

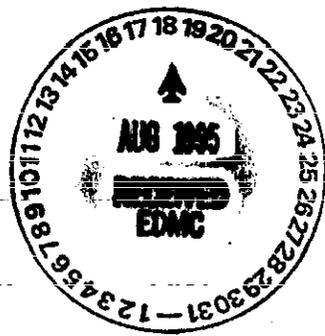


Confederated Tribes and Bands
of the Yakama Indian Nation

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Established by the
Treaty of June 9, 1855

August 7, 1995



Mr. John Wagoner, Manager
Richland Field Office
Department of Energy
P.O. Box 550 A7-50
Richland, WA 99352

Dear Mr. Wagoner:

Subject: PROPOSED PLANS FOR HANFORD 100 AREA INTERIM REMEDIAL
MEASURES; COMMENTS ON--

This letter provides comments on the proposed plans for the 100 Area Interim Remedial Actions at the 100-BC-1, 100-DR-1, and 100-HR-1 Operable Units on the Hanford Site. Our comments reflect the general objective of assuring that actions taken at the 100 Areas are consistent with the long-term objectives of the Yakama Nation, in particular, assuring that the actions are protective of human health, minimize residual injury to natural resources, reduce habitat degradation and leave the area in a condition conducive to full restoration and general unrestricted usage in the future by at least about 100 years hence.

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The proposed plans indicate actions for 24 individual liquid radioactive waste disposal sites within three different operable units at the B/C, D and H Reactor Areas at the Hanford Site. These reactor areas are located along the Columbia River. The sites were chosen as candidates for Interim Remedial Measures through a prioritization process whereby the sites with higher risks to human health and the environment, evaluated with human health and ecological risk assessments, were considered for cleanup prior to the completion of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) activities at each operable unit.

Of the sites considered high priority by the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology), some were delayed for future action due to lack of sufficient characterization data and some were eliminated as sites for cleanup (See note 4 below). For additional information, the site selection process is detailed fully in the 100 Area Source Operable Unit Feasibility Study (DOE/RL-94-61).

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The choice of sites by the Department of Energy for these interim remedial actions is not the focus of our comments, since these are

interim remedial measures, and future work is to be conducted at each operable unit under CERCLA.

A summary of our major issues are provided below. A detailed set of comments is provided in ATTACHMENT A to this letter.

1) Disposal of Waste at Hanford Site

The plans propose removal, treatment and disposal as the preferred alternative for the remediation of most of these waste sites. No action was proposed for three sites and actions will be delayed at five sites. Contaminated soil would be treated if "appropriate" (the decision making strategy is not described) and the soil will be disposed at either the W-025 Facility or the Environmental Restoration Disposal Facility (ERDF).

While removal vs insitu remediation of the contamination may meet the goals of the Yakama Nation for future use of the site, provided disturbance of religious sites and revelation of burial sites is avoided, disposal at the facilities described above does not meet our goals. The Yakama Nation would prefer that disposal sites meet the disposal criteria expected of commercial nuclear waste disposal facilities--that waste disposal areas support general unrestricted use 100 years after closure.

2) Lack of Detail in Proposed Plans

The proposed plans are very general in nature and do not provide sufficient information to compare alternatives. For example, cleanup schedules, details on temporary waste storage facilities, waste volume projections for different alternatives, amount of land area to be impacted, specifics on the nature and extent of residual contaminants which will be left in place following cleanup, and mitigation plans for habitat impacts are examples of some of the information crucial to decisions on remedial alternatives which are not provided in the subject documents. This information should be provided.

3) Limited Discussion of Specific Cleanup Standards

Missing from the plans are a list of specific cleanup standards and the methodology used to derive them. Of particular concern is whether the cleanup goals and action levels will protect future native uses of these sites near the river, considering possible scenarios, including eventual intrusion into the sites.

4) No Action as a Proposed Alternative for Some Sites

Of all high priority liquid radioactive waste disposal sites evaluated for Interim Remedial Measures, three will receive no action, and five will require further investigation prior to implementing actions. Of the sites which will not be cleaned up, one of these, the 116-H-4 Pluto Crib, was removed during an earlier cleanup activity. Another site, the 116-B-12 Seal Pit Crib, does not have sufficient characterization data to evaluate, yet was recommended for no action. The third site recommended for no action poses a risk, according to data from an analogous waste site.

These "no action" sites should be characterized by DOE to assure that existing contamination levels are at or below the appropriate cleanup standards before proceeding with no action or institutional controls.

