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DOE/RL-96-77
Revision 0

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

United States
Department of Energy
Richland, Washington

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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

WHEREAS, the U. S. Department of Energy, Richland Operations Office (RL) has responsibility for the preservation of all historic buildings and structures managed by RL which have been determined eligible for listing on the National Register pursuant to Section 110 of the National Historic Preservation Act (NHPA) as amended (16 U.S.C. 470 h-2), and must assess the effect of any Federal undertaking upon historic buildings and structures included in or eligible for the National Register of Historic Places (Register) pursuant to Section 106 of NHPA (16 USC 470f), and

WHEREAS, the mission of RL on Hanford is to clean up the site, provide scientific and technological excellence to meet global needs, and partner in the economic diversification of the region, which may have both direct and indirect effects on the built environment, and

WHEREAS, activities covered by this Programmatic Agreement (PA) will be undertaken in coordination with other applicable Federal laws, regulations and agreements including, but not limited to, the National Environmental Policy Act (NEPA), the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Hanford Federal Facility Agreement and Consent Order (known as the Tri-Party Agreement [TPA]), and

WHEREAS, RL has determined that continued maintenance, deactivation, alteration, and demolition of the built environment on the Hanford Site, as well as property excessing, transfer and or leasing, and activities undertaken in support of economic diversification, may have an effect upon historic buildings and structures included in or eligible for the Register (36 CFR Part 60), and

WHEREAS, RL, the Washington State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (Council) have concurred that the Hanford Site

Historic District is eligible for listing on the Register, and have further agreed upon a Sitewide Treatment Plan adopted under this PA to take into account all effects on the District, and

WHEREAS, RL has consulted with the SHPO and Council pursuant to Section 800.13 of the Council's regulations (36 CFR Part 800) implementing Sections 106 and 110 of the NHPA, taking into account as well the requirements of Executive Order 11593, and

WHEREAS, the identification, inventory, and evaluation of all archaeological properties and Traditional Cultural Sites located within the Hanford Site will be addressed in a separate programmatic agreement, and

WHEREAS, demolition, substantial alteration, or intentional deterioration of the built environment on the Hanford Site may indirectly effect archaeological and/or Traditional Cultural Sites included in or eligible for the Register,

NOW, THEREFORE, RL, the SHPO, and the Council agree that all undertakings at the Hanford Site affecting historic buildings and structures included in or eligible for the Register will be administered in accordance with the following stipulations to satisfy RL's Section 106 and Section 110 responsibilities under NHPA for all individual undertakings of this program.

Stipulations

RL will ensure that the following measures are carried out at the Hanford Site:

I. APPLICABILITY

A. This Programmatic Agreement (PA) addresses the built environment (i.e., buildings and structures) constructed during the Manhattan Project and Cold War Era periods of Hanford's operational history. As such, it encompasses the years 1943 through 1990. The identification, evaluation, and treatment of buildings and historic archeological remains on the Hanford Site predating 1943 will be accomplished through Sections 800.4 through 800.6 of the Council's regulations.

B. Upon acceptance of the Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (Sitewide Treatment Plan) by the SHPO and the Council, RL will finalize and implement it in lieu of compliance with Sections 800.4 through 800.6 and Section 800.11.

C. This PA will be in effect from the date of signature until September 30, 2000. Completion of the Sitewide Treatment Plan established under this PA satisfies all Section 106 requirements for identification, evaluation, and treatment necessary for all

undertakings, up to and including demolition, which may affect Manhattan Project and Cold War Era properties. This PA may be extended if the Sitewide Treatment Plan has not been completed by the end of FY 2000.

D. Identification, evaluation, and treatment of properties constructed on the Hanford Site after 1990 will be handled pursuant to the regulations in effect at the time such properties are eligible for review.

II. IDENTIFICATION, INVENTORY, & EVALUATION

A. RL has established an Historic Buildings Task Group (Task Group) to identify, inventory, and evaluate all historic buildings and structures on the Hanford Site not evaluated previously or otherwise exempt by stipulation III.A.1-6 of this agreement, in accordance with Section 110(a)(2) of NHPA, 36 CFR Part 60, 36 CFR Part 63, and the recommended approaches set forth in the *Secretary of the Interior's Standards for Identification, Evaluation, and Historical Documentation* (Federal Register, Vol. 48, No. 190). The Task Group is composed of individuals from the onsite contractors who possess knowledge, background information, and skills directly relating to the built environment of the Hanford Site and/or the conduct of cultural resource management.

B. Using the National Register criteria, as well as historic contexts and themes developed for use on Hanford, the Task Group identified a Hanford Site Manhattan Project and Cold War Era Historic District which served to organize and delineate the evaluation and mitigation of the built environment on Hanford.

C. At a minimum, RL will document each contributing historic building or structure within the Hanford Site Historic District identified for mitigation under the Sitewide Treatment Plan (Appendix C, Table 1) on an Historic Property Inventory Form (HPIF). Contributing properties not selected for mitigation, and Non-Contributing buildings and structures will be documented in a Hanford Site Historic Buildings Database maintained by RL. These properties will also be included as tabular entries under appropriate property types in the Hanford Site Manhattan Project and Cold War Era Historic District Documentation.

D. RL will identify all historic buildings and structures during FY 1995-96, evaluate these resources during FY 1996-97, and complete all required mitigation prior to the close of FY 2000 in accordance with the Sitewide Treatment Plan discussed in Section IV of this PA.

E. Should funding not be available to support the work identified in the Sitewide Treatment Plan, RL will employ a "project-driven" evaluation and mitigation process for each historic building or structure which may be impacted by projects undertaken on the Hanford Site.

III. Exemptions

A. The following property types are exempt from the requirement for identification and evaluation, however, RL will document at least one example from the property types listed below on an HPIF:

1. Mobile Trailers - Temporary office space used by staff in support of the cleanup mission. These trailers may be moved to new locations at any time.

2. Modular Buildings and Enclosures - These structures are composed of premanufactured sides and roofs and are commonly resting on a poured concrete slab, or directly on the ground. They serve as temporary office, lab, protective, or storage facilities. Most have been brought on site within the last decade; some are commonly referred to as "Butler Buildings." Some older examples of "prefab" buildings exist which may have been placed on site within the last 25 years.

3. Structures with Minimal or No Visible Surface Manifestations - The majority of earthen and concrete-lined Cribs, Trenches, French Drains, Chemical Storage Tanks, and other structures utilized in liquid waste management have been stabilized under a clean fill of cobbles. Solid Waste Burial Grounds have also been stabilized and covered over. No visible remnants of these structures remain. Most are radiologically contaminated, or contaminated by hazardous waste, or both. Likewise, underground tanks, vaults, and caissons holding liquid wastes are evidenced by little if any surface structure other than an access port. This situation is also repeated for underground pipelines, sewer lines, etc. where the only visible surface manifestation is a concrete slab containing a manhole cover or access port.

