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Department of Energy

Richland Field Office  
P.O. Box 550  
Richland, Washington 99352

93-RPS-227

JUN 09 1993

Mr. George C. Hofer  
Hanford Project Manager  
U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

Mr. Roger F. Stanley, Director  
Tri-Party Implementation  
State of Washington  
Department of Ecology  
P.O. Box 47600  
Olympia, Washington 98504-7600

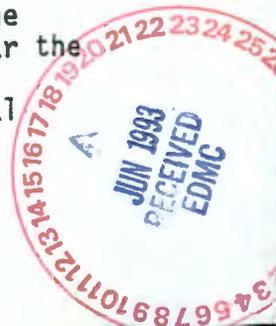


Dear Messrs. Hofer and Stanley:

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE CONTROL FORM  
M-20-92-7: EXTENSION OF THE THERMAL TREATMENT TESTING FACILITY PART-B PERMIT  
APPLICATION SUBMITTAL MILESTONE M-20-42.

Attached for your approval is the subject draft Class II Change Control Form. This Change Control Form requests a 12-month delay in the milestone for submittal of the Thermal Treatment Unit Part-B Permit Application, from December 31, 1993, to December 31, 1994. Permit preparation activities have been constrained by the evolving nature of the technologies originally conceived for this application and difficulties in fully defining the specific waste streams to be tested under the proposed permit. The additional time will allow development of the necessary detailed technical information required to support future permitting requirements for thermal treatment testing and to define a technology permitting strategy that addresses the needs of all parties interested in the prompt and environmentally safe application of waste treatment technology at Hanford.

Recent discussions requested by the State of Washington Department of Ecology (Ecology), and involving key staff from Ecology, the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy, Richland Operations Office (RL), the Pacific Northwest Laboratory (PNL), and the Westinghouse Hanford Company (WHC), have surfaced alternatives to Part-B Applications for technology development activities. During subsequent conversations with Ecology staff, there was a consensus that there is a necessity to address the technology permitting needs at Hanford in a comprehensive and integrated manner. To deal with these needs and to consider the various permitting options, we have initiated a review of the permitting strategy for technology-related applications at Hanford. The review will reflect Ecology and EPA requirements and RL/PNL/WHC technology development needs in support of the Hanford cleanup activity. This re-evaluation will emphasize in particular the future timing and scope of permitting activities related to the Thermal Treatment (M-20-42), Physical/Chemical Treatment (M-20-43), and Biological Treatment (M-20-44) TPA milestones.



Messrs. Hofer and Stanley  
93-RPS-227

-2-

JUN 29 1993

We expect that the preliminary results of this planning effort will be available by September 30, 1993. During the evaluation period, there will be a need for interaction with your staff to discuss the plan as it develops. I recommend that points of contact be identified within Ecology and EPA as soon as possible to coordinate these discussions. Mr. Clifford E. Clark will represent RL.

With your active participation, we are optimistic that we can arrive at a technology permitting approach that can be promptly implemented and will support development and timely application of technology in support of the Hanford cleanup effort, while satisfying applicable regulatory requirements.

RL hopes that you will be provided with sufficient review time so that you may approve the proposed change control form at the next Hanford Federal Facility Agreement and Consent Order Project Managers Meeting. If you have any questions, please contact Mr. Clifford E. Clark, RL, on (509) 376-9333.

Sincerely,

  
for Steven H. Wisness  
Hanford Project Manager

EAP:CEC

Attachment

cc w/attach:  
W. Apley, PNL  
B. Austin, WHC  
D. Sherwood, EPA  
H. Tilden, PNL



