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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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November 6, 1990



Mr. Steven H. Wisness
Hanford Project Manager
U.S. Department of Energy
P.O. Box 550
Richland, Washington 99352

Re: Notices of Deficiency for the 303-K Radioactive Mixed-Waste Storage Facility Closure Plan and the 304 Concretion Facility Notice of Deficiency Response Tables

Dear Mr. Wisness:

This letter transmits Ecology's comments on the 303-K Radioactive Mixed-Waste Storage Facility and the 304 Concretion Facility Closure Plan Notice of Deficiency Response Tables of October 1990. The Response Tables were individually reviewed for compliance with final facility status standards in the state Dangerous Waste Regulations (Chapter 173-303 WAC).

Although these tables were reviewed separately, they were found to have the same primary areas of concern. These are as follows:

1. The changes proposed to address the lack of detail in these plans will not adequately correct their deficiencies.
2. Although the stated goal for these sites is clean closure, the closure strategy outlined will not fulfill the performance standards of the Dangerous Waste Regulations for clean closure.
3. The quality assurance and quality control remain inadequate.
4. The RCRA/CERCLA integration strategy proposed for these sites remains inappropriate and must be reevaluated.
5. Controls for the health and safety hazards associated with radioactive contaminants are still not adequately addressed. The cleanup of the radioactive constituents remains inappropriately deferred from the closure activities.

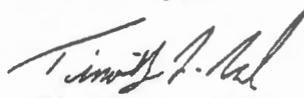
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Mr. Wisness --
November 6, 1990
Page 2

I am requesting that USDOE/WHC respond to these comments with revised Closure Plans. These Plans should be submitted no later than January 8, 1991. Should you have questions or concerns regarding these notices, please contact Megan Lerchen of my staff at (206) 438-3089.

Sincerely,



Timothy L. Nord
Hanford Project Manager

Enclosures

cc: P. Day - EPA, Richland
D. Duncan - EPA, Seattle
T. Michelena - Ecology, Olympia
T. Veneziano (AR) - WHC

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DEPARTMENT OF ECOLOGY
NOTICE OF DEFICIENCY FOR
THE 304 CONCRETION FACILITY
NOD RESPONSE TABLE OF OCTOBER 1990
November 6, 1990

The following comments correspond to the numbers from the 304 Concretion Facility Closure Plan NOD Response Table dated October 5, 1990. Proposals made in the following comments are accepted by Ecology:

2	3	5	7	8	9	10	12	15	19	22
26	29	33	34	36	39	41	43	44	45	46
47	48	49	51	52	53	55	56	59	61	63
64										

Proposals made in the following comments are accepted by Ecology pending submission of further information as proposed in the USDOE-RL/WHC responses:

1	6	11	13	14	16	18	23	24	25	30
31	37	40	42	54	58	62	65	67		

Proposals made in the following comments are not accepted by Ecology:

4	17	20	21	27	28	32	35	38	50	57
60	66									

In numerous instances changes to the closure plan are proposed, yet the exact language is not provided. Following this course will result in USDOE/PNL producing a document without specific guidance from Ecology. In order to minimize the number of corrections that will be necessary in the next revision of the closure plan, the proposed changes will be addressed within the scope of the Unit Managers Meetings. Provide draft text revisions for the following comment numbers to Ecology for discussion purposes:

4	11	14	17	18	23	25	27	32	31	42
54	57	58	60	65						

It is anticipated that the above issues will be the most difficult to achieve consensus between the parties. Other issues may also cause confusion; text revisions for these may be provided to Ecology for comment as well.

General Comment: USDOE-RL/WHC repeatedly proposes development of clean closure performance standards that are not in accordance with those stipulated under WAC 173-303-610(2)(b). This is unacceptable; the only closure performance standards allowable under the Dangerous Waste Regulations for clean closure are those stipulated in WAC 173-303-610(2)(b). However, while clean closure is a desirable goal in all cases, in some instances it may not be feasible. If clean closure is not attainable, then compliance with the requirements of WAC 173-303-610(7) through -610(11) is necessary.

4. Comment: This NOD comment addresses a number of issues, these are as follows:

- a. DOE-RL/WHC proposes, "If dangerous constituents are determined to exist in concentrations above action levels and reevaluation of action levels is not warranted, remediation of the soil will be evaluated under the CERCLA RI/FS process for the 300-FF-3 Operable Unit." This is not acceptable. See comment numbers 17 and 60.