4. Storage Tanks - Fuels ranging from gasoline to diesel to propane, used in daily operations of the plants, were stored in large above ground tanks which rested on concrete slabs or were elevated on scaffolds. Some areas were surrounded by concrete "retainer walls" to manage spills. Other fuels were stored in underground tanks. This will also include water storage tanks.

5. Wells and Bore Holes - These features include RCRA Monitoring Wells, Industrial Drinking Water Wells, Abandoned Wells, Dry Wells, Test Wells, Site Characterization Wells, Recovery Wells, and bore holes. This exemption does not apply to pre-1943 Homestead Wells.

6. Towers - These features include Power Line Towers and Microwave Towers.

B. For those properties identified for mitigation under the Sitewide Treatment Plan, the following undertakings will not be subject to review pursuant to this PA provided the

terms of Section IV (Treatment) are being followed unless the undertaking involves ground disturbing activities.

1. Facilities Emergency Contingency Plans - Emergency or repair work that must be completed to implement a Facilities Emergency Contingency Plan by the facility emergency coordinator or designee to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous materials, hazardous waste, or hazardous constituents to air, soil, or surface water. This emergency exemption only applies to undertakings that will be implemented within 30 days after the designation of a health or safety issue. Assessment and documentation of effects on eligible historical properties shall be performed when conditions allow for such investigation.

2. Declared Disasters, Emergencies, or National Security Threats - RL may waive the Section 106 and 110 process and comply instead with requirements of 36 CFR Part 78, which spell out procedures by which NHPA requirements may be waived if a Federal agency head proposes emergency action as an essential and immediate response to a major natural disaster or other catastrophe of similar severity, or imminent threat to the National Security. This exemption only applies to undertakings that will be implemented within 30 days after the declaration of a disaster or emergency.

3. Routine Maintenance - All routine maintenance work such as normal custodial services, electrical and plumbing installation/repair, repair of fire protection sprinkler systems, moving and assembling of furniture, resurfacing of road, sidewalk and parking areas, and landscape maintenance.

4. Replacement In-Kind - Replacements that match the original materials used in the structure in terms of configuration, size, detail, and color.

5. Refinishing In-Kind - Projects that match new paint with the same or original paint color, or refinish materials with the same, or original colors.

6. Energy Conservation Measures - Measures that are not visible and/or that do not alter or detract from those qualities that make the property eligible for the Register, e.g.:

    a) modifications and repair to the heating, ventilation, and air conditioning control systems, telephone and electric wires, computer drops, and conversions to alternative fuel;

    b) insulation in roofs, crawl spaces, ceilings, attics, walls, floors, and around pipes and ducts; and

c) caulking and weather stripping, provided that the color of the caulking is consistent with the appearance of the building.

7. Security and Personal Safety Systems - Installation, maintenance and repair of security systems, including computer security, detection, monitoring, surveillance and alarm systems. Also, the installation or modification of personnel safety systems and devices including, but not limited to, emergency exit lighting systems, protective additions to electrical equipment, improvements to walking and working surfaces, and installation of railings, shields and guards.

8. Activities Associated with Post Cold War Buildings and Structures - All activities/actions in or associated with buildings and structures constructed since the end of the Cold War (in 1990) except for those properties built since that time that have been determined eligible for inclusion in the Register because of their Exceptional Importance.

9. Asbestos Abatement Activities - Actions which remove or fix asbestos for safety and health concerns. Such activities include lagging, insulation, painting, pipe and duct work, and panel removal. None of these activities shall cause structural modification or alter character defining features.

10. Transition Activities - Activities whose purpose is to deactivate, de-energize, or isolate unneeded plant systems that are not required to maintain facilities in an environmentally safe and secure condition in anticipation of eventual decontamination and decommissioning of the facility (cf. NEPA *Categorical Exclusion for Deactivation, De-energization, or Isolation of Unneeded Plant Systems and Stabilization in Hanford Facilities, All Areas, Hanford Site, Richland Washington.* Signed February 7, 1996). The primary plant systems within facilities that may be deactivated include, but are not limited to, electrical; heating, ventilation, and air conditioning (HVAC); utilities; instrumentation and control (I&C); and vessels and process/waste piping systems. Specific measures include:

a) decontaminate areas (wash down, wipe down, flushing, vacuum blast, etc.)

b) stabilize contaminated areas (fixatives, painting, sealants, etc.)

c) drain or empty piping or vessels (Note: a tank is considered a vessel)

d) flush piping and vessels

e) plug, cap, or blank ductwork, piping, and vessel nozzles

f) stabilize, consolidate, or remove outside contaminated areas adjacent to facilities

g) decontamination, stabilization, or removal of gloveboxes and fume hoods

h) remove, reuse, or recycle non-hazardous and hazardous materials

I) remove and transport hazardous and radioactive waste to appropriate storage locations or to burial grounds

j) remove fencing and paved parking areas adjacent to a facility

k) seal facility penetrations and repair roofing

l) excavate for isolation of underground piping to and from facility

m) test, sample, and monitor in and around deactivated facilities

n) winterize equipment and the facility for freeze protection

o) minimize or eliminate plant operating systems (e.g., electrical, HVAC, utility; I&C; vessels and process/waste piping) and

p) install electrical, monitoring, and utility services to facility to maintain, if appropriate, essential system operation

IV. SITEWIDE TREATMENT PLAN

A. RL shall consult with the SHPO, the Council, and when appropriate, the Tribes and other interested parties to develop a Sitewide Treatment Plan in order to avoid, reduce, or mitigate the adverse effects of its proposed actions on historic sites which contribute to the Hanford Site Manhattan Project and Cold War Era Historic District. This Plan will discuss the following:

1. The selection and treatment of buildings and structures which represent the variation present in the contributing properties comprising the Hanford Site Manhattan Project and Cold War Era Historic District.

2. A brief synopsis of different property types and/or processes represented in the Hanford Site Manhattan Project and Cold War Era Historic District, including the

selection criteria for these properties and the application of the selection methodology.

3. The potential effects on the built environment at the Hanford Site due to proposed undertakings which may include, but are not limited to, deactivation, substantial alteration, deterioration, demolition, lease, transfer, or sale.