9613448.0042

ATTACHMENT 1

Hanford Federal Facility Agreement and  
Consent Order Change Control Form

M-20-92-7

9613448.0043

|                            |   |                      |
|----------------------------|---|----------------------|
| Change Number<br>M-20-92-7 | <b>FEDERAL FACILITY AGREEMENT AND CONSENT ORDER<br/>         CHANGE CONTROL FORM</b><br><small>Do not use blue ink. Type, or print using black ink.</small> | Date<br>May 18, 1993 |
|----------------------------|---|----------------------|

|                               |                                  |                         |
|-------------------------------|----------------------------------|-------------------------|
| Originator<br>H. Wayne Slater | Waste Technology Center Battelle | Phone<br>(509) 376-0575 |
|-------------------------------|----------------------------------|-------------------------|

Class of Change

I - Signatories (Section 13.0)  
  II - Project Manager  
  III - Unit Manager

Change Title

Delay in submittal for TPA Milestone M-20-42 to December 31, 1994

Description/Justification of Change

See Attached.

DRAFT

Impact of Change

There will be no impact due to the change. Laboratory operations can continue under interim status (Part-A Permit).

However, TPA Milestone M-20-42 will be delayed twelve months until December 31, 1994.

This delay does not have any impact on the overall Hanford cleanup schedule.

Affected Documents

The submittal for TPA Milestone M-20-42 Thermal Treatment will have a twelve month delay.

|   |      |      |     |      |         |      |  |
|---|------|------|-----|------|---------|------|--|
| <p>Approvals</p> <p style="text-align: center;"> <input type="checkbox"/> Approved             <input type="checkbox"/> Disapproved         </p> <table border="0" style="width: 100%;"> <tr> <td style="width: 70%; border-top: 1px solid black;">DOE</td> <td style="width: 30%; border-top: 1px solid black;">Date</td> </tr> <tr> <td style="border-top: 1px solid black;">EPA</td> <td style="border-top: 1px solid black;">Date</td> </tr> <tr> <td style="border-top: 1px solid black;">Ecology</td> <td style="border-top: 1px solid black;">Date</td> </tr> </table> | DOE  | Date | EPA | Date | Ecology | Date |  |
| DOE   | Date |      |     |      |         |      |  |
| EPA   | Date |      |     |      |         |      |  |
| Ecology   | Date |      |     |      |         |      |  |

## ATTACHMENT 1 - Consent Order Change Control Form #M-20-92-7

The requested delay of Milestone M-20-42 from 12/31/93 to 12/31/94 will allow time to develop and implement a revised permitting strategy for thermal treatment testing and for other technology development activities in support of Hanford cleanup that meet the needs of DOE, Ecology, EPA, PNL, and WHC.

While preparing the Thermal Treatment Testing Unit Part B Permit application and applications for Physical/Chemical (M-20-43) and Biological (M-20-44) Treatment, it has become apparent that a Part B permit may not be the preferred approach for most research, development, and demonstration (RD&D) activities envisioned under these applications. Part B permits were designed primarily for repetitive process operations, where the design of the process operation is well defined, and changes to process parameters are relatively infrequent. In addition, the administrative processes to modify Part B permits require considerable time and investment of staff resources. This is in contrast to typical RD&D activities where equipment design typically evolves over time and modifications are regularly being made to optimize process operations. Our efforts to assemble the technical information to prepare an acceptable Part B Permit have been constrained by the evolving nature of specific technologies to be included within the Thermal Treatment Testing Part B Permit application. These recurring changes in the base technologies make it difficult to completely define the exact mix of technologies and the particular version of a specific technology to be included with the permit application. Further, we have found that the long-term nature of the Part B permit preparation and review process makes difficult to match a specific and evolving research technology to a specific waste stream which may not yet be identified or fully characterized.

To address the unique permitting needs of research, development, and demonstration of experimental and innovative processes, EPA devised the treatability exemption and RD&D permit. Many of the activities originally envisioned for inclusion in the Thermal Treatment Testing Unit Part B Permit application fall under the category of experimental and innovative processes. These include such processes as in-situ heating, in-situ vitrification, and waste vitrification and involve bench, engineering, and pilot-scale studies. These experimental systems have the capability to treat a variety of hazardous, and/or mixed-wastes and in quantities exceeding the small quantity treatability limits. Many of the treatment technology development activities underway and planned for the future may be better served by the RD&D permit rather than a Part B permit. Further, it is inefficient to use PNL, DOE, and Regulator resources to develop and review a Part B application, when the results of the permitting strategy study described below, may conclude that the Part B is not the appropriate vehicle for many of the anticipated thermal treatment activities.

