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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 7, 1995

Mr. James Rasmussen
Environmental Assurance, Permits and Policy
U.S. Department of Energy
P.O. Box 550
Richland, WA 99532

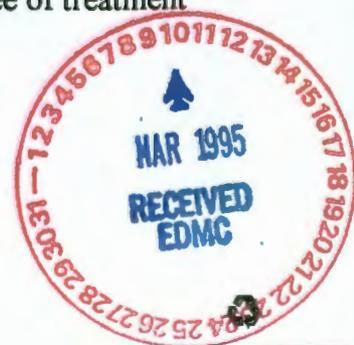
Dear Mr. Rasmussen:

Re: Listed Wastes from Hanford Laboratories

In January 1995, the Washington State Department of Ecology (Ecology) was notified that Hanford laboratories have introduced small quantities of listed wastes into the Double-Shell Tanks. Some of these listed wastes have not previously been identified in Dangerous Waste Part A permit applications for the laboratories, the Double-Shell Tank system, or other downstream treatment, storage, or disposal units. These downstream facilities include the 242-A Evaporator, Liquid Effluent Retention Facility (LERF), Effluent Treatment Facility (ETF or C-018), and other future tank waste treatment facilities.

Ecology has reviewed available information regarding these listed wastes and has concluded that adherence to a strict interpretation of hazardous waste requirements in this instance would unnecessarily drive up expenditures and associated administrative burdens, while providing no significant environmental benefit. Consequently, we have determined that the U. S. Department of Energy (USDOE) should not be required to add these new listed waste codes to the Part A applications for Hanford laboratories (222-S, PNL 300 Area labs., and WSCF), Double-Shell Tanks, and downstream facilities. This determination is based on the following USDOE representations:

- Laboratory wastes subject to this determination contain only small quantities (less than reportable quantities) and concentrations of listed constituents (see Attachment 1).
- All Double-Shell Tank wastes will be subject to best available treatment at facilities permitted by Ecology prior to their release to the environment. This degree of treatment exceeds that applied to most commercial laboratory waste streams.



Mr. James Rasmussen
March 7, 1995
Page 2

- The impact from adding the new waste codes would be higher costs with no additional protection to human health or the environment, and potentially worse environmental impacts if lab. wastes are landfilled or discharged via an NPDES effluent.
- Significant delays to startup of the Effluent Treatment Facility and 242-A Evaporator would likely result from including new waste codes on the Double-Shell Tank Part A permit application. Startup of the Effluent Treatment Facility is required by **Hanford Federal Facility Agreement and Consent Order** milestones M-17-14 and M-17-29.

Based on these representations, and in order to facilitate startup of the Effluent Treatment Facility and ensure that laboratory wastes are managed in an environmentally protective manner, Ecology intends to exercise its enforcement discretion with respect to the newly-identified waste codes listed in Attachment 1. Specifically, Ecology does not intend to take enforcement action against USDOE and/or its contractors for failing to identify these waste codes on its Part A applications for Hanford laboratories identified here, the Double Shell Tanks, and noted downstream facilities, or for the management of these wastes in such laboratories, Double Shell Tanks, and downstream treatment, storage, and/or disposal units. Ecology intends to exercise this discretion so long as it is satisfied that:

1. USDOE ensures that listed waste constituents not identified in the Double-Shell Tanks Part A or the ETF Delisting Petition will not be detectable above practical quantitation limits in treated effluents discharged to the environment. Attachment 1 lists constituents to which this determination applies.
2. USDOE ensures that the annualized average flow of these laboratory wastes (those derived from listed waste codes not identified in the Double Shell Tanks Part A permit application) does not exceed one percent of total wastewater flow into the Double Shell Tanks or Effluent Treatment Facility (whichever is greater).
3. USDOE ensures that the combined annualized average concentration of new listed constituents (those for which Effluent Treatment Facility delisting levels have not been set) will not exceed one part per million in the LERF basins.
4. USDOE maintains records of process knowledge and/or laboratory waste analysis and will verify that constituents which are not identified in unit Part A permit applications are amenable to treatment at the Effluent Treatment Facility before laboratory wastes are discharged to the tank farms.



Mr. James Rasmussen
March 7, 1995
Page 3

5. USDOE ensures that treatment of laboratory wastes through the Effluent Treatment Facility provides superior treatment to that which would result from return of the laboratory wastes to the source of the waste sample.
6. USDOE will not use this determination to dispose of non-laboratory generated wastes through the laboratories. This determination may only be applied to wastes derived from laboratory analysis of Hanford waste samples.
7. USDOE ensures that this determination is not used to circumvent proper management of listed wastes.
8. USDOE prevents any future disposal of discarded chemical products which results in their being commingled with radioactive or mixed wastes.

Be advised that this determination is made in response to specific (new) information provided Ecology regarding listed waste discharges from Hanford site laboratories. It should not be viewed as a precedent setting action applicable to any other instance. If you have any questions, please contact Mr. Moses Jaraysi of Ecology's Kennewick office at (509)736-3016.

Sincerely,



Mike Wilson, Manager
Nuclear Waste Program

cc: June Hennig, USDOE
Betty Wiese, EPA
George Jackson, WHC
Larry Arnold, WHC
Administrative Record

ATTACHMENT 1

HANFORD LABORATORY WASTE
POTENTIAL LISTED WASTE CONSTITUENTS

March 7, 1995

These constituents must be below Practical Quantitation Limits in the ETF effluent:

P102 Propargyl Alcohol
U004 Acetophenone
U080 Methylene Chloride
U103 Dimethyl Sulfate
U121 Trichloromonofluoromethane
U123 Formic Acid
U133 Hydrazine
U169 Nitrobenzene
U170 p-Nitrophenol
U218 Thioacetamide
U239 Xylenes

These constituents must be below the ETF Delisting Petition Delisting Levels in the ETF effluent:

<u>Listed Waste Constituent</u>	<u>Analyte</u>
P012 Arsenic Trioxide	Arsenic
P029 Copper Cyanide	Cyanide
P030 Cyanides (soluble salts and complexes)	Cyanide
P098 Potassium Cyanide	Cyanide
P106 Sodium Cyanide	Cyanide
P120 Vanadium Pentoxide	Vanadium
U002 Acetone	Acetone
U019 Benzene	Benzene
U031 n-Butyl Alcohol	n-Butyl Alcohol
U144 Lead Acetate	Lead
U151 Mercury	Mercury
U159 Methyl Ethyl Ketone	Methyl Ethyl Ketone
U161 Methyl Isobutyl Ketone	Methyl Isobutyl Ketone
U165 Naphthalene	Naphthalene
U210 Tetrachloroethylene	Tetrachloroethylene
U211 Carbon Tetrachloride	Carbon Tetrachloride
U220 Toluene	Toluene
U226 1,1,1-Trichloroethane	1,1,1-Trichloroethane