardous substances (radiological constitutes) potentially

associated with the United States' operations at the facility have "otherwise come to be located" outside of the predefined FUSRAP area but, based on the CERCLA definition of site, are encompassed as part of the FUSRAP site. This issue is reflected in many of the comments submitted to the ACE by both Ohio EPA and the current property owner, Crompton Manufacturing. Until this issue is resolved and the outlying areas characterized, Ohio EPA will not agree that the site has been fully characterized.

Pending resolution of issues associated with the FUSRAP area, the level of cleanup, and licensing requirements, Ohio EPA does not feel that the outlying non-characterized areas need to stop progress at the site. The outlying areas will require characterization by the responsible party(s). However, characterization of these areas may be delayed until such time as during the remedial design phase of the project.

The following are specific statements to the ACE response to comments. The preceding number reflects the original Ohio EPA comment number.

1 Please refer to the previous discussion on the CERCLA definition of site.

7 The response does not address the comment. The remedial investigation (RI) does not provide geologic information presented in a format that would promote the readers understanding of the geology underlying the site and provide additional support to the limited ground water resources at the site. It should be noted that the RI being conducted by Crompton has generated detailed geologic cross sections that may be readily available for inclusion into the ACE RI.

The two entities are performing separate RI for different contaminants but the end result of each parties RI must be a stand alone comprehensive RI report. The lack of communication between the parties must be corrected to facilitate integration of each parties findings.

9 The response further perpetuates the deficiency noted in the comment. The relative flatness of the topography is not necessarily correlated to groundwater flow nor direction. If the ACE did not perform detail groundwater studies including monitoring the potentiometric surface of groundwater, then it should be acknowledged in the RI. Albeit, as stated above, the RI being conducted by Crompton has generated detailed ground water flow maps that may be readily available for inclusion into the ACE RI.

The response to comment references a 1998 Characterization report that discussed the perched ground water (Ohio EPA does not agree that the ground water is a perched unit). The purpose of the RI report is to provide a comprehensive understanding of the site's feature and its effect of the

nature and extent of contamination. Many of the ACE response to comments reference past investigations that produced the data that may address the comment. In these cases, the findings of the past investigations should be incorporated into the RI to make it a stand alone document.

11 The response states that language will be inserted that all areas of the site have been investigated. Ohio EPA disagrees that all areas of the site have been investigated and does not agree that statement should be placed in the RI.

13 The response does not provide the technical rationale needed to address the comment. The ACE failed to provide information in the response as to how the RI will be revised to provide technical information to support the location and data produced by the monitoring well network relied upon for the ACE study. The ACE may wish to provide additional technical information on ground water flow patterns that Crompton produced as part of their investigation of the site.

19 The response does not indicate if the information related to the comment will be incorporated into the RI. Any data from previous investigations should be either presented in their entirety or summarized and provide a reference to the appropriate document.

21 Ohio EPA concurs that screening against background along with a weight of evidence screen is acceptable. Please note that the EPA Radionuclide PRG Calculator could be used to screen radionuclides that are not naturally occurring and, therefore, do not have a site specific background screening value.

25 The comment response states that screening was conducted based on the assumption of secular equilibrium. Does the empirical data support the assumption of secular equilibrium? Include site specific information to support the assumption of secular equilibrium and discuss this information and the rationale for secular equilibrium in the text of the report.

26 The response does not indicate if the information related to the comment will be incorporated into the RI. The information should be included in the text of the report.

27 The response is unclear. Does the empirical data support the assumption of secular equilibrium? Include site specific information to support the assumption of secular equilibrium and discuss this information and the rationale for secular equilibrium in the text of the report.

31a The risk assessment is evaluating receptor exposure to contaminated media and not risk associated with exposure to the indoor working environment. In addition, the receptors evaluated must be protective of both current and future uses. Since there are no guarantees in place to ensure that all current and future workers will have only one hour exposure to soil (outdoors), the site worker receptor should assume an exposure time of eight hours. In addition, the site worker can be defined as any individual working on site - including security guards, landscapers, ground keepers, factory worker, a construction worker, etc. Therefore, the assumptions that are selected for the general, all-encompassing "site worker" should reflect RME exposures and be protective of current and future exposures. This approach is conservative and protective of future use and future exposures. This is consistent with guidance and also with the assumptions used at the Luckey FUSRAP site.

31b The construction worker is a potential receptor and, therefore, all complete pathways must be evaluated. While it is true that a construction worker's exposure time is shorter in duration than a site worker, the fact is that exposure to carcinogenic constituents can happen in the future, and exposure to carcinogens are assumed to be additive. Thus, this type of exposure could be significant and, therefore, must be evaluated. Recommended assumptions for this type of exposure are enclosed.

31c The comment asked the ACE to present the risks separately for the child and adult. RAGS part A directs one to identify sensitive subpopulations of potential concern. Children may be at increased risk due to increased sensitivity or behavior patterns, since they are more likely to contact with soil. Therefore, children should be evaluated separately and the risks presented separately for the adult and child resident. This comment has no bearing on ARARs.

34 The comment was not addressed. Please provide a reference to specific guidance that states to subtract background in the risk assessment to be consistent with ARARs. It is true that background is typically accounted for during the development of the cleanup level (to avoid cleaning up to a level less than background for those constituents that are naturally occurring), but it does not make sense to subtract background during the risk assessment (i.e., during the development of EPC), considering that only constituents that exceed site specific background are carried forward and evaluated in the risk assessment. Risk due to background can be evaluated separately in the uncertainty section of the risk assessment.

36 Ohio EPA concurs that the 15 mRem/year is not a promulgated ARAR, however it is a "To Be Considered (TBC)" and must be acknowledged in the RI.

53 The past conversations excluding consolidation of radiologically impact soils on-site may have been in error. Both CERCLA and the NRC allows consolidation of waste under the "waste-in" concept. Since this is a federal-lead cleanup being performed by the ACE under federal guidelines, consolidation may be a viable alternative that should be included in the feasibility study. When compared to the multiple containment option currently under consideration for radiologically impacted areas, consolidation may provide a higher degree of long-term protection and reduce costs.

54 The response is unclear. If the ACE considers capping as a viable remedial action, then the FS should evaluate all possible technologies. The FS should be revised to include the information requested in the original comment.

59 The ACE states that the figures will be revised. The text should include the technical rationale the adjustments were based on.

The Ohio Department of Health will respond under separate cover. Should you have any questions concerning this letter, please contact me at (330) 963-1208.

Sincerely,

[redacted]
Site Coordinator
Division of Emergency and Remedial Response

[redacted]

ec: [redacted], Ohio EPA, DERR, NEDO
[redacted], Ohio EPA, OFFO, SWDO
[redacted], Crompton
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