

**1878**

**STIPULATED PENALTY DISPUTE - FERNALD  
OH6 890 008 976**

**02/15/91**

**USEPA/DOE-ORO  
68  
LETTER**



1878

Original File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBOR  
CHICAGO, ILLINOIS

FEB 15 1991

REPLY TO ATTENTION OF:

Mr. Joe LaGrone  
United States Department of Energy  
Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831-8501

RA-14

RE: Stipulated Penalty  
Dispute - Fernald  
OH6 890 008976

Dear Mr. LaGrone:

During the past 3 months the United States Environmental Protection Agency (EPA) and the United States Department of Energy (DOE) have attempted to settle the above referenced dispute. The dispute has been discussed informally at the staff level and was debated, in accordance with the 1990 Consent Agreement, before the Dispute Resolution Committee (DRC). When the DRC was unable to resolve the issues, DOE elevated the dispute here, to the Senior Executive Committee (SEC) level. Despite our efforts as members of the SEC, EPA and DOE were unable to reach a solution in our February 14, 1991 meeting. Accordingly, pursuant to Section XIV of the 1990 Consent Agreement, this letter serves as a formal written statement of EPA's position on the dispute.

The dispute at issue centers on EPA's application of stipulated penalties under Section XVII of the 1990 Consent Agreement. In the past several months, EPA has assessed stipulated penalties against DOE on three occasions:

1. On December 4, 1990, EPA assessed stipulated penalties because DOE did not timely refer certain access issues to the Department of Justice, as required by Section XXVIII of the Consent Agreement (Attachment A). DOE does not continue to dispute EPA's decision to issue a Notice of Violation (NOV) for this failure under the terms of the Consent Agreement.
2. On December 7, 1990, EPA assessed stipulated penalties because DOE submitted a Remedial Investigation Report (RI Report) for Operable Unit (OU) #4 which contained insufficient sampling data, contrary to the requirements of Section X of the Consent Agreement (Attachment B). In a

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meeting of the DRC to resolve the issues surrounding the adequacy of the RI Report, DOE conceded that the RI Report submitted to EPA was not complete. Following this discussion DOE chose not to elevate its challenge to the NOV issued by EPA under the terms of the Consent Agreement.

3. On December 21, 1990, EPA assessed stipulated penalties because DOE submitted an Initial Screening of Alternatives Report (ISA Report) for OU #3 which did not propose alternative remedies for all relevant areas of the site, as required by Section X of the Consent Agreement (Attachment C). EPA and DOE continue to disagree on whether the ISA Report submitted by DOE satisfied the standards required by Section X of the Consent Agreement. While EPA believes that the ISA Report was not adequate, it is hopeful that a satisfactory resolution to this issue can be reached and will continue to work with DOE toward that end.

DOE argues that regardless of whether it violated the Consent Agreement, stipulated penalties do not apply to these violations. DOE claims that stipulated penalties do not apply to the failure to make a timely access referral because that failure occurred during the investigation and planning stages of the cleanup, as opposed to the implementation stage of the cleanup. DOE further claims that while stipulated penalties can be assessed for primary documents, such as the RI and ISA Reports, the penalty is proper only where the documents are not submitted on time. DOE argues that the content and adequacy of such documents is outside the scope of the stipulated penalty provision. EPA can find no support for DOE's claims in either the plain language of the Consent Agreement, or the lengthy history of negotiations leading to the final Consent Agreement. Instead, there is support in the language and history of the Agreement to establish that the stipulated penalty provision in Section XVII applies during the investigation of the site, the planning of the cleanup and the implementation of the cleanup. The language and integrity of the Agreement dictate that the content and quality of investigation and planning documents are as essential to the Agreement as the timeliness of those documents.

The language of the Consent Agreement is clear. Section XVII provides:

"In the event that U.S. DOE fails to submit a primary document or draft ROD and Responsiveness Summary to U.S. EPA pursuant to the appropriate timetable or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to a removal or final remedial action, U.S. EPA may assess a stipulated penalty against U.S. DOE." See Section XVII, page 42 (emphasis added).

The term "relates to a removal or final remedial action" embraces the investigation of the site and the planning of the cleanup as well as the implementation of the cleanup. Support for this interpretation is rooted in the Consent Agreement as well as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601, et seq. Section III of the Consent Agreement expressly states: "[e]xcept as noted below, the definitions provided in CERCLA and RCRA shall control the meaning of terms used in this Agreement." See Section III, page 5. CERCLA Section 101(23) defines the removal to include "such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances . . ." 42 U.S.C. § 9601(23) (emphasis added). The investigation of the site and the planning of the cleanup are unquestionably actions to assess and evaluate the release. Investigation and planning are also included within the reference to final remedial actions. Section 101(24) of CERCLA defines remedial action to include "actions consistent with the permanent remedy taken instead of or in addition to removal actions". 42 U.S.C. § 9601(24). Investigating the site and planning the cleanup are an integral and essential part of the permanent remedy. These fundamental activities "relate to . . . a final remedial action". See Section XVII, page 42. The explicit language of the Consent Agreement and the CERCLA confirm that the stipulated penalty provision is not limited to "implementation of the remedy".

Additionally, the scope of the Consent Agreement demonstrates that investigation and planning are vital elements of the Agreement; this is apparent from numerous provisions referring to these activities in the Agreement, as well as the Purpose clause (Section IV.B) and the Scope clause (Section V). Further, to accept DOE's claims would be tantamount to accepting that stipulated penalties cannot be assessed during the lengthy investigation of the site and planning of the cleanup. EPA would only be permitted to assess stipulated penalties during this period if DOE failed to submit a primary document on time, regardless of its quality or content. In sum, DOE would be permitted to submit woefully inadequate documents, so long as the documents reached EPA on the prescribed date. This result would drastically undercut EPA's authority under the Consent Agreement. Furthermore, it would undercut EPA's ability to fulfill its obligations to Congress and the public to ensure, not only that DOE implements the cleanup, but also that DOE successfully undertakes the lengthy investigation and planning which must precede such a cleanup.

Finally, the long and laborious negotiation history behind the 1990 Consent Agreement belies DOE's claims. Early in 1989 EPA agreed, in the spirit of comity with another federal agency, to negotiate an agreement to replace the 1986 Federal Facilities Compliance Agreement (FFCA). The need for a new agreement arose, in large part, from DOE's failure to comply with the FFCA, and

inability to meet the schedule deadlines set forth therein. EPA hoped that the terms of the 1990 Consent Agreement, including the provisions on stipulated penalties and dispute resolution, would enable the Consent Agreement to succeed where the FFCA had not. Negotiations regarding the Agreement were initiated by DOE in December of 1988. Every draft of the Agreement contained a provision allowing EPA to assess stipulated penalties, and the precise stipulated penalty language currently at issue was presented to DOE as early as July 14, 1989<sup>1</sup>. The Consent Agreement was signed by DOE on June 29, 1990; thus DOE had more than a year to review and evaluate the terms of the Agreement.

In light of the history of the Consent Agreement and the significant time and resources which went into its creation, EPA cannot accept DOE's claim that it never intended to commit itself to obligations beyond the strict requirements of Section 120(e).<sup>2</sup> In fact, EPA rejected a similar argument in response to an inquiry from the Office of the Attorney General of Maine (Attachment E). The State questioned whether an Interagency Agreement (IAG), which was entered during the investigation and planning stage of a cleanup could be enforced by citizens through CERCLA Section 310 given that the federal facility had voluntarily entered the IAG prior to the statutorily mandated time frames in CERCLA Section 120(e). Gordon Davidson, the Deputy Director of EPA's Federal Facilities Hazardous Waste Compliance Office responded in no uncertain terms:

We believe this concern is also unfounded. It is true that the Navy is not required to enter an IAG prior to the completion of the RI/FS process [investigation and planning of the cleanup]. However, once the Navy has agreed to an IAG, each of the provisions of the IAG that relate to a CERCLA action become enforceable under Section 310 . . . See Attachment E, page 2.

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<sup>1</sup> Section XVII of the Consent Agreement is a variation of the stipulated penalty language in the National Model Interagency Agreement (IAG). This variation was discussed in detail with DOE during negotiations and appears in drafts of the Consent Agreement as agreed by the parties (Attachment D).

<sup>2</sup> The Consent Agreement is replete with evidence that DOE knowingly expanded the scope of the Agreement beyond the strict requirements of CERCLA Section 120(e). For example, the Jurisdiction section of the Agreement expressly provides: "DOE enters into those portions of this Agreement that relate to removal actions pursuant to Sections 104, 106(a), and 120(a)(1) of CERCLA". See Section I.F, page 4. The addition of CERCLA Section 106 removal authority received careful scrutiny from DOE and was only agreed to after consultation and approval from the United States Attorney General.

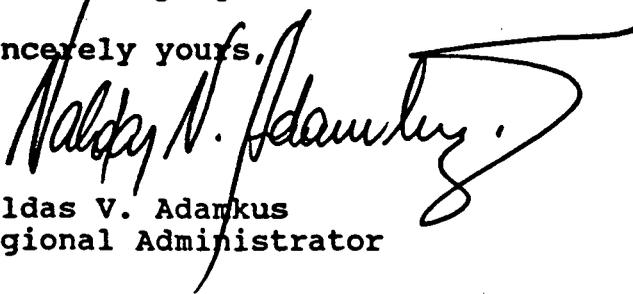
Thus, while EPA applauds DOE's decision to enter the 1990 Consent Agreement prior to the implementation of the cleanup, EPA does not believe this limits the Agency's ability to enforce the Agreement by assessing stipulated penalties during this period.

The terms of the Agreement unquestionably provide that EPA has authority to assess stipulated penalties during the investigation and planning stages of the cleanup process. Furthermore, the scope of the Consent Agreement as a whole, and the history of the Consent Agreement negotiations verify EPA's position. Finally, to accept DOE's claims is to prevent EPA from exercising its enforcement responsibilities during the lengthy investigation and planning stages of the Agreement. It would permit DOE to submit inadequate documents, the content of which EPA cannot control, without providing recourse for the Agency. DOE's dispute on stipulated penalties challenges the integrity of the 1990 Consent Agreement and thereby undermines its ultimate intent to protect human health and the environment. Accordingly, EPA decides that the assessment of stipulated penalties, under the circumstances described earlier in this letter, is fully consistent with the scope and intent of the 1990 Consent Agreement.

While I regret that EPA and DOE have been unable to resolve this dispute, I hope that this letter illustrates the merit of EPA's position. If DOE does not concur with the position advanced in this letter, DOE may issue written notice elevating this dispute to the Administrator of the EPA. DOE's written notice must be provided to the Administrator within twenty-one (21) days of receipt of this letter.

I would also like to thank you for your frank exchange regarding the problems you are experiencing at the site during our meeting this morning. I believe you presented several positive suggestions for improving management and operations at Fernald. Open dialogue and cooperation are essential if EPA and DOE are to reach our mutual goals for the site, and I look forward to continued progress in this area.

Sincerely yours,



Valdas V. Adamkus  
Regional Administrator

Attachments

cc: Gerry G. Ioannides, OEPA - CO  
Graham Mitchell, OEPA - SWDO  
Leo Duffy, U.S. DOE - HDQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 5  
 230 SOUTH DEARBORN ST.  
 CHICAGO, ILLINOIS 60604

1878

REPLY TO ATTENTION OF:

DEC 04 1990

5HR-12

Mr. William D. Adams  
 Acting Assistant Manager  
 for Environmental Restoration  
 and Waste Management  
 U.S. Department of Energy  
 Oak Ridge Operations  
 P.O. Box 2001  
 200 Administration Drive  
 Oak Ridge, Tennessee  
 37831-8501

Re: Notice of Violation  
 OU#5 Access  
 U.S. DOE - Fernald  
 OH6 890 008 976

Dear Mr. Adams:

On August 6, 1990, the United States Department of Energy (U.S. DOE) submitted a proposed Remedial Investigation/Feasibility Study (RI/FS) work plan addendum (dated August 3, 1990) for the above referenced site. Pursuant to this addendum, U.S. DOE proposed to install twelve 2000-series wells and an additional twelve contingency 3000-series wells. These wells were intended to characterize the groundwater in the Paddys Run area of the south plume for removal action #3 and Operable Unit (OU) #5. Figure 3 of the U.S. DOE addendum describes the locations of the proposed wells. (See Attachment A.) As provided in Attachment A, six of the 2000-series wells and six of the 3000-series wells proposed by U.S. DOE are located on property not owned by U.S. DOE. On September 7, 1990, the United States Environmental Protection Agency (U.S. EPA) approved the work plan addendum. (See Attachment B.)

Section XXVIII of the 1990 Consent Agreement obligates U.S. DOE to obtain access pursuant to its delegated authority under Section 104(e) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. § 9601 *et seq.* If voluntary access is not obtained within thirty (30) days of the approval of any work plan,

Engineering Evaluation/Cost Analysis (EE/CA), or proposal that requires access to properties not owned by U.S. DOE, U.S. DOE is required by the terms of the Consent Agreement to refer the matter to the United States Department of Justice within thirty (30) days. This requirement applies to access to any property necessary to assure the timely performance of U.S. DOE's obligations under the agreement.

To implement the work plan addendum approved by U.S. EPA, U.S. DOE must obtain access from other property owners. Although U.S. DOE was unable to secure voluntary access within thirty (30) days of approval of the addendum, U.S. DOE failed to refer this matter to the Department of Justice within the following thirty (30) days (November 6, 1990) as provided by the Consent Agreement. This failure constitutes a violation of the express terms of Section XXVIII of the Consent Agreement and subjects U.S. DOE to stipulated penalties under Section XVII of the Agreement.