4. The sample of properties selected for the plan's mitigation focus along with the appropriate mitigation measures for each property type. Appropriate mitigation measures included in the Sitewide Treatment Plan shall include, at a minimum:

   a. Historic American Engineering Record (HAER) Documentation - For those properties for which HAER documentation has been selected under the Sitewide Treatment Plan as the most appropriate measure for documenting architectural and/or engineering/technical features, the National Park Service (NPS), in consultation with RL, will determine the level of materials required for adequate mitigation. The undertaking may take place only after the NPS has reviewed the draft documentation for conformance with HAER standards and accepted the material.

   b. Recordation - For those properties for which recordation or documentation, as defined by RL Recordation and Documentation Standards incorporated within the Hanford Cultural Resources Management Plan (HCRMP), has been selected under the Sitewide Treatment Plan as the most appropriate measure for documenting historic buildings and structures, RL, in consultation with the SHPO, will determine the appropriate level of materials required for adequate mitigation.

   c. Alternative Mitigation Measures - These may include, but are not limited to, video interpretation, public education display, use of historic photographs and process history. These measures will be developed in the Sitewide Treatment Plan. Variations may be necessary because of the inconsistencies in the way documents were made, stored, and/or curated under various management agencies and contractors covering the history of the Hanford Site.

B. RL shall ensure that all documentation and records resulting from the implementation of the Sitewide Treatment Plan at the Hanford Site are deposited and curated in an institution with adequate long term curatorial capabilities in accordance with 36 CFR Part 79.

C. RL shall provide the SHPO with an opportunity to review and comment on this plan.

D. RL will notify the SHPO about undertakings affecting those properties identified for mitigation through the Sitewide Treatment Plan adopted under this PA. Notification will

identify the building(s), describe the undertaking, and allow the SHPO to verify that the proposed mitigation is consistent with the recommended approaches in the Sitewide Treatment Plan. SHPO need not respond to these notifications. This procedure will continue through FY 2000.

E. RL will ensure that proposed Federal undertakings affecting the built environment are reviewed by, or under the direct supervision of, qualified professionals meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (48 FR44738-9) for Historians or Architectural Historians.

F. For those properties for which no mitigation is required under the Sitewide Treatment Plan, RL and SHPO agree that no further communication or notification is necessary.

V. PRESERVATION AND PROTECTION

A. Pursuant to Section 110 of the NHPA, RL has responsibility for the preservation of historic buildings and structures eligible for the Register on the Hanford Site. These properties are to be managed and maintained in a way that considers the preservation of their historic, architectural, and technological values.

B. RL will give consideration to the retention of contributing buildings and structures which may qualify for adaptive reuse as interpretive centers, museums, industrial or manufacturing facilities, or other private enterprises. Because of the national significance of the Hanford Site, certain properties to be identified in Chapter 4 of the *Hanford Site Historic District: Comprehensive Treatment Report* should be left in place as illustrations of the scope and scale of the various missions performed here in support of national security and the development of the atomic energy program.

C. RL will undertake an assessment of the contents of the historic buildings and structures identified in Appendix C, Table 1 of this PA prior to any deactivation, decontamination, or decommissioning activities. The purpose of this assessment will be to locate and identify any artifacts (e.g., control panels, signs, scale models, etc.) which may have interpretive or educational value as exhibits within local, state, or national museums. The contents of properties not identified in Appendix C, Table 1 will be assessed contingent on the availability of funds.

D. In accordance with the Sitewide Treatment Plan, RL will exercise caution to ensure that any historic building or structure eligible for inclusion in the Register is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

VI. HISTORIC NARRATIVE

A. The Sitewide Treatment Plan will serve as the foundation on which a synthetic, integrated

Hanford Site historic narrative is built. The narrative shall include but not be limited to:

1. Contextual information about the roles played by different property types and/or processes at Hanford.

2. The numbers of buildings/structures within the different property types and their locations.

3. Changes in technology, design, and use of the different property types over time.

4. Photographs, plans, and cross sections of representative samples that document the form or manifestation of different property types.

B. The narrative will incorporate all of the themes and elements presented in Appendix B of this agreement, and will be organized in accordance with the outline presented in Appendix C. The narrative will be submitted to the SHPO and the Council at the close of FY 2000 upon the conclusion of the implementation of the Sitewide Treatment Plan. No additional documentation will be submitted to the SHPO during the preparation of the historic narrative, provided that stipulation IV.D. of this PA is carried out.

VII. DISCOVERY

A. If any cultural materials, including but not limited to stone tools, flakes, bones, shells, bottles, subsurface foundations, are discovered during the implementation of this agreement, work in the vicinity of the discovery shall cease until a cultural resource professional (i.e. archaeologist, historian), has been notified about the discovery, has assessed the significance of the find, and, if necessary, has arranged for the mitigation of the find in accordance with the Sitewide Treatment Plan and stipulation IV.D. of this PA.

B. All Hanford workers will attend Hanford Site Orientation and Hanford General Employee Training programs. These programs will include a module on cultural resources protection.

VIII. NATIVE AMERICAN INVOLVEMENT IN CONSULTATION

A. RL will consult with the traditional religious leaders of the Tribes and Nations, and other tribes as appropriate, regarding potential effects to Archaeological and/or Traditional Cultural Sites which may result from demolition, substantial alteration, or deterioration of historic buildings and structures that are eligible for listing in the Register, or issues of concern pertinent to such properties. RL will take the concerns of these groups into consideration during implementation of this PA.

B. The terms of this agreement shall not be interpreted as limiting or otherwise hindering cooperative efforts between RL and the Tribes and Nations. All forms of cooperation are encouraged.

IX. INTERESTED PERSON PARTICIPATION

A. RL will seek and consider the views of the public in carrying out the terms of this agreement in a manner consistent with the requirements of 36 CFR Part 800. RL will consult, as necessary, with the Washington State Historical Society and others who identify themselves as interested parties, regarding the effects which may result from demolition, substantial alteration, or deterioration of historic buildings and structures that are eligible for listing in the Register, or issues of concern pertinent to such properties. RL will take the concerns of these groups into consideration during implementation of the PA. Public meetings will be held at the discretion of RL upon public request.

B. Information concerning proposed undertakings subject to the terms of this agreement shall be made available in the public reading room of Washington State University, Tri-Cities.

C. Nothing in this PA will be interpreted as limiting or otherwise hindering cooperative efforts on historic preservation between RL and other interested parties. All forms of cooperation are encouraged.

X. ANNUAL REVIEW

Within one year of the execution of this PA, and annually thereafter through FY 2000, the signatories of this PA shall meet to review implementation of the terms of the PA. Prior to the meeting RL will provide to the signatories a summary report including exemptions, consultation, and other significant actions taken pursuant to this PA.

XI. AMENDMENTS

Any party to this Agreement may request that it be amended, whereupon the parties will consult to consider such amendment in accordance with 36 CFR 800.5(e) to consider such an amendment. Such an amendment shall be executed in the same manner as this agreement.

