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U.S. DOE REQUEST FOR EXTENSION OF OU4 MILESTONES

10/02/96

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COMMENTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF: \_\_\_\_\_

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

SRF-5J

RE: U.S. DOE Request for  
Extension of OU 4  
Milestones

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has carefully reviewed and considered the United States Department of Energy's (U.S. DOE) September 26, 1996, Operable Unit (OU) 4 Request for Extension Under Section XVIII (Extensions) of the 1991 Amended Consent Agreement (ACA). However, for the following reasons, U.S. EPA does not concur with U.S. DOE's extension request.

U.S. DOE requests extensions for submittal of the following OU 4 milestones: 1) New Radon Treatment System, Title I Design (September 30, 1996); 2) Phase II Remedial Action Work Plan (October 7, 1996); 3) Vitrification Plant, Title I Design (December 4, 1996); 4) Silo Superstructure Award/Construction (November 13, 1996); 5) Design Criteria Package, Pre-Final (December 4, 1996); and 6) New Radon Treatment System, Title I/II Design, Pre-Final (January 2, 1997).

Pursuant to Section XVIII, paragraph A, of the ACA, "a timetable, deadline, or a schedule shall be extended when good cause exists." Good cause is defined in Section XVIII, paragraph B, of the ACA and includes delay caused by (1) an event of Force Majeure, (2) the fault of another party, (3) the good faith invocation of dispute resolution, (4) the grant of any other extension, or (5) any other event or series of events that the parties agree constitutes good cause. In its request, U.S. DOE states that good cause for the requested extensions exists as a result of the "...inability to collect quantitative performance data that would aid in developing and demonstrating the application of the vitrification treatment technology to the OU 4 residues."

Specifically, the schedule slippage was a result of: retrofitting of the melter into the balance of the plant; late delivery of the melter components and documents; significant underestimation of

*partial action  
response to  
doe-1349-96/10p*

the time necessary to turnover the Construction Acceptance Test (CAT) packages to Systems Operability Testing (SOT); decrease in anticipated system operating efficiency based on other vitrification experiences at other sites; and equipment reliability and maintainability associated with the slurry feed preparation system, off-gas system, cooling water in the melter, gem machine, and outside support systems.

U.S. EPA recognizes the inherent complexities involved in the development of an innovative technology such as vitrification. However, U.S. DOE's request does not specify, nor can U.S. EPA find, any evidence of an event of Force Majeure (See Section XIX of the ACA), fault attributable to another party, dispute resolution, or any other extension. Consequently, if good cause exists, it must be an event or series of events that both U.S. EPA and U.S. DOE agree constitutes good cause (See Section XVIII. B. of the ACA).

On May 15, 1996, U.S. DOE submitted the final Remedial Design Work Plan (RDWP). This final version included a realignment of activities which requested that the Vitrification Pilot Plant (VITPP) activities be completed before design of the full-scale vitrification facility. This would promote a "lessons-learned" approach. U.S. EPA agreed with this approach and approved the RDWP. The RDWP extended the schedule for the initiation of remedial process facility operations by 14 months. However, through acceleration of final site remedial activities the net impact for completion of all remedial activities in OU 4 was only five months. The RDWP included Figure 5-4 (Remedial Design Summary Schedule) which indicated vitrification plant operations would begin in December 1998 and be completed by December 2001. An integral part of this schedule was VITPP operations which were scheduled to begin in September 1995 and be completed in July 1996.

In a meeting on October 26, 1995, and in a subsequent November 3, 1996, letter U.S. DOE indicated for the same reasons mentioned in the extension request, that delays in the VITPP start-up had occurred which would result in a 17 month slip in completion of the VITPP project, and ultimately a similar delay in the initiation and completion of the Silo remediation project. In the November 3, 1996, letter a schedule was included for the VITPP. Operations were scheduled to begin by March 26, 1996. Also at that time, all parties agreed that until the VITPP became operational it was too early to determine the ultimate remediation schedule. In January 1996, representatives of U.S. DOE, U.S. EPA, and the Ohio Environmental Protection Agency began conducting weekly conference calls to track the progress of the VITPP start-up and operations. As a consequence of poor coordination between design and construction phases, the VITPP operations did not begin until May 18, 1996, nearly two months later than scheduled.

Once VITPP operations began, it became evident that the operating efficiency of the VITPP was not as high as had been anticipated. In addition, questions arose concerning equipment reliability and maintainability associated with the slurry feed preparation system, off-gas system, cooling water in the melter, gem machine, and outside support systems.

