DOE/EA-1177

Environmental Assessment

Salvage/Demolition of 200 West Area, 200 East Area and 300 Area Steam Plants, Hanford Site, Richland, Washington

U.S. Department of Energy
Richland, Washington

October 1996

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ENVIRONMENTAL ASSESSMENT

FOR THE

SALVAGE/DEMOLITION

OF

200 WEST AREA, 200 EAST AREA, AND

300 AREA STEAM PLANTS

U.S. DEPARTMENT OF ENERGY

RICHLAND, WASHINGTON

OCTOBER 1996

alternatives briefly are discussed

Appendices. Additional information necessary to support an understanding of the proposed action, alternatives, and potential impacts is provided. Comments resulting from review of the environmental assessment by states and tribes or other stakeholders and the response to those comments are included in the appendices.

METRIC CONVERSION CHART

Into metric units

If you know	Multiply by	To get
Length		
inches	25.40	millimeters
inches	2.54	centimeters
feet	0.3048	meters
yards	0.914	meters
miles	1.609	kilometers
Area		
square inches	6.4516	square centimeters
square feet	0.092	square meters
square yards	0.836	square meters
square miles	2.59	square kilometers
acres	0.404	hectares
Mass (weight)		
ounces	28.35	grams
pounds	0.453	kilograms
short ton	0.907	metric ton
Volume		
fluid ounces	29.57	milliliters
quarts	0.95	liters
gallons	3.79	liters
cubic feet	0.0283	cubic meters
cubic yards	0.7645	cubic meters
Temperature		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius

Out of metric units

If you know	Multiply by	To get
Length		
millimeters	0.0393	inches
centimeters	0.393	inches
meters	3.2808	feet
meters	1.09	yards
kilometers	0.62	miles
Area		
square centimeters	0.155	square inches
square meters	10.7639	square feet
square meters	1.20	square yards
square kilometers	0.39	square miles
hectares	2.471	acres
Mass (weight)		
grams	0.0352	ounces
kilograms	2.2046	pounds
metric ton	1.10	short ton
Volume		
milliliters	0.03	fluid ounces
liters	1.057	quarts
liters	0.26	gallons
cubic meters	35.3147	cubic feet
cubic meters	1.308	cubic yards
Temperature		
Celsius	multiply by 9/5ths, then add 32	Fahrenheit

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Second Ed., 1990, Professional Publications, Inc., Belmont, California.

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APPENDICES

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1.0 PURPOSE AND NEED FOR ACTION

The following sections describe the purpose and need and provide background information concerning this environmental assessment (EA).

1.1 PURPOSE AND NEED. The underlying purpose and need for the agency to take the proposed action.

The U.S. Department of Energy, Richland Operations Office (RL) needs to reduce costs of future surveillance and maintenance for the 200 West Area Steam Plant, and avoid future surveillance and maintenance costs for the 200 East Area and 300 Area Steam Plants.

1.2 BACKGROUND. BACKGROUND information on the purpose and need, that led to the need for action.

The transition of the Hanford Site mission from defense production to a restoration mission has reduced the large demand for steam required to support defense operations. The 200 West Area Steam Plant was shut down in fiscal year (FY) 1995 and is currently in surveillance and maintenance awaiting decommissioning. The estimated annual cost for access controls and surveillance and maintenance of the steam plants would escalate over time as the facilities deteriorate. The 200 East Area and 300 Area Steam Plants are currently in operation and are expected to be shut down in the near future.

The U.S. Department of Energy - Site Infrastructure Division needs to eliminate costly access controls, surveillance and maintenance activities associated with the deactivation of infrastructure and general purpose facilities.

2.0 DESCRIPTION OF THE PROPOSED ACTION

Proposed Action description in detail sufficient to identify potential environmental impacts.

The proposed action involves the salvage and demolition of the 200 West Area, 200 East Area, and 300 Area steam plants and their associated steam distribution piping, equipment, and ancillary facilities. Activities include the salvaging and recycling of all materials, wastes, and equipment where feasible, with waste minimization efforts utilized. The existing coal storage yards of each steam plant would provide adequate space as lay down yards to store equipment and material during salvaging activities. All areas within the proposed action are previously disturbed industrial areas. It is planned to remove all foundation and concrete footings and return the areas to ground level for potential reuse. Waste minimization practices would be in place to keep wastes at a minimum.

The three steam plants have similar support buildings and structures. The 200 West Area and 200 East Area powerhouses have very similar building dimensions, while the 300 Area powerhouse is somewhat smaller in size. The specific facilities to be salvaged and demolished in the three areas include:

- 284-West (4 coal boilers), 284-East (5 coal boilers & 1 oil package boiler), and 384 (3 coal boilers, 2 oil boilers, & 1 oil package boiler) powerhouses
- baghouse complexes, coal crushers and transfer houses
- coal handling conveyor systems with track hoppers
- coal storage pits and salt-dissolving pits
- ash sluicing pits and ash disposal basins
- 2710-W and 2710-E coal handler sheds
- fuel oil storage tanks
- smokestacks
- aboveground steam distribution system connecting the three powerhouses to various production and office facilities and between the 200 West Area and the 200 East Area powerhouses.

All areas of the powerhouses and associated facilities are on disturbed ground. The 200 East Area Steam Plant is almost identical to the 200 West Area Steam Plant. The following are the approximate dimensions of the 200 West Area Steam Plant:

Powerhouse	22.3 by 75.3 by 24.4 meters	73 by 247 by 80 feet
Coal Handling System	21.6 by 147.2 by 26.8 meters	71 by 483 by 88 feet
Coal Storage Pit	85.3 by 118.9 by 3.4 meters	280 by 390 by 11 feet
Salt Dissolving Pit	5.5 by 9.7 by 3.6 meters	18 by 32 by 12 feet
Coal Handlers Shed	3.6 by 4.6 by 3.0 meters	12 by 15 by 10 feet
Two reinforced concrete stacks (both partially lined)	7.0 to 2.7 (inside dimension) by 76.2 meters high	23 to 9 (inside dimension) by 250 feet high

The following are the approximate dimensions of the 300 Area Powerhouse:

Powerhouse	27.5 by 55.0 by 24.4 meters	90 by 180 by 80 feet

The building footprint for the 284-West Area Powerhouse is about 2520 square meters (27,132 square feet); for the 284-East Powerhouse about 3067 square meters (33,015 square feet); and for the 384 Powerhouse about 1594 square meters (17,159 square feet).

The proposed action would occur in areas on the Hanford Site, located in southeastern Washington State (Figure 1). The 200 West Area Steam Plant is in the 200 West Area and located about 48 kilometers (30 miles) northwest of the city of Richland (Figure 2). The 200 East Area Steam Plant is in the 200 East Area and located about 40 kilometers (25 miles) north of the city limits of Richland (Figure 3). The 300 Area Steam Plant is in the 300 Area and located approximately 5 kilometers (3 miles) north of the city limits of Richland (Figure 4). The 0.609 meter (24 inches) diameter, fiberglass insulated steam pipeline between the 284-West and 284-East Powerhouses runs approximately 8 kilometers (5 miles) directly between the 200 West and 200 East Areas. The steam distribution pipelines between the 284-West Powerhouse and its associated support facilities runs approximately 8 kilometers (5 miles), between 284-East Powerhouse and its support facilities runs about 6.5 kilometers (4 miles), and between the 384 Powerhouse and its support facilities runs about 5 kilometers (3 miles).

The proposed work consists of the complete dismantling and removal of all building structures, equipment, and miscellaneous items of the mentioned facilities. Activities include:

- Remove asbestos-containing materials and all hazardous materials. The following are the estimated amounts of asbestos-containing materials in the 200 West Steam Plant:

Steam plant pipe insulation	74 cubic meters	2600 cubic feet
Steam distribution insulation	266 cubic meters	9400 cubic feet
Transite siding	20 cubic meters	700 cubic feet
Roofing	127 cubic meters	4500 cubic feet
Fire brick mortar	96 cubic meters	3400 cubic feet
Floor tile	1 cubic meter	27 cubic feet

The following are the estimated amounts of asbestos-containing materials in the 200 East Steam Plant:

Steam plant pipe insulation	93 cubic meters	3300 cubic feet
Steam distribution insulation	161 cubic meters	5700 cubic feet
Transite siding	25 cubic meters	900 cubic feet
Roofing	159 cubic meters	5600 cubic feet
Fire brick mortar	122 cubic meters	4300 cubic feet
Floor tile	1 cubic meter	34 cubic feet

The following are the estimated amounts of asbestos-containing materials in the 300 Area Steam Plant:

Steam plant pipe insulation	45 cubic meters	1600 cubic feet
Steam distribution insulation	40 cubic meters	1400 cubic feet
Transite siding	11 cubic meters	400 cubic feet
Roofing	79 cubic meters	2800 cubic feet
Fire brick mortar	59 cubic meters	2100 cubic feet
Floor tile	.5 cubic meter	17 cubic feet

In addition, small amounts of lead (mostly lead paint) and possibly Polybromated biphenyls (PCB) have been identified in the steam plants. The only PCBs that may be present are contained in the light ballasts. The 300 Area Steam Plant may have #6 fuel oil in the soil below the oil storage tank if it has leaked. No radiological hazards are known to exist in the areas of building foundations that will be disturbed during demolition. If there are any residual amounts of these environmentally sensitive materials found present at any of the steam plants during the proposed action, they would be removed before demolition activities take place.

- Remove equipment and material for reuse/salvage, including the above ground steam and compressed air distribution piping and the support poles holding them. Waste minimization practices would be in place to keep wastes at a minimum.

- Dismantle and remove all buildings and structures. This would be accomplished with wrecking balls, excavators, implosions or other techniques.

- Remove the foundations and retaining walls of the structures. This would involve excavations of up to 6 meters (20 feet) in depth for each of the powerhouse structures and 2 meters (6 feet) for steam line support poles. If any hazardous materials are found during excavation, they would be dealt with in a manner acceptable to the relevant regulatory agency. If cultural features or artifacts are encountered, work in the vicinity of the discovery would stop and the appropriate cultural resource staff would be notified.

- Remove rubble from steam plants with the following estimated volumes:

200 West Steam Plant	765 cubic meters	10,000 cubic yards
200 East Steam Plant	772 cubic meters	10,100 cubic yards
300 Area Steam Plant	390 cubic meters	5,100 cubic yards

  These estimated volumes of rubble would be disposed of in an acceptable disposal facility.

- Fill foundation voids with fill and cover with 15 centimeters (6 inches) of gravel and level to match surrounding grade. Some fill material for the 200 West Area and 200 East Area Steam Plants would come from borrow Pit #4, located between the 200 West and 200 East Areas. Some fill material for the 300 Area Steam Plant would come from borrow Pit #9, located about 5 kilometers (3 miles) north of the 300 Area.

2.1 PROPOSED TIMING. **Timing or schedule of the proposed action (including phasing, if applicable).**

The proposed action would be accomplished in a phased approach. The facilities that have not been shut down would be shut down and secured. Preliminary deactivation activities would remove major combustibles, drain liquids, permanently isolate all influent/effluent lines, and isolate all electrical power. The 200 West Area Steam Plant is already deactivated and currently in the isolated surveillance and maintenance phase. The 200 East Area and 300 Area Steam Plants would be shut down and placed in the surveillance and maintenance phase. Then salvage and demolition of all three steam plants would begin. The actual salvage/demolition phase of all three steam plants concurrently would last about 16 to 18 months.

The steam pipeline between the 200 West and 200 East Areas would be removed, as well as the steam distribution piping between the steam plants and the facilities these feed. Because the demolition of the steam plants and the steam distribution pipelines would not occur for more than a year, biological survey data would be reconfirmed prior to initiation of the salvage and demolition phase of the applicable areas.

