



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

14-ESQ-0110

OCT 2 2014

Ms. J. A. Hedges, Program Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
3100 Port of Benton Boulevard  
Richland, Washington 99354

Dear Ms. Hedges:

STATE ENVIRONMENTAL POLICY ACT (SEPA) CHECKLIST TO SUPPORT CLASS 3 MODIFICATION FOR THE 325 HAZARDOUS WASTE TREATMENT UNITS (HWTUs) PORTION OF THE HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMIT

The U.S. Department of Energy Richland Operations Office (RL) recently submitted a Class 3 (major) permit modification and temporary authorization request for the 325 HWTUs portion of the Hanford Facility RCRA permit. After receiving this request for modification, your office requested a SEPA checklist to assist the Washington State Department of Ecology meet its obligations under SEPA to consider the potential environmental impacts of the permit modification. The requested SEPA checklist is enclosed herein. If you have any questions, please contact me, or your staff may contact Jeffrey A. Frey, Acting Assistant Manager for Safety and Environment on, (509) 376-7727.

Sincerely,

  
for Doug S. Shoop  
Acting Manager

ESQ:ACM

Enclosure

cc: See page 2

Ms. Jane A. Hedges  
14-ESQ-0110

-2-

cc w/encl:

Administrative Record, TSD: H-0-1, H6-08 (Hard Copy)  
Ecology NWP Library (Hardcopy)  
Environmental Portal, LMSI, A3-95 (CD ROM)  
HF Operating Record (J. K. Perry, MSA, A3-01) (CD ROM)

cc w/o encl:

C. M. Andersen, PNNL  
B. M. Barnes, CHPRC  
G. Bohnee, NPT  
F. W. Bond, Ecology  
A. S. Carlson, Ecology  
S. Harris, CTUIR  
R. Jim, YN  
T. M. McDermott, PNSO  
D. L. McDonald, Ecology  
A. L. Prignano, Ecology  
H. T. Tilden, PNNL

## SEPA ENVIRONMENTAL CHECKLIST

### ***Purpose of checklist:***

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

### ***Instructions for applicants:*** [\[help\]](#)

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### ***Instructions for Lead Agencies:***

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

### ***Use of checklist for nonproject proposals:*** [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

#### A. BACKGROUND [\[help\]](#)

1. Name of proposed project, if applicable: [\[help\]](#)

*Radiochemical Processing Laboratory (325 Building) Hazardous Waste Treatment Unit Expansion*

2. Name of applicant: [\[help\]](#)

*U.S. Department of Energy, Richland Operations*

3. Address and phone number of applicant and contact person: [\[help\]](#)

*U.S. Department of Energy, Richland Operations  
P.O. Box 550  
Richland, WA 99352*

Contact:

*Anthony C. McKarns*  
*509-376-8981*  
*tony.mckarns@rl.doe.gov*

Technical Contact:

*Harold Tilden*  
*Pacific Northwest National Laboratory*  
*509-375-2966*  
*harold.tilden@pnnl.gov*

4. Date checklist prepared: [\[help\]](#)

*07/25/2014*

5. Agency requesting checklist: [\[help\]](#)

*Washington State Department of Ecology*

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

*A temporary authorization request was filed with Ecology on July 14, 2014, to allow a small amount of waste to be treated for disposal and to store waste in the expanded areas. Ecology will act on this request "as soon as practical" per WAC 173-303-830(4)(e)(iii). A Class 3 (major) permit modification will be requested on August 18, 2014, and a 60-day public comment period will begin. Ecology will hold an additional 45-day public comment period prior to final approval or denial of the permit modification request.*

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

*There are no additional Hazardous Waste Treatment Unit (HWTU) expansion plans at this time.*

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

*This project has been covered under a National Environmental Policy Act Categorical Exclusion, U.S. Department of Energy, 10 CFR 1021, Subpart D, Appendix B6.6, "Modifications of facilities for storing, packaging, and repacking waste."*

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

*No other approvals or proposals related to this property are pending at this time.*

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

*The project request is to modify the existing HWTU Resource Conservation and Recovery Act (RCRA) permit, WA7890008967, by adding two rooms and an outdoor storage area to the existing permit. No other permits will be needed.*

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [\[help\]](#)