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304 Concretion Facility Closure Plan
NOD Response Table Comments
November 6, 1990

- b. DOE-RL/WHC states that because the proposed method of closure for the 304 Concretion Unit is clean closure, "... a postclosure plan is not required unless the facility cannot be clean closed." A postclosure plan is required; this must be included in the next revision of the closure plan.
- c. DOE-RL/WHC proposes to include a number of paragraphs within the text in order to clarify the definitions of "baseline," "baseline threshold," and "action level." These terms should be defined in a section for acronyms, abbreviations, and definitions similar to that provided in Part B permit applications. How these concepts will be used in developing the cleanup strategy to be implemented after obtaining the results of the sampling and analysis at the unit should be provided in both the form of a narrative and flow-chart in the appropriate sections of the closure plan.

Requirement: Compliance with the above is required. Provide draft language to Ecology for interim guidance.

16. Transcription Error: The transcription of Ecology's NOD requirement incorrectly cites WAC 173-303 for the Model Toxics Control Act (MTCA). The citation as originally provided (WAC 173-340) is correct. Refer also to NOD comment number 18.

17. Comment: For clean closure, the building and concrete and asphalt pads must be decontaminated to the contamination levels stipulated in WAC 173-303-610(2)(b) or removed from the unit boundaries. The approach proposed for the soil cleanup is unacceptable. The soil must be cleaned to at least area background levels (area background is defined in WAC 173-340-200). If contamination remains in the soil that exceeds the performance standards stipulated in WAC 173-303-610(2)(b), then the unit can not be clean closed. A postclosure plan that provides for management of the unit within the CERCLA cleanup must be prepared.

Requirement: Compliance with the above is required. See also comment number 60.

18. Comment: USDOE-RL/WHC proposes to establish criteria for contamination levels that "pose a substantial threat to human health or the environment" for certifying clean closure.

Requirement: Any criteria developed for threats to human health or the environment must be based on the cleanup standards of MTCA (WAC 173-340). Any criteria for closure must have Ecology concurrence. For clean closure, the cleanup standards are stated in WAC 173-303-610(2)(b).

20. Comment: USDOE-RL/WHC proposes sole use of samples obtained within the 304 Concretion Unit for establishing background concrete contamination levels. This is not acceptable.

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304 Concretion Facility Closure Plan
NOD Response Table Comments
November 6, 1990

Requirement: Concrete samples from areas not subject to contamination must be used for establishing a background concrete contamination value.

21. Comment: USDOE-RL/WHC proposes sole use of samples obtained within the 304 Concretion Unit for establishing background asphalt contamination levels. This is not acceptable.

Requirement: Asphalt samples from areas not subject to contamination must be used for establishing a background asphalt contamination value.

22. General Comment: Ecology accepts DOE-RL/WHC's assertion that the process sewer begins immediately beneath the building floor.

Requirement: Ecology will require that the permitting process for the 300 Area Process Sewers incorporate all sewer lines to the point where they enter a building floor.

24. Comment: The proposed language is acceptable, but further information is required on this topic in the sampling and analysis plan to adequately describe the verification sampling.

Requirement: Describe the sampling and analytical parameters for the verification sampling. This must include the sample size, target analytes, and quality assurance/quality control plan. Refer to the 2101-M Pond Closure Plan for guidance.

27. Comment: DOE-RL/WHC proposes expanding the text "to indicate the option of cleaning to baseline if feasible."

Requirement: Cleaning the unit's soils to at least area background contamination levels is not optional. Revise the closure strategy as necessary to reflect this. See comment numbers 17 and 60.

28. Comment: In order to clean close the 304 Concretion Unit, the contamination levels of dangerous wastes and dangerous waste residues must be decontaminated or removed to meet the performance standards stipulated in WAC 173-303-610(2)(b).

Requirement: This requirement must be integrated within the closure plan. See comment numbers 17 and 60.

32. Comment: Development of a soil sampling plan based on the 300 Area Solvent Evaporator (300 ASE) is inappropriate; the 300 ASE is located on top of a burial ground.

Requirement: The soil sampling plan must address vadose zone contamination at this unit.

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304 Concretion Facility Closure Plan
NOD Response Table Comments
November 6, 1990

35. Comment: Because of the past uses of this building, it is not possible to determine conclusively what type of contaminants will be expected due to past practices. For clean closure it is required that all dangerous wastes or waste residues (including soil) be cleaned or removed to the performance standards stipulated in WAC 173-303-610(2)(b). Levels of contamination in the soils above these performance standards but below area background values may be managed under the CERCLA clean-up if this is provided for within the postclosure plan.