2.2 ENVIRONMENTAL INFORMATION. **Other environmental information that has been prepared, or will be prepared, directly related to the proposed action.**

All three steam plants are located within existing operable units (OU) pursuant to the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) *of 1980*. The ash pits and sluice pits for each of the three steam plants of the proposed action would be managed in conjunction with each respective OU. Following the salvage and demolition of the three steam plants, the grounds of the facilities of the proposed action would be leveled to grade with fill material. If there is any hazardous or radioactive contamination found in the soils during excavation of the foundations to buildings or at the base of the steam distribution system poles, the contaminated soils would be covered with clean soil and left in place for remediation of the OU. Any contamination would be dealt with in a manner

acceptable to the relevant regulatory agency. At the present time, closure plans for these OUs have not been developed.

Issues surrounding the historical and cultural significance of the three powerhouses have been discussed between DOE-RL and the State Historic Preservation Officer (SHPO) within the Office of Archaeology and Historic Preservation (OAHP) for Washington State. Details of those issues are discussed in Section 4.2.6.

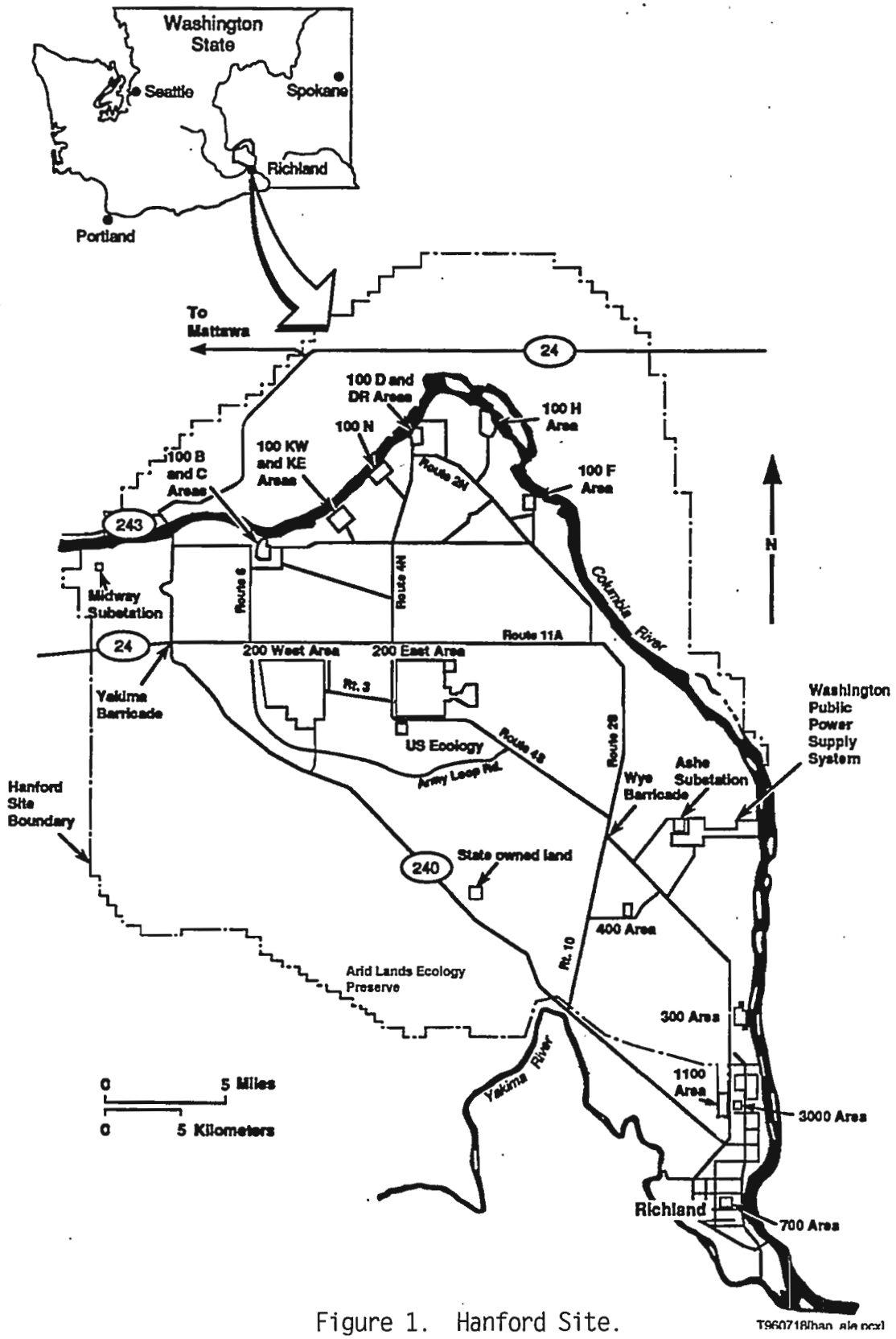


Figure 1. Hanford Site.

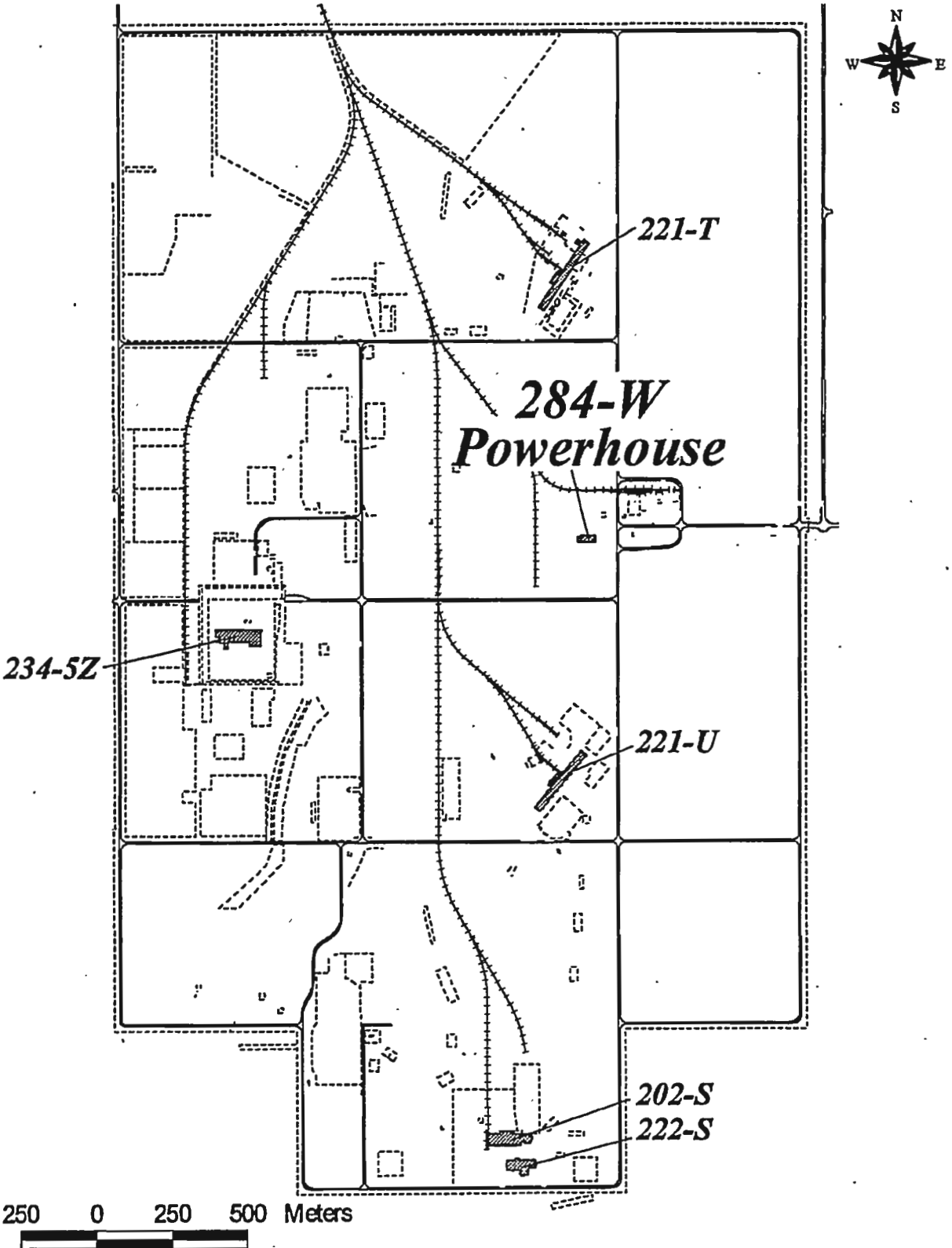


Figure 2. 200 West Area.

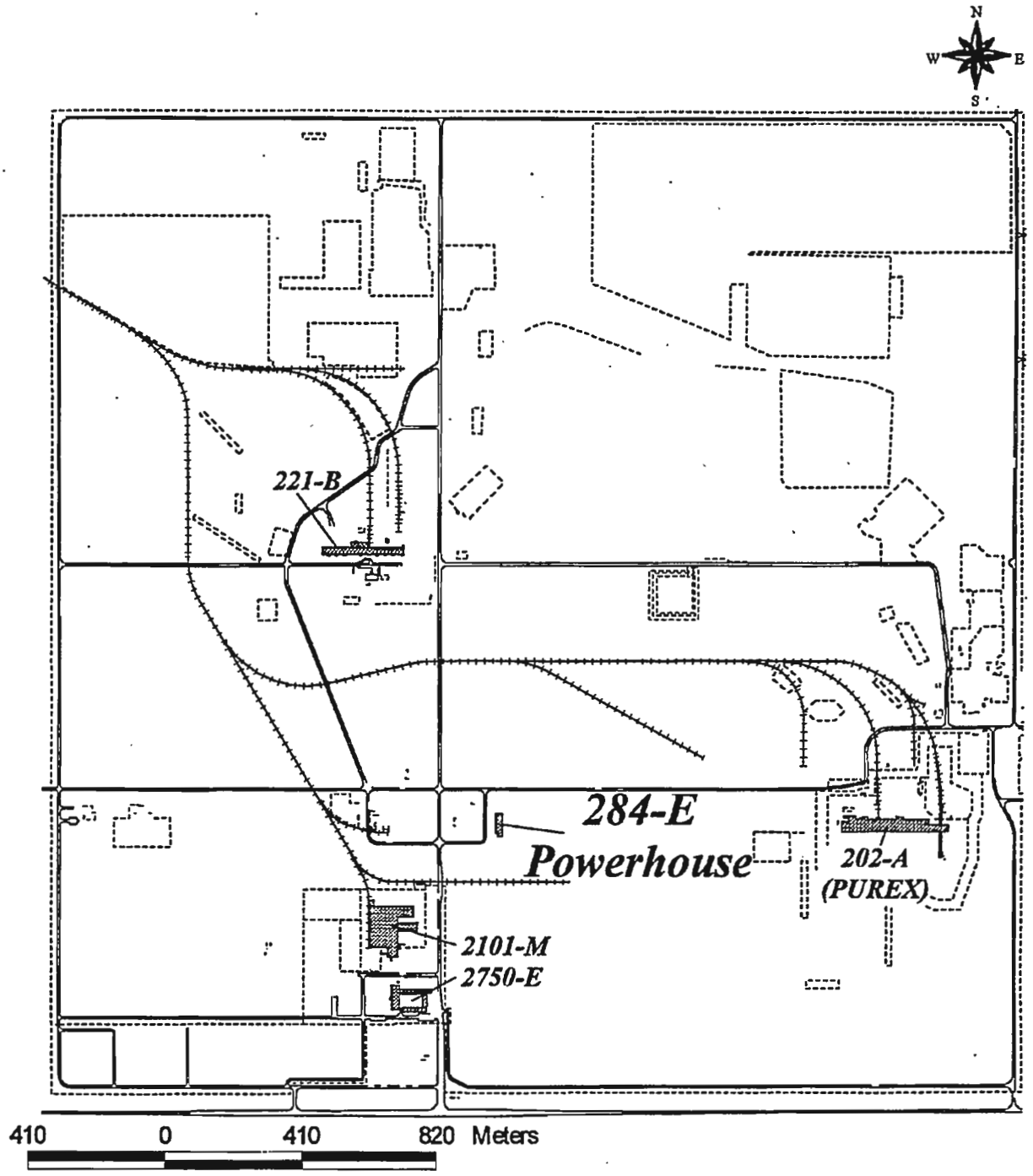


Figure 3. 200 East Area.

