

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER # 5480.21

96-RF-01749

DIST L E

BENSUSSEN, S. J.

BUHL, T. R.

CARD, R. G.

GILLISON, W. R.

HERRING, C. I.

HILL, J. A.

HUEMAN, T. P.

KELL, R. E. X

LEE, E. M.

MANI, V. K. X

MARTINEZ, J. A.

MCANALLY, J. I.

MCKAY, R.

MCKIBBIN, J. G.

O'BRIEN, G. D. X

SANDLIN, N. B.

SPEARS, M. S. X

TUOR, N. R.

VOORHEIS, G. M. X

WALLER, C. A. X

CRONIN, R. D. X

CROUCHER, D. W. X

DANNA, M. A. X

FERGUSON, D. R. X

SWANSON, D. R. X

WEAVER, J. G. X

ZIMMER, J. J. X

ZIMMERMAN, G. A. X

CORRES X X

ADMIN REC (2) X X

TRAFFIC

PATS/T130G

CLASSIFICATION

UCNI

UNCLASSIFIED X

CONFIDENTIAL

SECRET

AUTHORIZED

CLASSIFIER SIGNATURE

EL Schell

DATE: 3-13-96

IN REPLY TO RFP CC NO:

00228-RF-96

ACTION ITEM STATUS

PARTIAL/OPEN

CLOSED

LTR APPROVALS:

G. A. Zimmerman

J. J. Zimmer

M. S. Spears

R. E. Kell

ORIG & TYPPIST INITIALS

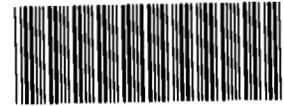
GAZ:la

1/2

48100



KAISER-HILL
COMPANY



000061154

March 21, 1996

96-RF-01749

Mark N. Silverman
Manager
DOE, RFFO

HYDROGEN GAS ACCUMULATION UNREVIEWED SAFETY QUESTION (USQ) APPROVAL
GDO-056-96

- Ref: (a) V. Mani ltr, VM-156-95, to D. A. Brockman, Hydrogen Gas Generation and Accumulation in Solution Tanks, November 22, 1995
- (b) A. H. Burlingame ltr, AHB-170-95, to M. N. Silverman, Hydrogen Gas Generation and Accumulation in Solution Tanks, May 16, 1995
- (c) M. N. Silverman ltr (07285) to G. D. O'Brien, Hydrogen Gas Accumulation USQ Approval, February 16, 1996

PURPOSE

This letter responds to the issues raised in Reference (c) and describes how Reference (a) meets the documentation requirements contained in the contractor procedures.

DISCUSSION

Reference (b) was submitted to the Department of Energy (DOE), Rocky Flats Field Office (RFFO), on May 16, 1995, and provided the results of a study of the potential for radiolytic hydrogen gas generation in actinide solution tanks. The results of the study were provided in the following three attachments to Reference (b):

- A positive Unreviewed Safety Question Determination (USQD) (USQD-RFP-95.0387-CAS, *Gaseous Hydrogen Generation and Accumulation in Solution Tanks in Buildings 371 and 771*),
- Nuclear Safety calculation 95-SAE-007, *Analysis of Hydrogen Generation, Explosivity and Pressure Rise in Unvented Pu-HNO₃ Solution Tanks Due to Radiolysis*, and
- Nuclear Safety calculation 95-SAE-010, *Analysis of Hydrogen Generation and Explosion Risk in Vented Pu-HNO₃ Solution Tanks Due to Radiolysis*.

Neither of the two calculations were indicated as a reference of or an attachment to the USQD; they were provided to present a complete picture of the study that had been performed. The USQD was expected to stand by itself

ADMIN RECCRD

Kaiser-Hill Company, L.L.C.

Courier Address: Rocky Flats Environmental Technology Site, State Hwy. 93 and Cactus, Rocky Flats, CO 80007 • 303.966.7000

Mailing Address: P.O. Box 464, Golden, Colorado 80402-0464

IA-A-000693

Mark N. Silverman
March 21, 1996
96-RF-01749
Page 2

including the references within it as a picture of the risks associated with the discovery issue of radiolytic hydrogen generation in actinide tanks being an accident of a different type than previously considered.

Reference (a) was submitted to DOE, RFFO on November 22, 1995, as a revision to the USQD provided in Reference (b). The two calculations were not revised, and since they were not references in or attachments to the originally submitted USQD, they were not resubmitted. The two calculations continue to be part of the study of the potential for radiolytic hydrogen gas generation in actinide solution tanks submitted to DOE, RFFO by Reference (b).

It is our conclusion that document transmittals discussed above [References (a) and (b)] meet the documentation requirements contained in our contractor procedures.

RESPONSE

If you have any questions or comments, please contact G. A. Zimmerman of Nuclear Safety at extension 8264 or digital pager 7368.



George D. O'Brien
President and CEO
Kaiser Hill Company, L.L.C.

GAZ:1a

Orig. and 1 cc - M. N. Silverman

cc:
D. A. Brockman
J. Jeffries
K. Klein
P. M. McEahern
J. Roberson
J. C. Selan
R. Warther
M. J. Weis

2/2