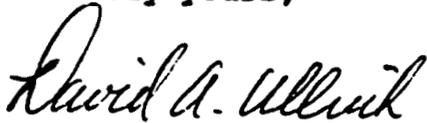
Pursuant to Section XVII, U.S. DOE may be assessed stipulated penalties at a rate not to exceed \$5,000 for the first week (or part thereof) and \$10,000 for each additional week (or part thereof). Stipulated penalties began to accrue on November 7, 1990, and will continue to accrue until the access issues raised by the work plan addendum are referred to the Department of Justice. Given the severity and extent of the violation and the effect of the violation on the implementation of the remedial action, U.S. EPA has determined that stipulated penalties in the amount of \$12,500 have accrued to date and should be assessed against U.S. DOE.

U.S. EPA hereby requests that U.S. DOE refer the relevant access issues to the Department of Justice and pay the stipulated penalties assessed above. The check for the stipulated penalties should be made payable to the Hazardous Substance Response Trust Fund, and should indicate the site name and the purpose of the check. The check should be mailed to:

U.S. EPA, Region V  
ATTN: Superfund Accounting  
P.O. Box 70753  
Chicago, Illinois 60673

This letter constitutes written notification of violation as required by Section XVII of the Consent Agreement. As provided by the Agreement, U.S. DOE has fifteen days from receipt of this notice to invoke dispute resolution. If you have any questions regarding this matter, please contact Ms. Mary Butler at the Office of Regional Counsel at (312/FTS) 353-8514.

Sincerely yours,



David A. Ullrich, Director  
Waste Management Division

**Attachments**

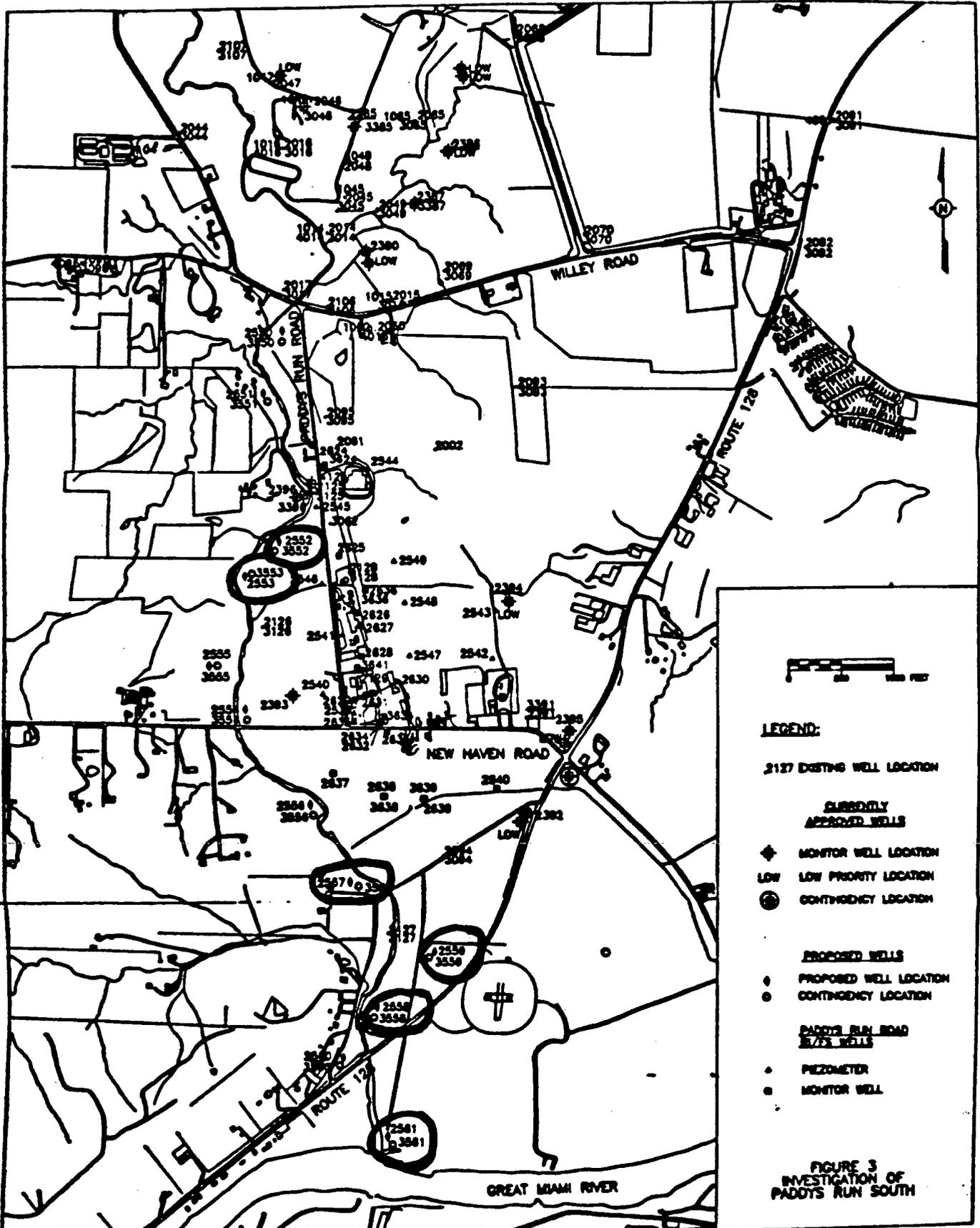
cc: Richard Shank, OEPA - CO  
Graham Mitchell, OEPA - SWDO  
Joe LaGrone, U.S. DOE - ORO  
Leo Duffy, U.S. DOE - HDQ

bcc: Ralph R. Bauer, ORA  
David A. Ullrich, WMD  
Bertram C. Frey, ORC  
Dale Bryson, WD  
Robert Springer, PMD  
William H. Sanders, III, ESD  
William E. Muno, WMD  
Kevin Pierard, WMD  
Len Robinson, ORC  
Mary Butler, ORC  
Sandra Lee, ORC  
David Kee, ARD  
Dan O'Riordan, OPA  
Rose Freeman, ORA  
Gordon Davison, OS-530  
Sally Mosely, OS-530  
William Duncan, OS-530  
Ed Schuessler, PRC

DOE DISK#8:acc.11-26

**RECEIVED**  
DEC 5 1990

U.S. EPA REGION V  
OFFICE OF REGIONAL COUNSEL



1878



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

SEP 06 1990

Mr. Bobby Davis  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

5HR-12

RE: RI/FS WORK PLAN ADDENDUM  
Seep Sampling  
Operable Unit #5  
U.S. DOE Fernald  
OH6 890 008

Dear Mr. Davis:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the remedial investigation/feasibility study (RI/FS) Work Plan Addendum for the seep sampling for Operable Unit #5 at the Feed Materials Production Center site in Fernald, Ohio. The United States Department of Energy (U.S. DOE) submitted this document to U.S. EPA on August 8, 1990.

U.S. EPA is approving U.S. DOE's proposal with the following modification:

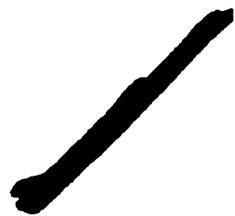
- 1. All references to 33 ug/l should be changed to 30 ug/l.

If you have any questions, I may be contacted at (312/FTS) 886-4436.

Sincerely,

Catherine A. McCord  
Remedial Project Manager

cc: Richard Shank, OEPA  
Graham Mitchell, OEPA  
Leo Duffy, U.S. DOE - HDQ  
Joe LaGrone, U.S. DOE - ORO





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

1878

REPLY TO ATTENTION OF:

**JAN 30 1991**

Mr. Gerald W. Westerbeck  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

5HR-13

#1205

RE: OU#4 EPA RI Dispute  
U.S. DOE - Fernald  
OH6 890 008 976

Dear Mr. Westerbeck:

The United States Environmental Protection Agency (U.S. EPA) acknowledges the receipt of your January 28, 1991, letter concerning U.S. EPA's dispute over Operable Unit (OU) #4 Remedial Investigation (RI) report. With a January 25, 1991, letter, U.S. EPA's dispute regarding this primary document ended. U.S. EPA would like to respond to two issues raised in your January 28, 1991, letter.

The first issue relates to the use of the term "inadequate" verses "incomplete". U.S. EPA does not oppose the use of the term incomplete, so long as U.S. DOE agrees that the RI Report did not comply with the requirements of the 1990 Consent Agreement and was rightfully disapproved by U.S. EPA.

The second issue relates to the due dates for subsequent OU #4 RI/FS documents. In the January 18, 1991 teleconference, U.S. DOE agreed to develop a compliance schedule for OU #4 and propose it to U.S. EPA. The Dispute Resolution Committee (DRC) then agreed that such a schedule would be elevated to the Senior Executive Committee for their consideration. However, the DRC's proposal in no way modifies the 1990 Consent Agreement or the schedules and terms contained therein. Such modification can be accomplished only by the signatories to the Consent Agreement. Thus, unless and until the Agreement is properly modified, the schedules and terms of the current 1990 Consent Agreement govern. As stated in U.S. EPA's December 19, 1990, letter, subsequent OU #4 documents become due once the OU #4 RI dispute ends. This obligation is consistent with the terms of the 1990 Consent Agreement and has not been altered by the dispute resolution reached by the DRC on January 18, 1991.

Please contact me at (312/FTS) 353-4783, if you have any questions.

Sincerely yours,



William E. Muno  
Associate Division Director  
Office of RCRA, Waste Management Division

cc: Gerald Ionannides, OEPA  
Graham Mitchell, OEPA-SWDO  
Leo Duffy, U.S. DOE - HDQ  
Joe LaGrone, U.S. DOE - ORO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

1878

**JAN 25 1991**

REPLY TO ATTENTION OF:

Mr. Gerald W. Westerbeck  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

5HR-13

#1204

RE: OU#4 EPA RI Dispute  
U.S. DOE - Fernald  
OH6 890 008 976

Dear Mr. Westerbeck:

On December 7, 1990, the United States Environmental Protection Agency (U.S. EPA) disapproved a revised proposed Remedial Investigation (RI) report for Operable Unit (OU) #4. Since this was the second disapproval, U.S. EPA invoked dispute resolution in accordance with Section XII of the 1990 Consent Agreement to prevent the document from becoming final. This dispute involves the inadequacy of the revised draft RI report for OU #4.

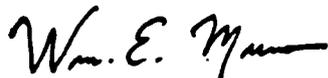
U.S. EPA's dispute was not settled within the thirty day informal dispute resolution period. The dispute was raised to the Dispute Resolution Committee on January 4, 1991, as required by Section XIV.C of the 1990 Consent Agreement.

On January 18, 1991, the Dispute Resolution Committee held a teleconference to discuss U.S. EPA's dispute. During the teleconference, U.S. DOE asserted that it submitted the OU #4 RI report in good faith and incorporated all data available at the time that the report was due. U.S. DOE further maintained technical problems and adverse weather had led to problems in obtaining some of the data necessary to complete the report. While U.S. EPA does not necessarily accept this conclusion, both U.S. EPA and U.S. DOE agree that the report was inadequate since complete data was not provided. Accordingly, U.S. EPA's dispute over the adequacy of the OU #4 RI report is terminated by mutual agreement.

U.S. DOE is in the process of obtaining data in order to complete the RI report. As agreed in the teleconference, U.S. DOE will propose a revised schedule for OU #4 RI report and for completion of all other OU #4 RI/FS documents. The revised schedule will be one that is achievable, and a schedule that U.S. DOE and its contractors will be firmly committed to.

Please contact me at (312/FTS) 353-4783, if you have any questions.

Sincerely yours,



William E. Muno  
Associate Division Director  
Office of RCRA, Waste Management Division

cc: Acting Director, OEPA  
Graham Mitchell, OEPA-SWDO  
Leo Duffy, U.S. DOE - HDQ  
Joe LaGrone, U.S. DOE - ORO

bcc: David A. Ullrich, WMD ->William E. Muno ->Kevin Pierard  
Len Robinson, ORC  
Mary Butler, ORC  
Sandra Lee, ORC  
David Kee, ARD  
Dan O'Riordan, OPA  
Ed Schuessler, PRC  
Peggy Andrews, HDQ - OE  
William Duncan, OE (OS-530)

DOE DISK#5-OU#4:RIX.DRC

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## Department of Energy

FMPC Site Office  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705  
(513) 738-6319

1878

JAN 28 1991

DOE-663-91

Mr. William E. Muno  
Associate Division Director  
Office of RCRA, Waste Management Division  
U. S. Environmental Protection Agency  
Region 5 - 5HR-12  
230 South Dearborn Street  
Chicago, IL 60604

#998

Dear Mr. Muno:

### OPERABLE UNIT 4 - DISPUTE RESOLUTION

- Reference:
- 1) Letter, W. E. Muno to G. W. Westerbeck, "OU #4 EPA RI Dispute U. S. DOE - Fernald OH6 890 008 976," dated January 25, 1991
  - 2) Letter, DOE-401-91, A. P. Avel to C. A. McCord, "Operable Unit 4 - Feasibility Study (FS) Report," dated December 13, 1990
  - 3) Letter, C. A. McCord to A. P. Avel, "Extension Request OU#4 FS Report U. S. DOE Fernald OH6 890 008 976," dated December 19, 1990

The Dispute Resolution Committee (DRC) held a teleconference on January 18, 1991, to discuss the dispute on the revised RI Report for Operable Unit (OU) 4.

The teleconference ended with DOE agreeing that the RI Report was not complete, because it did not contain all of the sampling data from OU 4. It was also agreed that DOE would submit to U. S. EPA a schedule for obtaining the sampling data and for the revision of the RI Report and subsequent OU 4 RI/FS documents.