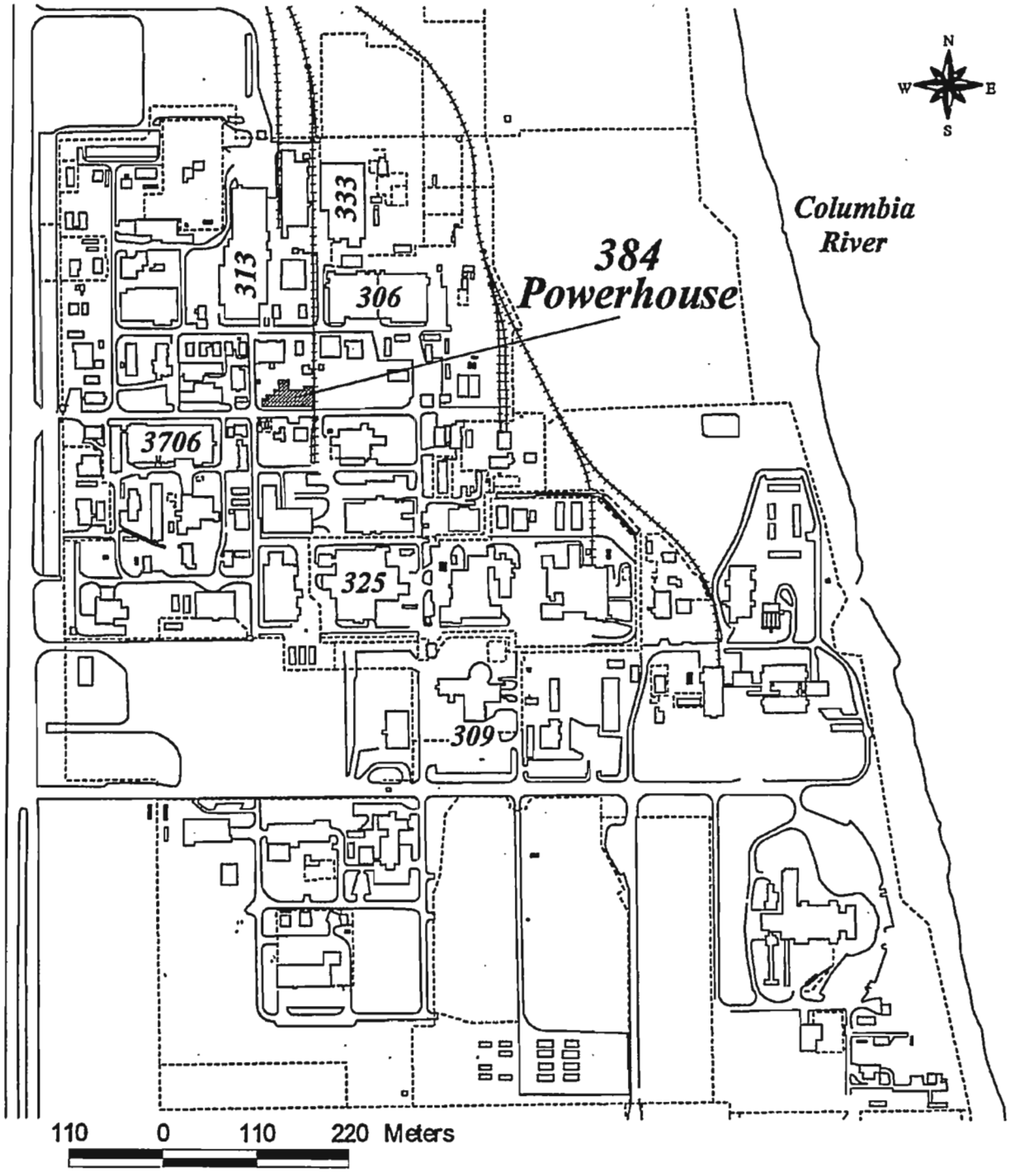


Figure 4. 300 Area.

3.0 ALTERNATIVES TO THE PROPOSED ACTION

Alternatives to the proposed action are discussed in the following sections.

3.1 OTHER ALTERNATIVES.

Other alternatives considered. CEQ regulations direct all agencies to identify reasonable alternatives that would achieve the purpose and need.

An alternative would keep the 200 West Area Steam Plant in surveillance and maintenance mode indefinitely. In addition, the 200 East Area and 300 Area Steam Plants would be put into surveillance and maintenance mode indefinitely after deactivation activities. This alternative might occur if it is determined that bids from potential contractors for salvage and demolition of the steam plants are not cost effective versus the cost of surveillance and maintenance of the facilities.

Another alternative would be the reuse of the three steam plants for other activities. After evaluation, no foreseeable reuse has been identified.

3.2 NO ACTION ALTERNATIVE.

CEQ and the DOE NEPA regulations require the DOE to analyze the "No Action alternative," i.e., to examine what would happen if nothing were done. Note that generally this is a continuation of the status quo.

The No Action alternative would keep the 200 West Area Steam Plant in surveillance and maintenance indefinitely. Following the shutdown of the 200 East Area and 300 Area Steam Plants, there would be no isolation activities and no decommissioning activities for those facilities.

4.0 AFFECTED ENVIRONMENT

Existing environment to be affected by the proposed action and alternatives. Summary information only should be provided, with more detailed information referenced.

The following sections provide a discussion of the existing environment to be affected by the proposed action and alternatives.

4.1 GENERAL HANFORD SITE ENVIRONMENT

The Hanford Site is 1,450 square kilometers (560 square miles) located in southeastern Washington State, in a semiarid region with rolling topography. Two topographical features dominate the landscape: Rattlesnake Mountain is located on the southwest boundary with Gable Mountain located on the northern portion of the Hanford Site. The Columbia River flows through the northern part of the Hanford Site and forms part of the eastern boundary of the Hanford Site. Areas adjacent to the Hanford Site are primarily agricultural lands. The 200 West Area, 200 East Area, and the 300 Area of the Hanford Site have all been heavily used as industrial areas.

The Hanford Site has a mild climate with 15 to 18 centimeters (6 to 7 inches) of annual precipitation, with most of the precipitation taking place during the winter months. Temperature ranges of daily maximum temperatures vary from normal maxima of 2°C (36°F) in early January to 35°C (95°F) in late July. Infrequent periods of high winds of up to 128 kilometers (80 miles) per hour occur throughout the year. Tornadoes are extremely rare; no destructive tornadoes have occurred in the region surrounding the Hanford Site.

The Hanford Site and the surrounding area are in attainment of the National Ambient Air Quality Standards (NAAQS) designed to protect the public health and welfare. During 1994, the Hanford Site air emissions remained below all established limits set for regulated air pollutants (PNL 1995a). Atmospheric dispersion conditions of the area vary between summer and winter months. The summer months generally have good air mixing characteristics. If the prevailing winds from the northwest are light, less favorable dispersion conditions might occur. Occasional periods of poor dispersion conditions occur during the winter months.

The vegetation on the Hanford Site is a shrub-steppe community of sagebrush and rabbitbrush with an understory consisting primarily of cheatgrass and Sandberg's bluegrass. The typical insects, small birds, mammals, and reptiles common to the Hanford Site can be found in the 200 Area plateau (PNL 1995b). Relatively undisturbed areas of the mature shrub-steppe vegetation are high quality habitat for many plants and animals and have been designated as "priority habitat" by Washington State. However, all areas of the proposed action have been previously disturbed with human occupancy.

Most mammal species known to inhabit the Hanford Site are small, nocturnal creatures, primarily pocket mice and jackrabbits. Large mammals found on the Hanford Site are deer and elk, although the elk exist almost entirely on the Arid Lands Ecology Reserve. Coyotes and raptors are the primary predators. Several species of small birds nest in the steppe

vegetation. Semiannual peaks in avian variety and abundance occur during migration seasons.

The DOE-RL and its contractors dominate the local employment picture with almost one-quarter of the total nonagricultural jobs in Benton and Franklin counties. Ninety-three percent of Hanford Site personnel reside in the Benton and Franklin county areas. Therefore, work activities on the Hanford Site play an important role in the socioeconomics of the Tri-Cities (Richland, Pasco, and Kennewick) and other parts of Benton and Franklin counties (PNL 1995b). Other surrounding counties could be impacted to a lesser degree.

4.2 SPECIFIC SITE ENVIRONMENT

The 200 West Area Steam Plant in the 200 West Area and the 200 East Area Steam Plant and facilities in the 200 East Area are located on the 200 Area plateau, 8 kilometers (5 miles) and 16 kilometers (10 miles) from the Columbia River, respectively. The 300 Area Steam Plant in the 300 Area is located about 1 kilometer (2/3 mile) from the Columbia River. The 200 Area plateau and the 300 Area are not located in the 100-year or 500-year floodplain of the Columbia River, nor are these located within a wetlands area (PNL 1995b). The 200 Area plateau and the 300 Area do not contain any prime farmland, state or national parks, forests, conservation areas, or other areas of recreational, scenic, or aesthetic concern. The City of Richland (population approximately 32,000), located in Benton County, adjoins the southernmost portion of the Hanford Site boundary and is the nearest population center.

4.2.1 Soils and Subsurface

The soil in the 200 Areas and 300 Area is predominately a sand and gravel mixture. All areas of the proposed action are in previously disturbed soils. The geologic strata under the surface layer, in descending order, are Holocene eolian deposits, Hanford formation, Ringold Formation, and the Columbia River Basalt Group. The eolian sands are fine- to coarse-grained, and relatively quartz- and feldspar-rich. Deposits of the Hanford formation underlie the eolian deposits. Hanford formation strata generally are dominated by deposits typical of the gravel-dominated facies consisting of uncemented granule to cobble gravels and minor coarse-grained sand. This is underlain by the top of the Ringold Formation. Basalt flows of the Columbia River Basalt Group and intercalated sediments of the Ellensburg Formation underlie the Ringold Formation. The region is categorized as one of low to moderate seismicity (PNL 1995b).

4.2.2 Hydrology

The water table in the 200 Areas is approximately 70 meters (230 feet) to 88 meters (290 feet) below the surface. The water table under the 300 Area Steam Plant is approximately 14 meters (45 feet) below the surface (PNL 1995b).

4.2.3 Air Resources

The Hanford Site operates under a Prevention of Significant Deterioration (PSD) permit established by the U.S. Environmental Protection Agency (EPA) which is designed to protect existing ambient air quality. No distinctive increases in overall emissions are envisioned from the proposed action and would not trigger changes to the PSD permit.

4.2.4 Plants and Animals

Only a few species of plants and birds, and no mammals, are found in the immediate proximity of the steam plants due to the highly disturbed nature and human occupancy of the area. Cliff swallows are a migratory bird that were observed nesting on the coal ramp leading to the 200 West Area Steam Plant as indicated in Biological Survey #96-200-047c (Appendix A). Under *The Migratory Bird Treaty Act*, it is illegal to take, capture, or kill, as applicable, any migratory bird, or any part, nest, or egg of any such birds, included in the terms of the conventions. To avoid adverse impacts to this species, demolition of this building should be undertaken outside the nesting season that extends from April 1 to July 30.

4.2.5 Endangered Species

No plants or animals on the federal list of "Endangered and Threatened Wildlife and Plants" (50 *Code of Federal Regulations* [CFR] 17) are found in the immediate vicinity of the proposed action, as indicated in Biological Surveys #96-200-047b&c (Appendix A).