*Pacific Northwest National Laboratory (PNNL) proposes to expand its existing HWTU located at the Radiochemical Processing Laboratory (RPL) (325 Building) within the 300 Area of the Hanford Site. The RPL/325 HWTU is currently permitted by the Washington State Department of Ecology to handle, treat, package, store, and ship radioactive-mixed hazardous waste generated via research activities conducted within the RPL/325 and other PNNL facilities. Three areas are proposed to be included in the HWTU expansion: a portion of rooms 603/604A (approximately 1100 ft<sup>2</sup>), and the 610 Truck Lock (approximately 1221 ft<sup>2</sup>), both located within the RPL/325 building, and the 3714 Pad, an existing, ~2000 ft<sup>2</sup> concrete pad located outdoors near the northeast corner of the RPL/325 building. These spaces are currently used to store non-RCRA low-level radioactive and transuranic waste generated by research activities within the RPL/325 and other PNNL facilities. The HWTU expansion is required to allow for greater flexibility in the safe handling, processing (primarily over-packaging waste in large grout-filled boxes), and storage of RCRA-regulated radioactive mixed-wastes. Liquids are treated at existing portions of the HWTU, but there is a potential that small amounts could be treated (e.g., pH adjustment) in the existing 604A fume hoods that are currently used for non-RCRA waste treatment.*

*No ground disturbance, construction, or excavation is required for this permit modification, and the additional packaging and storage capability will not increase radioactive or chemical emissions from the facility, and will not require significant new equipment. All of these spaces are already part of the RPL/325 footprint and are included in the retained Facility Operational Agreement with RL; all of these areas will be remediated at the end of PNNL occupancy as part of 300 Area Record of Decision (ROD).*

*The 603/604A space provides a heavy duty, 30-ton crane (necessary for handling shielded drums and concrete-weighted boxes), access to a loading door, high-activity waste/accountable material can be handled in the space, and there is a small hood/glove box in 604A that may be used for waste management. The 610 truck lock is built on grade with a heavy-duty concrete floor; therefore, floor loading is not an issue; the roll-up door provides easy truck access for filling boxes with grout and eventual load-out. Room 610 provides space for 4 ft × 4 ft × 8 ft boxes to be stored while the grout cures, out of the weather without interfering with other activities. The 3714 Pad currently is used to store non-RCRA low-level radioactive materials. It will provide longer-term storage of packaged RCRA materials, such as drums and large boxes, awaiting shipment to the 200 Area. It will allow waste to be stored out of the Limited Area and away from staff work areas (thus promoting ALARA), provide ease of loading onto transporter, and allow for convenient weekly inspection as required by the Hanford RCRA Permit.*

*The addition of these areas to the RPL/325 HWTU will not increase the amount of waste created or handled at RPL/325, although it will likely allow for an increase in total volume (i.e. preparation of 4 x 4 x 8 ft grout-filled boxes). These changes will allow for safe over-packaging and eventual disposal (elsewhere on the Hanford Site) of waste held within the RPL/325 HWTU. Some of this material requires over-packing 55-gallon drums within large, grout-filled boxes, which cannot be conducted within the existing HWTU areas because of space and floor-loading limitations. A variety of hazardous waste-producing research projects have been conducted for many years at RPL/325, and this work is expected to continue for the foreseeable future. The RPL/325 HWTU expansion will allow for more waste management options, and will allow for an increased margin of safety and protection for workers and the environment.*

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [\[help\]](#)

*The RPL/325 Building is located between Redwood and Spruce streets, west of California Street within the 300 Area of the Hanford Site, just north of Richland, WA. Approximate coordinates are 46.3684 N, -199.2781 W.*

## **B. ENVIRONMENTAL ELEMENTS** [\[help\]](#)

### **1. Earth**

a. General description of the site [\[help\]](#)

(circle one): **Flat**, rolling, hilly, steep slopes, mountainous,  
other \_\_\_\_\_

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

*The site is flat, and an existing building covers most of the site.*

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [\[help\]](#)

*The soils at the site were originally Quincy Sand, but they have been extensively reworked and likely include imported backfill and gravel; the site has been highly industrialized and is not prime farmland.*

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

*There are no indications or history of unstable soils in the immediate vicinity.*

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

*No fill or grading will be required for the HWTU modification.*

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

*There will be no clearing or construction required for this project.*

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

*At least 75% of the site is currently covered with impervious surfaces; this proportion will not change with the proposed project.*

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

*No erosion control will be required for the proposed project.*

### **2. Air**

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [\[help\]](#)

*There will be little to no change in emissions compared to those under the current HWTU permit. The only air emissions would be those from waste treatment in the room 604A fume hood, which is vented through the building HEPA system, and any fugitive emissions resulting from placement of absorbent or concrete into the boxes containing sealed drums.*