On January 25, 1991, U. S. EPA transmitted a letter (Reference 1) to DOE documenting the resolution of the dispute. The letter stated that U. S. EPA and DOE agreed that the RI Report was inadequate. DOE did not agree the report was inadequate, but did agree that the report was incomplete, as stated in our suggested revision to your draft resolution letter. Our position is based on the fact that the sampling had not been completed prior to submittal of the report.

Also, in response to a DOE request for extension of time in which to submit the FS Report for OU 4 (Reference 2), U. S. EPA stated that the FS Report would be due upon the resolution of the RI Report dispute (Reference 3). The January 25, 1991, letter (Reference 1) from U. S. EPA documented the resolution of the dispute on the RI Report and the agreement on submittal of a revised OU 4 schedule for submittal of the RI Report and subsequent OU 4 RI/FS documents. We interpret your January 25, 1991 letter to relieve the requirement of submittal of the FS Report until such time as will be provided for in the revised schedule for OU 4 RI/FS documents.

An initial discussion on the revised schedule was held on January 23, 1991, with members of your staff. A revised schedule for OU 4 RI/FS activities will be formally transmitted to U. S. EPA following DOE/HQ approval.

Please contact me at FTS 774-6357 if you have any questions.

Sincerely,



Gerald W. Westerbeck  
PMPC Site Manager

DP-84:Craig

cc:

R. P. Whitfield, EM-40, FORS  
 R. P. Berube, EH-20, FORS  
 J. J. Fiore, EM-42, GTN  
 K. A. Hayes, EM-422, GTN  
 J. La Grone, M-1, ORO  
 W. D. Adams, EW-90, ORO  
 P. J. Gross, SE-31, ORO  
 G. E. Mitchell, OEPA-Dayton  
 G. Ionannides, OEPA-Columbus  
 V. A. Adamkus, USEPA-V, 5A-14  
 C. A. McCord, 5HR-12  
 D. A. Ullrich, USEPA-V, 5H-12  
 M. Butler, USEPA-V, 5CS-TUB-3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 5  
 230 SOUTH DEARBORN ST.  
 CHICAGO, ILLINOIS 60604

DEC 07 1990

REPLY TO ATTENTION OF:

Mr. William D. Adams  
 Acting Assistant Manager  
 Environmental Restoration and  
 Waste Management  
 U.S. Department of Energy  
 200 Administration Drive  
 Oak Ridge, Tennessee  
 37831-8501

5H-12

#1172

Re: Notice of Violation  
 OU#4 RI/Risk Assessment  
 U.S. DOE Fernald  
 OH6 890 008 976

Dear Mr. Adams:

On August 27, 1990, the United States Department of Energy (U.S. DOE) submitted a primary draft Remedial Investigation and Risk Assessment report (the initial RI report) for Operable Unit #4 (Silos 1, 2, 3, and 4). The United States Environmental Protection Agency (U.S. EPA) disapproved this report on September 27, 1990. Accordingly, pursuant to Section XII of the 1990 Consent Agreement, U. S. DOE was required to submit a draft final primary RI report (the revised draft RI report) by October 27, 1990. On October 26, 1990, U.S. DOE requested a 20-day extension of time and submitted the revised draft RI report to U.S. EPA on November 7, 1990.

In accordance with Section XII.B of the Consent Agreement, U.S. EPA has reviewed the revised RI report. Based upon this review, U.S. EPA has determined that the report was not developed in accordance with the requirements of the Consent Agreement, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and applicable U.S. EPA guidance and policy, as required by Section X.C of the 1990 Consent Agreement. Thus, for the reasons set forth below, U.S EPA hereby finds that U.S. DOE is in violation of 1990 Consent Agreement.

Section 104(b) of CERCLA, '42 U.S.C. § 9604(b), provides the general framework for studies and investigations. Pursuant to this provision, the President has authority to conduct investigations, monitoring, surveys, testing, and other information gathering as deemed necessary to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved and the extent of danger to the public health or welfare or to the environment.

Section 300.430 of the NCP, 40 C.F.R. § 300.430, describes in detail the investigatory obligations provided for by Section 104(b) of CERCLA. "The purpose of the remedial investigation (RI) is to collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives" (40 C.F.R. § 300.430(d)(1)). To meet this objective the NCP requires that the parties "conduct field investigations, including treatability studies, and conduct a baseline risk assessment". More specifically, Section 300.430(d)(2) provides a detailed list of the types of data gathering and investigation appropriate for the RI (40 C.F.R. § 300.430(d)(2)). The NCP makes clear that the information gathered as a result of the RI activities is essential to assess the risks to human health and the environment and to support the development, evaluation, and selection of appropriate response alternatives (40 C.F.R. § 300.430(d)(3)-(4)). This approach is confirmed by U.S. EPA guidance, Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive 9355.3-01).

Contrary to the express language of the NCP, the revised RI report submitted by U.S. DOE lacks the data required to characterize the site or the current and potential risks to human health and the environment. There is not sufficient information to perform a detailed screening of alternatives and to support remedy selection.

U.S. EPA raised the issue of inadequate data in its September 27, 1990 disapproval letter (Attachment 1). In that letter, U.S. EPA stated that based upon the initial RI report, U.S. DOE had failed to collect the field data necessary to support an adequate RI and Risk Assessment report. Although U.S. DOE was required to submit a revised report responding to such comments, the revised RI report submitted by U.S. DOE on November 7, 1990, failed to adequately address this essential omission. To date, U.S. DOE has only completed structural integrity analysis and a portion of the internal tank sampling and the decant tank sampling, thus the associated analytical results are not yet available. Additionally, the following tasks remain to be completed or performed:

- internal residue sampling and analysis for characterization of the materials in the tanks;
- berm sampling and slant borings for characterization of soils, to determine if the tanks are leaking or have leaked;
- adequate characterization of shallow groundwater in the silo area;
- analysis for characterization of contents of the decant tank for characterization; and
- adequate monitoring of emissions and direct radiation.

Without the data collection described above, the revised RI report cannot serve its intended purpose as provided under the NCP. In the transmittal letter for the revised RI report, U.S. DOE acknowledged that the revised RI report fails to include the necessary data (Attachment 2). At U.S. EPA's request, U.S. DOE suggested the following alternatives for dealing with this problem:

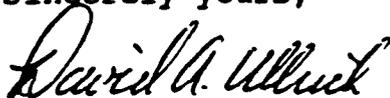
- request an extension for sampling completion and characterization of waste and surrounding environment;
- continue with current schedule and incorporate data upon availability; or
- revise the operable unit scheme and divide OU#4 into two operable units.

However, rather than selecting an alternative which complies with the NCP, U.S. DOE chose to proceed with the current schedule and submit primary documents without the RI data. This "option" is inconsistent with the express terms of the 1990 Consent Agreement and threatens the integrity of the RI/FS process as described in the Agreement, CERCLA, the NCP, and applicable U.S. EPA guidance.

U.S. DOE's failure to submit an RI report which complies with the NCP constitutes a violation of the express terms of Section X.C of the Consent Agreement. Given the severity and extent of the violation and the effect of the violation on the implementation of the remedial action, U.S. EPA finds it is appropriate to apply the stipulated penalties provision in Section XVII of the Consent Agreement. Pursuant to Section XVII, U.S. DOE may be assessed stipulated penalties at a rate not to exceed \$5,000 for the first week (or part thereof) and \$10,000 for each additional week (or part thereof). Stipulated penalties begin to accrue upon receipt of this letter and will continue to accrue until U.S. DOE completes the RI field activities and associated analytical work and submits to U.S. EPA an RI and Risk Assessment report that complies with CERCLA, the NCP, and the 1990 Consent Agreement.

This letter constitutes written notification of violation as required by Section XVII of the Consent Agreement. As provided by the Agreement, U.S. DOE has fifteen days from receipt of this notice to invoke dispute resolution. If you have any questions regarding this matter, please contact Ms. Mary Butler at the Office of Regional Counsel at (312/FTS) 353-8514.

Sincerely yours,



David A. Ullrich, Director  
Waste Management Division

**Attachments**

cc: Richard Shank, OEPA - CO  
Graham Mitchell, OEPA - SWDO  
Joe LaGrone, U.S. DOE - ORO  
Leo Duffy, U.S. DOE - HDQ

bcc: Ralph R. Bauer, ORA  
David A. Ullrich, WMD  
Bertram C. Frey, ORC  
Dale Bryson, WD  
Robert Springer, PMD  
William H. Sanders, III, ESD  
William E. Munro, WMD  
Kevin Pierard, WMD  
Len Robinson, ORC  
Mary Butler, ORC  
Sandra Lee, ORC  
David Kee, ARD  
Dan O'Riordan, OPA  
Rose Freeman, ORA  
Gordon Davidson, OS-530  
Sally Mosely, OS-530  
William Duncan, OS-530  
Ed Schuessler, PRC

DOE DISK#5:OU#4-RI.nov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

1878

SEP 27 1990

REPLY TO ATTENTION OF:

Mr. Bobby Davis  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

5HR-12

Re: OU#4 RI Disapproval  
U.S. DOE Fernald  
OH6 890 008 976

Dear Mr. Davis:

On August 27, 1990, the United States Department of Energy (U.S. DOE) submitted a Remedial Investigation and Risk Assessment (RI) report for Operable Unit #4 (Silos 1, 2, 3, and 4) as required by the 1990 Consent Agreement.

Based on U.S. DOE's failure to collect adequate RI data, the United States Environmental Protection Agency (U.S. EPA) is disapproving the RI report. The following tasks have not been completed:

- internal residue sampling and analysis for characterization of the materials in the tanks;
- berm sampling and slant borings under the silos for characterization of shallow water and soils, in order to determine if the tanks are leaking or have leaked;
- adequate characterization of the groundwater in the silos area;
- sampling and analysis of the decant tank for characterization; and
- adequate monitoring of emissions and direct radiation.

This is the minimum additional information that is required for completion of the RI and to support Feasibility Study (FS) work.

U.S. EPA has the following comments to guide U.S. DOE in preparation of the RI report revision:

**GENERAL COMMENTS**

1. Generally the RI report addresses all areas required by the national contingency plan; however, several sections are incomplete because all data elements have not been collected.

2. The combination of target populations evaluated in the Risk Assessment does not consider all risk groups. The population identified as the most sensitive population may not be correct. Children have access to Paddys Run and have typical sediment ingestion rates of about 100 mg/day, given normal mouthing habits. This exposure should be in addition to the penetrating radiation and airborne radon/radon daughter exposures, if it is found that this operable unit contributes exposures along this pathway.
3. No data is presented for the evaluation of the risk calculations, either from monitoring or analysis. All data must be included in the report.
4. Cows graze in the area. Results from the testing of milk and meat must be presented from cows grazing in the Paddy's Run area and possibly drinking from it. This information should be included in the "accumulating" Risk Assessment reports for each operable unit.
5. Radon and associated decay products (transported in air and direct radiation) are by far the largest sources of exposure to residents from this operable unit. The amount of data presented in characterization of these sources of exposure is entirely inadequate. Existing data is largely the result of an array of alpha track detectors and thermoluminescent dosimeters (TLDs) along the fence-line of the facility. The alpha track detectors are only able to measure the long-term average of radon-222, not decay products from radon-222 or thoron (radon-220) that may be associated with thorium in the silos. The alpha track detectors are not sensitive enough to accurately discriminate between elevated radon levels and background. TLDs are not adequate to characterize direct radiation fields at fixed locations. Detailed radiation levels at many points on and off-property, including background locations, can be readily obtained using pressurized ion chambers (PICs) located in the vicinity of the silos.
6. Based on estimates made using existing data, risks to residents near or on the site are clearly unacceptable. There are several questions regarding the existing data that need to be answered and may possibly indicate an even higher risk than previously assumed:
  - A. What is the degree of equilibrium of radon and its decay products at nearby residences all around the facility? To what degree are radon decay products being emitted from the silos along with radon? The actual dose to residents is influenced by this.
  - B. Is thoron emitted from the silos? Are thoron decay products present in the plume? What is the associated exposure/dose? Many of the typical assumptions about insignificance of thoron dose relative to radon dose may not be valid at the site.
  - C. What are the temporal patterns of radon exposure? What the the seasonal patterns? This may effect dose significantly, due to temporal and seasonal variations in home occupancy and would best

be measured using continuous monitors, rather than passive integrating devices.

- D. How is the level of radon within the living areas of nearby residents in all directions affected by the silos?
  - E. What is the actual background levels for radon? Continuous monitoring should be used to make this determination because the emissions are not continuous. As previously stated, alpha track devices are not the most sensitive monitoring devices available.
7. Information on the degree of equilibrium, thoron dose, and distribution of radon exposures needs to be addressed.
  8. The risks should also be presented by sensitive populations, not just by pathways/media. A better approach may be to determine a set of sensitive sub-populations for each operable unit. When sub-populations do not receive exposures from a particular operable unit, they can be deleted (with an explanation) from the analysis for a particular operable unit. This would allow for a concise and uniform evaluation of health risk in the final RI report.
  9. The nearby resident population is exposed to airborne radon and radon daughters, and it could be expected that radon daughters are deposited in the soil. Soil ingestion (both child and adult) should be included as a pathway.
  10. Why are the background risks from penetrating radiation and airborne radon so high? The location of background samples needs to be specified in the Risk Assessment report. Are all the "background" samples elevated? How do these values compare with measurements made in other rural Ohio areas?