XII. DISPUTE RESOLUTION

Should the Council, SHPO, or, where they have been consulted, the Tribes or Nations, object within 30 days to any proposed action pursuant to this agreement, RL shall consult with the objecting party to resolve the objection. If RL determines that the objection cannot be resolved, RL shall forward all documentation relevant to the dispute to the Council. Within 30 days after receipt of all pertinent documentation, the Council will either:

1. Provide RL with recommendations, which RL will take into account in reaching a final decision regarding the dispute; or

2. Notify RL that it will comment pursuant to 36 CFR Part 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by RL in accordance with 36 CFR Part 800.6(c)(2) with reference only to the subject of the dispute; RL's responsibility to carry out all actions under this agreement that are not subjects to the dispute shall remain unchanged.

XIII. TERMINATION

Any party to this Agreement may terminate it by providing 30 days written notice to the other parties, provided that the parties will consult during that period to seek agreement on amendments or other actions that would avoid termination. During the consultation period, this PA shall remain in effect. It may be superceded only by another agreement, or amendments to this agreement, acceptable to all consulting parties. In the event of termination, or if RL fails to carry out the terms of this PA, RL will comply with the requirements of 36 CFR 800.4 through 800.6.

Execution of this Agreement, and implementation of its terms, evidences that RL has afforded the Council an opportunity to comment on the effects of its activities on historic properties, and that RL has taken into account the effects of such undertakings on historic properties.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: Robert D. Bush
Date: 8/2/96
Dr. Robert Bush, Executive Director

U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE

By: John D. Wagoner
Date: 7/25/96
John D. Wagoner, Manager

WASHINGTON STATE HISTORIC PRESERVATION OFFICER

By: Mary Thompson
Date: 8/12/96
Mary Thompson, State Historic Preservation Officer

Appendix A:

Hanford Cultural Resources Management Plan.

RL will define deficiencies in the existing Hanford Cultural Resources Management Plan (HCRMP), correct them, and incorporate the changes in a revised HCRMP. The existing HCRMP will be revised and updated with reference to the 1995 DOE guidelines, through a detailed review and assessment of the requirements and recommendations of those guidelines. This review will involve a section by section analysis to determine the applicability of the guidelines, and the identification of specific deficiencies which must be incorporated within the revised HCRMP. In addition to DOE guidelines, the HCRMP will be prepared with reference to the *Secretary of the Interior's Standards and Guidelines for Preservation Planning* (48 FR 44716-20) and NHPA Section 110 Guidelines (53 FR 4727-46).

Procedures for the identification, inventory, evaluation, and management of all historic buildings and structures which are found to be inadequate or outmoded as a result of this review will be rewritten and incorporated by RL within the revised HCRMP. The HCRMP will establish guidance for RL management of archaeological, historic, and traditional cultural resources as individual entities or as contributing properties with a district (e.g., Locke Island Archaeological District, the Gable Mountain/Gable Butte Traditional Cultural District, or the Hanford Site Historic District). It will specify methods for consultation with affected Tribes, government agencies, interested parties, and the general public. The CRMP will also include strategies for the preservation and/or curation of representative properties, archives, and objects.

Actions being initiated during FY 1996 to revise the HCRMP include:

- An Assessment of the Existing HCRMP,
- The Development of a HCRMP "Framework" to Guide Revision,
- A One-day Meeting to Assign Writing Responsibilities,
- The Preparation of Draft Sections,
- A Workshop to Incorporate Changes within the HCRMP, and
- The Submission of a Revised HCRMP.

The workshop is designed to facilitate and enhance the drafting of the revised HCRMP. It provides an opportunity for all participants to debate issues and arrive at mutually acceptable language. The sequence is designed to meet the objective of delivery of a revised HCRMP by September 30, 1996. Should time or funding constraints not allow for completion of this task by September 30, 1996, RL will continue to seeks funds to carry this revision to completion during FY 1997.

The revised portion of the HCRMP dealing with the built environment will be reviewed by persons who meet, at a minimum, the professional qualifications standards for historian or architectural historian, as set forth in the Secretary of the Interior's Professional Qualifications Standards (48 FR44738-9).

Upon its completion, the HCRMP will be distributed to RL management for incorporation within the Hanford Multi-Year Program Plan (MYPP) - the decisional document utilized by RL to schedule projects and allocate funds.

Appendix B:

Historic Themes and Elements.

1. **Defense Mission**

    A. Manhattan Project 1943-1946
        1. Creation of the Hanford Site
            a. Timeframe
                1. Accelerated schedule
                2. Workforce
            b. Materials Acquisition
            c. Land Acquisition
                1. Ceded Treaty "Use" Rights ?
        2. Plutonium Production
            a. Fuel Manufacture/Irradiation/Chemical Separation
                FM - 313, 314
                IR - 105 B, 105 D, 105 F
                CS - B Plant, T Plant
            b. Process Design/Improvement
                1. Technology
                    a. Welding techniques
                    b. Shielding
                    c. Water Treatment
                        1. Chilling
                        2. Demineralization
                        3. Chemical Treatment
                2. Materials Testing (305 Reactor, 321, 3706 Lab)
                    a. Raw Uranium
        3. Security
            a. Site Defense
                1. Wye/Yakima Barricades
                2. Rifle/Pistol Range Near Gable Mountain (FBI)
                3. Military Police (Army)
                4. Western Defense Command Maneuvers
            b. Espionage
                1. G2 (Mess Halls, Buses, Hotels, Bars...)

            c. Terrorism
                1. Japanese Barrage Balloons
                2. "Special Fencing" West of Construction Camp, 700 Area...

    B. Cold War Response 1947-1990

1. Plutonium/Tritium/Neptunium Production
    a. Fuel Manufacture/Irradiation/Chemical Separation
        CS - Semi Works (C Plant)
        108-B
    b. Process Design/Improvement
        1. Technology
            a. Welding techniques
            b. Shielding
            c. Coolant Studies
        2. Materials Testing
            a. Pile Testing
2. Political Climate
    a. Surrender of Japan 1945 - Operational Weapons
    b. Churchill "Iron Curtain" Speech 1947
    c. NATO/Truman Doctrine 1947
    d. Berlin Air Lift 1948
    e. Korean War 1950-1953
        1. Camp Hanford 1950-1961
        2. Launch Control Centers/Missile Sites
    f. Sputnik Launch 1957
        1. Rattlesnake Mountain NASA Training
        2. Observatories
    g. Cuban Missile Crisis 1962
        1. ARMY Maneuvers on ALE 1962
    h. Test Ban/Strategic Arms Treaties
        1. Test Bans
        2. SALT
        3. START
    i. Weapons Systems
        1. Single Warhead
        2. Multiple Warhead
    j. Shifting Attitudes Towards Nuclear Energy
        1. Environmental Movement
        2. Peace Movement
3. Security
    a. Site Defense
        1. AAA/Nike
    b. Espionage
        1. Security/Classification of Documents
            a. 712 - Records Holding Center
        2. Vault Storage of Nuclear Materials
            a. Gable Mountain
            b. 2736 Z Pu Storage Vaults (1972)
    c. Terrorism 1972