4.2.6 Cultural Resources

The RL has determined that the 284-West, 284-East, and the 384 Powerhouses are historic properties that are eligible for listing on the *National Register of Historic Places* (NPS 1995). These buildings were found to be contributing elements to the Manhattan Project and Cold War Era involvement and the Hanford Site Historic District (District). An agreement has been reached in the *Programmatic Agreement Among the U. S. Department of Energy Richland Operations Office, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office for the Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site, Washington* (PA) that sets forth the mechanism for mitigation of eligible historic Hanford buildings. The PA is the agreement mechanism that focuses the *National Historic Preservation Act of 1966* Section 106 compliance on the Historic District, and directs DOE-RL to take actions specific to the Hanford Site. The specific issues surrounding the historical significance of the three powerhouses have been discussed between DOE-RL and the SHPO. See Appendix B for correspondence.

Two cultural resources reviews (HCRL #96-200-047 and Addendum) have been completed by the Hanford Cultural Resources Laboratory for the 284-West

Powerhouse. In addition, DOE-RL and the SHPO have concurred that the proposed action would have no adverse effect upon the District, which includes the 284-West Powerhouse (see correspondence in Appendix B). There were no known archeological, religious sites, or other sensitive cultural artifacts of significance found during the survey.

Two cultural resources reviews (HCRC #96-200-035 and #96-200-045) have been completed for the 284-East Powerhouse. In addition, a Historic Property Inventory Form (HPIF) was completed for the 284-East Powerhouse for mitigative purposes as specified in the PA.

A cultural resources review (HCRC #96-300-025) was completed for the demolition of the 384 Powerhouse. The SHPO has concurred with RL that the 384 Powerhouse is a contributing structure to the District. The PA requires preparation of a HPIF for mitigation of the powerhouse demolition.

Cultural resources reviews for existing borrow pits #4 and #9 indicate that they have no identified archaeological resource (DOE 1995). Onsite personnel would be briefed on the requirements of cultural resources, and would be directed to watch for cultural artifacts during excavation. If cultural features or artifacts are encountered, work in the vicinity of the discovery would stop, and the appropriate cultural resource staff would be notified. Limited field analysis and documentation of any findings would be conducted before resuming excavation activities. The cultural resource staff would assess the significance of the find, and, if necessary, arrange for mitigation of the impacts to the find.

5.0 ENVIRONMENTAL IMPACTS

Potential environmental impacts from the proposed action and alternatives are discussed in the following sections. Impacts are addressed in proportion to their potential significance.

The following sections describe impacts from the proposed action.

5.1 SALVAGE/DEMOLITION IMPACTS. **Description of impacts from the salvage/demolition activities of the proposed action.**

Impacts from the salvage/demolition activities are described in the following sections.

5.1.1 Soil or Subsurface Disturbance and the Consequences

All areas within the proposed action are previously disturbed areas. It is planned during the salvage/demolition phase to remove all foundation and concrete footings with a maximum depth of about 6 meters (20 feet), and the steam distribution system poles with a maximum depth of about 2 meters (6 feet). The exact technique to dismantle each structure under the proposed action would be analyzed for its impact to the existing structures surrounding area before the required demolition plan is approved. If there is any hazardous or radioactive contamination found in the soils during excavation of the foundations of buildings or at the base of the steam distribution system poles, the contaminated soils would be covered with clean soil and left in place for remediation of the OU, or otherwise dealt with in a manner acceptable to the relevant regulatory agency. All voids that would occur during this phase would be backfilled. Some fill material would come from existing Borrow Pits #4 or #9. The shallow coal storage pits would be utilized as a laydown yard during salvage and demolition activities, then have their bermed shoulders backfilled into the pit and leveled. The amount of soil disturbance would be minimal, because the proposed action would occur on highly disturbed grounds. In addition, all soil and subsurface activities would be temporary, therefore the anticipated impacts to the environment are not expected to be consequential.

5.1.2 Liquid Discharges to the Groundwater or Surface Waters and the Consequences

Other than sprinkling clean water for dust control, there would be no liquid discharges that may effect groundwater or surface waters.

5.1.3 Gaseous, Particulate, or Thermal Discharges to the Air and the Consequences

Small quantities of gaseous, particulate, or thermal discharge activities from such activities as trucks for transporting wastes or salvaged materials, welding/cutting, or backfilling may be generated for short periods of time during the salvage/demolition phase of the proposed action. Any particulate releases from dust would be watered down during salvage and excavation

activities. However, once the steam plants are leveled, no further discharges would occur during this phase of the proposed action. The impacts of the proposed action are considered to be relatively minor.

5.1.4 Radionuclide Releases or Direct Radiation Exposure and the Consequences

There would be no radionuclide releases or direct radiation exposure.

5.1.5 Nonhazardous Solid Waste Generated and the Consequences

It is expected that only nonhazardous solid waste would be generated during the salvage/demolition phase of the proposed action. Once the steam plants are leveled, and inert and demolition waste removed, no further waste generation would occur. The inert and demolition waste generated from the steam plants would be disposed of into existing borrow pits #4 or #9. The addition of inert and demolition waste into an onsite landfill would be small compared to the overall capacity of the existing borrow pits on the Hanford Site. In addition, existing facilities would have adequate capacity to accept all other waste volumes from the proposed action. All nonhazardous waste would be disposed in accordance with applicable requirements. Therefore, these impacts to the environment are expected to be small.

5.1.6 Hazardous or Dangerous Waste Generated and the Consequences

A waste management plan would be submitted by the selected contractor at least 5 days before starting work on the proposed action. The contractor would describe in the plan all potential hazardous waste (e.g., solvents and/or cleaning agents), exclusive of the materials and equipment identified as part of the buildings and facilities of the proposed action, that are expected to be generated during the performance of the contract. The plan would include quantity of waste and how the waste would be managed. These materials would be managed and disposed of in accordance with applicable federal and state regulations. Waste generation resulting from the proposed action is expected to be minimal compared to annual Hanford Site waste generation. Therefore, these impacts to the environment are not expected to be consequential.

5.1.7 Hazardous Substances Present and the Consequences

All asbestos handling activities would follow approved procedures and requirements as directed in Title 40, Code of Federal Regulations (CFR) Parts 61 and 763, and under Washington Administrative Code (WAC) 296, Chapters 62 and 65. The local Benton County Clean Air Authority would be notified before any asbestos handling activities as required. An example of the controls would be to wet the asbestos material, place asbestos material in plastic bags, tie bags shut to prevent release of airborne fibers, and place bagged asbestos material into a second plastic bag, or other approved closable

and impermeable container, and close airtight. All approved packaged asbestos would be disposed of offsite at a private, permitted disposal facility.

Small amounts of lead and PCBs have been identified in the 200 West Area Steam Plant. All lead handling activities would follow approved procedures and requirements as directed in 29 CFR 1910 and 1926. The only PCBs that may be expected to be present in the powerhouses would be contained in the light ballasts. If PCBs are found in the light ballasts, they would be dealt with in a manner acceptable to the relevant regulatory agency.

Any materials that might be discovered later in the buildings would be managed in accordance with applicable federal and state regulations. Potential impacts to the environment would be minimized through strict compliance with the applicable regulatory requirements. Due to the small quantities of these materials, the effects of the proposed action are not expected to be consequential.

5.1.8 Any Disturbance to Previously Undeveloped Areas and the Consequences

There would be no disturbance to previously undeveloped areas.

5.1.9 Consumption or Commitment of Nonrenewable Resources

Consumption of nonrenewable resources (e.g., petroleum products, diesel fuel, etc.) would occur for short periods during the salvage/demolition phase of the proposed action. The amount of consumption is minimal; therefore, these impacts to the environment are not expected to be consequential.

5.1.10 Effects on Cultural Resources

Issues surrounding the cultural resources of the three powerhouses are discussed in Section 4.2.6 and are included in Appendix B.

DOE-RL and the SHPO have concurred that the proposed action would have no adverse effect on the Hanford Site Historic District, of which the 284-West Powerhouse is part of this district. The SHPO has concurred with RL that the 384 Powerhouse is a contributing structure to the Hanford Site Historic District. Since the PA between the DOE-RL, SHPO, and the Advisory Council on Historic Preservation allows mitigation of these buildings through preparation of an HPIF, it is expected that there would be no adverse effects on the cultural resources of the proposed action.

5.1.11 Effects on Federally or State Listed, Proposed or Candidate, Threatened or Endangered Species

No Federally or State listed, proposed or candidate, threatened, endangered species are expected to be effected by the proposed action.

5.1.12 Effects on any Floodplain or Wetland

The proposed action is outside any floodplains and wetlands.

5.1.13 Effects on any Wild and Scenic River, State or Federal Wildlife Refuge, or Specially Designated Area

The proposed action is outside any Wild and Scenic River corridor, state or federal wildlife refuge, or specially designated area.

5.1.14 Reasonably Foreseeable Accidents Considered and the Effects

The only reasonably foreseeable accidents under the proposed action would be typical construction hazards associated with salvage and demolition activities, including possible blasting, and with the subsequent backfilling activities. Areas would be roped off and cleared of personnel prior to any blasting. The areas affected by blasting would be restricted to the building site. Personnel handling recycle, and salvage/demolition activities would follow approved safety procedures for the salvage and demolition of the facilities within the proposed action, in addition to loading inert and demolition waste into dump trucks and transporting the material to an inert/demolition waste landfill on the Hanford Site, soil backfilling, and water spraying for dust control. Typical construction hazards occur, however the risk of severe accidents is small.

5.2 SOCIOECONOMIC IMPACTS. **Description of socioeconomic impacts that would result from the proposed action.**

Only small numbers of workers would be involved in the salvage/demolition actions at any one time. No substantial change is expected in the number of Hanford Site personnel as a result of the proposed action. No discernible impact to employment levels within Benton and Franklin counties is expected.

5.3 ENVIRONMENTAL JUSTICE IMPACTS. **Description of environmental justice impacts that would result from the proposed action.**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or socioeconomic effects of their programs and activities on minority and low-income populations. Minority (especially Hispanic) populations and low income populations are present near the Hanford Site (PNL 1995a). The DOE is in the process of developing official guidance on the implementation of the Executive Order. The analysis of the impacts in this EA indicates that there would be minimal impacts to both the offsite population and potential workforce by implementing the proposed action, because the entire proposed action would occur on the Hanford Site and the offsite environmental impacts from the proposed action analyzed in this EA are expected to be minimal. Therefore, it is not expected that there would be any

disproportionate impacts to any minority or low-income portion of the community.

5.4 CUMULATIVE IMPACTS.

Description of the cumulative impacts that would result from the proposed action.

Waste generation resulting from the proposed action is not expected to be substantial compared to annual Hanford Site waste generation. For example, small quantities of low-concentration hazardous waste (e.g., solvents or cleaning agents) could be generated as a result of performing the proposed activities. These materials would be managed and recycled or disposed of in accordance with applicable federal and state regulations. Disposal of wastes as a result of the proposed action would not substantially effect any associated disposal sites. The proposed action would return all associated areas to level ground for potential reuse or a return for natural habitat use. Because the proposed action would involve personnel relocated from various areas within the Hanford Site, no substantial change is expected in the overall workforce of the Hanford Site. The potential impacts from the proposed action are not expected to contribute substantially to the cumulative impacts of operations on the Hanford Site.

5.5 IMPACTS FROM ALTERNATIVES

Alternatives and the No Action Alternative are discussed in the following sections.

5.5.1 Implementation of Alternatives.

Qualitative discussion on impacts that would result from implementation of alternatives.

Under the indefinite surveillance and maintenance alternative, the immediate impacts to the environment would not change. However, small amounts of hazardous materials such as lead paint or asbestos may be released to the environment over time. The longer any of the powerhouse facilities stay in surveillance and maintenance following deactivation, the more costly they are to maintain and clean up. In addition, the building structures may deteriorate to unsafe conditions.

Under the reuse alternative, since there are no foreseeable reuses of the facilities, there would be no immediate impacts on the environment. However, if there were reuses identified, refurbishment would remove any hazardous materials.

