Department of Energy
Richland Field Office
P.O. Box 550
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OCT 0 5 1992

93-TPA-003

Mr. Paul T. Day
U.S. Environmental Protection Agency
Region 10
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. David B. Jansen, P.E.
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Messrs. Day and Jansen:

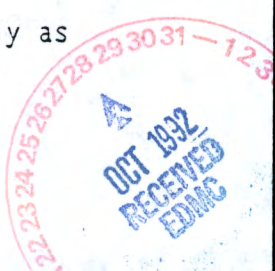
REPLY TO THE AUGUST 25, 1992, REQUEST FOR ADDITIONAL INFORMATION IN SUPPORT OF THE M-19-00 MILESTONE CHANGE REQUEST

This letter transmits the additional information requested concerning the Waste Isolation Pilot Plant - Waste Acceptance Criteria (WIPP-WAC) and its relationship to the need to submodularized the Waste Receiving And Processing Facility (WRAP) Module II. The U.S. Department of Energy, Richland Field Office (RL) believes that this concludes the remaining items raised during our informal negotiations on the Change Request to Milestone M-19 of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement). This Change Request would separate those portions of the WRAP II Project that are impacted due the WIPP-WAC (i.e., WRAP IIB) from those portions of the project that are not impacted by the WIPP-WAC (i.e, WRAP IIA). The WRAP IIA portion of WRAP II is currently on schedule for a September 1999, completion date in accordance with M-19-00.

If there are additional items to be discussed, it is important to hear from the State of Washington Department of Ecology (Ecology) at the soonest possible time in order to avoid further delays in the formal transmittal of the Tri-Party Agreement change request package. RL has major concerns that further delays in completing the separation of the Tri-Party Agreement milestone associated with the WRAP II Project into two milestone packages will result in delays in completion of the WRAP IIA milestones.

RL would like to extend an invitation to Ecology to visit the WIPP site and tour of the facility and attend a presentation by key personnel on these issues. The background information available concerning the need to separate out portions of WRAP II, can perhaps be better understood with a site visit. RL will be happy to arrange such a visit for yourself and the appropriate Ecology and EPA personnel who would like such a site visit.

It is the intention of the RL to resolve any remaining issues as rapidly as possible. RL plans on submitting the formal change request package by



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October 16, 1992, and will make every effort to respond to any concerns, questions, or arrangements involved in completing our technical discussions on this matter.

Please contact Mr. R. F. Guercia, RL, on (509) 376-5494 or Mr. R. J. Roberts of the Westinghouse Hanford Company on (509) 376-5896 to discuss arrangements for a site visit to the WIPP.

If you have any questions regarding this response or the change request package, please contact Mr. Jay Augustenborg at (509) 372-1407 or Mr. Jon Yerxa at (509) 376-9628 .

Sincerely,

Steve H. Wisness
Hanford Project Manager

EAP:JKY

Attachment

cc: D. L. Duncan, EPA
B. A. Wiley, Ecology
B. A. Austin, WHC
R. J. Roberts, WHC
L. E. Borneman, WHC
J. A. Swenson, WHC

1. WIPP WASTE ACCEPTANCE CRITERIA (WAC)

The WIPP WAC are a set of strict parameters that must be met by the generator and storage sites before transuranic (TRU) waste may be transported and emplaced in the WIPP. There are five major categories of criteria: waste container, waste form, waste package, data package, and other.

The waste container criteria specify the container size, material of construction, and package configuration. The waste form criteria specify prohibited items (i.e., pyrophoric materials, compressed gases and free liquids), stabilization of particulate materials, and waste characterization requirements. The waste package criteria identify package weight limits, surface dose rates, limits on radiological content in each waste container (i.e., 55-gallon drum or standard waste box) and shipping container (i.e., Transuranic Package Transporter-II [TRUPACT-II]), and package labelling requirements. The data package criteria defines the documentation that must accompany each shipment of waste to WIPP. Other criteria include drum venting requirements, and restrictions on waste loading of a TRUPACT-II.

2. TECHNICAL UNCERTAINTIES

These WAC are derived from the WIPP Operations and Safety Criteria, Transuranic Package Transporter-II (TRUPACT-II) Safety Analysis Report for Packaging (SARP) and the proposed remote-handled (RH) Cask Transportation SARP, the WIPP RCRA requirements, and the WIPP Performance Assessment (PA). Some of these requirements are still in development, i.e., The RH-TRU transportation requirements, the RCRA criteria, and the PA requirements.

At this time only preliminary transportation-associated waste package requirements for RH-TRU waste are identified in a draft RH Cask SARP. Specific RH-TRU waste transportation requirements will be defined when the RH Cask SARP receives approval by the NRC.

The elimination of the by-product exclusion for the regulation of radioactive mixed waste means that the WIPP also must comply with requirements under RCRA. The RCRA compliance issues at WIPP are divided into those affecting the Test Phase and those affecting the Operational and Post-closure Phases. The WIPP Test Phase covers experimental activities that will gather information necessary to predict and/or verify long-term performance and is expected to last at least five years (Hanford waste is not included in the test phase). The WIPP RCRA compliance document drafted to date covers only the Test Phase; the Part B Permit Application was submitted to the state of New Mexico in February 1991. It is anticipated that it will take several years of negotiation with the state before the permit is approved. Hence the waste characterization and waste form requirements are subject to changes as a result of the negotiations. There is also uncertainty as to whether the same permit requirements will apply to the operational phase as to the test phase.