1. Barricades/Barbed Wire
2. Personnel Screening
3. Guard Houses

2. Nuclear Technology (Non-Defense) [Spin-Off Effects of Defense R&D]

A. Nuclear Applications
1. Energy
a. Hanford No. 1
b. WPPSS
2. Oxide Production/Experimentation
a. PFP Complex
3. Alloy Production
a. Tailor-Made Alloys for Sale (Late 1960s-Early 1970s)
1. PFP Complex
2. REDOX - "Blending" of Pu Levels/Isotopes
3. Fuel Mixtures - FFTF, 308, 309
4. Strontium/Cesium Capsules
a. Irradiation of Food
b. Sterilization for Medical Equipment

B. Medical Isotopes
1. Isotopes
2. Nuclear Batteries (Pacemakers ?) - United Nuclear Corp/Douglas United ?

3. **Environmental Management**

A. Instrumentation
1. Meteorological (Gas releases...)
2. Fall Out Monitoring

B. Waste Management (Progression/Accountability [what went where])
[Federal Facilities Compliance Act - 1987]
1. Stacks (No filters to filters)
2. Reactor Confinement (117-b, 119-B)
3. Tanks (single walled to double walled)
4. Retention Basins
5. Cribs (None to open to covered)
6. Burial Trenches
7. Test/Monitoring Wells
8. High Level Waste Partitioning

C. Health/Safety
1. Monitoring

a. People
b. Air
c. Water
d. Vegetation

D. Biological/Botanical Experimentation
1. Food Crops (Tomatoes, Beans...)
2. Domesticated Animals - 108 F
3. Exotic Animals - 108 F

E. Clean Up (Reaction/Response to 1960's Environmental Movement)
1. ALE (1960's? - Ecological Reserve)
2. Wahluke Slope (1971 - USFWS [Open to public])
3. ERC Project (1987)
a. Environmental Restoration
b. Decontamination & Decommissioning
4. Effects of Security of Public Release of Environmental Safety Measures

4. **Social History**

A. Security
1. Badging/Clearances
2. "Need To Know"
3. Transportation

B. Work Schedules

C. Health/Safety
1. Radiation Anxiety
2. Dosimeters, Radiation Counters, Full Body Screening
3. HPT/RCT Development
4. Safety Incentive Programs

D. Personnel Administration
1. Personnel Files
2. Training

5. **Architectural History**

A. Building Periods
1. 1943-1946 (Manhattan Project)
2. 1947-1960 (Cold War Reactors)
3. 1961-1964 (N Reactor)

4. 1965-1980 (FFTF Reactor)
5. 1981-1990

B. Building Materials/Method of Construction
1. Wood Frame
2. Concrete Block
3. Poured Concrete
4. Sheet Steel Siding
5. Prefab

C. Building Types
1. "Reactors"
2. "Canyons"
3. "Labs"
4. "Support"

6. **Historic Landscape**

A. Planning/Design
1. Hanford Site - COE (Manhattan Engineering District)/DuPont
2. Hanford Construction Camp

B. Construction 1943-1945
1. Buildings
a. 100 Area
b. 200 Area
c. 300 Area
d. 400 Area
2. Infrastructure
a. Railroads
1. Riverland (Main Rail - Built Southward from B)
b. Roads
c. Power Grids
d. Airport - Hanford Construction Camp

C. Construction 1946-1990
1. Buildings
a. 100 Area
b. 200 Area
c. 300 Area
d. 400 Area
2. Infrastructure
a. Railroads

b. Roads
c. Power Grids

D. Demolition

1. Hanford/White Bluff Townsites 1943
2. Hanford Construction Camp 1945-1947
3. Hanford Facilities 1970-1990

Appendix C:

Sitewide Treatment Document

- TITLE: *THE HANFORD SITE MANHATTAN PROJECT AND COLD WAR ERA HISTORIC DISTRICT: COMPREHENSIVE TREATMENT REPORT*

- CHAPTER 1: HISTORIC OVERVIEW
  - SYNTHETIC HISTORY OF THE HANFORD SITE
    - SITE SELECTION, ACQUISITION, AND DESIGN
    - THE MANHATTAN PROJECT
    - THE COLD WAR ERA
    - THE WORKER EXPERIENCE
    - ARCHITECTURAL HISTORY

- CHAPTER 2: HISTORIC NARRATIVES AND BUILDING DISCUSSIONS
  - FUEL MANUFACTURE
  - REACTOR OPERATIONS/WATER TREATMENT
  - CHEMICAL SEPARATION/BYPRODUCTS
  - WASTE MANAGEMENT
  - RESEARCH AND DEVELOPMENT
  - SITE SECURITY
  - MILITARY OPERATIONS
  - HEALTH AND SAFETY
  - PLUTONIUM FINISHING
  - TRANSPORTATION, COMMUNICATION, GENERAL SITE SUPPORT
  - SOCIAL HISTORY
  - ARCHITECTURAL HISTORY

- CHAPTER 3: GUIDE TO RESOURCES
  - PRIMARY DOCUMENTATION
    - TECHNICAL REPORTS
    - DRAWINGS AND PLANS
    - PHOTOGRAPHS
    - INDUSTRIAL ARTIFACTS
    - ORAL HISTORIES
  - CURATION STANDARDS

- CHAPTER 4: RECOMMENDATIONS
  - ADAPTIVE REUSE (DOE)
  - PUBLIC EDUCATION AND INTERPRETATION
  - ECONOMIC DEVELOPMENT

- APPENDICIES
  - HISTORIC BUILDINGS TASK FORCE MEMBERS (BIOGRAPHY/CONTRIBUTION)
  - BUILDING SITE FORMS (HAER/ExHPIF/HPIF)