5.5.2 Implementation of the No Action Alternative.

Qualitative discussion on impacts that would result from implementation of the no action alternative.

Under this alternative, the immediate impacts to the environment would not change. However, as the buildings age, they would be more costly to maintain.

6.0 PERMITS AND REGULATORY REQUIREMENTS

Regulatory requirements affecting the proposed action and necessary permits.

It is the policy of DOE-RL to carry out its operations in compliance with all applicable federal, state, and local laws and regulations, Presidential Executive Orders, and DOE Orders. Asbestos handling activities would require a permit to follow approved procedures and requirements as directed in 40 CFR Parts 61 and 763, and under Washington Administrative Code (WAC) 296, Chapters 62 and 65. The local Benton County Clean Air Authority would be notified before any asbestos handling activities as required. The proposed action would follow pollution prevention requirements under *Executive Order 12856: Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements*. Environmental regulatory authority over the Hanford Site is vested in federal agencies and in Washington State agencies. The proposed actions would comply with all of these and other environmental requirements in a manner acceptable to the relevant regulatory agency while handling, recycling, salvaging, and disposing of all materials, including asbestos, lead, mercury, PCBs, and other small amounts of hazardous substances and materials, nonhazardous materials, as well as disposal of inert and demolition wastes, as applicable.

7.0 ORGANIZATIONS CONSULTED

Tribes, government agencies, and other interested parties consulted during the preparation of this document.

The DOE has consulted the SHPO regarding the three powerhouses. The powerhouses are eligible for listing on the *National Register of Historic Places* (NPS 1995). An agreement has been reached between DOE-RL, the SHPO, and the Advisory Council on Historic Preservation in the PA that sets forth the mechanism for mitigation of eligible historic Hanford buildings.

Prior to approval of this EA, a draft version was sent to the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Wanapum, the Yakama Indian Nation, Washington State, U.S. Fish and Wildlife Service, and Physicians for Social Responsibility for a 15 day review period. However, no comments were received.

8.0 REFERENCES

10 CFR 1021, DOE "National Environmental Policy Act Implementing Procedures".

29 CFR 1910, "Occupational and Safety Health Administration".

29 CFR 1926, "Safety and Health Regulations for Construction".

40 CFR 61, "National Emission Standards for Hazardous Air Pollutants".

40 CFR 763, "Asbestos".

40 CFR 1500-1508, Council on Environmental Quality "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act".

50 CFR 17, "Endangered and Threatened Wildlife and Plants".

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq.

DOE, 1995, *Environmental Assessment: Inert/Demolition Waste Landfill (Pit 9), Hanford Site, Richland, Washington*, DOE/EA-0983, U.S. Department of Energy, Washington, D.C.

DOE-RL, 1996, *Programmatic Agreement Among the U. S. Department of Energy Richland Operations Office, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office for the Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site, Washington*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Migratory Bird Treaty Act, 16 U.S.C. 1431 - 1543, et seq.

National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq.

National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq.

NPS, 1995, *The National Register of Historical Places*, National Park Service, U.S. Department of Interior, Washington, D.C.

PNL, 1995a, *Hanford Site Environmental Report for Calendar Year 1994*, PNL-10574, Pacific Northwest Laboratory, Richland, Washington.

PNL, 1995b, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Rev. 7, Pacific Northwest Laboratory, Richland, Washington.

WAC 296-62, "Occupational Health Standards - Safety Standards for Carcinogens".

WAC 296-65, "Asbestos Removal and Encapsulation".

APPENDIX A

BIOLOGICAL REVIEWS

Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

May 14, 1996

376-5345

Mr. J. Diebel
ICF Kaiser Hanford Company
P. O. Box 888, MSIN S2-66
Richland, WA 99352

Dear Mr. Diebel:

SECOND SUPPLEMENTAL BIOLOGICAL REVIEW OF THE COAL PIT, ASH PIT, AND ASH DISPOSAL BASIN IN SUPPORT OF THE 284-W AND 2710-W DE-ACTIVATION/SHUTDOWN, 200 West Area, #96-200-047b

Project Description:

- Excavations within the coal pit, ash pit, and ash disposal basin in support of the demolition of the 284-W Building and 2710-W Building.

Survey Objectives:

- To determine the occurrence in the project area of plant and animal species protected under the Endangered Species Act (ESA), candidates for such protection, and species listed as threatened, endangered, candidate, sensitive, or monitor by the state of Washington, and species protected under the Migratory Bird Treaty Act.
- To evaluate the potential impacts of disturbance on priority habitats and protected plant and animal species identified in the survey.

Survey Methods:

- Pedestrian and ocular reconnaissance of the coal pit, ash pit, and ash disposal basin was conducted by G. Fortner, R. Zufelt, R. Burrows, and G. Laugheed on May 13, 1996. The Braun-Blanquet cover-abundance scale (Bonham 1989) was used to determine percent cover of dominant vegetation.
- Priority habitats and species of concern are documented as such in the following: Washington Department of Fish and Wildlife (1993, 1994), U. S. Fish and Wildlife Service (1985,1994a & b) and Washington State Department of Natural Resources (1994).

Survey Results:

- The coal pit, ash pit, and ash disposal basin are disturbed. Vegetation is sparse and consists primarily of Russian thistle (*Salsola kali*) and cheatgrass (*Bromus tectorum*), both alien annual weeds.
- No migratory birds were observed nesting in the vicinity of the coal pit, ash pit, or ash disposal basin.

Mr. J. Diebel
96-200-047b
Page 2 of 3

Considerations and Recommendations:

- No plant and animal species protected under the ESA, candidates for such protection, or species listed by the Washington state government were observed in the vicinity of the coal pit, ash pit, or ash disposal basin.
- No adverse impacts to species or habitats of concern are expected to occur from the proposed action.
- This biological review is effective until April 1, 1997. Should work on this project commence after this date, a new ecological review will be required.

Sincerely,

J. M. Becker for C. A. Brandt

CA Brandt, Ph.D.
Project Manager
Ecological Compliance Assessment

CAB:jmb

REFERENCES

Bonham, Charles D. 1989. Measurements for Terrestrial Vegetation, published by John Wiley & Sons, Inc. pp. 127-128.

U. S. Fish and Wildlife Service. 1985. Revised List of Migratory Birds; Final Rule. 50 FR 13708 (April 5, 1985).

U. S. Department of Interior, U. S. Fish and Wildlife Service. 1992a. Endangered and Threatened Wildlife and Plants. 50 CFR 17.11 and 17.12. (August 29, 1992).

U. S. Fish and Wildlife Service. 1994b. Endangered and Threatened Wildlife and Plants, Animal Candidate Review for Listing as Endangered or Threatened Species, Proposed Rule, 50 CFR 17. (November 15, 1994).

Washington Department of Fish and Wildlife. 1993. Priority Habitats and Species. pp. 22.

Washington Department of Fish and Wildlife. 1994. Species of Special Concern in Washington. (April 1994).

Washington Department of Natural Resources. 1994. Endangered, Threatened & Sensitive Vascular Plants of Washington. (January 1994).

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 3

To Jim Diebel	From Terrie Emery
Co.	Co.
Dept.	Phone#
Fax # 3-6702	Fax # 372-3515

May:

Battelle
Pacific Northwest Laboratories
Battelle Boulevard
P.O Box 999
Richland, Washington 99352
Telephone (509)
376-5345

Mr. J. L. Day
ICF Kaiser Hanford Company
P. O. Box 888, MSIN S2-66
Richland, WA 99352

Dear Mr. Day:

BIOLOGICAL REVIEW OF THE 284-W DE-ACTIVATION/SHUTDOWN, 200 West Area, #96-200-047c

Project Description:

- Demolition of the 284-W Building.

Survey Objectives:

- To determine the occurrence in the project area of plant and animal species protected under the Endangered Species Act (ESA), candidates for such protection, and species listed as threatened, endangered, candidate, sensitive, or monitor by the state of Washington, and species protected under the Migratory Bird Treaty Act.

- To evaluate the potential impacts of disturbance on priority habitats and protected plant and animal species identified in the survey.

Survey Methods:

- Pedestrian and ocular reconnaissance of the proposed site was conducted by R. Zufelt, G.Fortner, R. Burrows and G. Loughheed on May 23, 1996. The Braun-Blanquet cover-abundance scale (Bonham 1989) was used to determine percent cover of dominant vegetation. Avian surveys of buildings in the 200 West Area were conducted by by R. Zufelt, G.Fortner, R. Burrows and G. Loughheed on May 13, 1996.

- Priority habitats and species of concern are documented as such in the following: Washington Department of Fish and Wildlife (1993, 1994), U. S. Fish and Wildlife Service (1985,1994a & b) and Washington State Department of Natural Resources (1994).

Survey Results:

- The vicinity of the building is disturbed. Vegetation is sparse and consists primarily of big rabbitbrush (*Chrysothamnus nauseosus*), cheatgrass (*Bromus tectorum*), Jim Hill's tumble mustard (*Sisymbrium altissimum*), and Sandberg's bluegrass (*Poa sandbergii*).

- House sparrows (*Passer domesticus*), European Starlings (*Sturnus vulgaris*), and Rock Doves (*Columbia livia*) were observed perching on the 284-W Building. Cliff swallows were observed nesting on the coal ramp leading to the 284-W Building.

Mr. J. L. Day
96-200-047c
Page 2 of 3

Considerations and Recommendations:

- The Migratory Bird Treaty Act makes it illegal to take, capture, or kill, as applicable, any migratory bird, or any part, nest, or egg of any such birds, included in the terms of the conventions.
- Cliff swallows are a migratory bird and are protected under the Migratory Bird Treaty Act. In order to avoid adverse impacts to this species, demolition of this building should be undertaken outside the nesting season that extends from April 1 to July 30.
- This biological review is effective until April 1, 1997. Should work on this project commence after this date, a new ecological review will be required.
- No other plant and animal species protected under the ESA, candidates for such protection, or species listed by the Washington state government were observed in the vicinity of the 284-W Building.
- No adverse impacts to species or habitats of concern are expected to occur from the proposed demolitions.

Sincerely,

T. P. Hamilton for CA Brandt

CA Brandt, Ph.D.
Project Manager
Ecological Compliance Assessment

CAB:jmb

Mr. J. L. Day
96-200-047c
Page 3 of 3

REFERENCES

Bonham, Charles D. 1989. Measurements for Terrestrial Vegetation, published by John Wiley & Sons, Inc. pp. 127-128.

U. S. Fish and Wildlife Service. 1985. Revised List of Migratory Birds; Final Rule. 50 FR 13708 (April 5, 1985).

U. S. Department of Interior, U. S. Fish and Wildlife Service. 1992a. Endangered and Threatened Wildlife and Plants. 50 CFR 17.11 and 17.12. (August 29, 1992).

U. S. Fish and Wildlife Service. 1994b. Endangered and Threatened Wildlife and Plants, Animal Candidate Review for Listing as Endangered or Threatened Species, Proposed Rule, 50 CFR 17. (November 15, 1994).

Washington Department of Fish and Wildlife. 1993. Priority Habitats and Species. pp. 22.

Washington Department of Fish and Wildlife. 1994. Species of Special Concern in Washington. (April 1994).

Washington Department of Natural Resources. 1994. Endangered, Threatened & Sensitive Vascular Plants of Washington. (January 1994).

APPENDIX B

CULTURAL RESOURCES REVIEWS AND CORRESPONDENCE

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

MAR 21 1996

96-AIM-041

Ms. Mary M. Thompson
State Historic Preservation Officer
Office of Archaeology and Historic Preservation
Washington Department of Community,
Trade and Economic Development
P.O. Box 48343
Olympia, Washington 98504-8343

Dear Ms. Thompson:

DEMOLITION OF THE 284-W POWER HOUSE BUILDING, HANFORD SITE

The U.S. Department of Energy, Richland Operations Office (RL) wishes to demolish the 284-W Power House Building, Hanford Site, because the facility is too expensive to maintain and survey. If this building can be removed, funds that currently are used to maintain the structure can be re-directed into other site clean-up activities in support of the Hanford mission.

