

01-RF-01405



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SUBMITTAL OF PRELIMINARY HAZARD CATEGORIZATION FOR THE AQUEOUS WASTE TREATMENT SYSTEM – NRT-036-01

- Refs: (a) *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports, DOE-STD-1027-92, December 1992.*
 (b) *Statement of Work for Offsite Aqueous Waste Treatment System, Revision 0, August, 2001; Statement of Work for Onsite Aqueous Waste Treatment System, Draft, August 2001.*
 (c) *Facility Safety, DOE Order 420.1, Change 3, U.S. Department of Energy, Washington, D.C., November 22, 2000.*
 (d) *Radioactive Waste Management, DOE Order 435.1, U.S. Department of Energy, Washington, D.C., July 9, 1999.*
 (e) *Site Safety Analysis Report (SSAR), Volume II, Kaiser-Hill Company, L.L.C., Golden, CO., June 1999.*

This letter transmits the Preliminary Hazard Categorization for the Aqueous Waste Treatment System (AWTS) Project (Attachment) for concurrence. The AWTS Project strategy and this Preliminary Hazard Categorization document have been coordinated previously with Mr. Dave Faulkner of the DOE, RFFO Nuclear Safety staff and his informal comments have been incorporated.

To support Site Closure, the AWTS is planned as a replacement for the existing, deteriorating Building 374 Liquid Waste Treatment Facility (LWTF). A cost benefit analysis prepared for the AWTS Project identified the replacement project as cost-effective. Replacement of the LWTF with the AWTS Project will result in significant cost avoidance to the Site and allow timely decommissioning of Building 371/374 and its affiliated Process Waste Transfer System (PWTS) (Reference [e]).

The attached AWTS Project Preliminary Hazard Categorization provides brief descriptions of the Project's elements, to assist DOE, RFFO in the review for concurrence. The Attachment documents the preliminary hazard categorization for the AWTS Project based on the estimated nuclear Material at Risk (MAR) associated with the handling and treatment of liquid low level and low level mixed (LL/LLM) waste. This preliminary hazard classification is derived in accordance with DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports* (Reference [a]). The amount of plutonium (Pu) in any given AWTS Project element or segment will be less than the hazard Category 3 threshold value of 8.4 E+00 Pu grams listed in Reference (a).

ADMIN RECORD

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1/2

AUG 23 2001

Paul Hartman
NRT-036-01
Page 2

The *AWTS Statement of Work (SOW)* (Reference [b]) documents safe radiological waste management, design, and operation in accordance with *Facility Safety*, DOE Order 420.1 (Reference [c]) and *Radioactive Waste Management*, DOE Order 435.1 (Reference [d]) requirements. Administrative controls employed by the AWTS Project such as waste acceptance criteria (WAC), inventory controls, and influent, in-process, and effluent sampling and analysis will protect the Project's *radiological* categorization.

RESPONSE REQUIREMENT

Kaiser-Hill Company, L.L.C. plans to issue a competitive Request for Proposal (RFP) for the offsite treatment of RFETS aqueous waste by September, 2001. As a contingency to offsite treatment, should vendor responses to this RFP be deemed impractical or not cost-effective, a competitive RFP for the AWTS onsite treatment option utilizing skid-mounted, modular treatment equipment and associated components, will be issued thereafter if necessary. It is requested that DOE, RFFO provide a priority review and concurrence with this Preliminary Hazard Categorization (PHC) to support the Project's aggressive schedule. As your staff is already familiar with this project's PHC, an expedited review would be appreciated. Please notify Kaiser-Hill immediately if you disagree with the preliminary hazard categorization. The final hazard categorization will be included as part of the *AWTS Project Facility Safety Analysis (FSA)*. This AWTS Project FSA is planned to be completed as a section of the *Site Safety Analysis Report*, (SSAR), Volume II, (Reference [e]) in December 2001.

If you have any questions regarding this correspondence please contact Tim Humiston at extension 2700 or Al Hohl at extension 3767.



Nancy R. Tuor
Vice President and Project Manager
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Kaiser-Hill Company, L.L.C.

ARH:wjd

Orig. and 1 cc: Paul Hartmann

Attachment:
As Stated

cc:
Ron Bostic
Dave Faulkner



2/2