

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT
OF PENALTY AGAINST
U.S. Department of Energy

) NOTICE OF PENALTY
) INCURRED AND DUE
) No. 00NWPKW-1249

June 13, 2000

Mr. Keith Klein
U.S. Department of Energy
Richland Operations
P.O. Box 550, MSIN: A7-50
Richland, WA 99352

Mr. Richard French
U.S. Department of Energy
Office of River Protection
P.O. Box 550, MSIN: H6-60
Richland, WA 99352

Dear Messrs. Klein and French:

Notice is given that the Washington State Department of Ecology (herein referred to as Ecology) has assessed a penalty against the U.S. Department Of Energy (herein referred to as USDOE), in the amount of \$200,000 under the provisions of Article IX, Stipulated Dangerous Waste Penalties, within the Hanford Federal Facility Agreement and Consent Order, or Tri-Party Agreement (TPA).

The penalty is based on the following Ecology findings:

USDOE owns and operates the Hanford Site. The USDOE, Ecology and the U. S Environmental Protection Agency (EPA) signed the TPA in part to ensure compliance with the Resource, Conservation and Recovery Act (RCRA) and the Washington Hazardous Waste Management Act (HWMA), Chapter 70.105, Revised Code of Washington (RCW). The TPA included major milestone M-32 to address hazardous waste storage tank systems that failed to meet RCRA interim status requirements for tank systems. Milestone, M-32 was incorporated into the TPA in 1993 and required USDOE to, "Complete Identified Dangerous Waste Tank Corrective Actions" by September 30, 1999. Interim Milestones within M-32 required final plans and schedules for completion of double-shell tank integrity assessments.

In 1994 the USDOE submitted its Tank System Integrity Assessments Program Plan in satisfaction of interim TPA milestone M-32-04 (and target Milestone M-32-T05). Among other

requirements, M-32-04 required the USDOE to, “submit to Ecology a final plan and schedule for completion of the DST integrity assessments.” In 1995 the USDOE issued its Double-Shell Tank Waste System Assessment Status & Schedule to identify the planned activities to meet the integrity assessment program as described in the 1994 Tank System Integrity Assessments Program Plan. In 1996 the USDOE issued its Double-Shell Tank Integrity Examination In-Process Review which referenced the 1994 Tank System Integrity Assessments Program Plan and stated, “The latest revision of the Tri-Party Agreement requires a DST waste system integrity assessment be done in accordance with WAC 173-303-640 by September 30, 1999 or at a later date determined by negotiation with Ecology”. In 1997 the USDOE issued a DST System Integrity Program Plan to conduct tank integrity assessment work consistent with previous integrity assessment planning.

Throughout 1996 and 1997, Ecology met extensively with the USDOE and its contractors to clarify the requirements for completing DST integrity assessments by September 30, 1999. From 1997 through 1999 Ecology exchanged considerable correspondence with the USDOE describing the requirements for successful completion of M-32 requirements regarding DST system integrity assessments. During this time, Ecology and the USDOE met with the Tank Structural Integrity Panel (TSIP), a group of nationally recognized tank system experts from Brookhaven National Laboratories, New York. Ecology and the USDOE agreed to incorporate the TSIP’s recommendations for ultrasonic testing examination of the DSTs as part of the DST integrity assessment program. The use of the TSIP’s guidelines is referenced in the USDOE’s tank integrity assessment program planning documents.

In 1997 the USDOE and its contractors submitted to Ecology their Tank Waste Transfer Piping/Pit System Integrity Assessment Report. This report certified the integrity of the DST transfer system (pipelines, valve pits, pump pits) as being fit for use. In September, 1999 USDOE and its contractors submitted to Ecology their DST integrity assessment reports for the DSTs themselves. This report certified the DSTs as fit for use. Taken together, these two integrity assessment reports comprise the integrity assessment for the DST System.

On September 28, 1999 the USDOE issued a letter notifying Ecology and the U. S Environmental Protection Agency (EPA) that TPA Milestone M-32 had been completed. On the same date (Sept. 28, 1999) the USDOE issued its DST tank integrity assessment reports. The cover letter to the DST integrity assessment reports states, “Emerging safety issues have caused delays in some of the scheduled integrity assessment activities . . .” No explanation was given regarding what these safety issues were, why they precluded integrity assessment work, or which scheduled integrity assessment activities were prevented due to safety issues. The cover letter also states that, “Scheduled ultrasonic inspection of six DST’s in support of the integrity assessment reports has been completed.” USDOE and the Ecology agreed to initial ultrasonic testing of six of the 28 DSTs in specific areas of each tank to be completed by September 1999. However, ultrasonic testing of the six DSTs examined in support of this integrity assessment report failed to include ultrasonic testing in all areas of the tanks required by the USDOE’s own integrity assessment program planning, directed by the TSIP for minimum extent of ultrasonic examination, and failed to include examination of all areas of the DSTs agreed to with Ecology as necessary for meeting M-32 requirements. The USDOE’s own engineering reports and integrity assessment program planning documents identify areas of high stress or areas most susceptible to corrosion attack within the DSTs as requiring ultrasonic testing. These areas included the lower knuckle joint and weld, tank bottoms and waste liquid/vapor interface areas.

