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United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
WASHINGTON, D.C. 20240

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HAZARDOUS WASTE DIVISION

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Mr. Charles E. Findley, Director
Hazardous Waste Division
Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Findley:

New information has surfaced regarding the preliminary natural resource survey we conducted of the Hanford site. Rather than providing an addendum to our original letter, we have rewritten it so that you will have one complete document. Therefore, this replaces our previous letter dated March 17, 1989. As you can see, the conclusions remain unchanged.

Pursuant to IAG No. DW14-933167-01-0, we have conducted a preliminary natural resource survey of the Hanford site to determine whether the Secretary of the Interior's trust responsibilities are involved.

We are concerned that groundwater has transported contaminants from the site to the Columbia River and surrounding riparian/aquatic systems. The Hanford site is underlain by the Columbia River Basalt Group, the Ringold Formation, and a series of glaciofluvial sands and gravels known as the Hanford Sediments.

The saturated portion of the highly permeable Hanford Sediments and the moderately permeable Ringold Formation form an unconfined aquifer. This unconfined aquifer underlies the waste disposal areas. The depth to water in the unconfined aquifer varies from greater than 300 feet in the vicinity of the 200- Area to 32-48 feet at the 100-, 300-, and 1100- Areas near the Columbia. The natural direction of groundwater flow in the unconfined aquifer is from west to east, with groundwater discharging to the Columbia River. Recharge from the ditches and ponds near the 200- Area has caused mounding of groundwater and alteration of the rate and direction of groundwater flow though groundwater still discharges to the river.

Waste discharges at the Hanford site have ranged from very large volume (billions of gallons) of diluted irradiated cooling waters in the 100- and 200- Areas to moderate volume (thousands of gallons) of concentrated chemicals from the processing plants in the 200- and 300- Areas. These wastes include a wide variety of radionuclides including tritium, uranium, plutonium, strontium, and cesium, and both organic and inorganic chemicals, principally trichlorethylene, carbon tetrachloride, chromium, and lead. These chemicals were often discharged as mixed waste and are likely to be found in the ground as mixtures.

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The Columbia River supports spawning and rearing habitat for chinook, coho, pink, sockeye and chum salmon, steelhead trout, smelt, American shad and white sturgeon. The Columbia River also is a migratory route and feeding area for juvenile and adult species of anadromous fish.

Grasslands, scrub/shrub areas and riparian/aquatic zones around the site provide habitat for several trustee resources. The more common wildlife species include migratory waterfowl (Canadian goose, mallard, blue and green-winged teal, gadwall), shore and marsh birds (great blue heron, sandpiper, and killdeer). Migratory passerines and raptors include mourning doves, various songbirds, red-tailed hawk, and osprey.

Bald eagles and peregrine falcons, listed species, occur in the vicinity of the plant site. Bald eagles have been observed during the winter months utilizing perch sites and feeding on anadromous fish and migratory birds in the Columbia River, adjacent to the site and the Crates Point area 2 miles west of the facility. Four candidate wildlife species for inclusion on the Federal threatened and endangered species list, the sage grouse, long-billed curlew and Swainson's and Ferruginous hawks occur in the Hanford area. In addition the Columbia milkvetch and the persistent sepal yellowcress are candidate plant species occurring on site. The Great Columbia River spire snail and the Giant Columbia River limpet, both candidate species, are found in the Columbia River and could be impacted by releases from the Hanford site.

Should a species become officially listed or proposed before completion of the of site remediation, EPA and DOE should be aware of their continuing responsibilities as described in Section 7(a) nad (c) of the Endangered Species Act of 1973, as amended.

This area of the Columbia River is within the Usual and Accustomed fishing grounds and stations of the Columbia River Treaty Tribes, as adjudicated in United States v. Oregon 302 F. Supp. 899 (D. OR. 1969). Management of this area is governed by the Columbia River Fishery Management Plan which was adopted by the Court on October 17, 1988. The Plan is an agreement between the Tribes, Washington, Oregon and the United States that provides procedural structure and substantive obligations for enhancement and harvest management.

