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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2900

September 22, 1992



CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

EPA/State
ID Number: (WA7890008967)

Date and Time of Inspection(s):
May 11, 1992, 1015 - 1315 hours
May 26, 1992, 1420 - 1630 hours
May 29, 1992, 1200 - 1600 hours

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, Washington 99352

Dear Mr. Wagoner and Mr. Anderson:

Re: Dangerous Waste Compliance Inspection of T-Plant

Thank you for the assistance of United States Department of Energy (USDOE-RL) and Westinghouse Hanford Company (WHC) personnel during the inspection of T-Plant in May 1992. As we discussed with facility representatives after the inspection, there were several areas of non-compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) at T-Plant which need to be resolved. Responsibility for completion of corrective action items of this letter is directed to WHC. Responsibility for verification of completion on the enclosed compliance certificate is directed to USDOE-RL, the facility owner.

The violations documented in the T-Plant inspection report identify a failure by WHC to properly manage dangerous waste. The majority of WAC 173-303 requirements violated are basic to every dangerous waste generator in Washington. It is incumbent upon USDOE-RL and WHC to take any actions necessary to ensure these types of deficiencies do not exist at other facilities on the Hanford site.

The Washington State Department of Ecology (Ecology) has chosen, in this case, not to issue a formal enforcement action (enforcement order and/or penalty); however, future failure by other Hanford site facilities to comply with these basic generator requirements may result in formal enforcement action. In the future, similar violations found at other facilities will be viewed as repeat violations and may be subject to formal enforcement action.



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This compliance action is being taken under the authorities granted to Ecology by RCW 70.105.095 (Hazardous Waste Management) and using the policy guidance of the Department. Generator activities on the Hanford facility that are not performed within a permitted Treatment, Storage or Disposal (TSD) unit are not included in the Hanford Federal Facility Agreement and Consent Order (TPA). T-Plant is not a TSD unit as defined in the TPA. Therefore, Ecology does not intend on entering into dispute resolution as outlined in TPA Article VII, paragraph 28, and does not expect a 21-day rebuttal to this compliance letter. Ecology feels that allowing T-Plant to determine most of the corrective action specifics will expedite attaining compliance with the dangerous waste regulations.

Details on the following violations are identified in the enclosed fact sheet:

CLASS I VIOLATIONS

WAC 173-303-070 - Designation of Dangerous Waste

- o failure to designate solid waste as dangerous waste

WAC 173-303-145 - Spills and Discharges

- o failure to report spills of hazardous waste to the environment

WAC 173-303-170 - Requirements for Generators of Dangerous Waste

- o failure to designate waste per subsection (1)(a)
- o failure to maintain waste stored for longer than ninety days in accordance with the TSD requirements of WAC 173-303-200 per subsection (3)

WAC 173-303-200 - Accumulating Dangerous Waste On-Site

- o failure to ship wastes off-site in 90 days or less to a designated facility per subsection (1)(a)
- o failure to indicate accumulation start dates per subsection (1)(c)
- o failure to label containers (drums) "hazardous waste" or "dangerous waste" per subsection (1)(d)

WAC 173-303-210 - Generator Recordkeeping

- o failure to provide training records for review by Ecology inspectors at the time of inspection per subsection (6)

WAC 173-303-320 - General Inspection

- o failure to follow an inspection plan, maintain logs, and perform corrective actions per subsections (1), (2)(d), and (3)

WAC 173-303-330 - Personnel Training

- o failure to adequately train personnel responsible for the control and handling of dangerous waste per subsection (1)
- o failure to develop and implement a written dangerous waste training program for facility personnel per subsection (2)

WAC 173-303-630 - Use and Management of Containers

- o failure to place and store dangerous waste in containers in good condition per subsection (2)
- o failure to indicate major risks of wastes per subsection (3)

WAC 173-303-640 - Tank Systems

- o failure to assess tank system integrity per subsection (2)
- o failure to provide secondary containment per subsection (4)
- o failure to follow general operating requirements per subsection (5)
- o failure to respond to leakage per subsection (7)