#### SPECIFIC COMMENTS

11. Section ES, Page ES-2, Paragraph 2: The remedial investigation (RI) for Operable Unit 4 (OU4) also should include the underlying soils and ground water to determine the extent the silos are potentially contaminating the environmental media.
12. Section ES, Page ES-3, Paragraph 6: The value of 657 picocuries per gram (pCi/gm) may be an outlier and not representative of the K-65 residues. This should be explained in the text.
13. Section ES, Page ES-9: A third bullet should be added. "Refine radon monitoring network to accurately quantify risks and success of removal actions".

14. Section 1.1, Page 1-7, Paragraph 2: Silo 4 should be included in the remedial investigation/feasibility study (RI/FS) process, even if a no-action remedial action alternative is possibility of this silo. There is liquid in this silo.
15. Section 1.1, Page 1-16, Paragraph 1: The issues related to OU4 element 6 (Regional Environment) are also appropriate to be investigated as part of element 5 (OU4 Study Area); these include radon emissions, long term migration potential of materials released from the silos, and nearby environmental resources that could be impacted (e.g. ambient air, ground water, surface water and soils).

The issue of worker safety was not addressed in the risk assessment. The risk calculations were based on receptors being exposed at the fence line of the FMPC boundary. An additional exposure scenario, on-site worker, needs to be added to the risk assessment.

16. Section 1.3.1, Page 1-25: The text describes the silo's designed structure. The RI report should describe the silo's current state and state that recent studies have shown major degradation in both the silo wall and dome structural stability and thickness.
17. Section 1.3.2, Page 1-44, Paragraph 2: If actual dose levels from field monitoring are available, it would be appropriate to present them in this section.
18. Section 1.3.2, Page 1-44, Paragraph 3: EPA previously had significant comments concerning the risks reported in the University of Cincinnati Risk Assessment Report; these should be addressed and incorporated into this RI report.
19. Section 1.3.2, Page 1-45, Paragraph 4: Additional information concerning the number of samples, type of analyses, and sample location should be presented.
20. Section 1.3.2, Page 1-46, Paragraph 1: The purpose of this portion of the RI report is to present results of previous investigations; therefore, the results of the vadose zone modeling should be presented.
21. Section 1.3.2, Page 1-46, Paragraph 2: The RI report states that the Monsanto-Mound study recommended additional radon monitoring should be conducted. If additional monitoring was conducted, the results of the additional monitoring should be presented.
22. Section 1.3.2, Page 1-46, Paragraph 2: Data from the Monsanto-Mound report is presented for radon concentrations near the silos; the actual distance from the silo plus radon concentrations from more remote monitoring locations should be included.
23. Section 1.3.2, Page 1-47, Paragraph 3: The RI report states data from the FMPC Environmental Monitoring Program is used "when possible". It



would be appropriate to present a summary of this information in this section of the RI report.

24. Section 1.3.2 "Previous Operable Unit 4 Investigations": This section provides only a brief description of the previous, ongoing, and some future investigations of OU4. Little information regarding the data generated from the previous investigations is presented. This section of the RI report should discuss the objectives of previous investigations, location and number of samples, validity of the data, conclusions drawn from the data, and the comparability of the data from previous investigations to the ongoing RI.
25. Section 2.1, Page 2-1, Paragraph 3: It is more important to report the average recovery length of each case, not the average penetration length.
26. Section 2.1, Page 2-1, Paragraph 4: The quality assurance criteria for completeness is typically given for both the number of samples collected (field completeness) and the number of valid analyses (laboratory completeness). The quality assurance project plan (QAPP) for this site specified only laboratory completeness (90 percent). Sampling completeness is defined as the number of samples actually collected compared to the number of samples planned to characterize the waste material. Typically both field and laboratory completeness is set at 90 percent. The RI report needs to justify why a 30 percent field completeness is adequate to characterize the waste material in Silo 3.  
  
Additionally, 30 percent sample recovery may indicate that there is significant variation in the waste material preventing near complete sample recovery.
27. Section 2.1.3, Page 2-3: The analytical parameters and number of samples has not been agreed upon between U.S. EPA and U.S. DOE. The revised draft RI report should reflect the resolution of these discussions.
28. Section 2.2, Page 2-5, Paragraph 2: The location, number, and collection methods of the 1983 slant borings needs to be presented to fully evaluate the data presented in Section 4.0.
29. Section 2.2.2, Page 2-6: EPA comments on the low angle boring sampling program need to be incorporated into the revised draft RI report.
30. Section 2.4.2, Page 2-12, Paragraph 3: Information describing the samples collected during the Weston Characterization Investigation Study (CIS) should be presented. This information should include the sample collection methods, location, and number of samples.
31. Section 2.3.2, Page 2-11, Paragraph 3: The last sentence of this paragraph contradicts the statements in Section 2.4.2. Section 2.4.2 states "the criteria for selecting areas of surface soil samples were

those areas that indicated radioactive contamination exceeding 35 pCi/g."

32. Section 3.0, Page 3-1, Paragraph 2: The RI report is indented to be a "stand alone" document, therefore it is appropriate to summarize information from other reports. However, it is not appropriate to only reference the other documents to present information.
33. Section 3.3, Page 3-4: This section should provide a discussion on surface water hydrology specific to the OU4 area.
34. Section 3.4.3, Page 3-16, Paragraph 2: The conclusion of limited hydraulic connection needs to be documented with graphs or charts. Data in the appendix to the RI report shows that ground-water elevations in wells screened in the till fluctuate sympathetically (with the exception of well 1029). This indicates there is good hydraulic communication within the perched aquifer in the OU4 area.
35. Section 3.4.3, Page 3-16: Neither well 1048 or 1079 is in the area defined as OU4. Hydraulic conductivities for the hydrogeologic units in the OU4 area should be provided.
36. Section 4.0, Page 4-5, Paragraph 2: The RI report should list other wastes which are unique to the K-65 or metal oxide silos. In addition, the review (or discussion) of the data should not be limited to waste constituents unique to the K-65 or metal oxide silos. The location, concentration, and frequency of occurrence of waste constituents not unique to the K-65 or metal oxide silos can also indicate if contamination is originating from the silos.  
  
Ground water was not analyzed for lead 210; therefore, the use of lead-210 as an indicator parameter is questionable.
37. Section 4.1.1, Page 4-11, Table 4-1: What does "d" under beryllium and NG under various chemicals stand for? An explanation must be included in key.
38. Section 4.1.1, Page 4-11, Paragraph 2: The RI report needs to document how background concentrations were established for all media.
39. Section 4.1.2, Page 4-16, Paragraph 2: The RI report should state that holding times for volatile organic analyses were exceeded by over 3 months. Furthermore, conclusions concerning the absence of hazardous substance list (HSL) volatile organic compounds should not be made until valid data is available.
40. Section 4.1.2, Page 4-17, Table 4-6: One sample collected from the k-65 silos has an E.P Toxicity concentration for selenium of 1.08 mg/L which also exceeds the maximum acceptable concentration.
41. Section 4.2, Page 4-21, Paragraph 1: The location of the National Lead

of Ohio (NLO) subsoils samples needs to be provided to determine the usefulness of the data presented.

42. Section 4.4.1, Page 4-24, Paragraph 3: The location of each CIS sample needs to be shown on a figure to evaluate the usefulness of the data presented.
43. Section 4.4.1, Page 4-24, Paragraph 5: The data in Table 4-9 shows the concentration of the two radiological indicator parameters (uranium-283 and radium-226) is highest adjacent to silos 1 and 2. This suggests that the data is not as inconclusive as the RI report states. The report should also propose additional work to characterize the nature and extent of near surface radiological contamination.
44. Section 4.7.3, Page 4-47, Paragraph 2: The conclusions in this section are not supported by the data. The text should be revised to acknowledge the following:

The boring log for well 1032 does not indicate that unnatural debris is present at 7.5 to 9.5 feet below the land surface (screened interval of well 1032).

Uranium-238 (indicator compound for K-65 silos 1 and 2) is present in well 1032 (immediately down gradient of the K-65 silos) at a concentration approximate 20 times higher than well 1033 (immediately up gradient of the K-65 silos).

Four principle inorganic constituents are of K-65 silos are chloride, sulfate, calcium and sodium. These are present in the down gradient well at concentrations greater than the up gradient well. Specifically, chloride 36-, sulfate 3-, calcium 4, and sodium 6 times greater in the down gradient well than the up gradient well.

45. Section 4.7.3, Page 4-48, Paragraph 1: The report should also state that direct vertical percolation of contaminated ground water can also impact the water quality in the Great Miami Aquifer.
46. Section 4.7.3, Page 4-48, Paragraph 2: Well 2034 should also be listed as having above background levels of uranium.
47. Section 4.7.3, Page 4-49, Paragraph 1: While the uranium concentrations in the ground water are close to typical background concentrations, the RI report should clearly state these are above background and indicate contamination.
48. Section 5.0, Page 5-1, Paragraph 2: While most radionuclides generally present a greater hazard than their toxic characteristics, this is not true for uranium.

49. Section 5.2, Page 5-3, Paragraph 1: The statement that "at the time of their design, the K-65 silos did not need to be airtight" should be explained, since the radon concerns have long been known.
50. Section 5.2, Page 5-4, Paragraph 5: The catastrophic failure dose, as estimated by UC, is significantly lower than the dose from continued chronic emissions and should be presented as such.
51. Section 5.4, Page 5-6, Paragraph 4: The RI report states lead-210 is a good indicator compound, yet the ground water was not analyzed for lead-210.
52. Section 6.3, Page 6-3, Paragraph 1: U.S. EPA uses a risk coefficient of  $4E-4/\text{rem}$  for low linear energy transfer (LET) radiation, not the  $1.25E-4/\text{rem}$ , which is used in the report. Risks that are estimated here for external exposure are thus lower by a factor of 3.
53. Section 6.4, Page 6-4, Paragraph 3: The risk associated with exposure to background levels of radiation should be better documented.
54. Section 6.4, Page 6-4: As a result of using the U.S. EPA risk factor cited above, the combined risk of  $6E-3$  for present use, combined lifetime risk of  $8.5 E-2$  for potential future use, are 13% and 70% higher, respectively.
55. Section 6.4, Page 6-5, Paragraph 3: The "unacceptable" levels of the chemical toxicants detected in the ground water should be quantitatively presented.
56. Section 6.4, Page 6-5, Paragraph 3: Even using the lower NCRP risk factors, the conclusion that present and potential future risk increments is the same order of magnitude as background risks is incorrect. Incremental risks exceed background risks by nearly a factor of 10. When using the U.S. EPA factor cited above, the discrepancy is even greater.
57. Section 7.1, Page 7-1, Paragraph 1: At the present time there is insufficient data to support the conclusion that the feasibility study should address only the silo contents and physical structure. At this time it is appropriate to consider all areas of contamination including soil and ground water in the feasibility study, even if contamination has not migrated off-site.
58. Section 7.1, Page 7-1, Paragraph 3: The report needs to clarify why 30% sample recovery for silo 3 is considered successful.
59. Section 7.1, Page 7-1, Paragraph 4: The conclusions concerning the presence or absence of HSL organics is not supported. Holding times for volatile organic compounds were exceeded by over 3 months.
60. Section Appendix E - Executive Summary, Page Exiii, Paragraph 5: "Assuming that a single individual could reasonably be exposed to the

current estimated above-background RME from both penetrating radiation and airborne radon, the combined lifetime risk from lifetime exposure to these two pathways is  $5.3 \times 10^{-3}$ ." The risk to a child from ingestion of contaminated soils should also be included in this total risk. The child will be potentially be exposed to airborne radon and penetrating radiation, in addition to the ingestion.

61. Section Appendix E - 5.1.1.5, Page E5-3: As stated previously, a child will also be exposed to airborne radon and penetrating radiation in addition to ingestion of sediments. It would be reasonable to include all pathways in the total risk calculation.

This is the first RI report developed for Fernald. Many comments may be applicable for other operable units.

U.S. DOE must address the above deficiencies and comments in a revision that is to be submitted within thirty (30) days of the date of this letter. U.S. DOE must include adequate data in the revision. If this information can not be provided in the time-frame required by the 1990 Consent Agreement, U.S. DOE must look at other alternatives. The purpose of the dispute resolutions process provided for in the 1990 Consent Agreement is to settle technical disputes and must not be used as a mechanism for obtaining more time for performance of required RI work and obtaining key data elements.

If there are any questions, I may be reached at (312/FTS) 886-4436.

Sincerely,



Catherine A. McCord  
Remedial Project Manager

cc: Richard Shank, OEPA  
Graham Mitchell, OEPA  
Joe LaGrone, U.S. DOE - ORO  
Leo Duffy, U.S. DOE - HDQ



**Department of Energy**

FMPC Site Office  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705  
(513) 738-6319

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OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Ms. Catherine A. McCord, Remedial Project Manager  
U. S. Environmental Protection Agency  
Region V - 5HR-12  
230 South Dearborn Street  
Chicago, IL 60604

Mr. Graham E. Mitchell, DOE Coordinator  
Ohio Environmental Protection Agency  
40 South Main Street  
Dayton, OH 45402

Dear Ms. McCord and Mr. Mitchell:

**OPERABLE UNIT 4 - REMEDIAL INVESTIGATION (RI) REPORT**

- References:
- 1) Letter, C. A. McCord to B. J. Davis, "OU #4 RI Disapproval U.S. DOE Fernald OH6 890 008 976," dated September 27, 1990
  - 2) Letter, G. E. Mitchell to B. J. Davis, "RI/Risk Assessment O.U. 4," dated October 2, 1990
  - 3) Letter, DOE-40-91, A. P. Avel to C. A. McCord, "Operable Unit 4 - Remedial Investigation (RI) Report," dated October 26, 1990

References 1 and 2 transmitted U.S. EPA and Ohio EPA comments on the first draft of the Remedial Investigation (RI) Report for Operable Unit 4. The comments ranged from risk assessment calculations to the adequacy of the data available to support a complete site characterization and selection of a preferred alternative for Operable Unit 4.