Sincerely,

Barbara Manuel

Russell Jim, Manager
Environmental Restoration/Waste Management Program
Yakama Indian Nation

ATTACHMENT AS NOTED:

cc: K. Clarke, DOE/RL
L. McClain, DOE/RL
M. Riveland, WA Ecol.
C. Clarke, U.S. EPA Reg. 10
T. Grumbly, DOE/EM
T. O'Toole, DOE/EH
Washington Gov. M. Lowry
U. S. Senator P. Murray
DNFSB
D. Sherwood, EPA, Richland

ATTACHMENT A TO: YIN letter to John Wagoner of August 7, 1995

COMMENTS ON THE PROPOSED PLANS FOR THE 100 AREAS AT THE HANFORD SITE

Documents Reviewed:

- (1) Proposed Plan for Interim Remedial Measures at the 100-BC-1 Operable Unit (DOE/RL-94-99, Rev. 0, June 1995)
- (2) Proposed Plan for Interim Remedial Measures at the 100-DR-1 Operable Unit (DOE/RL-94-100, Rev. 0, June 1995)
- (3) Proposed Plan for Interim Remedial Measures at the 100-HR-1 Operable Unit (DOE/RL-94-101, Rev. 1, June 1995)

The Proposed Plans are very general. Comments are provided based on the information contained within the proposed plans, however a proper review and comparison of alternatives cannot be conducted without the details requested herein. It is requested that the missing details be provided in the Interim Record of Decision, and that the EPA be requested to revise the Community Relations Plan to allow review and comment on this information by the Yakama Nation prior to completion of design activities and before start of remedial field work.

The following set of comments pertains to the three proposed plans referenced above. Since the documents differ primarily in location of chosen waste sites, comments on individual documents will not be provided. The choice of Interim Remedial Measure (IRM) sites at this time is not as critical as assuring that the sites are cleaned up to a standard to support future Yakama Nation uses, that the actions cause minimal residual injury, and that habitat destruction is minimized.

GENERAL COMMENTS

1. It is commendable that, in general, the sites are to be cleaned up to residential standards; however, disposal of the waste at the Hanford Site in a manner which will prohibit unrestricted use of the land by future generations is unacceptable. The waste disposal should meet the performance requirements identified by the Yakama Nation in the letter dated May 9, 1995, from Russell Jim to John Wagoner, regarding the Hanford 100-KR-1, 200-BP-1, and 300 Area Process Trenches. The Yakama Nation expects that the criteria consistent with commercial standards for low level radioactive waste, which includes the requirement of providing for general (unrestricted) usage of the land and ground water at 100 years from the closure of waste disposal areas, be applied to disposal facilities for wastes at the Hanford Site.

2. The proposed plans are very general in nature and do not provide sufficient information to compare alternatives. For example, schedules, details on temporary waste storage facilities,

amount of habitat acreage to be impacted, and mitigation plans are examples of some of the information crucial to decisions on remedial alternatives which are not provided in the subject documents. This information should be provided. Some specific questions include: When is work expected to begin and how long will waste be stored in a non-compliant facility? Has the temporary disposal facility been designed to withstand weather and inadvertent intrusion for an indefinite time frame? At what point in time is general intrusion assumed to occur? We consider that beyond 500 years past closure is the time when it is reasonable to assume general intrusion will occur.

3a. A description of how the conduct of interim remedial measures impacts the long-term cleanup goals for the site should be accomplished. For example, are high priority sites not currently being considered for interim remedial measures being delayed indefinitely? When and how will these sites be characterized and evaluated for future action? Specifically, sites 116-B-9, 116-B-10, 116-H-2 and the two unnamed deferred sites at D Area are high priority sites which were dropped from consideration as IRM candidates without explanation. Planning should be conducted for these sites.

3b. No action was the recommended option for 116-B-12, 116-D-9, and 116-H-4. **No action is not an acceptable alternative.** It is our understanding that each of the sites evaluated are high priority based on results of investigations and on potential impacts to human health and the environment. The qualitative risk assessment shows that the site risks are outside of EPA's acceptable risk range. Furthermore, "no action" does not meet either of the threshold criteria (overall protection, derived from ARARs) or other evaluation criteria (long-term effectiveness, reduction of toxicity, mobility, and volume).

3c. The 116-B-12 Seal Pit Crib recommendation in the proposed plan is "no action", yet in the focused feasibility study, "institutional controls" are recommended. This site received a high hazard index based on data from an analogous site, yet the focused feasibility states that the site poses no threats. This site must be characterized to reconcile the conflicting information. Another option would be to include this site as an IRM and characterize it while it is undergoing cleanup.

3d. The 116-D-9 Crib was not evaluated as a candidate for interim action due to no known contamination in the top 15 feet, yet the risk table states that data is based on analogous waste site, and the risk has been calculated as greater than one for a non-cancer hazard index. This is confusing. According to the table, the site poses a risk, and should be cleaned up; however the plan dismisses the site for purposes of clean up. Actual site-specific data should be obtained from field characterization and the risk levels

re-calculated. Another option would be to include this site as an IRM and characterize it while it is undergoing cleanup.

3e. No action was recommended at the 116-H-4 Crib, due to previously conducted removal actions. Has the site been characterized to assure remaining contamination levels are below the residential risk levels? If so, the relevant supporting information should be presented. If not, site-specific information should be used to guide cleanup actions.

4. Please provide an estimate of the expected waste volumes compared to the expected volume reduction by treatment; the acreage of land to be impacted by the removal, treatment and disposal activities, and the area of land to be re-vegetated under the proposed alternatives.