In 1995, your office was provided with a Historic Property Inventory Form (HPIF)(95-TEP-264) for the 284-W Power House, stating RL's belief that this building is not eligible for the National Register. On August 31, 1995, your office informed RL that the 284-W Building is a Register-eligible structure that played a key support role in the historic Hanford Site mission (Log #081095-119-DOE). Since that time, we have mutually discussed a site-wide mitigation plan that would encompass the roles of support buildings in Hanford's history.

The Historic Buildings Task Group has discussed the role of support buildings and how they contribute to the proposed Hanford Site District. The roles are minor and not significant. Based on the minor role that the 284-W Power House Building contributed to the Hanford Site, it is RL's opinion that the documentation supplied in the HPIF is sufficient to support a "no adverse effect finding" at this time for the demolition of the building.

Mary M. Thompson -2-
96-AIM-041

Therefore, in accordance with 36 CFR 800.5(d), I am informing you of RL's need to demolish the 284-W structure and have provided documentation supporting this finding and solicit any comments you may have. If you have any further questions, please contact Mr. Mike Elsen, Site Infrastructure Division, at (509) 376-8021.

Sincerely,

Dee W. Lloyd

SID:MJE

Dee W. Lloyd, Manager
Cultural Resources Program
Environmental Assurance,
Permits, and Policy Division

cc: J. Van Pelt, CTUIR
P. R. Nickens, PNNL
M. S. Gerber, WHC
G. T. Kirk, PNNL
R. C. Funderburg, ICF KH
D. L. Nicandri, WSHS
R. Buck, Wanapum
R. Jim, YIN
L. Malatare, YIN
R. S. Fintknife, YIN
J. H. Reuben, NPT

STATE OF WASHINGTON

DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
111 21st Avenue S.W. • P.O. Box 48343 • Olympia, Washington 98504-8343 • (360) 753-4011

March 28, 1996

Mr. Dee W. Lloyd, Manager
Cultural Resources Program
Department of Energy
Richland Operations Office
Post Office Box 550, A5-15
Richland, Washington 99352

Log: 081095-119-DOE
Re: Demolition of the 284-W Power House Building, Hanford Site

Dear Mr. Lloyd: Dee

The Washington State Office of Archaeology and Historic Preservation (OAHP) is in receipt of your letter regarding the above referenced action. From your letter, I understand that the Department of Energy (DOE) proposes to demolish the 284-W Power House Building at the Hanford Site.

In response, I want to thank you for information on the history of our consultation regarding this property. In view of the fact that OAHP and DOE has recently met, reviewed, and tentatively approved the Hanford Site Historic District Mitigation Plan, I concur with your determination that the proposed action will have no adverse effect upon the National Register eligibility of the Hanford Site Historic District. I have reviewed the mitigation plan matrices to confirm that no mitigation is recommended for 284-W. I also note that 284-E is recommended for mitigation through completion of a Historic Property Inventory Form (HPIF). As a result of this concurrence, further contact with OAHP on this action is not necessary. However, should new information become available which could alter this opinion, please contact OAHP for further consultation.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me at (360) 753-9116.

Sincerely,

Greg Griffith

Gregory Griffith
Comprehensive Planning Specialist

RECEIVED
APR 05 1996
DOE RL

GAG:tjt

196-NRP-043

Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

April 8, 1996

No Known Archaeological Historic Properties

Mr. J. L. Day
ICF Kaiser Hanford
P.O. Box 888/S2-66
Richland, WA 99352

Dear Mr. Day:

CULTURAL RESOURCES REVIEW OF THE 284W/2710W DEMOLITION. HCRC #96-200-047.

In response to your request received April 1, 1996, staff of the Hanford Cultural Resources Laboratory (HCRL) conducted a cultural resources review of the subject project, located in the 200 West Area of the Hanford Site. According to the information that you supplied, the 284W and 2710W facilities will be demolished. Excavation to a depth of 5 to 6 feet will be necessary for the removal of the 284W foundation and deeper for the removal of the underground portion of the 2710W facility.

Our literature and records review shows that the project area is located within the industrial part of the 200 West Area. The ground around the buildings has been extensively disturbed by previous Hanford Site construction activities, including the construction of the buildings. It is unlikely that any intact archaeological materials will be affected by the proposed project. Survey and monitoring of the project by an archaeologist are not necessary.

It is the finding of the HCRL staff that there are no known cultural resources or archaeological historic properties within the proposed project area. The workers, however, must be directed to watch for cultural materials (e.g., bones, artifacts) during all work activities involving excavation. If any are encountered, work in the vicinity of the discovery must stop until an HCRL archaeologist has been notified, assessed the significance of the find, and, if necessary, arranged for mitigation of the impacts to the find. The HCRL must be notified if any changes to project location or scope are anticipated. This project is a Class VI case, defined as a project which involves demolition or remodeling of existing structures. It is my understanding that M. S. Gerber, Westinghouse Hanford Company, is evaluating the effect the demolition will have on potential contributing properties to the Hanford Site Historic District.

Copies of this letter have been sent to Dee Lloyd, DOE, Richland Operations Office, as official documentation. If you have any questions, please call me at 376-8107. Please use the HCRC# above for any future correspondence concerning this project.

Very truly yours,

N. A. Cadoret
Technical Specialist
Cultural Resources Project

Concurrence:

P. R. Nickens, Project Manager
Cultural Resources Project

cc: D. Lloyd, RL (2)
J. A. Diebel
File/LB

Pacific Northwest National Laboratory

Operated by Battelle for the U.S. Department of Energy

April 29, 1996

No Known Archaeological Historic Properties

Mr. J. A. Diebel
ICF Kaiser Hanford
P.O. Box 888/G3-10
Richland, WA 99352

Dear Mr. Diebel:
CULTURAL RESOURCES REVIEW OF THE 284W/2710W DEMOLITION. ADDENDUM
HCRC #96-200-047.

REFERENCE: HCRC #96-200-047 review letter dated April 8, 1996, from N. A. Cadoret, HCRL, to J. L. Day, ICFK.

Staff of the Hanford Cultural Resources Laboratory (HCRL) recently conducted a cultural resources review of the subject project, located in the 200 West Area of the Hanford Site (see reference above). You have since provided us additional information and project scope. According to this information, land to within 20 feet of the 284W/2710W complex may also be disturbed as a result of the demolition. The coal pile, ash pit, and ash disposal basin, to the south and southeast of the 284W/2710W complex may also be disturbed/mined by the demolition project.

The project area is located within the industrial part of the 200 West Area. The ground around the buildings, coal pile, ash pit, and ash disposal basin has been extensively disturbed by previous Hanford Site activities. The coal pile, ash pit, and ash disposal basin are not themselves considered cultural resources. It is unlikely that any intact archaeological materials will be affected by the proposed project. Survey and monitoring of the project by an archaeologist are not necessary.

It is the finding of the HCRL staff that there are no known cultural resources or archaeological historic properties within the proposed project area. The workers, however, must be directed to watch for cultural materials (e.g., bones, artifacts) during all work activities involving excavation. If any are encountered, work in the vicinity of the discovery must stop until an HCRL archaeologist has been notified, assessed the significance of the find, and, if necessary, arranged for mitigation of the impacts to the find. The HCRL must be notified if any changes to project location or scope are anticipated. This project is a Class VI case, defined as a project which involves demolition or remodeling of existing structures.

Copies of this letter have been sent to Dee Lloyd, DOE, Richland Operations Office, as official documentation. If you have any questions, please call me at 376-8107. Please use the HCRC# above for any future correspondence concerning this project.

Very truly yours,

N. A. Cadoret
Technical Specialist
Cultural Resources Project

Concurrence:
P. R. Nickens, Project Manager
Cultural Resources Project

cc: D. Lloyd, RL (2)
File/LB

Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

April 8, 1996 9651498

J. E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division
U.S. Department of Energy
Richland Operations Office
Richland, Washington 99352

Dear Mr. Rasmussen:

DEACTIVATION OF BUILDING 284-E AND MODIFICATION OF 282-E, HANFORD SITE
(HCRC #96-200-035 AND #96-200-045)

A cultural resources review was conducted by qualified staff of Westinghouse Hanford Company at the request of ICF Kaiser Hanford Company on the deactivation of the 284-E Building, and the replacement of pumps in the 282-E Building, Hanford Site. Both the 284-E and 282-E Buildings were found to be contributing structures to a potential Hanford Site Historic District. Due to the need to deactivate the 284-E Building and to replace pumps in the 282-E Building as part of cost-saving and efficiency measures in the Hanford Site cleanup mission, Historic Property Inventory Forms were completed on these buildings. Copies of these forms are enclosed.

The deactivation of the 284-E Building will consist of isolating equipment from power sources, shutting off and diverting water supplies, cleaning out residual debris, and housekeeping measures. Essential equipment such as the boilers will be left in place awaiting future decontamination and decommissioning work. In the 282-E Building, the current pumps will be replaced with new pumps. However, the 282-E reservoir will continue to function. Likewise, parts of the steam distribution system in the 200-E Area will continue to function, but steam will be supplied by portable generating units located near the points of need. Therefore, it is the conclusion of the Westinghouse Hanford cultural resources office that the deactivation of the 284-E Building and the replacement of pumps in the 282-E Building will not have an adverse effect on them under provisions of the National Historic Preservation Act and its implementing regulations.

We, therefore, request that you forward this information and the enclosed forms to the Washington State Historic Preservation Office to obtain concurrence on plans to deactivate the 284-E structure and to replace pumps in the 282-E structure with no further historical documentation effort at

Mr. J. E. Rasmussen
Page 2
April 8, 1996

9651498

this time. These buildings will receive further future mitigation according to the proposed Site-wide Programmatic Agreement for the Built Environment. If any archaeological or additional historical resources are discovered during demolition activities, work will be halted and your office informed immediately.

Very truly yours,

D. B. Cartmell, Director
Transition Programs
Transition Projects

dc

Enclosures

Concurrence: M. S. Gerber
M. S. Gerber
Principal Historian

J. L. Day, Manager
200 Areas Steam and Water Utilities
ICF Kaiser Hanford Company

RL - M. J. Elsen
D. W. Lloyd
A. H. Wirkkala (w/o enclosures)

BHI - T. E. Marceau

CTUIR - J. Van Pelt

PNNL - G. T. Kirk (w/o enclosures)
P. R. Nickens

HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206) 753-4011

IDENTIFICATION SECTION

Field Site No. 284-E OAHP No. _____ Date Recorded 04/01/96
Site Name Historic Power House
Common Steam Plant
Field Recorder MS Gerber
Owner's Name Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

Status
- ■ Survey/Inventory
- ☐ National Register
- ☐ State Register
- ☐ Determined Eligible
- ☐ Determined Not Eligible
- ☐ Other (HABS, HAER, NHL)
- ☐ Local Designation

PHOTOGRAPHY
Photography Neg. No. 94070043-27cn
(Roll No. & Frame No.)
View of West face and roof
Date 1994

Classification ☐ District ☐ Site ■ Building ☐ Structure ☐ Object
District Status ☐ NR ☐ SR ☐ LR ☐ INV
Contributing ☐ Non-Contributing ☐
District/Thematic Nomination Name

DESCRIPTION SECTION

Materials & Features/Structural Types
Building Type Industry
Plan Rectangular
Structural System Steel frame/concrete block
No. of Stories Three

Cladding (Exterior Wall Surfaces)
- ☐ Log
- ☐ Horizontal Wood Siding
  - ☐ Rustic/Drop
  - ☐ Clapboard
- ☐ Wood Shingle
- ☐ Board and Batten
- ☐ Vertical Board
- ☐ Asbestos/Asphalt
- ☐ Brick
- ☐ Stone
- ☐ Stucco
- ☐ Terra Cotta
- ■ Concrete/Concrete Block
- ☐ Vinyl/Aluminum Siding
- ☐ Metal (specify)
- ☐ Other (specify)