Reference 3 requested a 20 day extension from October 29, 1990, in order to revise the RI Report and respond to U.S. EPA and Ohio EPA comments.

Enclosed is the revised RI Report and responses to U.S. EPA and Ohio EPA comments. This version of the report does not include the results of the current K-65 silos residue sampling, the K-65 silos berm sampling, or the slant borings under the Silos. These

sampling activities are either currently underway or planned in the near future. The report does include previous data collected for Operable Unit 4, including the 1989 sampling of Silos 1, 2, and 3.

There are currently three options available for completing work on Operable Unit 4. The options include:

- 1) Request a schedule extension from U.S. EPA. The schedule extension would allow for the completion and characterization of the residue sampling, the berm sampling and slant borings and treatability studies. This data would be used to revise the RI Report and prepare the FS Report and eventually the Record of Decision. The schedule extension would be approximately 10-12 months.
- 2) Continue along the current schedule for Operable Unit 4. All outstanding data would be incorporated into the process when available.
- 3) Silos 1 & 2 could be treated on a separate schedule from Silos 3 & 4. This would allow remediation of Silos 3 & 4 on the current schedule. The schedule for Silos 1 & 2 could be extended consistent with option 1.

DOE's current position is to select option number 2. The reasons for this are:

- a. The sampling data will most probably not change the alternative that has been selected in the draft proposed plan or the alternative evaluation in the Feasibility Study Report. This alternative is to remove the K-65 residues, berms and underlying soils, and the silo structures, and to store/dispose the material on-site. All in-situ disposal alternatives will not be acceptable to the public, EPA, or DOE. Since there is currently no place to ship the material, off-site disposal alternatives would also not be acceptable. Therefore, there is little risk that the selected alternative will change. The only probable change will be in the treatment of the waste which can be developed in the remedial design process.
- b. Even if options 1 or 3 were selected, there is no guarantee that we can meet the extended schedule and get all of the data.
- c. The information gained from the sampling is important for remedial design process. This information will be available in time to support remedial design and the Record of Decision in August, 1991.

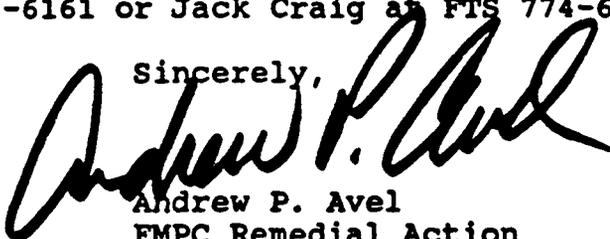
- d. Since this is the first Operable Unit on the remediation schedule it is very important for DOE and the EPAs to do all that is possible to maintain the schedule. Credibility will be demonstrated by using the data we have available and exercising sound technical judgment as an argument to not extend the schedules.

DOE is prepared to meet with U.S. EPA and Ohio EPA to discuss the options as outlined above. It is critical all three agencies reach a consensus on the approach to completing this Operable Unit.

DOE is making every effort to meet the Consent Agreement schedules and at the same time make sound technical decisions throughout the CERCLA process.

Your expeditious review of this plan for completion of Operable Unit 4 RI/FS activities is requested. If you have any questions, please contact me at FTS 774-6161 or Jack Craig at FTS 774-6159.

Sincerely,



Andrew P. Avel  
FMPC Remedial Action  
Project Director

DP-84:Craig

Enclosure: As stated

cc w/encl.:

R. P. Whitfield, EM-40, FORS  
W. D. Adams, EW-90, ORO  
P. J. Gross, SE-31, ORO  
W. E. Muno, USEPA-V  
P. Q. Andrews, USEPA-V  
J. Benetti, USEPA-V  
K. J. Pierard, USEPA-V  
D. A. Ullrich, USEPA-V  
E. Schuessler, PRC  
K. Davidson, OEPA-Columbus  
L. August, GeoTrans (2)  
R. L. Glenn, Parsons  
D. A. Nixon, WMCO  
J. Razor, IT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

DEC 21 1990

REPLY TO ATTENTION OF:

Mr. William D. Adams  
Acting Assistant Manager  
Environmental Restoration and  
Waste Management  
U.S. Department of Energy  
200 Administration Drive  
Oak Ridge, Tennessee  
37831-8501

5H-12

# 920

Re: Notice of Violation  
OU#3 ISA Report  
U.S. DOE Fernald  
OH6 890 008 976

Dear Mr. Adams:

On September 24, 1990, the United States Department of Energy (U.S. DOE) submitted a draft Initial Screening of Alternatives (ISA) report (a primary document) for Operable Unit (OU) #3 (Production Area and Other Suspect Areas). The United States Environmental Protection Agency (U.S. EPA) disapproved this draft report on October 24, 1990. Pursuant to Section XII of the 1990 Consent Agreement, U. S. DOE was required to submit a revised draft ISA report that addressed all the deficiencies identified by U.S. EPA.

On November 21, 1990, U.S. DOE submitted a revised draft ISA report to U.S. EPA. In accordance with Section XII.B of the Consent Agreement, U.S. EPA reviewed the revised ISA report. Based upon this review, U.S. EPA has determined that the report did not address all of the deficiencies identified in U.S. EPA's October 24, 1990, letter. U.S. EPA disapproved this revised draft ISA report on December 21, 1990. Additionally, U.S. DOE failed to address the entire operable unit, as defined by the 1990 Consent Agreement. Also, the ISA report was not developed in accordance with the requirements of the Consent Agreement, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and applicable U.S. EPA guidance and policy, as required by Section X.C of the 1990 Consent Agreement. Thus, for the reasons set forth in this Notice of Violation, U.S. EPA hereby finds that U.S. DOE is in violation of the 1990 Consent Agreement.

Section X.C.3 of the Consent Agreement defines the scope of OU#3 as the "production area and suspect areas outside the production area, including effluent line to Great Miami River". U.S. DOE has failed to include all waste and other drummed material, underground

storage tanks, thorium, and buildings in the ISA report. U.S. DOE's failure to include the required elements in the remedial action for OU#3 has been discussed with U.S. DOE on numerous occasions, including project management meetings and negotiations on Applicable Relevant and Appropriate Requirements (ARARs). Written notice of this deficiency was provided in U.S. EPA's disapproval of the initial draft ISA report on October 24, 1990 and a September 9, 1990, letter specifically on this issue. U.S. DOE has failed to correct this deficiency throughout the remedial effort. U.S. DOE has acknowledged an awareness of this problem and explained that they failed to direct their RI/FS contractor to do the proper work.

Section 300.430(b) of the NCP, 40 CFR 300.430(b) provides that "investigation and analytical studies should be tailored to site circumstances so that the scope and detail of the analysis is appropriate to the complexity of the site problems being addressed." The preamble to the NCP further explains that adequate scoping is necessary to develop a conceptual understanding of the site by considering in a qualitative manner, the sources of contamination, potential pathways of exposure, and potential receptors (55 Federal Register 8707, March 8, 1990). U.S. DOE's failure to adequately scope OU#3 in compliance with the NCP is reflected in the quality and content of the ISA report.

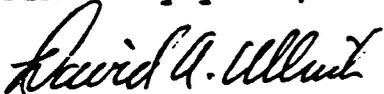
The entire facility is on the National Priorities List (NPL) and nothing in the NCP or CERCLA allows portions of the facility to be excluded from the requirements of CERCLA. U.S. DOE's failure to submit an ISA report that properly scopes the operable unit, in accordance with Section X.C.3 of the 1990 Consent Agreement, and that complies with the NCP constitutes a violation of Section X.C of the Consent Agreement.

Given the severity and extent of the violation and the effect of the violation on the implementation of the remedial action, U.S. EPA finds it is appropriate to apply the stipulated penalties provision in Section XVII of the Consent Agreement. Pursuant to Section XVII, U.S. DOE may be assessed stipulated penalties at a rate not to exceed \$5,000 for the first week (or part thereof) and \$10,000 for each additional week (or part thereof). Stipulated penalties begin to accrue as of the date of this letter and will continue to accrue until U.S. DOE complies with the requirements of Consent Agreement and submits a ISA report that addresses the entire operable unit.

This letter constitutes written notification of violation as required by Section XVII of the Consent Agreement. As provided by the Agreement, U.S. DOE has fifteen days from the date of this notice to invoke dispute resolution regarding U.S. EPA's determination that the ISA report was inadequate.

If you have any questions regarding this matter, please contact Ms. Mary Butler at the Office of Regional Counsel at (312/FTS) 353-8514.

Sincerely yours,



David A. Ullrich, Director  
Waste Management Division

**Attachments**

cc: Richard Shank, OEPA - CO  
Graham Mitchell, OEPA - SWDO  
Joe LaGrone, U.S. DOE - ORO  
Leo Duffy, U.S. DOE - HDQ

1878



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 5**

**230 SOUTH DEARBORN ST.**

**CHICAGO, ILLINOIS 60604**

REPLY TO THE ATTENTION OF:

**SEP 10 1990**

Mr. Bobby Davis  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

5HR-12

RE: Operable Unit #3  
Fernald, Ohio  
OH6 890 008

#921

Dear Mr. Davis:

During the August 24, 1990, meeting regarding the initial review of Applicable or Relevant and Appropriate Requirements (ARARs) for Operable Unit #3, the mis-scoping of this operable unit was discussed. The United States Department of Energy (U.S. DOE) has failed to include the buildings; all waste; any other by-product material or production materials, including thorium; hazardous waste management units, and underground storage tanks in the review of ARARs for this operable unit. This problem, along with several solutions, were discussed with U.S. DOE representatives and contractors during this meeting:

The fact that U.S. DOE has not declared the Feed Materials Production Center (FMPC) a non-production facility, or certain buildings to be subject to U.S. DOE's Decontamination and Decommissioning (D&D) program, does not exempt any area or material on the site from the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or the 1990 Consent Agreement. All buildings and waste at the site are subject to the remedial response action requirements. Decontamination of the buildings under the CERCLA response action does not necessarily mean that the buildings have to be destroyed or decommissioned. U.S. DOE's incomplete scoping of Operable Unit #3 is a very serious matter and can no longer be ignored. This issue was discussed with U.S. DOE staff several months ago.

The Site, as defined by the 1990 Consent Agreement, includes "all areas within the property boundary of FMPC and any other areas that received or potentially received released hazardous substances, pollutants, contaminants, or hazardous constituents." No buildings, waste, or hazardous substances at the Site are excluded under the terms of this Consent Agreement. Additionally, the comprehensive cleanup called for the Consent Agreement, which amends 1986 Federal Facilities Compliance Agreement (FFCA), is being accomplished through division of the Site into five Operable Units. Section V - Scope of the 1990 Consent Agreement requires U.S. DOE to conduct and report upon an Remedial Investigation (RI) and Risk Assessment and

Feasibility Study (FS) for each Operable Unit at the Site and to meet the purposes of Section IV of the Agreement. Section IV provides for that among the purposes of the Consent Agreement are to: (1) establish requirements to determine fully the nature and extent of the threat to public health or welfare or the environment caused by the release and threatened release of hazardous substances. at the Site; (2) establish requirements for the performance of an FS to identify, evaluate, and select alternatives for the appropriate remedial action(s) ; and (3) select and implement the response actions to be taken at the Site. Clearly, the 1986 FFCA and 1990 Consent Agreement contemplate no exclusion by U.S. DOE of the buildings, any waste or other by-product material, production materials, thorium, waste management units, or underground storage tanks for the remedial response action(s).

Section X(C)(3) of the 1990 Consent Agreement defines Operable Unit #3 for the remedial response action at the FMPC. Operable Unit #3 consists of: the production area and suspect areas outside the production area, including the effluent line to the Great Miami River. All areas and materials within the production area, except those specified as part of another operable unit, are included in Operable Unit #3. The site is defined as "all areas within the property boundary of FMPC and any other areas that received or potentially received released hazardous substances, pollutants, contaminants, or hazardous constituents."

All documents submitted for Operable Unit #3 are required to be comprehensive and include all areas and materials within the production area and the effluent line to the Great Miami (except as provided for in another operable unit) in order to comply with the 1990 Consent Agreement. The United States Environmental Protection Agency (U.S. EPA) can not approve any document for Operable Unit #3 that does not include the above. I strongly encourage U.S. DOE to propose a resolution to this problem as soon as possible and not submit incomplete documents that are not approvable.

If there are any questions regarding this matter, I may be contacted at (312/FTS) 886-4436.

Sincerely,



Catherine A. McCord  
Remedial Project Manger

cc: Richard Shank OEPA  
Graham Mitchell, OEPA - SWDO  
Leo Duffy, U.S. DOE - HDQ  
Joe LaGrone, U.S. DOE - ORO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 5  
 230 SOUTH DEARBORN ST.  
 CHICAGO, ILLINOIS 60604

OCT 24 1990

REPLY TO ATTENTION OF:

Mr. Andrew P. Avel  
 United States Department of Energy  
 Feed Materials Production Center  
 P.O. Box 398705  
 Cincinnati, Ohio 45239-8705

5HR-12

RE: OU#3 ISA  
 Fernald, Ohio  
 OH6 890 008

Dear Mr. Davis:

On September 24, 1990, the United States Department of Energy (U.S. DOE) submitted the Initial Screening of Alternatives (ISA) report for Operable Unit #3. The ISA report was reviewed for completeness, technical adequacy, and compliance with the National Contingency Plan (NCP) and U.S. EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive No. 9355.3-01).