SPECIFIC COMMENTS

5. References (1) and (2), Page 4, Reference (3), Page 3, "SUMMARY OF SITE RISK"

Provide a more detailed description of the residential scenario used to calculate the risks. Risk scenarios should include Yakama Nation member uses of the site, and exposure through food grown on the land, or ingestion of plants, fish and wildlife.

6. All References, page 7, 2nd Paragraph of "SCOPE AND ROLE OF ACTION"

A very general statement is included that "mitigation plans to address site-specific ecological and cultural resources will occur during the remedial design phase". Any impact to ecological and cultural resources is of great importance to the Yakama Nation. If any of the proposed actions is known at this time to have significant impact to such resources, it should be addressed now and be considered in the evaluation of alternatives and the selection of remedy.

Impacts to ecological and cultural resources should be minimized. Also, since the sites lie in traditional Native American wintering grounds, a plan should be in place to assure burial sites are not revealed and cultural artifacts are not impacted during the implementation of cleanup.

7. References (1) and (2), Page 8, Reference (3), Page 7, "INTERIM REMEDIAL ACTION GOALS"

7a. Since the contaminants of concern are known, documentation should provide a list of specific clean up goals (action levels) by contaminant, along with the methodology used to derive them. The list of preliminary remediation goals provided in the focused feasibility study is not based on residential use. Does the

scenario to be used assure that future Native American users of the site will not be at risk by residual contaminant exposure when using the site in a traditional manner? Do the cleanup standards provide adequate protection of the habitat for native species, including foods and medicines? Cleanup goals should be protective of native uses such as hunting, fishing, gathering, and pasturing livestock. Answers to these question should be provided.

7b. Provide a basis, including references, for the proposed 15 mrem standard for cleanup of radionuclides in the plan.

7c. Discuss the models which will be used to determine if remaining soil contamination will impact ground water such that contamination could exceed Maximum Contaminant Levels under the Safe Drinking Water Act.

7d. The documents state that for sites exceeding 15 feet in depth, the extent of cleanup may be balanced against several risk factors, and that public comments may be requested if soil exceeding cleanup goals are left in place. The Yakama Nation as well as the general public should be notified and permitted to comment if contamination remaining in the soil exceeds the cleanup goals.

8. References (1) and (2), Page 9, Reference (3), Page 8, Discussion of Remove/Dispose Alternative.

8a. Protection measures for waste that will be stored prior to disposal should be included. Soil containing hazardous waste should be double contained, incompatible waste should be segregated, barriers should be in place to prevent inadvertent intrusion, and runoff collection should be provided.

8b. The documents state that "Site specific re-vegetation plans will be developed during remedial design with input from affected stakeholders". These plans should be provided as early as possible in the remedial design phase and prior to construction.

9. All references, "Remove/Treat/Dispose" Discussion. (Pages 9 and 10)

Though the "Remove/Treat/Dispose" Alternative has been selected for most of the source areas, the decision point at which the choice to treat or remove is not defined. Thermal desorption will only be conducted if the contamination exceeds the waste acceptance criteria for the waste disposal facility. In the case where the soil contamination exceeds only the organic cleanup goals, but not the radiation standards, the waste will be sent to the disposal facility even though it may be possible to fully remediate the soil and return it to the site. The treatment methods also do not take into consideration waste reduction by recycling (i.e. pipes may be decontaminated and recycled as scrap metal).

10. In the Evaluation of Alternatives section of all three proposed plans, a general statement is made that "ARARs may be waived in accordance with CERCLA Section 121". This statement is true, however the EPA Guidance on preparing Superfund Decision Document states that "an alternative that cannot comply with ARARs, or for which a waiver cannot be justified, should not be presented in the Proposed Plan or Record of Decision". The document further states that specific waiver shall be requested in the Proposed Plan. Are waivers being considered? If so, they must be presented.

11. The general sampling and decision making strategy which will be used to determine if cleanup goals have been met at these IRM sites should be discussed.

12. Since equipment will be mobilized for these remedial measures, the Department of Energy may wish to consider performing environmental investigation of the sites not considered for IRMs at this time due to lack of information. Such characterization will provide useful information for planning future cleanup.

It is commendable that the sites proposed for remedial action will be cleaned up to residential standards and that the majority of high priority liquid radioactive waste disposal sites will be taken care of. As stated previously, disposal of the waste at the Hanford Site is not acceptable. Additional details need to be provided to assure that actions taken at the site are protective of human health, minimize residual injury to natural resources, and reduce habitat degradation.

These details have been specified in the comments above, and include schedules, details on temporary waste storage facilities, waste volume projections for different alternatives, amount of land area to be impacted, and mitigation plans. While the selection of IRM sites was not the main focus of this review, both the Proposed Plans and the Focused Feasibility Studies fail to clearly define the selection process and, in some cases, appear to be in conflict with each other. It was noted in comment 3 that sites which appear to have a risk were proposed as "no action" sites. No action is not acceptable to the Yakama Nation at sites where such conflicts are evident.