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

*Surrounding buildings are being demolished and contaminated soil remediation is occurring near the RPL/325 building. These activities produce dust and equipment fumes that may be detectable at the RPL/325 but will not affect the proposed HWTU modification at the RPL/325.*

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

*Because the proposed modification will not increase emissions or otherwise impact air, no control or reduction measures are required.*

### 3. Water

- a. Surface Water: [\[help\]](#)

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [\[help\]](#)

*There are no permanent or temporary water bodies at the project site; the Columbia River is located approximately 500 m (1700 ft) east of the project location.*

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [\[help\]](#)

*The project will not require work near the Columbia River.*

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [\[help\]](#)

*No fill or dredge material will be placed or removed.*

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

*The project will not require surface water withdrawals or diversions.*

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

*The project site is not within the 100-year floodplain of the Columbia River.*

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [\[help\]](#)

*The project will not involve discharges to surface waters. Wastewater that meets the City of Richland sewer system requirements may be discharged to the City sewer system.*

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

*No groundwater will be withdrawn, and no water will be discharged to groundwater.*

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [\[help\]](#)

*Wastewater that meets discharge requirements is discharged to the City of Richland sewer system. Water that cannot be treated to meet discharge requirements will be managed appropriately and may be managed as hazardous and/or radioactive waste and may be treated and disposed as per limits described in the existing RCRA permit for the HWTU. Hazardous and/or radioactive waste is ultimately disposed of in an approved facility and may be disposed of in the DOE Hanford Site waste disposal units.*

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [\[help\]](#)

*The source of any runoff would be precipitation events or fire hydrant testing. In this portion of the 300 Area, stormwater runoff is allowed to "sheet flow" downhill into the Columbia River, but in most cases all precipitation is absorbed into the soil column, except potentially the highest magnitude precipitation events. There is a permit (ST-4511) for absorption into the ground for fire hydrant testing (there is never enough volume from hydrant testing to run all the way to the river).*

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

*There will be no change compared to current conditions. Only containerized wastes containing no free liquid will be stored outdoors on the 3714 Pad, so no waste materials will enter ground or surface waters. Wastes will be stored above the ground surface (e.g., on pallets or in boxes) in a manner that prevents contact between waste containers and stormwater runoff. Any waste containing free liquids will be stored indoors in secondary containment.*

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

*The proposal will not affect existing drainage patterns in the vicinity of the site.*

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

*No measures to reduce or control surface, ground, or runoff water impacts will be needed.*

#### 4. Plants [\[help\]](#)

a. Check the types of vegetation found on the site: [\[help\]](#)

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

*Most of the proposed project occurs inside an existing building, the outdoor portion of the project is partially paved and partially a compacted gravel surface; there is no vegetation at or surrounding the RPL/325 building. Surrounding clean up areas will eventually be revegetated following guidance in the Hanford Site Revegetation Manual (DOE/RL-2011-116) and/or in a manner appropriate for expected future land uses and consistent with CERCLA decision documents.*

c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

*This is a highly industrialized site; there are no threatened or endangered plant species likely to be at the site. The only federally listed plant species in Benton County is the Umtanum Desert buckwheat (*Eriogonum codium*) which occurs in highly restricted, specialized substrates on Umtanum Ridge, at least 30 miles from the RPL/325 building. All Washington State threatened or endangered plant species in Benton County (Washington Natural Heritage Program Website) are either riparian species restricted to the wetted edge of the Columbia River, or species restricted to sandy soils in native shrub steppe communities; the gravel covered areas surrounding the RPL/325 building do not provide suitable habitat for any of these species.*

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

*The project location is within an existing, highly industrialized setting with no vegetation; this will not change with the proposed HWTU modifications. No preservation or enhancement measures are proposed as part of this project. Once the RPL/325 mission is completed, the building will be torn down and the site will be revegetated with native vegetation similar to the surrounding remediated areas, or the ground will be placed in a condition suitable for an alternative land use, if applicable.*

- e. List all noxious weeds and invasive species known to be on or near the site.