(Include detailed description in Description of Physical Appearance)

Roof Type
- ☐ Gable
- ☐ Hip
- ■ Flat
- ☐ Pyramidal
- ☐ Monitor
- ☐ Other (specify)
- ☐ Gambrel
- ☐ Shed

Roof Material
- ☐ Wood Shingle
- ☐ Wood Shake
- ☐ Composition
- ☐ Slate
- ☐ Tar/Built-Up
- ☐ Tile
- ☐ Metal (specify)
- ■ Other (specify) Precast concrete/built-up gravel surface
- ☐ Not Visible

Foundation
- ☐ Log
- ☐ Post & Pier
- ☐ Stone
- ☐ Brick
- ☐ Not visible

Concrete
- ☐ Block
- ■ Poured
- ☐ Other (specify)

	Intact	Slight	Moderate	Extensive
Changes to plan	☐	☐	■	☐
Changes to windows	☐	■	☐	☐
Changes to original cladding	■	☐	☐	☐
Changes to interior	☐	☐	■	☐
Other (specify) _____	☐	☐	☐	☐

LOCATION SECTION

Address 284-E/200 Area/Hanford Site
City/County/Zip Code Richland, WA/Benton County/99352
Twp. _____ Range _____ Section _____ ¼ Section _____ ¼ ¼ Section _____
Tax No./Parcel No _____ Acreage _____
Quadrangle or map name _____
UTM References Zone 11 Easting See attached Northing See attached
Plat/Block/Lot _____
Supplemental Maps _____

High Styles/Forms (check one or more of the following)
- ☐ Greek Revival
- ☐ Gothic Revival
- ☐ Italianate
- ☐ Second Empire
- ☐ Romanesque Revival
- ☐ Stick Style
- ☐ Queen Anne
- ☐ Shingle Style
- ☐ Colonial Revival
- ☐ Beau Arts/Neoclassical
- ☐ Chicago/Commercial Style
- ☐ American Foursquare
- ☐ Mission Revival
- ☐ Spanish Colonial Revival/Mediterranean
- ☐ Tudor Revival
- ☐ Craftsman/Arts & Crafts
- ☐ Bungalow
- ☐ Prairie Style
- ☐ Art Deco/Art Moderne
- ☐ Rustic Style
- ☐ International Style
- ☐ Northwest Style
- ☐ Commercial Vernacular
- ☐ Residential Vernacular (see below)
- ■ Other (specify) Industrial vernacular

Vernacular House Type
- ☐ Gable front
- ☐ Gable front and wing
- ☐ Side gable
- ☐ Cross gable
- ☐ Pyramidal/Hipped
- ☐ Other (specify) _____

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

- ☐ Agricultural
- ☐ Architecture/Landscape Architecture
- ☐ Arts
- ☐ Commerce
- ☐ Communications
- ☐ Community Planning/Development
- ☐ Conservation
- ☐ Education
- ☐ Entertainment/Recreation
- ☐ Ethnic Heritage (specify) _____
- ☐ Health/Medicine
- ☐ Manufacturing/Industry
- ☐ Military
- ☐ Politics/Government/Law
- ☐ Religion
- ☐ Science & Engineering
- ☐ Social Movements/Organizations
- ☐ Transportation
- ■ Other (specify) Manhattan Project/Cold War
- ■ Study Unit Sub-Theme(s) (specify) Facility Support/Power House

Statement of Significance

Date of Construction 1944

Architect/Engineer/Builder DuPont Corporation/Manhattan Engineer District

☐ In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places

■ In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The 284-E Power House was built during World War II to supply steam power to steam turbine pumps for the heating and process needs of 200 East Area buildings at the Hanford Site. Overhead steam lines (2802-E Structures) conveyed the steam throughout the 200 East Area. Many pieces of heavy industrial equipment, machinery, and industrial processes in the 200-East Area (and in other Hanford areas) were powered by steam. The 284-E Power House continued to supply steam needs throughout the Manhattan Project era, the Cold War era, and beyond. In 1954, the building received a large addition to accommodate the needs of the huge PUREX (plutonium uranium extraction) plant being built just to the east. Extra boiler capacity was added. However, the function did not change. During 1995-96, studies showed that the 200-East Area's steam needs could be supplied with more modern, efficient portable steam generators, as many of the area's larger facilities were shutting down. Therefore, the decision was made to close the 284-E Power House sometime in 1997.

The U.S. Department of Energy, Richland Operations Office (RL) concludes that the 284-E building is eligible for the National Register of Historic Places under Criterion A because of its long and intimate association with 200 East Area operations and its ability to contribute information concerning Site infrastructure at the Hanford Site. RL concludes that the 284-E facility is not eligible under Criterion B because it is not associated with significant persons. Further, it is not eligible under Criterion C because its architecture and construction are not distinctive.

Description of Physical Appearance

The original 284 East Power House consisted of a three-story, steel frame building, 73 feet wide by 156 feet long, with three different roof levels. All three roof levels ran the entire length of the building. The western most roof level was 70 feet tall by 25 feet wide, the mid-section was 58 feet tall by 33 feet wide, and the eastern most section was 27 feet tall. The 284-East Building had a reinforced concrete foundation, concrete block superstructure and concrete pre-cast roof, covered with built-up roofing consisting of felt, tar, gravel and transite. The building was entirely above ground-level, with the exception of sluice trenches and piping. It was oriented north and south, and lay just east of the 283-E water reservoir in the south central portion of the Hanford Site's 200 East Area. The following structures comprised the 284-East facility: main power house building; two reinforced concrete stacks partially lined; coal handling conveyor system, including two track hoppers, crusher house, and two transfer houses; an open coal storage pit; and a salt dissolving pit, including a brine pump house.

The operating floor of the 284 East building, 14 feet above the ground floor, was a reinforced concrete slab surrounding three steam boilers. Each boiler was fired by a spreader-type stoker with dumping grates. Each grate was 23.5 feet wide by 16 feet deep, and was divided into five sections, each having its own fuel distributor or feeder. Operating controls and gauges of the boilers were located on panel boards along the wall of the building facing the fire doors of the boilers. Above the operating floor were intermediate and top platforms consisting of structural steel supports and steel grating stairways and walkways to afford access to the upper regions of the boilers and the stoking equipment.

The 284-E Building had numerous roof ventilators, adjustable wooden louvers along the side walls, and three steel rolling overhead doors located at each end of the building. At the south end, on the ground floor, were a locker room, shower room, lavatory, electrical switch gear cabinets, and an open area. A small laboratory also was located on the ground floor. On the upper operating floor were offices, a lavatory a conference room and battery room.

The boilers were connected to two reinforced concrete-lined stacks by means of four outside steel breechings, two breechings running to each stack. The stacks are 250 feet tall and are 23 feet at the base, tapering to nine feet inner diameter at the top. They are located approximately 20 feet from the Power House itself. At the base of each stack was an ash disposal system which connected to the main system under the Power House.

Within the 284 East Building, approximately 67 feet above the ground floor level, was the conveyor platform which consisted of a reinforced concrete floor with steel gratings supported by structural steel beams. A conveyer ran the entire length of the building on steel rails, to three large bunkers. Another belt conveyor was installed above the stoker hoppers under the bunkers for the transfer of coal from any bunker to any stoker.

Description of Physical Appearance (continued)

The conveyor system originally consisted of two underground track hoppers, a crusher house, two transfer houses and connecting housing elevating the coal from beneath the tracks to the coal pit and to the 67-foot high platform above the coal bunkers some 800 feet away. The track hoppers were constructed of reinforced concrete. The transfer houses and belt housing are constructed of steel framing with corrugated transite walls and roof and wooden plank flooring. They are supported by structural steel piers embedded in concrete foundations.

The crusher house was a three-story reinforced concrete base, structural steel frame building with corrugated transite walls and roof, with one story below ground level. This building housed two double-roll crushers with receiving hoppers on the top floor, the crushers themselves were on the ground floor, and the conveyor belt mechanism was beneath the crushers. A small coal testing laboratory was located on one end of the crusher house. The coal storage area located by the crusher house was roughly rectangular in shape with its base six feet below grade. It was 310 feet by 350 feet, and its area was enclosed by an earthen dike and reinforced concrete wall to a height of nine feet above ground level. A reinforced concrete brine dissolving pit, divided into two sections, was located beside the 200 East railroad track near the 284-E Power House. A small, reinforced concrete brine pump house was located beside the pit and housed brine pumping equipment.

During 1953-54, the 284 East Power House was expanded to the north side to accommodate the needs of the huge new PUREX production facility. The new addition was constructed of metal sheeting with a corrugated metal roof. The addition was 66.4 feet long, bringing the new building length to 220.4 feet and the total building area to 68,000 square feet. Two boilers were added in the 1953-54 expansion, and another boiler was added in 1984, bringing the current total to six. No additional building area was constructed in 1984 when the last boiler was added.

Major Bibliographic References

Carr, P.S., Jr., "Completion Report: Expansion of 200 Area Facilities," HW-24800-105 (Richland, WA: G.E. Hanford Co., 1950).

DuPont Corporation, "Construction of Hanford Engineer Works: History of the Project," HAN-10970 (Wilmington, DE: E.I. DuPont de Nemours and Co., 1945), Vol. II.

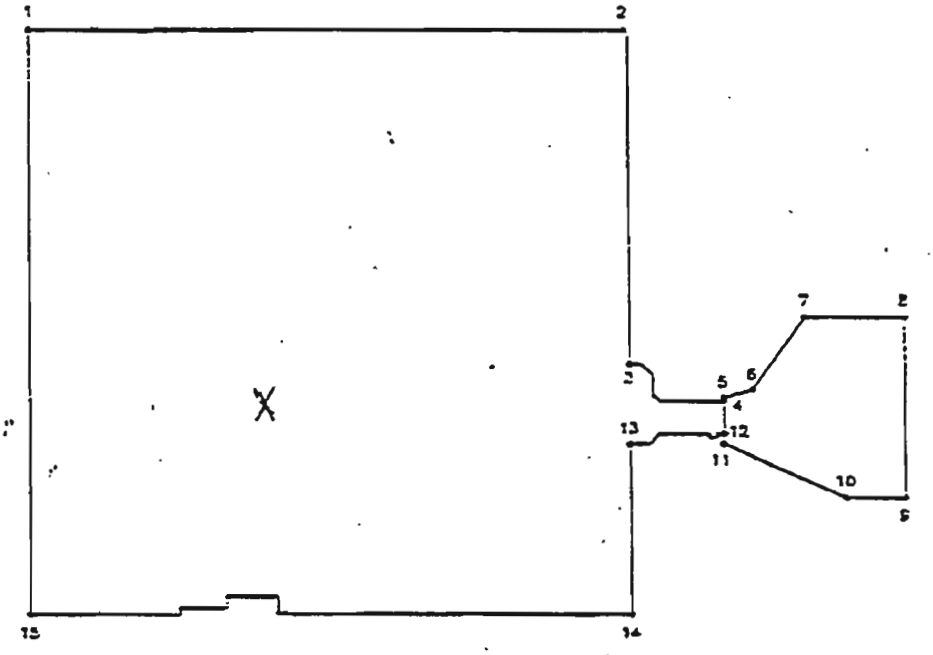
Hanford Site Drawings: H-2-55386, H-2-55400, H-2-55401, H-2-55402, H-2-55403, H-2-55405, H-2-55510, H-2-55518, H-2-77895.

U.S. Atomic Energy Commission/G.E. Hanford Co. (AEC/GE), "Catalog of Hanford Site Buildings and Facilities," GEH-26434 (Richland, WA: AEC/GE, 1964).

