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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE
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June 12, 1998

Philip Laumeyer, Field Supervisor
U.S. Fish and Wildlife Service
Upper Columbia River Basin Field Office
11103 E. Montgomery Drive, Suite 2
Spokane, WA 99206

SUBJECT: EPA Comments on "Volume 1 (Aquatic Resources) of the Hanford Site 100 Area Damage Assessment Plan", May 1998

Dear Mr. Laumeyer:

Reference: Letter, Philip Laumeyer, USFWS, to Larry Gadbois, EPA, "Volume 1 (Aquatic Resources) of the Hanford Site 100 Area Damage Assessment Plan" dated May 14, 1998

Enclosed are comments from the U.S. Environmental Protection Agency (EPA) on the reference document. We appreciate the opportunity to work with the U.S. Fish and Wildlife Service and other Hanford Natural Resource Trustees on assessment of Columbia River aquatic resources. If you have any questions on these comments, please contact me at (509) 376-9884.

Sincerely,

Laurence E Gadbois

Laurence E. Gadbois
Environmental Scientist

Enclosure: As stated.

Copy: Dan Audet, USFWS
Nick Iadanza, NOAA
John Carleton, WDFW
Barbara Harper, YIN
Stuart Harris, CTUIR
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Arlene Tortoso, DOE
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Jamie Zeisloft, DOE
Administrative Record, 100 Area NPL

Philip Laumeyer Enclosure June 12, 1998

EPA Comments on "Volume 1 (Aquatic Resources) of the Hanford Site 100 Area Damage Assessment Plan"

1. Page 3, last line
The phrase "(CERCLA) has two complimentary processes for environmental cleanup and restoration" should not specify exactly "two". There are other processes than those listed, for example removal actions (section 415) or compliance orders under section 106.

2. Page 4, 1st paragraph
Suggest removal of the text "or that occur outside designated NPL sites. The Columbia River was excluded from National Priorities List (NPL) designation of the Hanford site, and therefore impacts to the aquatic system from Hanford area releases are not directly addressed by remedial actions. Columbia River aquatic resources will therefore be addressed by the NRDA process". Releases to the environment are covered in operable units remedial actions irregardless of NPL boundaries.

3. Page 8, 1st full paragraph
Suggest removing the phrase "at the population (human or environment) level". While risk assessments can be done at the population level, for humans they usually are not and ecological is often a blur of individual and population risk estimates.

4. Page 8, 1st full paragraph
Suggest removing the sentence "EPA must notify natural resource trustees of the RI/FS process and associated risk assessment procedures". Since this document is about Hanford, and at federal facilities the trustee notification responsibilities belong to the federal facility, this statement is not correct in the context of this document.

5. Page 8-9, sentence at the page change
The document states "that the RI/FS process estimates the potential risk from a hazard and doesn't evaluate the actual effects of a hazard on a population or the environment". The risk assessment component of the RI/FS process may use any of a number of methods to indicate remedial action is or is not necessary to abate risk. The risk assessment process alluded to in this paragraph is one of those methods. Another is evidence of actual effects. Therefore, suggest removing the phrase "and doesn't evaluate the actual effects of a hazard on a population or the environment".

6. Page 9, 1st paragraph
Suggest adding "data collected during monitoring, the remedial investigation, and from published research results".

7. Page 9, 1st paragraph, last sentence
Suggest modification to read "The results are ~~simplified in order~~ used to assess the impacts ~~quickly~~ and begin cleanup ~~as soon as possible~~ in order to limit potential threat to the public.
1st, the RI/FS can be a very complex analysis that is not simplified (for example, Allan Harbor in

Narraganset Bay, Whidbey Island Naval Air Station, Portsmouth Naval Shipyard).
2nd, "quickly" and "as soon as possible" are subjective ideas. In my subjective view, Hanford had at least a few years of "not quickly" and "not as soon as possible" between RI/FS characterization and full scale remedial action in the 100 Area.

8. Page 11, last paragraph
In discussing the North Slope, the document states "thirteen landfills and multiple other waste sites still exist in this area". The EPA, DOE, and Ecology believe these sites to not contain hazardous constituents above cleanup levels. Suggest that this statement be removed.