Appendix C: Table 1

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION						
Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
1	Chemical Storage Warehouse	600 (West of 300)	PNNL	Events/History	HPIF	General Site, Facilities Support (Chemical Storage); Social History
104-B-1	Tritium Laboratory	100-BC	BHI	Events/History	HPIF	Chemical Separation, Byproduct
104-B-2	Tritium Vault	100-BC	BHI	Events/History	HPIF	Chemical Separation, Byproduct
105-B	B Reactor	100-BC	BHI	Design/Engineering Events/History	HAER	Reactor Operations, Main Production; Social History
105-B-RTC	Rod Tip Cave	100-BC	BHI	Events/History	HPIF	Waste Management (Solid)
105-KW	K West Reactor	100-K	WHC	Design/Engineering Events/History	ExHPIF	Reactor Operations, Main Production
105-N	N Reactor	100-N	BHI	Design/Engineering Events/History	ExHPIF	Reactor Operations, Main Production; Power Generation; Social History
107-KW	Retention Basin	100-K	BHI	Events/History	HPIF	Waste Management, Treatment (Liquid)
107-N	Basin Recirculation Facility	100-N	BHI	Events/History	HPIF	Waste Management, Treatment (Liquid)
108-F	Biology Laboratory	100-F	BHI	Events/History	ExHPIF	Research & Development
108-N	Chemical Pumping	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Chemical Storage)
109-N	Heat Exchanger Building	100-N	BHI	Events/History	ExHPIF	Reactor Operations, Power Generation
116-B	Reactor Exhaust Stack	100-BC	BHI	Events/History	HPIF	Waste Management (Air)
116-KW	Reactor Exhaust Stack	100-K	BHI	Events/History	HPIF	Waste Management (Air)
116-N	Reactor Ventilation Stack	100-N	BHI	Events/History	HPIF	Waste Management (Air)
117-B	Exhaust Air Filter Building	100-BC	BHI	Events/History	HPIF	Waste Management (Air)
117-KW	Exhaust Air Filter Building	100-K	BHI	Events/History	HPIF	Waste Management (Air)
117-N	Ventilation Filter Building	100-N	BHI	Events/History	HPIF	Waste Management (Air)
118-B-1	Solid Waste Burial Trench	100-BC	BHI	Events/History	HPIF	Waste Management (Solid)
119-KW	Exhaust Air Sampling Building	100-K	BHI	Events/History	HPIF	Waste Management (Air)
119-N	Air Sample Monitor	100-N	BHI	Events/History	HPIF	Waste Management (Air)
155-N	Export Power Switchyard	100-N	BHI	Events/History	HPIF	Reactor Operations, Power Generation
163-N	Demineralizer Plant	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
181-B	River Pump House	100-BC	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
181-KW	River Pump House	100-K	WHC	Events/History	HPIF	Reactor Operations, Water Treatment

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
181-N	River Water Pump House	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
181-NA	Pumphouse Guard Tower	100-N	BHI	Events/History	ExHPIF	Main Production, Site Security
182-B	Reservoir and Pump House	100-BC	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
182-N	High Lift Pump House	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
183-H	Solar Evaporation Basins	100-H	BHI	Events/History	HPIF	Waste Management, Treatment (Liquid)
183-KW	Filter Plant	100-K	WHC	Events/History	HPIF	Reactor Operations, Water Treatment
183-N	Water Filter Plant	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
183-NA	Pump House	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
183-NB	Clearwell	100-N	BHI	Events/History	HPIF	Reactor Operations, Water Treatment
184-N	Plant Service Power House	100-N	BHI	Events/History	HPIF	Reactor Operations, Power Generation
185-N	Export Powerhouse Turbine (WPPSS)	100-N	WPPSS	Events/History	HPIF	Reactor Operations, Power Generation
190-D *	Development Laboratory Complex	100-D	BHI	Design/Engineering Events/History	HAER	Reactor Operations, Research and Development
190-KW	Main Pump House	100-K	WHC	Events/History	HPIF	Reactor Operations, Water Treatment
202-A	PUREX	200-E	WHC	Events/History	ExHPIF	Chemical Separation, Main Processing; Byproduct; Waste Management
209-E	Environmental Waste Operations	200-E	WHC	Events/History	ExHPIF	Chemical Separation, Research and Development
212-B	Fission Loadout Station	200-E	WHC	Events/History	HPIF	Chemical Separation, Byproduct
212-N	Lag Storage Building	600	BHI	Events/History	HPIF	Reactor Operations, Operations Support
216-U-10	U Ponds	200-W	BHI	Events/History	HPIF	Waste Management (Liquid)
218-E-14	PUREX Tunnel	200-E	WHC	Events/History	HPIF	Waste Management (Solid)
218-E-15	PUREX Tunnel	200-E	WHC	Events/History	HPIF	Waste Management (Solid)
218-E-16	Grout Vault	200-E	WHC	Events/History	HPIF	Waste Management (Liquid)
218-WR	Solid Waste Burial Trench	200-W	WHC	Events/History	HPIF	Waste Management (Solid)
221-T	T Plant/Equipment Decontamination	200-W	WHC	Design/Engineering Events/History	HAER	Chemical Separation, Main Processing; Social History

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
221-TA	Fan House	200-W	WHC	Events/History	HPIF	Health Safety, Facilities Support (Monitoring)
222-S	Control Laboratory (REDOX)	200-W	WHC	Events/History	ExHPIF	Chemical Separation, Research and Development; Social History
222-T	Process Control Laboratory/Office Building	200-W	WHC	Events/History	ExHPIF	Chemical Separation, Operations Support, Waste Management, Admin Support; Social History
222-U	Laboratory/Office Building	200-W	WHC	Events/History	HPIF	Health Safety, Operations Support; Social History
225-B	Encapsulation Building (WESF)	200-E	WHC	Events/History	ExHPIF	Chemical Separation, Byproduct; Facilities Support (Product Storage); Waste Management
231-Z	Plutonium Metallurgical Laboratory	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Main Processing; Admin Support; Research and Development; Social History
232-Z *	Waste Incinerator Facility	200-W	WHC	Design/Engineering Events/History	HAER	Plutonium Finishing, Waste Treatment (Solid)
233-S *	Plutonium Concentration Facility	200-W	WHC	Design/Engineering Events/History	HAER	Chemical Separation, Operations Support
234-5Z	Plutonium Finishing Plant	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Main Processing; Waste Treatment (Solid)
234-5ZA	234-5Z South Annex	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Main Processing; Social History
236-Z	Plutonium Reclamation Facility	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Waste Treatment (Liquid, Solid)
241-AW	Waste Storage Tank Farm (Double Shell)	200-E	WHC	Design/Engineering Events/History	HPIF	Waste Management (Liquid)
241-T	Waste Disposal Tank Farm (Single Shell)	200-W	WHC	Design/Engineering Events/History	HPIF	Waste Management (Liquid)
241-TX	Waste Disposal Tank Farm (Single Shell)	200-W	WHC	Design/Engineering Events/History	HPIF	Waste Management (Liquid)
241-TY	Waste Disposal Tank Farm (Single Shell)	200-W	WHC	Design/Engineering Events/History	HPIF	Waste Management (Liquid)
242-T	Waste Evaporator	200-W	BHI		HPIF	Waste Management (Liquid)
242-Z	Waste Treatment Facility	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Byproduct; Waste Treatment (Liquid)
244-UR	Liquid Waste Disposal Vault	200-W	BHI	Events/History	HPIF	Waste Management (Liquid)
244-WR	Storage	200-W	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Product Storage)
271-T	Office Building	200-W	WHC	Events/History	HPIF	Chemical Separation, Admin