The WIPP chose to comply with the Land Disposal Restrictions under RCRA by petitioning the EPA for a variance in accordance with 40 CFR Part 268.6. To date EPA has only granted WIPP a conditional No Migration Determination for

the five to ten year test period. There is some uncertainty then as to whether waste will have to be treated per the LDR requirements for the operational phase.

The long term performance of the WIPP must comply with the requirements for a nuclear waste repository in 40 CFR Part 191, which is currently under revision by EPA. The evaluation of WIPP compliance with this regulation is termed the Performance Assessment (PA) and is under development by Sandia National Laboratories. The results of the final PA could change requirements pertaining to radionuclide inventories, quantities of gas generating materials (i.e., corrodible metal or biodegradable materials), and waste-form physical/chemical properties (e.g., permeability or gas-generation potential).

In summary, final waste acceptance requirements for the operational phase of WIPP have not been established and the RH-TRU transportation requirements have not been finalized. The WIPP WAC is subject to changes as the RCRA Part B Permit Application is processed, the test phase is conducted, the PA is finalized, and the RH Cask SARP is reviewed and approved by the NRC.

3. IMPACTS ON THE CONSTRUCTION OF WRAP MODULE 2B

The uncertainties pertaining to waste characterization, waste form and packaging for shipment and disposal of RH-TRU waste make it difficult to design a facility for the processing of such waste. The final requirements which will establish requirements for the RH-TRU waste will not be available for several years. Due to the hazards associated with the handling and processing of such waste, the design and construction of WRAP Module 2B will have to meet exacting standards.

At this time preliminary engineering studies are being conducted to evaluate processing technologies that could be employed in WRAP Module 2B, but design efforts will have to be deferred until the waste acceptance and transportation requirements are better defined.

4. REASONING FOR MODULARIZATION OF WRAP 2 AND CONSTRUCTION IMPACTS

The WRAP Module 2A facility will treat low-level mixed waste (LLMW) in accordance with RCRA and Atomic Energy Act (AEA) requirements to allow subsequent disposal in a permitted on-site facility. The requirements for treatment of the LLMW are currently known, hence a facility can be designed, constructed and operated to meet applicable requirements.

The WRAP Module 2B will primarily treat RH-TRU waste for shipment and disposal at WIPP. As described above, the requirements for treatment, packaging and shipment of this waste are not yet finalized; hence it is not practical to begin design for this facility. In addition, the construction and operation of a facility for treatment of the RH-TRU waste will be much different than for a facility that will only process CH LLMW; more containment, shielding, and monitoring will be required in WRAP Module 2B than WRAP Module 2A.

By separating the functions of Modules 2A and 2B into separate facilities, it will be possible to expedite the treatment and disposal of the CH-LLMW. WRAP Module 2A is scheduled to start operations in 1999. The contract for construction is expected to be let in the third quarter of FY 1996. Construction is anticipated to begin within a few months from issuance of the contact. The construction phase of the project is estimated to take two years and a one year time period for test operations is planned. The schedule for WRAP 2B is still being developed.

Please be advised that the start of construction is dependent upon several factors, all of which have some uncertainties associated with them. For example, the required air pollution control and RCRA permits will have to be approved prior to start of construction. The time needed to resolve notices of deficiency depends on timely response by the agencies involved, which could be beyond the control of the DOE-RL Office. The contractor is also given some flexibility in starting construction; the terms of the contract will specify a completion date, not a start date. Weather conditions, employee and union issues, safety reviews, etc., can all affect the contractors ability to start construction on a particular date.

For these reasons a date for the start of construction cannot be provided. However, the status of the WRAP 2A and WRAP 2B projects can be presented to you during the Unit Managers Meetings.

5. RISKS AND UNCERTAINTIES ASSOCIATED WITH WIPP WAC AND TRANSPORTATION

These concerns are addressed in Section 1 above.

6. ARE OTHER TREATMENT TECHNOLOGIES BEING ASSESSED?

Since the requirements for the design, construction and operation of WRAP Module 2A are already known, no studies for alternative treatments are necessary. At this time an engineering evaluation has been initiated that will evaluate treatment alternatives for WRAP Module 2B. It is expected the report from this evaluation will be available in the third quarter of FY 1993.

7. ANALYSIS OF OTHER PROJECTS AFFECTED BY PROPOSED CHANGE

No other RCRA or TPA associated projects will be affected by this proposed change request.

8. ASSESSMENT OF FUNDING IMPACTS

Adequate funding has been provided to deal with the uncertainties in WRAP Module 2 as associated with the WIPP WAC. DOE funding is provided yearly based on congressional approval. Funds carryover into subsequent years is not the typical management method.

9. REVISED TEC FOR WRAP MODULE 2

WRAP Module 2A is scheduled to begin operations in 1999. A two year construction period followed by a one year test period before full scale operations is anticipated. No other reprogramming is required.

The schedule for WRAP 2B is still in development. No other programs currently planned will be affected by constructing and operating WRAP Module 2B after WRAP Module 2A.

CORRESPONDENCE DISTRIBUTION COVERSHEET

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Subject: REPLY TO THE AUGUST 25, 1992, REQUEST FOR ADDITONAL INFORMATION IN SUPPORT OF THE M-19-00 MILESTONE CHANGE REQUEST

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