Requirement: Revise the closure plan to comply with the above. See comments 17 and 60.

38. Comment: Analysis for only a limited number of organic compounds is proposed, see comment number 35.

Requirement: A more comprehensive list of organic analytes must be evaluated.

44. Comment: Concrete and asphalt background samples may not be obtained within a TSD unit.

Requirement: Refer to comment numbers 20 and 21.

50. Comment: USDCE-RL/WHC proposes that the requirement for the unit-specific personnel decontamination procedures be provided in the Hanford Site-Wide health and safety plan.

Requirement: The unit-specific plan must be presented within the unit's closure plan. It is anticipated that the health and safety plan for the 304 Concretion unit will be more detailed than that for the Site-wide. Refer to comment number 54.

52. Comment: This is acceptable if uranium testing is the only variance from the analytical methods stipulated in WAC 173-303-110.

Requirement: Any analytical methods which deviate significantly from the methods stipulated in WAC 173-303-110 must be submitted to Ecology to determine acceptance prior to their use.

57. Comment: Although Ecology requested information regarding training, USDCE/WHC states that the information provided is, "sufficient for the purposes of this closure plan." The information presented is not adequate.

Requirement: Describe the course contents and list which training is required for individual job classifications.

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304 Concretion Facility Closure Plan
NOD Response Table Comments
November 6, 1990

60. Comment: There appears to be some confusion about the closure strategy acceptable to Ecology. This unit is being permitted to close under WAC 173-303, therefore, the performance standards of WAC 173-303-610 must be met. Ecology has determined that if clean closure of the soils to these standards is not appropriate due to wide spread contamination throughout the 300-FF-3 Operable Unit then the soils must be cleaned to a local area background contamination levels and the RCRA postclosure must be managed within the requirements of the CERCLA closure.

Requirement: Ecology will accept a closure plan in which soils with contamination levels exceeding the performance standards stipulated under WAC 173-303-610(2)(b) may be left in place under the following two conditions:

- The contamination levels do not exceed the area background contamination levels present throughout the 300-FF-3 Operable Unit and
- The RCRA postclosure plan provides for management of the 304 Concretion Unit within the CERCLA cleanup.

Revise the closure plan accordingly.

62. Comment: DOE-RL/WHC states, "... equipment used during closure activities will be decontaminated or disposed of according to EIIIs 4.2, 5.4, and 5.5."

Requirement: This is acceptable pending Ecology's review of the cited EIIIs. Ecology anticipates that these will be reviewed as part of the development of the Hanford Site-Wide Permit.

65. Comment: DOE-RL/WHC argues that a legal description of the unit is not required at this time because a) it is not required under WAC 173-303 if the unit is clean closed or b) if it is not clean closed, the information would not be provided until after remediation because the size of the area to be remediated would not be known.

Requirement: In order to plan a cleanup of this unit, it is necessary to know the boundaries. Ecology realizes that there is some difficulty in obtaining the precise legal boundaries at this point in time, however, we also recognize that boundaries must be determined in order to determine the scope of the cleanup for this unit. Provide the legal description of this unit when the information is available. In the interim, provide a description and illustration of the boundaries of this unit for use in the closure of the unit. Note that the asphalted area surrounding the building will be considered part of this unit. The sampling plan must be revised to incorporate this area.

66. Comment: DOE-RL/WHC proposes to provide a postclosure plan if the soil cannot be clean closed which will describe, "... the interim stabilization and care prior to remediation under the CERCLA RI/FS process." This is not adequate for the purposes of a postclosure plan. The postclosure plan

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304 Concretion Facility Closure Plan
NOD Response Table Comments
November 6, 1990

must be provided with the closure plan. It must provide for management of the unit through the CERCLA closure process. Refer to WAC 173-303-610(7) for guidance. It will not be necessary to implement the postclosure plan if the performance standards of WAC 173-303-610(2)(b) for clean closure are met.

Requirement: Compliance with the above is required.

68. Comment: USDOE-RL/WHC explains the table title indication of a 5 percent frequency.

Requirement: This type of information should be provide in the quality assurance/quality control section of the closure plan. Refer to the 2101-M Pond Closure Plan in development for guidance.