Based on deficiencies identified below, U.S. EPA is disapproving the first draft of the ISA for OU#3.

GENERAL COMMENTS

1. The ISA states that there currently U.S. DOE lacks sufficient remedial investigation (RI) information to adequately screen alternatives due to the schedule established in the Consent Agreement. U.S. DOE committed to the deadlines imposed by the 1990 Consent Agreement. The lack of information exists because U.S. DOE has not yet performed enough field work. Preparing a document to meet a milestone date, when the site has not been sufficiently characterized to sufficiently develop alternatives, is not consistent with the RI/FS process and does not fulfill the purpose of the ISA document or the Consent Agreement.
2. The number of alternatives retained for detailed analysis is too limited. Excluding the no action alternative, only two alternatives are carried forward to the detailed analysis of alternatives for 4 of the 6 suboperable units. The only difference between the two alternatives carried forward to the detailed analysis of alternatives for these 4 suboperable units is the location of the disposal facility. The total volume of contaminated soil for these 4

suboperable units represents over 65 percent of the contaminated soils in Operable Unit 3. The two alternatives for these 4 suboperable units consist of removal, treatment, and disposal. Additional alternatives could have been developed if various treatment, stabilization, and non-treatment technologies were considered.

3. RI information is still being collected that could significantly impact the development of alternatives. This data includes the results of the structural analysis of buildings, contamination of the buildings themselves, engineering properties of soils, characterization of material in containers, analysis for non-radiological contaminants, and treatability study investigations. The results of these investigations must be considered and reported in the detailed analysis of alternatives report.
4. The report is not consistent with the alternatives presented. For example, Alternative pairs 3/4, 5/6, 7/8, and 13/14 are identical except one alternative considers on-site disposal where the other considers off-site disposal. However, Alternatives 9, 10, and 12 considers both on- and off-site disposal within each alternative. This inconsistency should be reconciled.
5. All alternatives described in Chapter 4 that include treating excavated soils consider either soil washing, chemical extraction, or hydrocyclonic separation. However, other treatment technologies applicable to contaminated soils (i.e., thermal treatment and stabilization) were not screened from further consideration in Chapter 3 and must be considered.
6. The rating of 5 for constructability, reliability, maintainability, and special engineering under the no action alternatives for each suboperable unit is extremely misleading. These categories should receive a not applicable or zero rating. For example, the rating of 5 for reliability associated with no action is inappropriate, if no action was at all reliable there would be no need for any further action.
7. U.S. EPA is establishing a guideline that treatment as part of CERCLA remedies should generally achieve reductions of 90 to 99 percent in contaminant concentration or mobility of individual contaminants of concern. This guideline does recognize that a reduction of mobility or toxicity below 90 percent may achieve health based or other site specific remediation goals. The analysis of the reduction in mobility, toxicity, or volume is typically completed during treatability studies prior to the detailed analysis of alternatives. The results of the treatability studies and the analysis on significant reduction in mobility, toxicity,

or volume should be considered and reported in the detailed analysis of alternatives report.

8. The ISA report does not identify volumes or areas of media for which general response actions may apply until late in the ISA report (i.e., step 6). This approach is not consistent with U.S. EPA guidance (OSWER Directive No. 9355.3-01). This apparently caused the technology types and process options to be screened without considering site specific information. Insufficient screening resulted in alternatives with nonspecific remedial actions. For example, most alternatives carried through to the detailed analysis of alternatives consist of removal, treatment, and disposal. This type of remedial alternative could have been selected for detailed analysis without the screening process. Additional screening will need to take place prior to initiating the detailed analysis of alternatives.

#### SPECIFIC COMMENTS

9. Page ES-6: The ISA states that decontamination of buildings is not to be considered a remedial action under Operable Unit 3. This issue was discussed on U.S. EPA's September 10, 1990, letter. U.S. DOE can not arbitrarily exclude portions of the site from the remedial response action. This issue is raised again on page 1-11. Other regulatory programs such as RCRA closures, waste characterization, overpacking of drums, UST, and SPCC are Applicable or Relevant and Appropriate Requirements (ARARs) for the CERCLA response actions. All areas within this Operable Unit must be addressed in the revision of the ISA and all other documents for this operable unit.
10. Section 1.3.1, Page 1-10, para 1: All process buildings that were involved in handling, storage and process of pitchblende ore and yellowcake should be identified as suspect for radium contamination. All hazardous substances suspected to have contaminated buildings and other facilities within the production area must be identified.
11. Section 1.4.1, Page 1-11, Paragraph 3: The assumption of the Operable Unit #3 study is that compliance with other environmental programs will be adequate to address all the environmental concerns within the OU is incorrect. As previously stated, other regulatory programs are ARARs in the CERCLA remedial and removal process. See U.S. EPA's letter dated September 10, 1990.
12. Section 1.4.1, Page 1-12: Suboperable Unit E must include drummed materials. Suboperable Units C and D should include loose (removable) surface contamination on or within

facilities, or else should justify why this is not a potential release point.

13. Section 1.4.1, Page 1-12, Paragraph 3: Additional description of the suboperable units is needed. This description should include the location of each area, nature of contamination in each area, volume of contaminated materials, and potential risk to human and environmental receptors. This additional detail is necessary to allow for an independent evaluation of the adequacy and accuracy of the screening presented in the report. This information can be presented as a summary of the RI findings and attached as an appendix.
14. Table 1-2, Page 1-19: Plant 2/3 may have potential radium contamination based upon past pitchblende and yellowcake operations. This should be included or else justification provided why radium is not a contaminant.
15. Tables 1-1, 1-2, 1-3, 1-4: Technetium 99 is not listed as a "potential" contaminant in any of the facilities. Tc-99 is a common contaminant associated with UF<sub>6</sub> feed materials from recycled uranium. Because of high mobility, Tc-99 could affect soils and groundwater.
16. Section 1.4.4, Page 1-24, para 3: Radon and other hazardous substances must be measured in the K-65 slurry lines.
17. Section 1.4.4: The discussion concerning the nature and extent of contamination associated with the suspect areas is not supported with specific information from the field investigations.
18. Section 1.4.5, Page 1-27, Paragraph 1: The results of the non-radiological contamination investigation is necessary before conducting the detailed analysis of alternatives.
19. Table 5-1, Page 1-29: General categorization of all levels below 50 ppm uranium makes it impossible to consider cleanup at a lower level, or to estimate the extent of contamination or waste volumes for ALARA purposes, and is thus premature at this point.
20. Table 1-6, Page 1-30: Levels of 150-200 ppm radium identified in the drum area appear to be in the wrong units since this would correspond to .15-.2 millicuries per gram of radium. Also, the use of the term "no radioactive elements identified" should be explained giving sensitivities of measurements, etc.
21. Table 1-7, Page 1-32: The use of the category "less than 10,000 micrograms per liter" (uranium) should be clarified,

since this is several orders of magnitude greater than the proposed cleanup level for water.

22. Section 2.1.1, Page 2-4, Paragraph 3: The point of compliance for each medium occurring in each suboperable unit should be explicitly stated. For ground water, remedial action objectives should be met throughout the contaminant plume; or where waste is left in place, the point of compliance is the edge of the waste management unit.
23. Section 2.1.4.1, Page 2-8, para 1: The statement that an RAO which must be applied across all media is that total cancer risk from radionuclides not exceed  $2.5E-5$  is inconsistent with the individual RAO's listed in Table 2-2. In Table 2-2 the approximate risk level of  $2.5E-5$  is reached by radon, and by other radionuclides, is probably exceeded by 35 picocuries per gram soil residual uranium, and is probably not exceeded through the water pathway. In any case, the total cancer risk across all media, clearly would exceed  $2.5E-5$ . This should be clarified.
24. Section 2.1.4.1, Page 2-8 (and elsewhere in the document): The residual level of 35 picocuries per gram (pci/g) of uranium in soil is presented as "the acceptable residual concentration" through reference to the USNRC Branch Technical Position. The introduction of a cleanup level (or defacto cleanup level) at this point is premature. It should be made very clear that this level is only used as a benchmark or reference level for the purpose of estimating potential waste volumes.

The NRC Branch Technical Position is not final but only proposed. While it derives residual levels based upon 1 millirad lung and 3 millirad bone annual doses due to inhalation, which is conservative as far as U.S. EPA is concerned, it does not deal extensively with other pathways, and in particular, there is relatively high uncertainty as to what external exposure doses may result from these residual levels.

In addition, the Branch Technical Position derives residuals for other contaminants than depleted uranium, some of which should be considered for the FMPC. Levels of 30 pci/g for natural or enriched uranium (which has been processed at FMPC), 10 pci/g for uranium in equilibrium with all daughters (such as pitchblende ore also refined at FMPC) and for natural thorium (also refined and stored at FMPC), are all put forth.

In addition, past work with pitchblende ore opens the possibility of radium contamination, some of which has been

identified in OU#3. U.S. EPA has specified standards for cleanup of radium in soil which are codified at 40 CFR 192, which are ARARs.

Finally, the cleanup levels for this Operable Unit should be derived using combined risk of all radionuclide contaminants and hazardous substances as part of the Risk Assessment process. Following this, and prior to finalizing the remedial work plan, a studied application of the ALARA principle should occur, using RI data to do a cost benefit analysis. Until that time, it is premature to use any number as an acceptable residual for uranium in soil.

25. Section 2.1.4.2, Page 2-9, para 5: The 4 mrem/yr dose limit cited as attributable to 40 CFR 141.16 actually limits the dose to the whole body or to any organ to less than 4 mrem/yr, and as such is often more restrictive than is portrayed.
26. Section 3.1.3, Page 3-4, Paragraph 4: The text states that temporary caps and sump repair and replacement will be retained for further evaluation. However, Figure 3-3 (Page 3 of 6) indicates it was not applicable for soils contamination; where as Figure 3-3 (Page 5 of 6) temporary caps are applicable to facility floors. The screening steps would be more clear if the text and Figure 3-3 were prepared for media within each suboperable unit.
27. Section 3.1.3, Page 3-4, Paragraph 4: Figure 3-3 also does not match the text for in-situ vitrification.
28. Section 3.5.10, Page 3-19, Paragraph 2: The report lists two types of adsorption processes (carbon and alumina); but only discusses carbon adsorption.
29. Section 3.12.1, Page 3-30, Paragraph 3: The anticipated date of completing the structural analysis and soils properties investigation should be stated. This information is pertinent to the feasibility study and should be included in the remedial investigation and feasibility study reports.
30. Section 4.2.7, Page 4-14, Paragraph 1: Covering facility floors with a temporary synthetic cap does not address the possibility of contaminant release from leaking underground pipes or sumps.
31. Section 6.0, Page 6-6, Paragraph 2: On- and off-site disposal can not be ranked equal in regards to long term effectiveness. On-site disposal is slightly less effective because it requires engineering controls to continue the proper and safe management of contaminated materials remaining on-site. Although disposal off-site results in a

permanent solution for the site (because the contaminants are eliminated from the immediate area), there are other balancing criteria which may make off-site disposal less acceptable.

32. Section 6.0, Page 6-6, Paragraph 3: Containment is not a treatment technology by definition and cannot be considered as such. In addition, the last sentence appears to contradict the earlier discussion in this paragraph which states capping does not provide for sufficient reduction in contaminant mobility. U.S. EPA is establishing a guideline that a reduction of 90 to 99 percent in the concentration or mobility of an individual contaminant of concern should be achieved to qualify as a significant reduction in toxicity or mobility. This guideline does recognize that a reduction of less than 90 percent may achieve health based or other site specific remediation objectives. The analysis of the extent to which mobility or toxicity is reduced is required to be considered and reported in the detailed analysis of alternatives.
33. Section 6.0, Page 6-6, Paragraph 3: Thermal treatment and stabilization technologies were not screened from further consideration in Chapter 3. These technologies or process options should then also be included in the assembled alternatives. The statement that all excavated materials will be subject to treatment seems too narrow in scope and should also include the other treatment or solidification technologies.
34. Section 6.0, Page 6-6, Paragraph 4: Further clarification is needed on what is meant by the statement; "a loss of efficiency has been considered in the ranking."
35. Section 6.1, Page 6-8, Paragraph 2: The rationale for dividing the levels of contamination into two groups (i.e., 50 to 200 ppm and >200 ppm) should be provided. If there are special handling considerations for materials contaminated with >200 ppm total uranium, then it will be necessary to determine the quantity of materials in various contaminant ranges; specifically, soils in the Plant 6 area with uranium concentrations >15,000 ppm.
36. Section 6.1, Page 6-8, Paragraph 3: The amount of uncontaminated soil present in the interval between 5.5 to 10 feet below grade should also be included in the screening of alternatives. As the alternatives are described, it will be necessary to excavate and handle this material as part of excavating contaminated soils at deeper intervals. Therefore, the excavation and handling of all soils should be included in the alternative evaluation.

37. Section 6.4.2.6.2, Page 6-57, Paragraph 5: The constructability of this alternative should be no more difficult than either alternatives 7 or 8 which both include removing facilities.
38. Section 6.6, Page 6-71, Paragraph 7: The extent of uranium contaminated ground water above 30  $\mu\text{g}/\text{l}$  should be discussed. This may significantly effect the location and magnitude of the ground-water collection system considered.
39. Section 6.6.2.2.2, Page 6-77, Paragraph 6: The text describes a well point system as the ground-water extraction process option; however, the screening of ground-water extraction process options did not select a representative ground-water extraction process option. The text should consistently report the results of the process option screening.
40. Section 6.6.2.5.3, Page 6-81, Paragraph 2: The reported estimated cost of over \$250 million appears excessive. A relative cost of medium seems more appropriate for this alternative.
41. Section 7.1, Page 7-1, para 3: Portrayal of the 35 pci/g uranium residual in soil as a criteria for cleanup and source control is clearly premature and incorrect. It should not be portrayed as such.
42. Section 7.1, Page 7-3, Paragraph 1: Table 7-2 shows alternatives and associated technology types not process options.
43. Section 7.2.2, Page 7-7, Paragraph 1: A description of the extent of uranium contamination exceeding the remedial action objective of 30  $\mu\text{g}/\text{l}$  would also be appropriate in this section.
44. Section 7.5, Page 7-11, Paragraph 4: The results of the treatability studies will have a significant impact on the detailed analysis of alternatives. The results of the treatability studies should be considered and presented in the detailed analysis of alternatives report.