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
272-E	Service Shop	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Craft); Waste Management; Social History
272-W	Service Shop	200-W	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Craft); Waste Management; Social History
275-E	Carpenter Shop	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Craft); Waste Management; Social History
275-W	Heavy Equipment Shop	200-W	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Craft); Waste Management; Social History
276-B	Organic Make Up/Solvent Storage	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Chemical Storage); Social History
277-W	Fabrication Shop	200-W	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Craft); Social History
282-E	Pumphouse and Reservoir Building	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Infrastructure)
283-E	Water Filtration Plant	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Infrastructure)
284-E	Power House and Steam Plant	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Infrastructure)
291-T	Sand Filter and Exhaust Stack	200-W	WHC	Events/History	HPIF	Health Safety, Operations Support; Waste Management (Air)
291-Z	Air Filter and Exhaust Stack	200-W	WHC	Events/History	HPIF	Plutonium Finishing, Operations Support; Waste Management (Air)
292-T	Fission Products Release Lab	200-W	WHC	Events/History	HPIF	Health Safety, Operations Support; Waste Management (Air, Monitor)
293-A	Dissolver Off-Gas Building	200-E	WHC	Events/History	HPIF	Health Safety, Operations Support; Waste Management (Air, Monitor)
294-A	Exhaust Air Filter Building	200-E	WHC	Events/History	HPIF	Health Safety, Operations Support; Waste Management (Air, Monitor)
303-A	Magazine Product Storage Building	300	WHC	Events/History	HPIF	Fuel Manufacture, Facilities Support (Uranium Fuel Storage)
304	Concentration Facility	300	WHC	Events/History	HPIF	Waste Treatment (Solid)
305	Test Pile/Hot Cell Verification	300	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development
305-B	Engineering Development Lab Annex	300	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development
306-E	Development, Fabrication, Test Lab	300	WHC	Events/History	ExHPIF	Fuel Manufacture, Research and Development
306-W	Materials Development Laboratory	300	WHC	Events/History	ExHPIF	Fuel Manufacture, Research and Development

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
308	Plutonium Fabrication Pilot Plant	300	WHC	Events/History	ExHPIF	Fuel Manufacture, Research and Development
309	Plutonium Recycle Test Reactor	300	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development
313	Metal Fuels Fabrication Facility	300	WHC	Events/History	HAER	Fuels Manufacture, Main Production; Waste Management
314	Metallurgical Engineering Laboratory	300	PNNL	Events/History	ExHPIF	Fuels Manufacture, Main Production
318	High Temperature Lattice Test Reactor	300	PNNL	Design/Engineering	ExHPIF	Reactor Operations, Research and Development
320	Low-Level Radiochemistry Building	300	PNNL	Events/History	HPIF	Research and Development; Military Operations (Secret)
321	Cold Chemical Semi-Works	300	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development; Chemical Separation; Waste Management
325	Radiochemistry Laboratory	300	PNNL	Events/History	ExHPIF	Chemical Separation, Research and Development; Waste Management
326	Physics and Metallurgy Laboratory	300	PNNL	Events/History	ExHPIF	Reactor Operations, Research and Development
327	Post Irradiation Test Laboratory	300	PNNL	Events/History	ExHPIF	Fuel Manufacture, Research and Development
328	Engineering Services	300	WHC	Events/History	ExHPIF	General Site, Facilities Support (Craft)
328-A	Sheet Metal Shop	300	WHC	Events/History	HPIF	General Site, Facilities Support (Craft)
329	Biophysics Laboratory	300	PNNL	Events/History	ExHPIF	Health Safety, Research and Development
333	Fuel Cladding Facility (Coextrusion)	300	WHC	Events/History	ExHPIF	Fuel Manufacture, Main Production
334	Chemical Handling Facility/Tank Farm	300	WHC	Events/History	HPIF	Waste Treatment (Liquid)
334-A	Acid Pump House	300	WHC	Events/History	HPIF	Waste Treatment (Liquid)
337	Technical Management Facility	300	PNNL	Design/Engineering	HPIF	Waste management, Admin Support
337-B	High Temperature Sodium Facility	300	PNNL	Design/Engineering	ExHPIF	Reactor Operations, Research and Development
340	Waste Neutralization Complex	300	WHC	Events/History	HPIF	Waste Treatment (Liquid)
382	Pump House	300	WHC	Events/History	HPIF	Fuel Manufacture, Facilities Support (Infrastructure)
384	Power House	300	WHC	Events/History	HPIF	Fuel Manufacture, Power Distribution (Infrastructure)
405	Fast Flux Test Facility	400	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development; Social History

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION						
Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
436	Training Facility	400	WHC	Events/History	HPIF	Reactor Operations, Operations Support; Social History
604	Yakima Patrol Checking Station	600	WHC	Events/History	HPIF	Site Security
604-A	Yakima Patrol Sentry House	600	WHC	Events/History	HPIF	Site Security
607	Batch Plant	600	WHC	Events/History	HPIF	General Site, Facilities Support (Infrastructure)
618-10	Solid Waste Burial Trench	600	BHI	Events/History	HPIF	Waste Management (Solid)
622	Meteorological Complex	600	PNNL	Events/History	HPIF	Health Safety, Medical; Research and Development
1112-N	Security Badge House	100-N	BHI	Events/History	ExHPIF	Site Security, Main Production
1116-N	Control Room Simulator	100-N	BHI	Events/History	HPIF	Reactor Operations, Operations Support
1301-N	Radioactive Liquid Waste Disposal Crib	100-N	BHI	Events/History	HPIF	Waste Management (Liquid)
1310-N	Chemical Waste Storage	100-N	BHI	Events/History	HPIF	Waste Treatment (Liquid)
1313-N	Change and Control Building	100-N	BHI	Events/History	HPIF	Waste Treatment (Liquid)
1314-N	Liquid Waste Loadout Building	100-N	BHI	Events/History	HPIF	Waste Treatment (Liquid)
1322-NB	Crib Effluent Iodine Sampling Building	100-N	BHI	Events/History	HPIF	Waste Management, Facilities Support (Monitoring)
1325-N	New Liquid Effluent Disposal Crib	100-N	BHI	Events/History	HPIF	Waste Management (Liquid)
1701-K	Badge House/Personal Dosimetry	100-K	WHC	Events/History	HPIF	Reactor Operations, Security
1705-N	Maintenance Shop (Electrical)	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Craft)
1705-NA	Maintenance Shop (Electrical)	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Craft)
1706-KE	Water Studies Facility	100-K	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development
1706-KER	Water Recirculation Studies Facility	100-K	WHC	Events/History	ExHPIF	Reactor Operations, Research and Development
1712-N	Insulation Shop	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Craft)
1714-N	Warehouse	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Materials Storage)
1717-K	Maintenance Shop	100-K	WHC	Events/History	HPIF	Reactor Operations, Facility Support (Craft)
1720-K	Patrol Headquarters	100-K	WHC	Events/History	HPIF	Reactor Operations, Admin Support; Social History
1722-N	Decontamination Hot Shop	100-N	BHI	Events/History	HPIF	Reactor Operations, Facility Support (Craft)
1908-KE	Effluent Water Monitoring Building	100-K	WHC	Events/History	HPIF	Reactor Operations, Facility Support (Monitoring)
2101-M	Spare Parts Building/Laboratories	200-E	WHC	Events/History	HPIF	Reactor Operations, Operations Support