DEPARTMENT OF ECOLOGY
NOTICE OF DEFICIENCY FOR
THE 303-K STORAGE FACILITY NOD
RESPONSE TABLE OF OCTOBER 1990
November 6, 1990

The following comments correspond to the numbers from the 303-K Radioactive Mixed-Waste Storage Facility Closure Plan NOD Response Table dated October 5, 1990. Proposals made in the following comments are accepted by Ecology:

1	2	5	8	9	10	11	13	15	18	19
20	22	29	30	31	35	39	40	42	44	45
46	47	48	52	55	57	60	61			

Proposals made in the following comments are accepted by Ecology pending submission of further information as proposed in the USDOE-RL/WHC responses:

3	4	6	16	28	32	33	34	36	38	41
43	49	50	54	58	59					

Proposals made in the following comments are not accepted by Ecology:

7	12	14	17	21	23	24	25	26	27	28
37	51	53	56	62						

In a number of instances changes to the closure plan are proposed, yet the exact language is not provided. Following this course will result in USDOE/PNL producing a document without specific guidance on these topics from Ecology. In order to minimize the number of corrections that will be necessary in the next revision of the closure plan, the proposed changes will be addressed within the scope of the Unit Managers Meetings. Provide draft text revisions for the following comment numbers to Ecology for discussion purposes:

4	12	16	25	36	49	50	53	56	62
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It is anticipated that the above issues will be the most difficult to achieve consensus between the parties. Other issues may also cause confusion; text revisions for these may be provided to Ecology for comment as well.

General Comment: USDOE-RL/WHC repeatedly proposes development of clean closure performance standards that are not in accordance with those stipulated under WAC 173-303-610(2)(b). This is unacceptable; the only closure performance standards allowable under the Dangerous Waste Regulations for clean closure are those stipulated in WAC 173-303-610(2)(b). However, while clean closure is a desirable goal in all cases, in some instances it may not be feasible. If clean closure is not attainable, then compliance with the requirements of WAC 173-303-610(7) through -610(11) is necessary.

3. Comment: USDOE-RL/WHC states that additional maps will be provided if a specific request is made.

Requirement: Maps which delineate the waste management areas, and describe and illustrate the land uses in the immediate area (i.e., what are the nearby buildings, etc.) must be included in the next revision of the closure plan.

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303-K Storage Facility Closure Plan
NOD Response Table Comments
November 6, 1990

6. Comment: The USDOE-RL/WHC discussion along with the proposed new tables and drawings will provide the information requested by Ecology.

Requirement: Revise the text of the closure plan to include the discussion provided in this response.

7. Comment: The information presented is not adequate for documenting that Table 4-1 covers all wastes sent to the unit.

Requirement: Edit the text and legend regarding this table to indicate it is not comprehensive. In addition, incorporate the text presented in the closure plan.

12. Comment: DOE-RL/WHC proposes to include a number of paragraphs within the text in order to clarify the definitions of "baseline," "baseline threshold," and "action level." Any terms not defined should be defined in a section for acronyms, abbreviations, and definitions similar to that provided in Part B permit applications. How these concepts will be used in developing the cleanup strategy to be implemented after obtaining the results of the sampling and analysis at the unit should be provided in both the form of a narrative and flow-chart in the appropriate sections of the closure plan. Ascertain whether or not these terms are appropriate within the requirements of Chapter 173-303 WAC, see the next paragraph for guidance.

The proposed text and clean closure objectives are not acceptable. The original requirement in Ecology's NOD stated that the closure standard for this facility will be background. From USDOE-RL/WHC's response it appears that clarification of this comment is necessary. Under WAC 173-303-610(2)(b), closure performance standard, the levels of dangerous waste or dangerous waste constituents or residues remaining after closure of a unit may not exceed background environmental levels or designation limits for clean closure. If these performance standards cannot be met then the unit is subject to subsections (7) through (11) of WAC 173-303-610. Refer to WAC 173-303-610 for guidance.

The approach proposed for the soil cleanup is unacceptable. The soil must be cleaned to at least area background levels (area background is defined in WAC 173-340-200), not baseline. A postclosure plan that provides for management of the unit within the CERCLA cleanup must be prepared.

Requirement: Compliance with the above is required.

14. Comment: USDOE-RL/WHC proposes sole use of samples obtained within the 304 Concretion Unit for establishing background concrete contamination levels. This is not acceptable.

Requirement: Concrete samples from areas not subject to contamination must be used for establishing background concrete contamination values.

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303-K Storage Facility Closure Plan
NCD Response Table Comments
November 6, 1990

17. Comment: USDOE-RL/WHC proposes to revise the text to, "The decision on remediation of soil (clean to baseline or defer to CERCLA)"

Requirement: The soils must be remediated to at least area background contamination levels. See comment number 12.

