



Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

94-RPA-029

NOV 23 1993



Mr. David C. Nylander, Manager
 State of Washington
 Department of Ecology
 Hanford Project Office
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 Kennewick, Washington 99336



Dear Mr. Nylander:

REGULATORY STATUS OF PLUTONIUM FINISHING PLANT (PFP) TANKS 19, 39, 40, AND WM1

Plutonium Reclamation Facility (PRF) Tanks 19, 39, 40 and WM1 have been operated as generator dangerous waste accumulation tanks in the past. The U.S. Department of Energy Richland Operations Office (RL) requests that the State of Washington Department of Ecology (Ecology) review the following rationale for excluding dangerous waste generated in these tanks under the provisions of Washington Administrative Code (WAC) 173-303-071(3)(n) and (q). RL also asks that Ecology provide written concurrence to this office on the applicability of either or both of these exclusions for PRF Tanks 19, 39, 40, and WM1.

PRF Tanks 19, 39, 40 and WM1 are 200 liter "bank tanks" located in the PRF processing canyon. A bank tank is a series of four barrels, each capable of holding 50 liters with a common inlet and outlet line. These four tanks, along with other process control sampling points, are used to account for the plutonium generated by the PRF process.

This request is based on the exclusions provided in the WAC 173-303-071. RL believes that these exclusions apply to dangerous waste generated in the PRF tanks. These exclusions are WAC 173-303-071(3)(n) for dangerous waste generated in a manufacturing process unit (MPU) and WAC 173-303-071(3)(q) for secondary materials that are reclaimed and returned to the original production process.

Under WAC 173-303-040, a MPU is defined as:

"A unit which is an integral and inseparable portion of a manufacturing operation, processing a raw material into a manufacturing intermediate or finished product, reclaiming spent materials or reconditioning components."

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These four tanks are part of PRF, which is an integral component of PFP. PRF provides for the reclamation of plutonium from residue material. The PRF provides feed material for operation of the Remote Mechanical C Line. Material is not considered waste until it is transferred from the MPU (i.e., the PRF), through PRF valve 378, to the 241-Z Treatment and Storage Facility. Our conclusion is that the PRF, including Tanks 19, 39, 40, and WM1, are defined as a MPU due to its inherent design.

Furthermore, WAC 173-303-071(3)(n) provides the following exclusion:

"Dangerous waste generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated nonwaste-treatment-manufacturing unit until it exits the unit in which it was generated."

Material is maintained within PRF until a final assay is performed in Tanks 19, 39, 40, and WM1. Solutions containing plutonium may be recycled for additional processing within the PRF. Solutions that do not meet the recycle criteria may be declared waste. There is no element of discard until plutonium solutions are declared waste and is transferred from the MPU, through PRF valve 378, to the 241-Z Treatment and Storage Facility. RL believes that material in question continues to remain within the MPU.

WAC 173-303-071(3)(n) indicates that the exclusion does not apply [i]f "...the dangerous waste remains in the unit more than ninety days after the unit ceases to be operated..." However, the PFP and PRF are currently in standby operational status pending further direction from the Secretary of Energy. The facility is, however, expected to be used for material stabilization. Since the PRF has not been placed into shutdown status, the point of waste generation is still when waste is removed from the MPU and transferred through PRF valve 378 to the 241-Z Treatment and Storage Facility.

The second regulatory exclusion is identified in WAC 173-303-071(3)(q), which states "... secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process are excluded from regulation...", provided the criteria identified in subsections i through v are met. PRF, including Tanks 19, 39, 40, and WM1, meet all five criteria, respectively, in following manner:

- (1) Tank systems at the PRF are enclosed and the tanks are hard piped to the reclamation process.
- (2) The PRF uses a solvent extraction process and does not utilize controlled flame combustion.

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- (3) Material within Tanks 19, 39, 40, and WM1 is either further processed or discarded to the 241-Z Treatment and Storage Facility upon completion of a radioassay and material will not be accumulated for over 12 months.
- (4) The material reclaimed (plutonium nitrate) serves as a feed material to the Remote Mechanical C Line for further processing and is not used to produce a combustion fuel or used to produce products used in a manner constituting disposal.
- (5) Potential dangerous wastes generated within Tanks 19, 39, 40, and WM1 are transferred to the 241-Z Treatment and Storage Facility (an interim status treatment, storage, or disposal facility).

Should you have any questions, please call Mr. Alex Teimouri of my staff on 376-6222, or Mr. David W. Templeton of the Operations and Transition Division on 373-2966.

Sincerely,

Robert D. Holt/son
James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy

cc: E. M. Greager, WHC
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Subject: REGULATORY STATUS OF PLUTONIUM FINISHING PLANT TANKS 19, 39, 40, AND WM1

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