CLASS II VIOLATIONS

WAC 173-303-350 - Contingency Plan and Emergency Procedures

- o failure to maintain an updated contingency plan per subsection (3)(d)

WAC 173-303-630 - Use and Management of Containers

- o failure to perform weekly inspections per subsection (6)

WAC 173-303-640 - Tank Systems

- o failure to perform daily inspections per subsection (6)

In order to correct the identified violations of WAC 173-303, please complete the following six items within the time frames specified. Please be advised that failure to correct these non-compliant items may result in the issuance of an administrative order and/or penalty under RCW 70.105.095 (Hazardous Waste Management).

1. Within twenty (20) calendar days of receipt of this letter WHC shall identify, by physical inspection and document review, the condition of all dangerous or mixed waste stored at the T-Plant facility. This identification shall include individual container numbers, storage location, accumulation date, waste identification and waste codes, sample dates for undesignated or "unknown" waste, waste quantity, container condition and condition of labeling. Provide a report of all findings from the investigation to Ecology within 20 calendar days of receipt of this letter.
2. Within thirty (30) calendar days of receipt of this letter WHC shall provide a specific program for correcting all deficiencies identified in item 1. This program shall identify accomplishment dates and proposed disposal locations. It shall be incorporated into the existing T-Plant corrective action program. For all deficiencies identified, a "root cause" shall be determined so the facility will be able to develop appropriate long-term corrective actions once short-term problems are corrected. All corrective actions from previous investigations and the investigation required in item 1 must be completed by November 25, 1992. Provide this all-inclusive corrective action program to Ecology within 30 calendar days of receipt of this letter.
3. Within thirty (30) calendar days of receipt of this letter WHC shall implement a facility-specific training program for all dangerous waste workers at the T-Plant facility. The requirements of WAC 173-303-330 must be incorporated into the training plan. Provide a copy of the issued training plan to Ecology within 30 calendar days of receipt of this letter.
4. Within ten (10) calendar days of receipt of this letter WHC shall implement a program to ensure inspections of T-Plant are compliant with all applicable WAC 173-303 requirements.

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5. Within ten (10) calendar days of receipt of this letter WHC shall provide Ecology with a detailed inventory of all T-Plant dangerous waste inspection records over the required five year retention period. The inventory shall document all missing inspection records as well as those that are available.
6. Within fifteen (15) calendar days of receipt of this letter WHC shall perform a detailed review of all available inspection records identified in item 5. Provide Ecology with a listing of all uncorrected deficiencies and corrective actions within 15 calendar days of receipt of this letter. All corrective actions must be completed on or before November 25, 1992.

Please do not hesitate to call me at (509) 546-2990 or Steve Moore at (509) 546-2977 should you have questions or require clarification on any of the items in this compliance letter or the enclosed "Certificate of Compliance." Please complete and submit the enclosed Certificate of Compliance to Steve Moore by October 23, 1992.

Sincerely,



David Nylander, Office Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

DN:sm

Enclosures:

1. Certificate of Compliance
2. Fact sheet

cc: Ms. June Hennig, Director
Waste Management Division
U. S. Department of Energy
Richland Field Office

Mr. H. E. McGuire, Vice President
Restoration and Remediation
Westinghouse Hanford Company

Mr. Gerry Faulk, Plant Manager
T-Plant
Westinghouse Hanford Company

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Mr. Dale McKenney, Assistant Plant Manager
T-Plant
Westinghouse Hanford Company

Mr. Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. Dave Jansen, Hanford Project Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. G. Thomas Tebb, RCRA Unit Supervisor
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Please complete and return this form to Steve Moore, Washington State Department of Ecology, 7601 W. Clearwater Avenue, Suite 102, Kennewick, Washington 99336, by October 23, 1992.