U.S. DOE must submit a revised ISA for OU#3 within thirty (30) days of the date of this letter. In accordance with the 1990 Consent Agreement, the revision must be modified to correct all deficiencies identified by U.S. EPA in this letter.

If there are any questions regarding this matter, I may be contacted at (312/FTS) 886-4436.

Sincerely,



Catherine A. McCord  
Remedial Project Manger

cc: Richard Shank OEPA  
Graham Mitchell, OEPA - SWDO  
Leo Duffy, U.S. DOE - HDQ  
Joe LaGrone, U.S. DOE - ORO

bcc: Ralph R. Bauer, ORA  
David A. Ullrich, WMD  
Bertram C. Frey, ORC  
Dale Bryson, WD  
Robert Springer, PMD  
William H. Sanders, III, ESD  
William E. Muno, WMD  
Kevin Pierard, WMD  
Len Robinson, ORC  
Mary Butler, ORC  
Sandra Lee, ORC  
David Kee, ARD  
Dan O'Riordan, OPA  
Rose Freeman, ORA  
Gordon Davidson, OE, OS-530  
William Duncan, OE, OS-530  
Ed Schuessler, PRC

DOE DISK#5:OU#3-SIA.nov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

1878

41

DEC 21 1990

REPLY TO ATTENTION OF:

5HR-12

Mr. Andrew P. Avel  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

1169?

Re: OU#3 ISA Disapproval  
U.S. DOE Fernald  
OH6 890 008 976

Dear Mr. Avel:

On September 24, 1990, the United States Department of Energy (U.S. DOE) submitted a draft Initial Screening of Alternatives (ISA) report (a primary document) for Operable Unit (OU) #3 (Production area and other suspect areas). The United States Environmental Protection Agency (U.S. EPA) disapproved this draft report on October 24, 1990. Pursuant to Section XII of the 1990 Consent Agreement, U. S. DOE was required to submit a revised draft ISA report that addressed all the deficiencies identified by U.S. EPA.

On November 21, 1990, submitted a revised draft RI report to U.S. EPA. In accordance with Section XII.B of the Consent Agreement, U.S. EPA reviewed the revised ISA report. Based upon this review, U.S. EPA has determined that the report did not address all of the deficiencies identified in U.S. EPA's October 24, 1990, letter. Additionally, U.S. DOE failed to address the entire operable unit, as defined by the 1990 Consent Agreement. The ISA report was not developed in accordance with the requirements of the Consent Agreement, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and applicable U.S. EPA guidance and policy, as required by Section X.C of the 1990 Consent Agreement.

Section X.C.3 of the Consent Agreement defines the scope of OU#3 as the "production area and suspect areas outside the production area (including effluent line to Great Miami River". U.S. DOE has failed to include all waste and other drummed material, underground storage tanks, thorium, and buildings in the ISA report. U.S. DOE's failure to include the required elements in the remedial action for OU#3 has been discussed with U.S. DOE on

numerous occasions including project management meetings and negotiations for Applicable Relevant and Appropriate Requirements (ARARs). Written notice of this deficiency was provided in U.S. EPA's disapproval of the initial draft ISA report on October 24, 1990 and a September 9, 1990, letter specifically on this issue. U.S. DOE has failed to correct this deficiency throughout the remedial effort. U.S. DOE has acknowledged an awareness of this problem and that there has been a failure to direct RI/FS contractor to do the proper work. The entire facility is on the National Priorities List (NPL) and nothing in the NCP, CERCLA, the 1990 Consent Agreement allows portions of the site to be excluded from the requirements of CERCLA for NPL sites. U.S. DOE's failure to submit an ISA report that complies with the NCP constitutes a violation of the express terms of Section X.C of the Consent Agreement.

Based on the above, U.S. EPA is disapproving the revised draft ISA report. Since this is the second disapproval of this document, this letter constitutes a notice of dispute in accordance with Section XII of the Consent Agreement. In addition to the deficiencies cited above, U.S. EPA has noted other deficiencies in the revised draft ISA report. These deficiencies are presented below:

1. As stated above, U.S. DOE failed to address all required elements of this Operable Unit in the ISA report.
2. The ISA report does not present an adequate screening of process options as required by Section 4.2.5 in the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive 9355.3-01). Because process options were not adequately screened, alternatives were assembled from technology types and not process options. This resulted a limited range of alternatives that generally consist of excavation, unspecified treatment and disposal. A wider range of alternative could have been assembled if alternative were assembled considering a variety of non-treatment and treatment process options.
3. Although the ISA report implies that remediation goals will be set for the perched aquifer, it does not establish a point of compliance. A point of compliance must be established in the perched aquifer to monitor the effectiveness of remediation and demonstrate compliance with the established remediation goals.
4. U.S. DOE proposal to take the approach to complete treatability studies and other characterization activities after the record of decision (ROD) and during the preliminary design. This is an unacceptable proposal because much of the information proposed to be gathered in the preliminary remedial design should be considered in the detailed analysis.

5. U.S. DOE's proposal not to remediate the perched aquifer to remediation goals typically used for drinking water aquifers (i.e., 1E-04 to 1E-06 risk range) is unacceptable. While this remediation strategy is generally consistent with the proposed 264 Subpart S requirements (55 Fed Reg 30798), the remediation goals would not meet the target risk range. The National Contingency Plan (NCP) requires that groundwater be remediated throughout the contaminant plume (55 Fed Reg 8713). In addition, the RCRA Ground Water Monitoring Technical Enforcement Guidance Document (TEGD) (9959.1) defines the upper most aquifer to include all groundwater pathways of potential contaminant migration including perched water zones. Thus, the perched aquifer is to be remediated to 1E-04 to 1E-06 risk range.
6. Most alternatives carried forward to the detailed analysis of alternatives are a collection of remedial technologies. The ISA report should present a screening of technology process options, as suggested in Section 4.2.5 in the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive 9355.3-01).
7. The response to U.S. EPA's comment No. 2 (October 24, 1990, disapproval of initial draft OU#3 ISA report) is not adequate. Alternatives could have been developed that involve different treatment strategies. Examples of alternatives which could have been developed are:
  - Excavate and conduct soil washing followed by no treatment prior to disposal.
  - Excavate and conduct soil washing followed by thermal treatment prior to disposal.
  - Excavate and conduct soil washing followed by stabilization prior to disposal.

Selecting a treatment strategy in the remedial design process (as proposed in U.S. DOE's response) does not meet the requirement that the final remedy be objectively against the nine evaluation criteria. The process of selecting a treatment strategy in the remedial design phase must include an evaluation of the nine evaluation criteria.

8. The response to U.S. EPA comment No. 3 is not adequate. Information that is essential to the detailed analysis must be collected and reported in the detailed analysis of alternatives. For example, the engineering properties of soils must be determined before an on-site disposal facility can be evaluated; and treatability studies need to be

completed before evaluating treatment strategies. These are only two examples of the necessary information listed in U.S. EPA's original comment.

9. The response to U.S. EPA comment No. 7 is not adequate. U.S. EPA is establishing, as a guideline, that treatment as part of CERCLA remedies should generally achieve reductions of 90 to 99 percent in contaminant concentration or mobility of individual contaminants of concern (55 Fed Reg 8721). The results of these treatability studies should be considered and reported in the detailed analysis -- not simply incorporated into the feasibility study when available.
10. The response to U.S. EPA comment No. 9 is not adequate. The scope of Operable Unit 3 was determined in the 1990 Consent Agreement. As stated above, the scope of the ISA report document did not comply with the Consent Agreement and is deficient.
11. The response to U.S. EPA comment No. 16 is not adequate. The detailed analysis of alternatives cannot be completed without identifying the areas, volumes, and concentrations of contamination. The response to U.S. EPA's comment states that a work plan is currently being prepared to address additional sampling in the area along the K-65 slurry lines. These results must be incorporated into the RI/FS.
12. The response to OEPA comment No. 15 is not adequate. The results of the FMPC Outfall Pipeline Investigation are suspect because an inappropriate pressure testing procedure was used. Additional characterization may be necessary to determine if there are other areas of potential leakage. In addition, U.S. DOE has not conducted sampling in the areas identified as potentially contaminated.
13. The response to U.S. EPA comment No. 22 is not adequate. U.S. DOE must establish remediation goals for the perched aquifer. U.S. DOE has already stated in the report that this will be determined to be at a level at or below the FMPC action levels in the Great Miami Aquifer after migration from the perched aquifer has occurred. Remediation goals for the perched aquifer may be set at some concentration that does not result in a cumulative risk of less than  $1E-04$ , but such goals must be justified and approved by U.S. EPA. Secondly, a point of compliance must be established in the perched aquifer to monitor the effectiveness of ground-water remediation and demonstrate compliance with established ground-water remediation goals. Finally, the identification of the point of compliance for drinking water remediation goals in the Great Miami Aquifer is too general. DOE should specify the exact boundary of

the waste unit. It should also be noted that monitoring wells located in Operable Unit 3 and screened in the Great Miami Aquifer have detected total uranium concentrations above the FMPC action levels.

14. The response to U.S. EPA comment No. 29 is not adequate. The results of the soil properties investigation and structural analysis should be completed and considered in the detailed analysis of alternatives. The results of these studies may affect the implementability and cost of the alternatives.
15. The response to U.S. EPA comment No. 30 is not adequate. The Best Management Practices (BMP) and Spill Prevention, Control and Countermeasures (SPCC) programs are required by the Consent Agreement to be incorporated into the site-wide RI/FS program.
16. The response to U.S. EPA comment No. 33 is not adequate. Treatment technologies can be combined to create separate alternatives. In addition, non-treatment prior to disposal could also be evaluated as a separate alternative.
17. The response to U.S. EPA comment No. 35 is not adequate. If special handling considerations affect any of the evaluation criteria, they should be considered in the detailed analysis, not in the final design of the remedial action.
18. The response to U.S. EPA comment No. 42 is not adequate. Although the wording was changed in the revised report to properly state that Table 7-2 shows 14 alternatives and associated technology types, alternatives are required to be assembled from process options before the detailed analysis of alternatives can begin.
19. The response to U.S. EPA comment No. 44 is not adequate. Although U.S. DOE states that the results of the treatability study will be considered in the detailed analysis of alternatives, U.S. EPA has not yet received a work plan for the treatability study.

The draft ISA report cannot become final until all of the deficiencies outlined above, have been adequately addressed by U.S. DOE. Accordingly, U.S. EPA hereby invokes dispute resolution as provided under Paragraph B of Section XIV of the 1990 Consent Agreement. U.S. EPA recommends that we commence informal dispute resolution on January 3, 1991, at 10:00 in Chicago.

Please contact me at (312/FTS) 886-4436, if there are any questions regarding this matter.

Sincerely yours,



Catherine A. McCord  
Remedial Project Manager

cc: Richard Shank, OEPA - CO  
Graham Mitchell, OEPA - SWDO  
Joe LaGrone, U.S. DOE - ORO  
Leo Duffy, U.S. DOE - HDQ

bcc: Ralph R. Bauer, ORA  
David A. Ullrich, WMD  
Bertram C. Frey, ORC  
William E. Muno, WMD  
Kevin Pierard, WMD  
Len Robinson, ORC  
Mary Butler, ORC  
Sandra Lee, ORC  
David Kee, ARD  
Dan O'Riordan, OPA  
Rose Freeman, ORA  
Pat Van Leeuwan, 5HS-Tub7  
Gordon Davidson, OS-530  
Sally Mosely, OS-530  
William Duncan, OS-530  
Ed Schuessler, PRC

Attachment D



**Department of Energy**

FMPC Site Office  
 P.O. Box 398705  
 Cincinnati, Ohio 45239-8705  
 (513) 738-6319

June 22, 1989  
 DOE-1229-89

*app  
 before signed*

Mr. William Constantelos  
 U.S. Environmental Protection Agency  
 Region V  
 Waste Management Division (5HR-12)  
 230 South Dearborn Street  
 Chicago, Illinois 60604

Dear Mr. Constantelos:

**DRAFT INTERAGENCY AGREEMENT (IAG) BETWEEN THE FMPC AND EPA  
 REGION V**

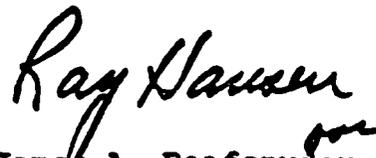
Reference: Letter, V.V. Adamkus to Joe La Grone,  
 dated June 12, 1989

As a result of the teleconference discussions held on June 15, 1989, DOE is providing comments on the draft IAG for your use in either revising the current Federal Facilities Compliance Agreement (signed July, 1986) or for preparing a three-party agreement which allows the Ohio EPA an opportunity to be a signatory to a joint USEPA-V/Ohio EPA/DOE agreement.