9. Page 14
Suggest adding the phrase "the reactor portion of the 100 Are is located in the north-central part of the Site along the southern shoreline of the Columbia River".

10. Page 17, table 2
The trustees should be aware that -- while this table gives a good general idea of the types of contaminants in the waste sites (primarily metals and radionuclides, isolated examples of organics) -- it would need additional analysis and revision to reflect the best current conceptual model of the contaminant situation.

11. Page 20, 4th line
The document states that "(LFIs) have been conducted to characterize nature and extent of contamination". A full Remedial Investigation is needed to characterize nature and extent. An LFI is intended to collect enough information to support initiation of remedial actions that are intended to collect additional data during the remedial action to support a real-time evolution of the remedial action in response to increasing understanding of the nature and extent. Suggest that the "nature and extent" concept be removed.

12. Page 20, 3rd line from end of text (and global search thru the document)
Suggest a change to read "an interim action Record of Decision".

13. Page 26, 2nd paragraph
The second sentence "this portion of the river is characterized by tidal influence with no free-flowing river, and includes a series of traps, sinks and lakes" would benefit from a rewrite. Suggest discussing this portion of the river in two parts. McNary Dam to Bonneville Dam (impounded water, particulate traps), and below Bonneville Dam (free flowing, tidal).

14. Page 26, 2nd paragraph, last line
Regarding this lower portion of river, the document states "therefore it will not be a major focus of this Assessment". The word "major" is misleading. In fact it does not appear to be a focus of this Assessment *at all*. Suggest re-writing or dropping this phrase.

15. Page 27, 1st sentence
Note that there is also confined/semi-confined aquifer in the Ringold formation.

16. Page 31-32, tables 5, 6, and 7
Suggest adding the word "Federal" at the beginning of each table title.

17. Page 35, last paragraph
Suggest removing this and comparable paragraphs in this document. For years the Tribal Nations have made it clear that they have no intention to divulge specific information on cultural use of Hanford area natural resources. It is inappropriate to highlight that fact in this document.

18. Page 39, 2nd last paragraph; page 41, 1st sentence
Suggest adding nitrate to the list of contaminants in 100 Area groundwater.

19. Page 40, middle paragraph
The document states that "Under the retention basins, mounding of groundwater...". While it is true that retention basins released water and contaminants to the soil and groundwater, most of the water and contaminants released to the soil and groundwater came from disposal cribs/trenches etc. These are not mentioned and should be.

20. Page 41, 43, 45, etc.
Need to do a spell check and removed the word "accedences"

21. Page 41, 2nd last line
"Concentrations of C-14 exceeded the human health MCL at 100-BC-5". This probably should be 100-KR-4".

22. Page 43, middle paragraph, 2nd line
This Assessment plan states "there are three Cr(VI) plumes in the 100 Area". In fact there are at least four (100-KR-4, two at 100-D Area, one at 100-H Area).

23. Page 43, middle paragraph
Suggest changing to read "implement an ~~accelerated~~ expedited response action".

24. Page 45, middle of middle paragraph
Add 100-BC-5 to the list of groundwater OUs with Sr-90 over the MCL.

25. Page 46, Biological Resources; page 54, Geological Resources
Suggest give a definition for "longer-lived", "intermediate to long-lived", and "short-lived" radionuclides.

26. Page 57, top paragraph
Suggest adding to the discussion to results of the particle survey the occurred on 100-D Island following removal of the vent pipes on October 19, 1993.

27. Page 63, middle paragraph
Suggest rewriting the first sentence to read "the primary focus of any natural resource assessment should ~~focus~~ on source areas".

28. Page 66, Pathway Investigations
Consider adding groundwater, sediments, and detritus to the existing list of pore water and seeps/springs

29. Page 67, 1st full paragraph
Where the document states "the focus should continue to be on early life-stages of chinook salmon", consider instead that future activities should be focused on where phase 1 indicates potential injury.

30. Page 69, 1st sentence
Replace "PNL" with PNNL".