Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

0069208

094941

02-WMD-044

NOV 21 2001

Mr. Bob Wilson, Compliance Inspector
Nuclear Waste Program
State of Washington
Department of Ecology
1315 W. 4th Avenue
Kennewick, Washington 99336

RECEIVED
MAR 30 2006
EDMC

RECEIVED
DEC 13 2001
BY DIS

Dear Mr. Wilson:

STABILIZATION OPTION FOR HEXONE TANKS

Reference is made to the your letter to K. A. Klein, RL, and M. C. Hughes, BHI, "Notice of Correction for Stabilization of the Hexone Storage and Treatment Facility USDOE Docket Number 00NWPKM005," dated May 26, 2000. 53197

The U.S. Department of Energy, Richland Operations Office (RL) would like to describe the conclusions and basis for our recommendation regarding the alternatives evaluated within the "Evaluation of Alternatives for the Interim Stabilization of the Hexone Tanks, BHI-01521 (Evaluation), July 2001, Draft B."

The preferred alternative of void-filling the tanks in place addresses the safety concern of a potential accumulation of flammable gas within the tank void if the present nitrogen purge is lost and no action is taken. Void-fill also meets the "Notice of Correction for Stabilization of the Hexone Storage and Treatment Facility, May 26, 2000," and provides appropriate environmental protection. The void-fill alternative provides a $2M cost savings over the other alternatives. This does not preclude any out-year plans or associated cleanup requirements that may be required surrounding the immediate area (200-IS-1 operable unit) at a later date.

Background

The evaluation determined the best approach for of the 276-S-141/142 Hexone Tanks, which are both 24,500 gallon capacity tanks. The tanks are located within the fence boundary of the REDOX facility. There are a number of contaminated sites within and outside the REDOX facility. The Hexone Tanks are also located within the perimeter of the 233-S Plutonium Concentration Facility CERCLA remediation "onsite" area.

Each tank contains a 130 gallon "heel" that can be described primarily as a mildly acidic, phosphate tar. Current maintenance includes providing a nitrogen purge to the tanks to prevent a potential buildup of flammable gas mixture within the tanks over time.

Regulatory and schedule integration within the immediate area of the tanks is important to consider. Any near-term stabilization or remediation of the tanks should be coordinated to avoid impacts with the 233-S decommissioning operations. The 200-IS-1 operable unit cleanup planning and related decisions are scheduled for the 2008-2013 timeframe.

Schedule Integration

Several options were reviewed in depth. The preferred option is void-filling the tanks in place. The void-fill option eliminates the potential flammable gas accumulation on loss of the nitrogen purge and supports schedule integration. This option will not prevent or preclude disposition of the tanks (including removal) at the appropriate time.

The future options for final closure of the Hexone Tanks will be evaluated at the appropriate time and will include:

Void-fill Alternatives	Basis for Savings
1. Leave in place permanently with long-term monitoring.	• Long-term monitoring will be required for other facilities within the REDOX complex. • Costs of monitoring Hexone Tanks over time are incremental.
2. Leave in place permanently with cap covering Hexone Tanks and REDOX complex.	• Save removal costs. • No incremental cost for cap, which will cover this area.
3. Remove later consistent with 200-IS-1.	• Cost of enclosure is spread over multiple facilities versus only the Hexone Tanks. • Exhumation and handling costs are spread over multiple tanks (economies of scale.)

Conclusion

The decision to void-fill provides a stabilization approach which is protective of human health, worker safety, and the environment. This option is cost-effective, and allows for sensible coordination within the 200-IS-1 Operable Unit and the REDOX Facility as a whole. A draft time/duration schedule to implement the preferred alternative is (attached) for your review and comment.

We appreciate your willingness to work in partnership to implement a solution for the Hexone Tanks that is protective, expedient, and cost effective. If there are any questions, please contact me on (509) 373-9971, or your staff may contact Bryan Foley, Waste Management Division, on (509) 376-7087.