200E, UTM COORDINATES

	N	E
1	5160428	304326
2	5160305	307251
3	5158634	307162
4	5158429	307613
5	5158447	307614
6	5158441	307750
7	5158837	308019
8	5158818	308480
9	5157907	308439
10	5157918	308167
11	5157944	307592
12	5158266	307606
13	5158231	307165
14	5157369	307129
15	5157490	304204

200 EAST PERIMETER FENCE



Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

May 17, 1996 9651963

Mr. J. E. Rasmussen, Director
Environmental Assurance,
Permits, and Policy Division
U.S. Department of Energy
Richland, Washington 99352

Dear Mr. Rasmussen:

DEMOLITION OF BUILDING 384, HANFORD SITE (HCRC #96-300-025)

A Cultural Resources review was conducted by Westinghouse Hanford Company (WHC) at the request of ICF Kaiser Hanford Company (ICF KH) on the demolition of the 384 Power House on the Hanford Site. A literature and records search, as well as oral history contacts, reveal that the 384 Power House was constructed in World War II and has served as a steam power generating facility since that time. The 384 Building was found to be a contributing structure to a potential Hanford Site Historic District, both by the WHC Historian and by the Hanford Site Cultural Resources Task Group.

A need has arisen to demolish the 384 Building as part of cost saving and efficiency measures in the Hanford Site cleanup mission. In fiscal year (FY) 1997, the 384 Building will be deactivated. Activities at that time will consist of isolating equipment from power sources, shutting off and diverting water supplies, cleaning out residual debris, and housekeeping measures. Demolition of the facility will take place in FY 1998. However, it is necessary to complete the historical and other reviews for the 384 Building that are required by the National Environmental Policy Act (NEPA) in the near term, because the NEPA-driven reviews are being combined with similar documentation for the other two Hanford Site power plants (the 284-W and 284-E Buildings) in order to achieve cost savings. Timely completion is required so as not to delay demolition of the 284-W Building.

Therefore, WHC proposes at this time that historical mitigation of the 384 Building be completed in the future in conformance with the Site-wide Programmatic Agreement for the built environment of the Hanford Site, currently being negotiated between the U.S. Department of Energy, Richland Operations Office and the State Historic Preservation Office (SHPO). It is the conclusion of the WHC Cultural Resources office that the future historical documentation that is planned will be sufficient to mitigate any adverse effects that may be caused by the demolition of the 384 Building.

Mr. J. E. Rasmussen
Page 2
May 17, 1996

9651963

We request that you seek concurrence from the SHPO and any necessary concurring agencies on plans to deactivate and demolish the 384 structure with no historical documentation effort at this time. If any archaeological or additional historical resources are discovered during deactivation activities, work will be halted and your office informed immediately.

Very truly yours,

D. B. Cartmell, Director
Transition Programs
Transition Projects

dc

CONCURRENCE:

M. S. Gerber
WHC Historian

J. A. Diebel
ICF KH, Project Engineer

RL - M. J. Elsen
D. W. Lloyd
A. H. Wirkkala

BHI - T. E. Marceau

PNNL - G. T. Kirk
P. R. Nickens

STATE OF WASHINGTON
DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
111 21st Avenue S.W. • P.O. Box 48343 • Olympia, Washington 98504-8343 • (360) 753-4011

June 6, 1996

Mr. Dee W. Lloyd, Manager
Cultural Resources Program
Department of Energy
Richland Operations Office
Post Office Box 550 Mailstop A5-15
Richland, Washington 99352

Log: 060496-09-DOE
Re: Demolition of Buildings 2710-W and 384

Dear Mr. Lloyd:

Thank you for contacting the Washington State Office of Archaeology and Historic Preservation (OAHP) regarding the above referenced actions. From your letter, I understand that the Department of Energy (DOE) proposes to demolish Buildings 2710-W and 384 in the 200 and 300 Areas respectively at the Hanford Site (HCRC # 96-200-047 and 96-300-025).

In response, I concur that Building 384 steam power generating facility is a contributing structure to the Hanford Site National Register eligible Historic District. Therefore, it is my opinion that demolition of Building 384 is an adverse effect to the historic district. Hence, I recommend mitigation of Building 384 demolition in conformance with the Site-wide Programmatic Agreement for the built environment of the Hanford Site. Similarly, I concur that the 2710-W is a non-contributing property to the historic district according to the recommendations of the WHC Historian and the Hanford Site Cultural Resources Task Group.

Thank you for the opportunity to comment. Should you have any questions, please feel free to contact me at (360) 753-9116.

Sincerely,

Greg Griffith

Gregory Griffith
Comprehensive Planning Specialist

RECEIVED
JUN 10 1996
DOE RL/CCC
196-NRP-079

GAG:tjt

FINDING OF NO SIGNIFICANT IMPACT

FOR THE

SALVAGE/DEMOLITION

OF

200 WEST AREA, 200 EAST AREA, AND

300 AREA STEAM PLANTS

HANFORD SITE, RICHLAND, WASHINGTON

U.S. DEPARTMENT OF ENERGY

OCTOBER 1996

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA), DOE/EA-1177, to assess environmental impacts associated with the salvage and demolition of the 200 West Area, 200 East Area, and 300 Area Steam Plants and their associated steam distribution piping, equipment, and ancillary facilities at the Hanford Site, Richland, Washington.

It is proposed that all materials, wastes, and equipment be salvaged and recycled where feasible. The existing coal storage yards of each steam plant would serve as lay down yards to store equipment and material during salvaging activities. Foundations and concrete footings would be removed in order to return the areas to ground level for potential reuse. Waste minimization practices would be in place to keep wastes at a minimum.

Based on the analysis in the EA, the DOE has determined that the proposed action is not a major federal action significantly affecting the quality of the human environment within the meaning of the *National Environmental Policy Act of 1969* (NEPA), 42 U.S.C. 4321, et seq. Therefore, the preparation of an Environmental Impact Statement (EIS) is not required.

ADDRESSES AND FURTHER INFORMATION

Single copies of the EA and further information about the proposed action are available from:

W. A. Rutherford, Acting Director
Site Infrastructure Division
U.S. Department of Energy
Richland Operations Office
Richland, Washington 99352
(509) 376-7597

For further information regarding the DOE NEPA Process, contact:

Carol M. Borgstrom, Director
Office of NEPA Oversight
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
(202) 586-4600 or (800) 472-2756

PURPOSE AND NEED: The U.S. Department of Energy (DOE) needs to reduce costs of future surveillance and maintenance for the 200 West Area Steam Plant, and avoid future surveillance and maintenance costs for the 200 East Area and 300 Area Steam Plants.

BACKGROUND: The transition of the Hanford Site mission from defense production to a restoration mission has reduced the large demand for steam required to support defense operations. The 200 West Area Steam Plant was shut down in fiscal year 1995 and is currently in surveillance and maintenance awaiting decommissioning. The 200 East Area and 300 Area Steam Plants are currently in operation and are expected to be shut down in the near future. The costs for access controls and surveillance and maintenance of the steam plants would escalate over time.

PROPOSED ACTION: The DOE proposes to salvage and demolish the steam plants in the 200 West Area, 200 East Area, and 300 Area with their associated steam distribution piping, equipment, and ancillary facilities. Activities would include salvaging and recycling of all materials and equipment where feasible, in keeping with waste minimization principles. Existing coal storage yards would serve as lay down yards to store equipment and material during salvaging activities. Foundations and concrete footings would be removed in order to return the areas to ground level for potential reuse.

ALTERNATIVES CONSIDERED: The EA discussed several alternatives to reduce surveillance and maintenance costs for the 200 West Area, 200 East Area, and 300 Area Steam Plants, as well as the No Action Alternative.

No-Action Alternative. This alternative would keep the 200 West Area Steam Plant in surveillance and maintenance indefinitely. Following the shutdown of the 200 East Area and 300 Area Steam Plants, there would be no isolation activities and no decommissioning activities for those facilities. The costs of maintaining the buildings would increase over time. This alternative was not considered a reasonable alternative.

Alternative Surveillance and Maintenance. This alternative would keep the 200 West Area Steam Plant in surveillance and maintenance mode indefinitely, and the 200 East Area and 300 Area Steam Plants would be put into surveillance and maintenance mode indefinitely after deactivation activities. Costs of maintaining the buildings would increase over time. This alternative was not considered a reasonable alternative.

Alternative Uses. This alternative would reuse the three steam plants for other activities. At this time, no foreseeable reuse has been identified.

ENVIRONMENTAL IMPACTS: All areas involved in the proposed action are previously disturbed areas. No Federally or State listed, proposed or candidate, threatened, endangered species are expected to be effected by the proposed action. However, to avoid adverse impacts to cliff swallows, demolition of the coal ramp building in the 200 West Area Steam

Plant would be undertaken outside the nesting season that extends from April 1 to July 30. It is planned during the salvage/demolition phase to remove all foundation and concrete footings and the steam distribution system poles. If any hazardous or radioactive contamination is found in the soils during excavation, the contamination would be covered with clean soil and left in place awaiting remediation of the Operable Unit, or otherwise dealt with in a manner acceptable to the relevant regulatory agency. All voids that would occur during this phase would be backfilled. Because the amount of soil disturbance would be minimal and temporary, anticipated impacts to the environment are not expected to be consequential.

DOE and the State Historical Preservation Officer (SHPO) concur that the proposed action would have no adverse effect on the Hanford Site Historic District, of which the 284-West Powerhouse is part. The SHPO has concurred with DOE that the 384 Powerhouse is a contributing structure to the Hanford Site Historic District. Since the Programmatic Agreement between the DOE, SHPO, and the Advisory Council on Historic Preservation allows mitigation of buildings through preparation of an Historic Property Inventory Form (HPIF), it is expected that there would be no adverse effects on the cultural resources of the proposed action.

It is expected that only nonhazardous solid waste would be generated during the salvage/demolition phase of the proposed action. Any hazardous substances or materials that might be discovered later in the buildings would be managed in accordance with applicable federal and state regulations. Waste resulting from the proposed action is expected to be minimal compared to annual Hanford Site waste generation. The proposed action would not release any particulate matter, thermal releases, or gaseous discharges in significant amounts. Therefore, these impacts to the environment are expected to be small.

Accident Impacts

The only reasonably foreseeable accidents under the proposed action would be typical construction accidents associated with salvage and demolition activities, including blasting, and subsequent backfilling activities. Areas would be roped off and cleared of personnel prior to any blasting. Areas affected by blasting would be restricted to the building sites. Personnel handling recycle and salvage/demolition activities would follow approved safety procedures. Typical construction hazards would be present, however the risk of a severe accident is small.

Socioeconomic Impacts

Only small numbers of workers would be involved at any one time. Therefore, no socioeconomic impacts are expected from the proposed action.

Environmental Justice

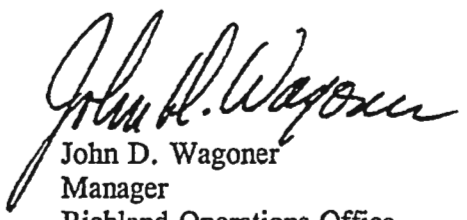
Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs and activities on minority and low-income populations. With respect to Executive Order 12898 regarding environmental justice, distributions of minority and low income population groups have been identified for the Hanford Site. The analysis of the impacts in this EA indicates that there would be minimal impacts to both the offsite population and potential workforce by implementing the proposed action, because the entire proposed action would occur on the Hanford Site and the offsite environmental impacts from the proposed action analyzed in this EA are expected to be minimal. Therefore, it is not expected that there would be any disproportionate impacts to any minority or low-income portion of the community.

Cumulative Impacts

Waste generation and disposal resulting from the proposed action are not expected to be considerable and would not substantially effect any associated operations or disposal sites; therefore, the proposed action is not expected to result in any cumulatively significant impacts.

DETERMINATION: Based on the analysis in the EA, and in the absence of any public comments, I conclude that the proposed Salvage/Demolition of the 200 West Area, 200 East Area, and 300 Area Steam Plants at the Hanford Site, Richland, Washington does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an EIS for the proposed action is not required.

Issued at Richland, Washington, this 21st day of October 1996.



John D. Wagoner
Manager
Richland Operations Office