These equipment reliability issues for both the vitrification unit and auxiliary systems were highlighted in an August 20, 1996, meeting. It became clear that the ultimate path forward to either continue with vitrification or pursue alternative remedies for the Silo materials would not be known, until the VITPP Phase I operations were completed and the data could be evaluated. This places the ultimate path forward for the Silo project on hold until at least March 1997.

Thus, U.S. DOE has submitted a request for milestone extensions, despite not knowing the length of the extension, as required by Section XVIII A.2 of the ACA. These delays also impact a related timetable: the initiation and completion of Silo remediation. This fact was not included in the extension request, as required pursuant to Section XVIII A.4 of the ACA. Therefore, not only does the request for extension fail to provide the information required pursuant to Section XVIII of the ACA, it does not illustrate U.S. DOE's best efforts to demonstrate good cause to rectify the situation and avoid such schedule delays.

The extensive time spent retrofitting the melter into the plant, the late delivery of the melter components and documents, the significant underestimation of the time necessary to turnover CAT packages to SOT, and the significant decrease in initially projected operating efficiency, all demonstrate poor planning and management on behalf of U.S. DOE between the design and construction phases of the VITPP project. This fact was discussed in several meetings including those of October 26, 1995, and August 20, 1996.

Although decreases in operating efficiency, equipment malfunction and reliability are all part of developing an innovative technology, much of this occurred once the VITPP was constructed and operating. It was through the operation of the VITPP and the initial campaigns that concerns regarding the ultimate reliability of the vitrification and auxiliary systems developed. Had U.S. DOE better managed design, construction, and start-up of the VITPP, operations would have started sooner and U.S. DOE would be able to determine the ultimate fate of vitrification, and not be awaiting a decision point in March 1997.

U.S. EPA recognizes U.S. DOE's recent good faith efforts to prioritize the VITPP project, and that U.S. DOE is currently making all efforts to keep the project on track by conducting weekly conference calls, researching value engineering efforts to

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upgrade the VITPP to be used in full-scale vitrification, investigating alternative treatment methods for Silo 3 to complete some Silo remediation as soon as possible, and developing a technical review committee to bolster technical capabilities. However, these several activities have only become necessary because of U.S. DOE's poor coordination of past design and construction activities.

Therefore, U.S. EPA denies U.S. DOE's request for extension as the request does not meet the requirements for schedule extensions established in Section XVIII of the ACA, and the request does not demonstrate good cause to support the requested extensions. U.S. DOE had ample opportunity within the schedules established in the OU 4 RDWP to resolve any design problems and proceed with development of the VITPP. Under these circumstances, U.S. EPA cannot concur with U.S. DOE's position that there is good cause for the requested extension.

#### PENALTIES

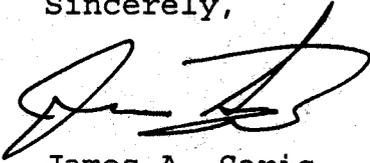
U.S. DOE has in effect notified U.S. EPA that the following milestones will not be met: 1) New Radon Treatment System, Title I Design (September 30, 1996); 2) Phase II Remedial Action Work Plan (October 7, 1996); 3) Vitrification Plant, Title I Design (December 4, 1996); 4) Silo Superstructure Award/Construction (November 13, 1996); 5) Design Criteria Package, Pre-Final (December 4, 1996); and 6) New Radon Treatment System, Title I/II Design, Pre-Final (January 2, 1997). These missed milestones will also impact the initiation and completion of the OU 4 Silo remediation. Pursuant to Section XVII of the ACA, U.S. EPA gives notice of its intent to assess stipulated penalties for U.S. DOE's failure to meet such milestones in a timely fashion.

#### DISPUTE RESOLUTION

In the event U.S. DOE invokes dispute resolution regarding U.S. EPA's decision not to concur with the requested extensions, U.S. EPA suggests that the parties agree to resolve all existing and reasonably foreseeable and related disputes in a consolidated manner in order to avoid multiple and essentially duplicative dispute resolution procedures. U.S. EPA also recommends that best efforts be used to keep the dispute at the informal level until such time that all parties agree the dispute must be escalated.

If you have any questions regarding this matter, please contact me at (312) 886-0992.

Sincerely,



James A. Saric  
Remedial Project Manager  
Federal Facilities Section  
SFD Remedial Response Branch #2

cc: Tom Schneider, OEPA-SWDO  
Jack Baublitz, U.S. DOE-HDQ  
John Bradburne, FERMCO  
Charles Little, FERMCO  
Terry Hagen, FERMCO  
Tom Walsh, FERMCO