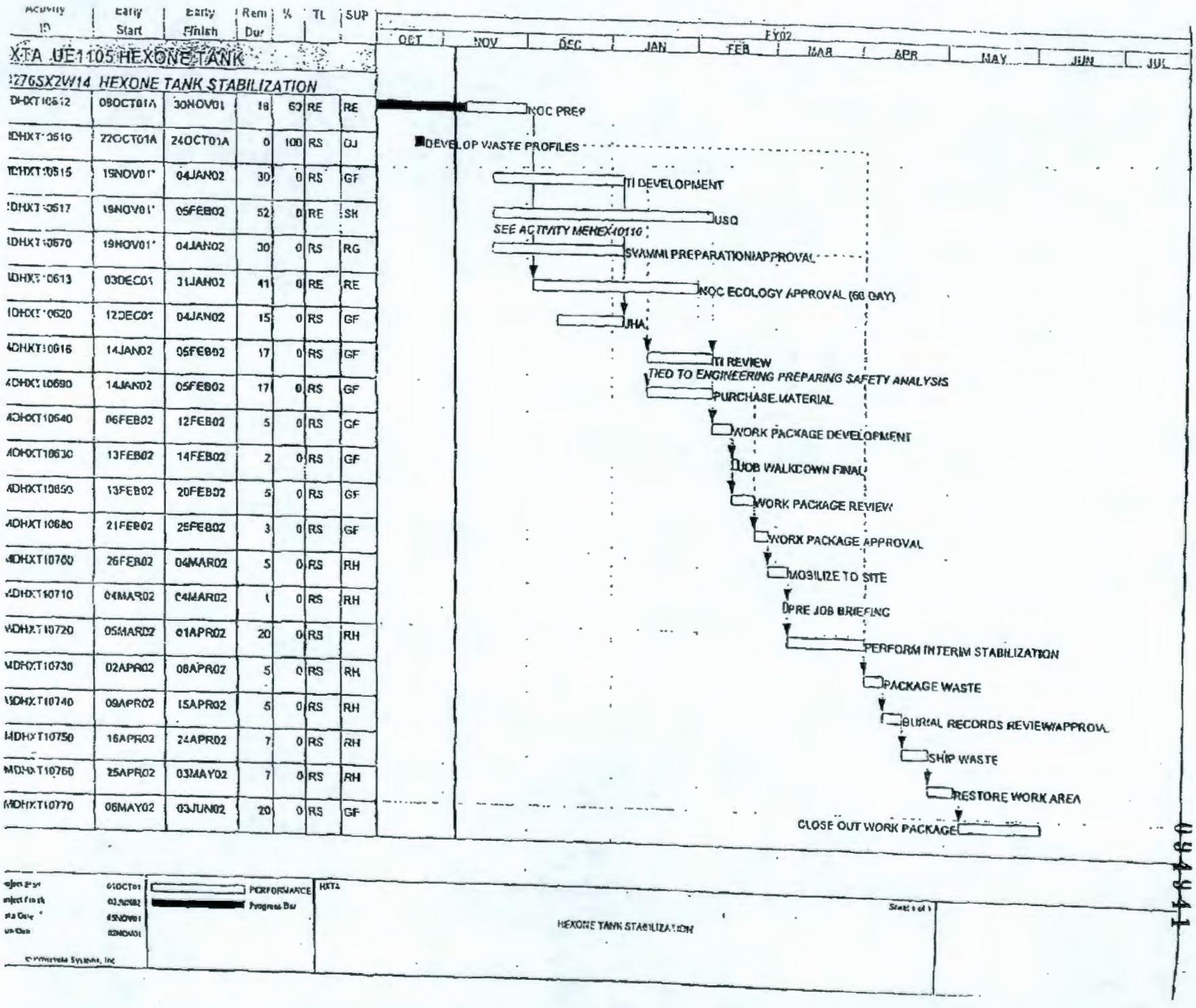
Sincerely,

Peter M. Knollmeyer, Assistant Manager
for the Central Plateau

WMD:BLF

Attachment

cc w/attach:
J. M. Atwood, FHI
C. E. Cameron, EPA
R. G. Egge, BHI
B. H. Ford, BHI
T. Z. Gao, Ecology
F. Jamison, Ecology
C. J. Kemp, BHI
J. J. McGuire, BHI
J. Price, Ecology
L. E. Ruud, Ecology
D. R. Sherwood, EPA
R. R. Skinnarland, Ecology
R. J. Woods, BHI


Activity ID
Early Start
Early Finish
Rem Dur
%
TL
SUP
FY02
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
X-TA UE1105 HEXONE TANK
2276SX2W14 HEXONE TANK STABILIZATION
08OCT01A 30NOV01 18 60 RE RE
NOC PREP
22OCT01A 24OCT01A 0 100 RS OJ
DEVELOP WASTE PROFILES
19NOV01* 04JAN02 30 0 RS GF
TI DEVELOPMENT
19NOV01* 05FEB02 52 0 RE SK
USQ
SEE ACTIVITY MENEX4011G
19NOV01* 04JAN02 30 0 RS RG
SWMMI PREPARATION/APPROVAL
03DEC01 31JAN02 41 0 RE RE
NOC ECOLOGY APPROVAL (60 DAY)
12DEC01 04JAN02 15 0 RS GF
JHA
14JAN02 05FEB02 17 0 RS GF
TI REVIEW
TIED TO ENGINEERING PREPARING SAFETY ANALYSIS
14JAN02 05FEB02 17 0 RS GF
PURCHASE MATERIAL
06FEB02 12FEB02 5 0 RS GF
WORK PACKAGE DEVELOPMENT
13FEB02 14FEB02 2 0 RS GF
JOB WALKDOWN FINAL
13FEB02 20FEB02 5 0 RS GF
WORK PACKAGE REVIEW
21FEB02 25FEB02 3 0 RS GF
WORK PACKAGE APPROVAL
26FEB02 04MAR02 5 0 RS RH
MOBILIZE TO SITE
04MAR02 04MAR02 1 0 RS RH
PRE JOB BRIEFING
05MAR02 01APR02 20 0 RS RH
PERFORM INTERIM STABILIZATION
02APR02 08APR02 5 0 RS RH
PACKAGE WASTE
09APR02 15APR02 5 0 RS RH
BURIAL RECORDS REVIEW/APPROVAL
16APR02 24APR02 7 0 RS RH
SHIP WASTE
25APR02 03MAY02 7 0 RS RH
RESTORE WORK AREA
06MAY02 03JUN02 20 0 RS GF
CLOSE OUT WORK PACKAGE
PERFORMANCE
Progress Bar
HEXONE TANK STABILIZATION