Adverse impacts to the anadromous fishery through degrading water quality, in the Columbia River, may impact the economic and cultural stability of the Columbia River Treaty Tribes. Tribal surface water rights include the right to have a sufficient quality of water to support salmon in the Columbia River. In addition, any adverse impacts to the fishery could also impact other Tribes that are dependent upon Columbia River Basin stocks of anadromous fish.

The United States of America has a trust responsibility towards these Tribal rights and resources. Thus, any Federal action affecting these rights, including any action taken by EPA, is subject to the United States' trust responsibility toward the Indian Tribes. Moreover, this trust responsibility must be exercised according to the strictest fiduciary standards (Nance vs. Environmental Protection Agency, U.S. Court of Appeals, 9th Circuit, May 18, 1981).

There are four Indian reservations in close proximity to the Hanford Nuclear Reservation which have a significant potential of being impacted by Hanford activities. These reservations include the Umatilla Indian Reservation which is approximately 75 miles from Hanford, the Yakima Indian Reservation which is 15 miles away, the Warm Springs Indian Reservation which is approximately 80 miles away, and the Nez Perce Indian Reservation which is approximately 140 miles away. In addition several other reservations in the northwestern United States may have been impacted by atmospheric emissions from Hanford.

Hunting, fishing, root gathering, and other treaty right activities have been negatively impacted on the Hanford reservation and other portions of the Tribe's ceded areas. There is a high potential that some off-reservation ceded areas, within which treaty rights exist, have been impacted. For example, tribes dependent upon Columbia River Basin resources, such as anadromous fish, river mussels, deer, elk, huckleberries, or other culturally-important natural resource could have been or could potentially be impacted by past activities at Hanford. For example, coastal tribes that harvest Columbia River stocks could have been impacted.

On nearby trust properties, natural resources such as timber, water resources, wildlife, native plants, foods, and medicines, have been or could potentially be negatively impacted by pollution attributed to Hanford. Of particular concern are potentially significant impacts to River Mussels (Margaritifera sp. and Goneida Angulata).

In summary, the Department has significant natural resource concerns in the Columbia Basin which are, or have the potential to be, affected by releases from the Hanford sites. We could not consider a release from natural resource damage claims at this time.

However, the earliest possible containment/cleanup of these sites is clearly of first priority to natural resource trustee agencies, as it is to EPA and DOE. Appropriately designed remedial actions can often include measures to protect or restore natural resources. Therefore, we urge EPA and DOE to consult routinely with appropriate Interior officials for technical assistance on specific units of work. Our technical assistance capabilities are far broader than our trust responsibilities, which are limited to resources we manage or protect. If the Department conducts a natural resource damage assessment, it is to cover natural resource injury which remains after cleanup. Thus, our Departmental efforts are best focussed on sites where the cleanup is scoped and planned and thus ready for our review to determine the potential injury to resources we manage or protect. On the other hand, since our surveys rely on existing information, data gathering for cleanup which can address natural resource concerns, such as pathways to ecologically sensitive areas for example, should mean expedited decision-making addressing all Federal concerns at a site in timely fashion. We have been consulting with Paul Day about a way for us to keep track of the status of data gathering and other activities site by site. With a twenty year time horizon and the data it will entail, in addition to that already produced, we need assistance in sorting and selecting data that will allow us to fulfill our responsibilities without delaying remedial action schedules now or in the future. We need to maintain this dialogue, perhaps with periodic

briefings of RPM or other appropriate staff in coordination with other training or orientation they are receiving. The precepts of the environmental manual EPA is expected to produce this spring should tie in with our education needs.

The Department of the Interior contact for this site, is the Regional Environmental Officer in Portland, Oregon, Mr. Charles S. Polityka, 700 N.E. Multnomah St., Suite 580, Portland, Oregon 97232 (FTS 429-6157) who is also our Departmental Representative on the RRT. In addition we strongly urge EPA to consult regional officials of our Fish and Wildlife Service, Geological Survey, and Bureau of Indian Affairs for technical assistance.

Sincerely,


John H. Farrell, Acting Director
Office of Environmental Project Review