21. Comment: USDOE-RL/WHC proposes a text revision to state, "... waste stored more than 90 days will be transferred" This does not give all the information requested in the original comment. It is unacceptable to have dangerous waste stored in the same location in which closure activities are taking place.

Requirement: Specify the locations where waste will be transferred and the timing of the transfer for all waste stored at the unit, including waste stored less than ninety days.

23. Comment: USDOE-RL/WHC will describe any deviations from required test methods.

Requirement: Procedures for any test method which deviates from required test methods must be submitted to Ecology with a request for approval of the substitute method.

24. Comment: Development of a soil sampling plan based on the 300 Area Solvent Evaporator (300 ASE) is inappropriate; the 300 ASE is located on top of a burial ground.

Requirement: The soil sampling plan must address vadose zone contamination at this unit. Refer to the 2101-M Pond Closure Plan in development for guidance.

25. Comment: USDOE-RL/WHC states that all of the dangerous waste constituents stored at the 303-K Facility are listed on Table 7-1.

Requirement: This table must be revised to list all constituents of concern. This includes any radioactive constituents. Refer to Section 6.3 of the Hanford Federal Facility Agreement and Consent Order. This requirement also applies to comment numbers 26 and 27.

30. Comment: USDOE-RL/WHC states that the *Environmental Investigations and Site Characterization Manual* (EII Manual, WHC-CM-7-7) has been submitted as part of the Hanford Site-Wide permit and that no changes to the text are required.

Requirement: Reference to the entire EII manual is not acceptable. The specific section must be referenced. Note that acceptance of any EII procedure is dependent on Ecology review and approval. Ecology anticipates that these will be reviewed as part of the development of the Hanford Site-Wide Permit.

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303-K Storage Facility Closure Plan
NOD Response Table Comments
November 6, 1990

36. Comment: USDOE-RL/WHC is developing a set of criteria for baseline values in the 300 Area.

Requirement: The appropriate criteria is area background (see comment number 12). A plan for determining these values must be submitted to Ecology; it should include at least the sampling plan, a quality assurance/quality control plan, and a timetable for this effort. This plan may be submitted under separate cover and used for TSD units throughout the 300-FF-3 Operable Unit.

37. Comment: Concrete and asphalt samples obtained within a TSD unit will not be accepted for determination of background contamination values.

Requirement: Refer to comment number 14.

51. Comment: USDOE-RL/WHC proposes revising the text to state, "The 90-day period will begin when the material is designated." As previously stated, the 90-day clock begins at the time of generation; counting the 90-day period from the time of designation is likely to result in non-compliance.

Requirement: Revise the text to state, "The 90-day period will begin when the material is generated."

53. Comment: Although Ecology requested information regarding training, USDOE/WHC states that the information provided is, "adequate for this closure plan." The information presented is not adequate.

Requirement: Describe the course contents and list which training is required for individual job classifications.

56. Comment: USDOE-RL/WHC states that in no case will a cover design be necessary. If it is determined after the sampling and analysis that it will be necessary for contaminated soils to be left in place until the CERCLA cleanup then a cover may be required; no other contaminated materials will be allowed to be left in place. This cover must be designed and approved prior to closure as part of the postclosure plan.

Requirement: Submit specifications for cover materials and design within the required postclosure plan. See comment number 62.

62. Comment: USDOE-RL/WHC states that they will not submit a postclosure plan. A postclosure plan is required, it should be presented in the form of an additional chapter to the closure plan with appendices as appropriate.

Requirement: A postclosure plan that provides for management of the unit within the CERCLA cleanup must be prepared and submitted to Ecology.

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CORRESPONDENCE DISTRIBUTION COVERSHEET

Author: T. L. Nord, Ecology Addressee: S. H. Wisness, DOE-RL Correspondence No.: Incoming 9005024

Subject: NOTICES OF DEFICIENCY FOR THE 303-K RADIOACTIVE MIXED-WASTE STORAGE FACILITY AND THE 304 CONCRETION FACILITY NOTICE OF DEFICIENCY RESPONSE TABLES

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		C. J. Geier	H4-57	X
		W. L. Johnson	H4-55	X
		R. E. Lerch (Assignee)	B2-35	X
		L. L. Powers	B2-35	X
		F. A. Ruck III	H4-57	X
		S. M. Price	H4-57	X
		L. L. Powers	B2-35	X
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		E. A. Weakley	L6-28	X
		PTAI (DMH)	B2-35	X
		EDMC/AR	H4-22	X
		DLB/LB	H4-57	X



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