CERTIFICATE OF COMPLIANCE

As a legal representative of the U.S. Department of Energy, I certify that to the best of my knowledge, the compliance of the T-Plant facility located on the Hanford Reservation, 200 West Area, Facility ID Number WA7890008967 is as shown below.

COMPLIANCE STATUS

(A facility representative shall list the completion date and initial for each item.)

<u>Items of Non-compliance</u>	<u>Due Date</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Comments</u>
Item 1	_____	_____	_____	_____
Item 2	_____	_____	_____	_____
Item 3	_____	_____	_____	_____
Item 4	_____	_____	_____	_____
Item 5	_____	_____	_____	_____
Item 6	_____	_____	_____	_____
_____ Signature of USDOE-RL Representative			_____ Date	

T-Plant Compliance Inspection Fact Sheet

Owner U. S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Operator Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Facility/Location T-Plant, 200 West Area - Hanford Federal Reservation

Contact Dale McKenney, T-Plant Assistant Plant Manager
(509) 373-1713

Activity Compliance inspection conducted in response to a spill report.

Background

T-Plant is a canyon-type facility located in the 200 West Area of the Hanford Federal Reservation. The primary mission of T-Plant is the radioactive decontamination of equipment from other facilities on the Hanford site. Highly radioactive decontamination work is done in the canyon area of building 221-T, and lower level decontamination is done in the 2706-T building. The primary waste streams from T-Plant are the acids and caustics used in the various decontamination processes. The plant is currently being recertified to perform decontamination work after being shutdown for reorganization and renovation. The 2706-T facility is expected to be operational during 1992, and the 221-T canyon is scheduled to be back in operation in 1993. Smaller waste streams consist of used oils, solvents, paints, rags, exhaust ventilation filters, spill absorbent, and other materials generated by operations at an industrial facility.

Findings

Facility inspection and review of documentation by Ecology revealed the following findings:

Finding #1 FAILURE TO PROVIDE TRAINING RECORDS TO ECOLOGY INSPECTORS

WAC 173-303-210 Generator recordkeeping. (6) All generator records, including plans required by this chapter, shall be made available and furnished upon request by the director.

Ecology inspectors requested training records verbally on May 11, 1992. On May 26, 1992 Ecology inspectors requested to be provided personnel training records for review both verbally and in writing. WHC refused to provide personnel training records to Ecology inspectors on both occasions.

Finding #2 INADEQUATE PERSONNEL TRAINING PLAN

WAC 173-303-330 Personnel training. (2) Written training plan. The owner or operator shall develop a written training plan which must be kept at the facility and which must include the following documents and records: (a) For each position related to dangerous waste management at the facility, the job title, the job description, and the name of the employee filling each job. . . (b) A written description of the type and amount of both introductory and continuing training required for each position; and (c) Records documenting that facility personnel have received and completed the training required by this section.

Ecology inspectors requested and were provided with copies of the written training plan used by T-Plant. The plan in use is not a facility-specific plan, rather it is one that covers all 200 Area operators or supervisors. T-Plant provided a draft plant-specific plan and acknowledged that no current plant-specific plan is in use. The draft plan does not meet WAC 173-303-330 requirements.

Finding #3 INADEQUATE PERSONNEL TRAINING

WAC 173-303-330 Personnel training. (1) . . . This program must teach personnel to perform their duties in a way that ensures the facility's compliance with this chapter 173-303 WAC, must teach facility personnel dangerous waste management procedures . . . relevant to the positions in which they are employed. . .

Review of completed surveillance logs and interviews with operations personnel directly responsible for conducting surveillances and supervisors who review hazardous waste surveillances revealed that training covering dangerous waste management procedures was inadequate. Their lack of training is evidenced by:

- 1) the inconsistencies in the documentation of hazardous waste inspections,
- 2) the unacceptable dangerous waste management found at T-Plant,
- 3) the lack of documentation necessary to substantiate training,
- 4) interviews of T-Plant employees revealing some required training was not provided, and
- 5) failure to implement a facility-specific training program.