On January 22, 1993, staff from the Department of Ecology, EPA Region X, DOE, PNL and WHC staff met to discuss technology permitting issues. This meeting was arranged at the request of the Department of Ecology, who expressed a desire to evaluate the current permitting process for new technology. During this meeting, several alternatives were discussed for permitting technology

development and demonstration activities. The RD&D permit was identified as a viable option for development and demonstration activities envisioned at Hanford. Further, there seemed to be a consensus that a variety of other permitting approaches (e.g., CERCLA on-site waiver, treatment by generator) should be explored for Hanford Facility activities. Also there was a need expressed for an integrated permitting approach that will support the timely development and demonstration of new technology throughout the Hanford Site. Subsequent meetings with Ecology/EPA staff have further substantiated the need for a comprehensive and consolidated approach to defining Hanford permitting requirements.

To address these issues, a review has been initiated of the Hanford technology permitting activities in general and specifically, the current requirement to submit three Part-B Permit applications for technology development and demonstration activities. These applications include: the Thermal Treatment Testing (TPA# M-20-42 [Due 12/31/93]), the Physical/Chemical Treatment Testing (TPA# M-20-43 [Due 12/31/94]), and the Biological Treatment Testing (TPA# M-20-44 [Due 12/31/95]). It is expected that a permitting strategy will be developed that 1) identifies "targeted" technologies, activities, and facilities; 2) identifies permit options; 3) recommends a permit and compliance option for each activity/facility based on the nature, duration, location, and the type and quantity of activities and/or wastes; and 4) defines a schedule for developing appropriate permits, including any recommended changes in the above TPA Milestones. PNL and WHC, at the request of DOE, have initiated this planning effort. Preliminary results from this evaluation are expected to be available by September 30, 1993. To adequately address the needs of all interests, appropriate interaction among DOE, Ecology, EPA, PNL, and WHC will be required over the course of the evaluation.

In summary, the requested 12 month delay in Milestone # M-20-42 from December 31, 1993 to December 31, 1994 will provide adequate time to define the scope and assemble the necessary technical information to support future permitting requirements for thermal treatment testing. In addition, the extension will allow a re-evaluation of the technology permitting needs of Hanford and development of an integrated permitting plan consistent with the requirements of all parties. This comprehensive evaluation of permitting requirements will also avoid a possible series of AD HOC permitting determinations on individual technologies and provide a system within which RD&D activities vital to the cleanup of Hanford may continue while ensuring protection of human health and the environment.

PNL technical staff are continuing to work on technical portions of the Thermal Treatment Testing Facility Part-B Permit Application. However, early resolution of this change request is sought so that staff can be redirected to conserve limited permitting resources, pending completion of the permit planning effort. Research activities under the Thermal Treatment Testing Unit (M-20-42) have interim status. To date, however, only one test at the In Situ Vitriification Site has fallen within the criteria of the Interim Status Part A Permit for Thermal Treatment Test Facilities.

# CORRESPONDENCE DISTRIBUTION COVERSHEET

Author: S. H. Wisness, RL  
 Addressee: G. C. Hofer, EPA  
 R. F. Stanley, Ecology  
 Correspondence No.: Incoming: 9304772

Subject: HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE CONTROL  
 FORM M-20-92-7: EXTENSION OF THE THERMAL TREATMENT TESTING FACILITY  
 PART-B PERMIT APPLICATION SUBMITTAL MILESTONE M-20-42.

## INTERNAL DISTRIBUTION

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|          |      | President's Office      |          | X     |
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|          |      | G. W. Jackson, Assignee | H6-20    | X     |
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