Our comments on the draft IAG can be found in the enclosures to this letter. The comments are in two forms; (1) a summary of major comments, and (2) a marked-up copy of the draft IAG. The summary of major comments addresses sections of the IAG that received extensive comments. You will note that consistency in approach between the Remedial Investigation and Feasibility Study (RI/FS), removal actions, remedial actions, and the proposed National Contingency Plan (proposed rule issued: 12-21-89) is emphasized in a majority of the comments. For this reason we believe it is prudent to rewrite the sections on removal actions and the RI/FS and to provide these to you. We would like to meet with you to discuss our comments on or about July 14, 1989. We will provide the revised sections of the draft IAG prior to this date.

If you have any questions on the enclosed comments, please contact Margaret Wilson of my staff at FTS 774-6161 or (513) 738-6161 or Larry Sparks of our Environmental Protection Division at FTS 626-9428 or (615) 576-9428.

Sincerely,



James A. Reafsnyder  
Site Manager

SE-31:Sparks

Enclosures:

- 1) Summary of Major Comments on the Draft IAG
- 2) Marked-Up copy of the Draft IAG

cc w/encl.:

C. McCord, USEPA  
G. Mitchell, Ohio EPA  
L. Dever, EH-23  
W. R. Bibb, DP-80, DOE/ORO  
L. Sparks, SE-31, DOE/ORO  
R. Allen, DP-122

SUMMARY OF MAJOR COMMENTS  
ON THE  
DRAFT INTERAGENCY AGREEMENT  
BETWEEN THE  
FEED MATERIALS PRODUCTION CENTER  
AND THE  
ENVIRONMENTAL PROTECTION AGENCY REGION V

Under the Jurisdiction Section, the following comments are offered:

1. Section 106(a) gives the President the authority to take action when an imminent and substantial endangerment to public health and welfare or the environment is determined to exist. This authority has been delegated to the Secretary of Energy for facilities under his jurisdiction or control via Executive Order 12580. DOE will use this authority to carry out removal actions, but it should not be cited as an authority by which DOE enters into the IAG.
2. This section does not reference RCRA Section 3004(u) corrective action authorities. Section 3004(u) should be included in this section of the IAG. In this manner, the section on RCRA-CERCLA integration can state that when the RCRA permit is issued, the IAG will form the basis for how corrective actions under RCRA will be carried out.

Under the Application Section, it is DOE's intent is to eliminate the FFCA with the execution of this IAG. In this regard, we are reviewing the FFCA to determine what actions still remain to be accomplished that are not being incorporated into this IAG and exploring options on how to handle them.

In an appropriate section, a discussion of the State of Ohio involvement in the RI/FS process needs to be added. Even if the State will not be a party to the IAG, their involvement should be explained for the benefit of other parties.

In the Findings of Fact and Conclusions and Determinations of Law Section, there are some statements that are not appropriate for this section. Also, there has been no demonstration of a release of hazardous waste constituents from a regulated unit within the meaning used in this section.

In the Definitions Section, all terms that are defined in the regulations should be deleted and the appropriate regulation cited instead (e.g., the NCP). Where CERCLA and RCRA both define a term, the CERCLA definition should take precedence since an RI/FS under CERCLA is the primary vehicle of investigation. Only terms unique to this IAG should be contained in this IAG. This will reduce the size of the IAG and allow for changes in the regulations with respect to definitions to be immediately implemented.

B. Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of CERCLA, including Section 113(h) of CERCLA.

C. The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

*Penalties for EPA not fulfilling their roles?*

*Should only be operative only after we are listed on the NPL.*

XVII. STIPULATED PENALTIES

*Not listed as APPROPRIATE document in Section III C.*

A. In the event that the U.S. DOE fails to submit a primary document

(i.e., ~~FS Work Plan, Risk Assessment, RI Report, Initial Screening of Alternatives, FS Report, Proposed Plan, Record of Decision, Remedial Design, Remedial Action Work Plan~~) to U.S. EPA pursuant to the appropriate timetable

or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to an interim or final remedial action, U.S. EPA may assess a stipulated penalty against the U.S. DOE. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof), and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Paragraph occurs.

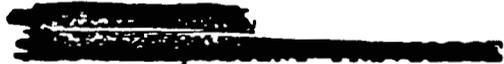
B. Upon determining that the U.S. DOE has failed in a manner set forth in Paragraph A, U.S. EPA shall so notify the U.S. DOE in writing. If the failure in question is not already subject to dispute resolution at the time

*delete primary documents have already been defined.*

*removal(?)*

11/8/89  
Δ

7/14/89  
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8/23/89  
NEGOTIATING



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

DRAFT 07/14/89

IN THE MATTER OF:

U.S. DEPARTMENT OF ENERGY  
FED MATERIALS PRODUCTION CENTER  
FERNALD, OHIO

OH6 890 008 976

- Intergency Agreement  
- Agreement  
CONSENT AGREEMENT UNDER  
CERCLA SECTION 120 and  
106(a) (see page not used)  
Administrative  
Docket Number:

Based on the information available to the Parties on the effective date of this Agreement, and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

Introduction

I. JURISDICTION

Each Party is entering into this Agreement pursuant to the following authorities:

A. The United States Environmental Protection Agency (U.S. EPA), Region V, enters into those portions of this Agreement that relate to the completion of remedial investigations/feasibility studies (RI/FS), pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA/SARA or CERCLA),

A. In the event that the U.S. DOE fails to submit a primary document [(i.e., FS Work Plan, Risk Assessment, RI Report, Initial Screening of Alternatives, FS Report, Proposed Plan,) or draft Record of Decision to U.S. EPA pursuant to the appropriate timetable or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to a [interim] removal or final remedial action, U.S. EPA may assess a stipulated penalty against the U.S. DOE. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof), and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Paragraph occurs.

B. Upon determining that the U.S. DOE has failed in a manner set forth in Paragraph A, U.S. EPA shall so notify the U.S. DOE in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, the U.S. DOE shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. The U.S. DOE shall not be liable for the stipulated penalty assessed by U.S. EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 5 1989

Dennis J. Harnish  
Assistant Attorney General  
State of Maine  
Department of the Attorney General  
State House Station 6  
Augusta, Maine 04333

Dear Dennis:

Thank you for your letter summarizing the concerns you have with using the Citizen's Suit provisions of CERCLA section 310 as the mechanism for enforcing the Brunswick Naval Air Station Interagency Agreement (IAG). EPA and the Department of Justice (DOJ) believe CERCLA section 310 provides Maine with an effective and efficient means of enforcing the IAG, as evidenced by the following response to your letter. We have addressed each of your concerns individually. We ask that you reconsider your position in light of this response.

A. Standing.

You express concern that, in any enforcement action you might bring, the Navy might argue that a state is not a "citizen" empowered to bring a citizen suit under section 310 of CERCLA. You cite two cases constraining the Clean Water Act's possible authority. As you also note, however, the Clean Water Act's definition of a "person" who may bring a citizen suit does not include a state, whereas CERCLA's definition of "person" does. We believe this distinction would preclude the successful use of Clean Water Act precedent on this issue. In addition, while the citizen suit provision requiring that notice be given to a state may seem to lead to the result that a state suing under section 310 must first give notice to itself, this peculiarity cannot reasonably be read to indicate that the citizen suit provision is not available to a state.

More importantly, EPA itself interprets sections 101(21) and 310 to allow a state to bring a citizen suit to enforce a section 120 IAG. We believe that this interpretation is already reflected in the enforceability provisions of the proposed IAG for Brunswick; however, we have no objection to adding language that explicitly references the state as a person with the right to bring such a suit, i.e., your proposed "including any party" language in the Enforceability section.

Finally, we think it unlikely that either the Navy or DOJ, on behalf of the Navy, would take a contrary position at some later date. Through the Model IAG developed between EPA and the Department of Defense (DOD), DOD has already agreed to the enforceability language we have proposed for Brunswick. In addition, in closely analogous circumstances DOJ has also agreed that an IAG is enforceable by a signatory state in accordance with the enforceability provisions of the agreement. (See the attached letter from Donald A. Carr, Acting Assistant Attorney General, Lands and Natural Resources Division, DOJ, dated February 26, 1989, concerning the Hanford facility in the State of Washington.) Given the unanimity among EPA, DOD, and DOJ on this issue, we do not believe there is any possibility that you may be faced with a challenge to your standing to bring a CERCLA citizen suit for enforcement of this IAG.

#### B. Jurisdiction over RI/FS.

Your second concern is that those portions of the IAG which relate to activities occurring prior to the completion of the RI/FS may not be enforceable by citizen suit because section 120 of CERCLA mandates IAGs only after the RI/FS is completed. We believe this concern is also unfounded. It is true that the Navy is not required to enter an IAG prior to the completion of the RI/FS process. However, once the Navy has agreed to an IAG, each of the provisions of the IAG that relate to a CERCLA action becomes enforceable under section 310 as a "standard, regulation, condition, requirement, or order which has become effective pursuant to this Act."

We believe the enforceability language in section 21.1 of the proposed Brunswick agreement already reflects this interpretation of the statute. Since your proposed addition is consistent with our reading of the statute, we would not object to its incorporation. In addition, the Department of Justice agreed as to the Hanford IAG that "The CERCLA provisions of this agreement are enforceable pursuant to section 310 of CERCLA." We would expect them to take the same position here.

#### C. Procedural Pre-Conditions.

You raise two concerns about procedural hurdles to a citizen suit. First, you consider the 60-day notice requirement an obstacle to enforcement. While we agree that it would result in a slight delay in the commencement of a lawsuit, we do not believe that this delay reduces the effectiveness of a citizen suit as a means of redressing IAG violations. A major purpose of the notice provision is to afford a violator the chance to correct violations before a suit is brought; the result is compliance at an earlier date than can generally be achieved through litigation, and with a minimal commitment of resources on the part of the enforcing authority.

Secondly, you raise the possibility that the existence of an IAG might be taken as evidence that EPA "has commenced and is diligently prosecuting an action" under CERCLA, thus precluding a citizen suit. See CERCLA section 310(d)(2). We disagree that the statute can be so construed. Since EPA will always be a party to any section 120 IAG, the reading of the statute that you propose would mean that a citizen suit could never be brought for IAG violations; this would render meaningless the express language in section 310(a)(1) authorizing citizen suits for IAG violations. Moreover, section 310(d)(2) itself indicates that only an action by EPA to enforce the IAG would bar a similar citizen suit; the statute limits citizen suits only where EPA has brought an action "to require compliance with the standard, regulation, condition, requirement, or order concerned (including any provision of an agreement under section 120)." CERCLA section 310(d)(2) (emphasis added). Thus, we do not believe that the argument you foresee could be made in good faith. Again, however, this issue is unlikely to arise because the Navy's agreement to the enforceability provisions of the Brunswick IAG will indicate their agreement that a citizen suit is an appropriate mechanism for enforcement of the IAG's terms. The DOJ letter should also provide reassurance on this point.

#### D. Remedies.

Your next concern is that, in any citizen suit that the State might bring to enforce the IAG, you would be unable to collect civil penalties that would be paid to the State. We agree that CERCLA makes no provision for a citizen to collect civil penalties for its own benefit. While a citizen will thus be unable to profit from a suit, this will not lessen the effectiveness of such a suit in achieving a violator's return to compliance. This limitation, then, does not impair the enforceability of an IAG by a state.

You propose, nonetheless, to add several lines to section 21.3, providing that the IAG also "constitutes an administrative order entered by consent between the Navy and DEP pursuant to 38 M.R.S.A. sections 347(1) and 1365 and is enforceable in the same manner as administrative consent orders including, without limitation, seeking civil penalties and judicial enforcement pursuant to 38 M.R.S.A. sections 348, 349, 1304(12) and 1365." As you know, Federal agencies are subject to state laws respecting hazardous waste disposal only to the extent that section 6001 of the Resource Conservation and Recovery Act waives sovereign immunity. As you are aware, DOJ on behalf of various agencies and departments including the Navy, has consistently maintained that section 6001 does not waive sovereign immunity from penalties. We suggest that the IAG be silent on the subject of state penalties, (and that the proposed language not be included), thus allowing each party to preserve its position on this issue for future resolution, if necessary.

E. Prospective Relief Only.

Your final concern about the citizen suit provision is that it may be unavailable to address past violations. As you point out, the citizen suit provision of the Clean Water Act has been construed to require that violations be ongoing or likely to recur at the time the citizen's complaint is filed in order for the court to have jurisdiction. Gwaltney of Smithfield v. Chesapeake Bay Foundation, Inc., 108 S. Ct. 376 (1987). Because of the similarity between the citizen suit provisions in the Clean Water Act and CERCLA, this requirement would likely apply in any section 310 suit to enforce the terms of an IAG.

We do not believe, however, that this impairs the effectiveness of such a suit in enforcing compliance with the IAG. As previously noted, if a violator comes into compliance between the time it receives a 60-day notice and the time a complaint is filed, then compliance is achieved sooner than it would be through litigation, and at a lesser cost to the enforcing citizen. In any event, since CERCLA does not provide for civil penalties to be paid to a citizen, the benefit to the State of filing an action after compliance is achieved is doubtful.

Your final concern, that the holding in Gwaltney may be extended to support dismissal of an action on mootness grounds even after a complaint is filed, does not appear to be supported by the post-Gwaltney case law. See Sierra Club v. Simkins Industries, Inc., 847 F. 2d 1109 (4th Cir. 1988); Sierra Club v. Union Oil Co. of California, 853 F. 2d 667 (9th Cir. 1988).

I believe this response should satisfy the concerns you expressed about using the Citizen's Suit provisions of CERCLA section 310. Please call me if you would like to discuss our position further.

Sincerely,

*Linda Southland*

Gordon Davidson, Deputy Director  
Federal Facilities Hazardous Waste  
Compliance Office

Enclosure

cc: Charlotte Head, EPA  
Ronald L. Springfield, Navy  
David Olson, Navy