Finding #4 EXCEEDING NINETY DAY STORAGE LIMIT

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, . . . may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility

which is permitted by the department . . . in ninety days or less. (2) For the purposes of this section, the ninety-day accumulation period begins on the date that: (a) The generator first generates a dangerous waste . . .

The following are examples of dangerous waste stored at T-Plant for longer than ninety days:

- 1) A drum of waste stored in the 2706-T less than ninety day storage area was labeled as Hazardous Waste, D-008, and marked with an accumulation date of December 5, 1990.
- 2) A drum of waste stored in the Non-Radioactive less than ninety day storage area was labeled "Toluene solution", and marked with an accumulation date of January 1, 1988.
- 3) Several other drums within this 2706-T area were labeled or marked "Hazardous Waste"; however, no accumulation dates were marked. According to the T-Plant Hazardous Waste Coordinator, many of the hazardous waste drums without accumulation dates marked were stored there for longer than ninety days.
- 4) Railcar #18581 was not transferred to tank farms before ninety days were exceeded.

Finding #5 INADEQUATE WEEKLY INSPECTIONS

WAC 173-303-320 General inspection. (1) The owner or operator shall inspect his facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health. . . . (2) The owner or operator shall develop and follow a written schedule for inspecting . . . (a) He must keep the schedule at the facility; (b) The schedule must identify the types of problems which are to be looked for during inspections; (c) The schedule shall indicate the frequency of inspection for specific items. . . . (d) The owner or operator shall keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, an account of spills or discharges in accordance with WAC 173-303-145, and the date and nature of any repairs or remedial actions taken. The log or summary must be kept at the facility for at least five years from the date of inspection. (3) The owner or operator shall remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

Ecology's review of weekly inspection records revealed uncorrected deficiencies, missing reports (April 29, 1992), and failure by inspectors and supervisors to initiate corrective actions. The deficiencies identified in the surveillance logs were numerous and repetitive. When interviewed, the responsible supervisor could not provide any reason for repeatedly failing to remedy discrepancies identified by weekly surveillances.

Finding #6 IMPROPER STORAGE OF HAZARDOUS WASTE

WAC 173-303-170 Requirements for generators of dangerous waste.

(1)(a) The generator shall be responsible for designating his waste as DW or EHW.

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, not to include transporters as referenced in WAC 173-303-240(3), may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9), or the waste is placed in tanks and the generator complies with WAC 173-303-640 (2) through (10) . . . (c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container; (d) While being accumulated on site, each container and tank is labeled or marked clearly . . . (e) The generator complies with the requirements for facility operators contained in WAC 173-303-330 through 173-303-360 . . .

WAC 173-303-630 Use and management of containers. (1) Applicability. The regulations in this section apply to owners and operators of all dangerous waste facilities that store containers of dangerous waste. (2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. In addition, the owner or operator must address leaks and spills in accordance with the applicable provisions of WAC 173-303-145 and 173-303-360. (3) Identification of containers. The owner or operator must label containers in a manner which adequately identifies the major risk(s) associated with the contents of the containers . . . (4) Compatibility of waste with containers. The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the dangerous waste to be stored . . . (5) Management of containers. (a) A container holding dangerous waste must always be closed, except when it is necessary to add or remove waste. (b) A container holding dangerous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. . . . (6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored . . .

WAC 173-303-640 Tank systems. (1) Applicability. (a) The regulations in WAC 173-303-640 apply to owners and operators of facilities that use tank systems to treat or store dangerous waste, except as (b) and (c) of this subsection provides otherwise. . . . (4) Containment and detection of releases. (a) In order to prevent the release of dangerous waste or dangerous constituents to the environment, secondary containment that meets the requirements of the subsection must be provided . . .