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
2614-E-2	Air Monitor Station	200-E	WHC	Events/History	HPIF	Health Safety, Facilities Support (Air, Monitor); Health Safety, Medical;
2614-W-2	Air Monitor Station	200-W	WHC	Events/History	HPIF	Health Safety, Facilities Support (Air, Monitor); Health Safety, Medical
2701-AB	PUREX Badge House	200-E	WHC	Events/History	HPIF	Chemical Separation, Security
2701-ZA	Central Alarm Station	200-W	WHC	Events/History	HPIF	Plutonium Finishing, Admin Support
2704-C	Office Building	200-E	WHC	Events/History	HPIF	Chemical Separation, Admin Support; Social History
2704-W	Office Building	200-W	WHC	Events/History	HPIF	Chemical Separation, Admin Support; Social History
2704-Z	Office Building	200-W	WHC	Events/History	HPIF	Plutonium Finishing, Admin Support; Social History
2707-AR	Change House	200-E	WHC	Events/History	HPIF	Waste Management, Facilities Support (Change House)
2707-E	Change House	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Change House)
2715-E	Paint and Oil Storage Building	200-E	WHC	Events/History	HPIF	Chemical Separation, Facilities Support (Materials Storage)
2721-E	Patrol Headquarters	200-E	WHC	Events/History	HPIF	Site Security
2736-Z	Primary Plutonium Storage Facility	200-W	WHC	Events/History	ExHPIF	Plutonium Finishing, Security
2736-ZA	Primary Plutonium Storage Annex	200-W	WHC	Events/History	HPIF	Plutonium Finishing, Security
2736-ZB	Primary Plutonium Storage Support	200-W	WHC	Events/History	HPIF	Plutonium Finishing, Security
2750-E	Office Building	200-E	WHC	Events/History	HPIF	Waste Management, Admin Support
3506-A	Telephone Exchange Building	300	PNNL	Events/History	HPIF	Fuel Manufacture, Facilities Support (Craft)
3614-A	River Monitoring Station	300	PNNL	Events/History	HPIF	Health Safety, Facilities Support (Monitoring)
3701-D	Patrol Headquarters	300	WHC	Events/History	HPIF	Site Security
3701-N	North Badge House	300	WHC	Events/History	HPIF	Site Security
3702	Office Building	300	WHC	Events/History	HPIF	General Site, Admin Support; Social History
3706	Radiochemistry Laboratory	300	WHC	Events/History	ExHPIF	Chemical Separation, Research and Development
3707-B	Change House and Custodial Services	300	WHC	Events/History	HPIF	General Site, Facilities Support (Change House)
3707-D	Hanford Patrol Headquarters	300	WHC	Events/History	HPIF	General Site, Admin Support; Social History
3708	Radioanalytical Laboratory	300	PNNL	Events/History	HPIF	Research and Development
3709-A	Fire Station	300	WHC	Events/History	HPIF	Health Safety, Facilities Support (Firehouses)

BUILDINGS/STRUCTURES RECOMMENDED FOR MITIGATION

Building No.	Name	Area	Lead	Element(s)	Level	Hanford Theme(s)
3713	Receiving Storeroom	300	WHC	Events/History	HPIF	Fuel Manufacture, Facilities Support (Materials Storage)
3716	Automotive Repair Shop	300	WHC	Events/History	HPIF	Fuel Manufacture, Facilities Support (Craft)
3718-F	Waste Sodium Storage Building	300	WHC	Events/History	HPIF	Research and Development, Facilities Support (Chemical Storage)
3722	Area Shop	300	WHC	Events/History	HPIF	General Site, Facilities Support (Craft)
3727	Classified Storage Facility	300	WHC	Events/History	HPIF	Research and Development, Security
3745-A	Electron Accelerator Building	300	PNNL	Events/History	ExHPIF	Research and Development
3745-B	Positive Ion Accelerator Building	300	PNNL	Events/History	ExHPIF	Research and Development
3746	Irradiation Physics Laboratory	300	PNNL	Events/History	ExHPIF	Health Safety, Admin Support
3760	Hanford Technical Library	300	PNNL	Design/Engineering	ExHPIF	General Site, Admin Support; Facilities Support (Infrastructure)
3762	Technical Security Building	300	PNNL	Events/History	HPIF	General Site, Admin Support
3790	Safeguards and Security Building	300	WHC	Events/History	HPIF	Site Security, Admin Support
4621-W	Auxiliary Equipment Facility	400	WHC	Events/History	HPIF	Reactor Operations, Facilities Support (Materials Storage)
4703	FFTF Control Building	400	WHC	Events/History	HPIF	Reactor Operations, Operations Support
4710	Operation Support Building	400	WHC	Events/History	HPIF	Reactor Operations, Admin Support; Social History
4790	Patrol Headquarters	400	WHC	Events/History	HPIF	Site Security
6652	Nike Complex	600	PNNL	Events/History	HPIF	Military Operations
	Process Ponds	300	WHC	Events/History	HPIF	Waste Management (Liquid)
	BC Cribs	200-E	BHI	Events/History	HPIF	Waste Management (Liquid)
	B5 Reverse Well	200-E	BHI	Events/History	HPIF	Waste Management (Liquid)
	Basalt Waste Isolation Project	600	WHC	Events/History	Discussion in Report	Waste Management (Liquid)

* HAER Documentation Complete

Lead: BHI = Bechtel Hanford, Inc.
WHC = Westinghouse Hanford Company/Kaiser Hanford, Inc.
PNNL = Pacific Northwest National Laboratory