However, the ultrasonic testing conducted in the six DSTs examined in support of the DST integrity assessment reports did not include examination of the lower knuckle area in four DSTs, did not examine tank bottoms in five DSTs, and did not thoroughly examine the liquid/vapor interface area in any of the six tanks examined. Only one of the six DSTs examined were ultrasonic tested in all areas.

The USDOE's September 28th integrity assessment letter lists other integrity assessment work not yet completed including integrity assessment examinations of eight catch tanks, three double contained receiver tanks, the 204AR Waste Unloading Station, and the A-350 List Station. All these items were included for integrity assessment examination by September, 1999 in the USDOE's integrity assessment program planning documents. This description of integrity assessment work not yet completed includes much of the work agreed to with Ecology for completion of M-32, much of the work specific in the USDOE's integrity assessment program planning, and essential ultrasonic testing as recommended by the TSIP for meeting minimum requirements to assess the integrity of the DSTs.

On October 12, 1999 Ecology initiated an inspection into the completion of M-32. The findings from this inspection reveal that the USDOE has failed to complete major TPA Milestone M-32 with respect to DST integrity assessments. Information and data describing potentially significant degradation mechanisms within the DSTs were ignored or not adequately examined. The IQRPE for the DST integrity assessment reports had knowledge at the time of his certification that the DST integrity reports did not include all ultrasonic examinations as described in the DST integrity program plans, did not adequately report all known evidence of corrosion observed during integrity examinations, and did not report failure to maintain corrosion inhibiting chemicals within all DSTs requiring maintenance of these corrosion prevention specifications. The USDOE and its contractors failed to complete DST integrity assessments as described in its Tank System Integrity Program Plan (WHC-SD-WM-AP-017) or any of its subsequent integrity program documents nor did it meet the TSIPs minimum requirements for adequate integrity assessment of the DSTs. Failure by the USDOE and its contractors to assess the integrity of the DST system places current tank waste management, future treatment of tank waste and permitting of the DST system in serious jeopardy.

The USDOE failed to meet the requirements of Article VII within the TPA, with respect to completion of major TPA Milestone M-32. Due to the USDOE's failure to complete major TPA Milestone M-32, Hanford's DST System remains non-compliant with RCRA and HWMA waste storage tank requirements per 40 C.F.R. Part 265.191, Subpart J, Tank Systems, and WAC 173-303-400(3)(a), Interim Status Facility Standards.

One half (\$100,000) of the penalty described is due and payable by USDOE within thirty (30) days of receipt of this notice. One half (\$100,000) of the penalty described will be held in abeyance pending compliance with Administrative Order # 00NWPKW-1250/00NWPKW-1251. Should the USDOE or its contractor(s) fail to comply with Administrative Order # 00NWPKW-1250/00NWPKW-1251, the portion of the penalty held in abeyance (\$100,000) shall become due and payable within thirty (30) days of receipt of written notification of the same from Ecology. Such penalty shall be in addition to any penalties imposed pursuant to Revised Code of Washington (RCW) 70.105.080 for violations associated with DOE's noncompliance with the Administrative Order. Please remit the penalty amount currently due (\$100,000), payable to

Fiscal Cashier, Washington State Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600.

If the USDOE wishes to contest the penalty, two options are available:

(1) You may file an application for relief from penalty with Ecology explaining why Ecology should reduce or cancel the penalty. A form is enclosed for your convenience. It must be signed under oath before a notary public, or other person authorized to take oaths.

If you choose to submit an Application for Relief from Penalty, you must do so within fifteen (15) days of receipt of this notice. Send your application for relief to: Mr. Robert Wilson, Compliance Inspector, Washington State Department of Ecology, 1315 W. 4th Avenue, Kennewick, WA 99336-6018. At the same time, send a copy to: Washington State Department of Ecology, c/o Enforcement Officer, P.O. Box 47600, Olympia, WA 98504-7600. After reviewing your Application for Relief, Ecology will notify you of its decision.

(2) If you choose not to submit an Application for Relief, but still wish to contest the penalty, you may file an appeal with the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. At the same time, a copy of your appeal must be sent to the Washington State Department of Ecology, c/o Enforcement Officer, P.O. Box 47600, Olympia, WA 98504-7600. These procedures are consistent with Chapter 43.21B RCW.

Dated this thirteenth day of June 2000, in Kennewick, Washington.