Inspection of waste storage areas, record reviews, and interviews by Ecology revealed the following deficiencies in waste storage facility construction, waste labeling, waste designation, and container condition:

- 1) Several drums in the 2706-T yard were stored as DW, but not designated or labeled as DW.
- 2) The less than ninety day storage pad in the 2706-T yard collects rainwater and sends it into the T-Plant canyon where it is pumped to tank cars for transfer to the tank farms as radioactive waste for disposal into underground double shell tanks. The pad was constructed prior to 1986 and does not have to meet the containment requirements of WAC 173-303-630 (7). However, it is not considered the best management practice for protecting waste containers from the rain. This practice has led to the intrusion of the water into the drums causing waste liquids to spill to the cracked concrete pad.
- 3) Sodium hydroxide storage tank SQ-141 and tank EP-143 outside of the 221-T building have been labeled as DW storage tanks. These tanks do not meet many of the requirements for waste storage.
- 4) Reports of a deteriorating caustic waste drum, also documented on surveillance reports as leaking to the environment, and the oil/water drum with the pinhole leak are examples of incompatible and deteriorated waste containers.
- 5) Used HEPA filters were observed being stored open to the environment or in deteriorated cardboard boxes. These filters are radioactive and typically would be designated as DW because of the chemical used to test them. The filters were not designated or labeled as DW, and had no accumulation start dates.

Finding #7 UNREPORTED RELEASE OF DANGEROUS WASTE TO THE ENVIRONMENT

WAC 173-303-145 Spills and discharges. (1) Purpose and applicability. This section sets forth the requirements for any person responsible for a spill or discharge, except when such release is otherwise permitted under state or federal law. . . . This section shall apply when any dangerous waste or hazardous substance is intentionally or accidentally spilled or discharged . . . regardless of the quantity of dangerous waste or hazardous substance. (2) Notification. Any person who is responsible for a nonpermitted spill or discharge shall immediately notify the individuals and authorities described for the following situations: (a) For spills or discharges onto the ground or into groundwater or surface water . . . Also, notify the appropriate regional office of the Department of Ecology. . . . (3) Mitigation and control. The person responsible for a nonpermitted spill or discharge shall take appropriate immediate action to protect human health and the environment . . . (a) In addition, the Department may require the person responsible for a spill

or discharge to: (i) Clean up all released dangerous wastes or hazardous substances . . . (ii) Designate and treat, store or dispose of all soils, waters, or other materials contaminated by the spill or discharge . . .

Ecology inspectors, on May 11, 1992, observed residue on the soil around the transfer points of the product storage tanks (SQ-141 and SQ-142) and tank EP-143 outside of building 221-T. After Ecology identified this apparent leakage, the transfer piping was removed and the connections to the tank were blank flanged. Ecology was unable to find any notification of this release or any record of notification from the Occurrence Notification Center. This leakage had been identified on several weekly surveillance reports by facility operators, but corrective action was not performed. There was no evidence that the soil contaminated by these spills was remediated. Ecology recognizes that the spill reporting requirements have changed, but the occurrences identified above took place while the quoted regulation was in effect.

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CORRESPONDENCE DISTRIBUTION COVERSHEET

Author: D Nylander/Ecology
Addressee: JD Wagoner/RL
TM Anderson/WHC
Correspondence No.: Incoming: 9206673B

Subject: DANGEROUS WASTE COMPLIANCE INSPECTION OF T-PLANT

INTERNAL DISTRIBUTION

Approval	Date	Name	Location	w/att
		Correspondence Control	A3-01	X
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		RJ Bottenus	T3-28	X
		SL Bradley		
		DB Cartmell	R3-56	X
		GW Faulk	T3-28	X
		AJ Fisher		X
		DG Ham	T3-28	X
		WH Hamilton, Jr. (Assignee)		X
		RJ Julian	T3-28	X
		JR Knight		X
		RL Martin	R3-20	X
		HE McGuire (Level I)		X
		DE McKenney	T3-28	X
		RM Millikan	T3-28	X
		RD Pierce	N3-13	X
		LW Roberts	T3-28	X
		EP Vodney		
		JC Wiborg	R3-09	X
		BA Austin		X
		EDMC	114-22	X