*There is essentially no vegetation surrounding the RPL/325 building, the vegetation that is present tends to be non-native species such as cheatgrass (*Bromus tectorum*) and tumbleweed (*Salsola tragus*), but there are no known occurrences of noxious weeds as defined at WAC 16-750.*

## 5. Animals

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include: [\[help\]](#)

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other \_\_\_\_\_

*A few native songbirds such as Western Kingbird, Say's Phoebe, American robin, and common raven and non-native species such as house sparrow, pigeon, and European starling are occasionally observed on RPL/325 Building or near the project site.*

- b. List any threatened and endangered species known to be on or near the site. [\[help\]](#)

*There are no threatened or endangered animal species likely to be on or near the proposed project site. The only federally listed endangered or threatened species at Hanford are several species of fish in the Columbia River (DOE/RL-2013-18). State threatened or endangered animal species on Hanford include the white pelican, ferruginous hawk, and sandhill crane which might fly over the RPL/325 building, but would not use the site for foraging, nesting, or perching, and the greater sage grouse, which is restricted to mature sagebrush steppe communities and has been very rarely observed on Hanford over the last several decades.*

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

*The project site is not a significant migration route, and the proposed changes to the HWTU would not affect animal movement in the vicinity.*

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

*The project location is within an existing, highly industrialized setting with no vegetation and very little animal life; this will not change with the proposed HWTU modification, no preservation or enhancement measures are proposed.*

- e. List any invasive animal species known to be on or near the site.

*Invasive animal species in the site vicinity include European starlings and pigeons.*

## 6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [\[help\]](#)

*The RPL/325 Building is heated via a natural gas-fueled package boiler; energy for laboratory work and waste treatment is provided via electricity supplied by the City of Richland.*

- b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe. [\[help\]](#)

*The proposed action will not affect the height of the RPL/325 Building or otherwise affect the potential use of solar energy in the surrounding area.*

- c. What kinds of energy conservation features are included in the plans of this proposal?  
List other proposed measures to reduce or control energy impacts, if any: [\[help\]](#)

*The proposed action primarily includes an administrative change that will affect where certain types of hazardous waste can be treated and stored within and adjacent to the RPL/325 Building; no energy conservation features are included in this proposed HWTU expansion.*

## 7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe. [\[help\]](#)

*The proposal includes management of dangerous waste, including mixed waste, in the areas being added. Hazards associated with dangerous waste management include fire, explosion, leaks, and spills. Such incidents are usually minor and limited to small leaks or spills associated with handling. The RPL/325 Building HWTUs have operated for over 20 years without fire or explosion incidents, and any leaks or spills have been minor and cleaned up promptly.*

- 1) Describe any known or possible contamination at the site from present or past uses.

*The RPL/325 Building and surrounding 300 Area have been utilized for nuclear fuels and radioactive/hazardous materials research since the early 1950s. The building itself contains asbestos, beryllium, lead, other hazardous materials, and radioactive materials contamination. Several instances of underground radioactive/hazardous materials contamination exist underneath, and in proximity to, the RPL/325 Building as the result of historical spills. These sites are identified in the final ROD for the Hanford 300 Area issued by EPA in October 2013. The sites are being interim stabilized and/or remediated in accordance with that ROD. In many cases final remediation must be deferred until the RPL/325 Building can be removed, and this is documented in both the ROD and the Hanford Tri-Party Agreement milestones for cleaning up the 300 Area.*

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

*The project proposes to conduct treatment inside the RPL/325 Building and static storage of waste inside the RPL/325 Building and on the 3714 Pad. None of these activities would be affected by, nor would they affect, any of the environmental contamination or any other local conditions near the RPL/325 Building.*

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

*No chemicals will be used during development of the project, and no construction is needed; all spaces being added to the permit already exist and will be utilized without modification. Once in operation, the units being added will be utilized for storage and some treatment of a wide range of hazardous, toxic, and/or radioactive waste materials. These wastes generally result from the research and facility maintenance conducted at the RPL/325 Building and other PNNL facilities. Approximately 9 cubic meters of mixed waste per year are typically managed at the RPL/325 Building HWTUs. Although the amount will substantially increase under this proposal, it will generally increase only because wastes are being repackaged into larger containers prior to disposal, not because more waste is being*

generated for management at the RPL/325 Building HWTUs.

- 4) Describe special emergency services that might be required.

*The proposed permit modifications would not change the emergency services needs of RPL/325 facility.*

- 5) Proposed measures to reduce or control environmental health hazards, if any:

*Personnel exposure is carefully controlled by means of protective clothing and equipment, managing waste in closed containers, use of fume hoods or other ventilation when containers must be opened, and other engineered controls. Work practices described in Addenda B (waste analysis), C (storage and treatment practices), E (security), and F (procedures to prevent hazards) of the permit are all used to reduce and/or control any health hazards that may result from waste management. Response to any fires, explosions, leaks, or spills (including those incident to transportation of waste to and from the units) are described in the facility's Contingency Plan. The actions covered under the proposed permit modification would not require any changes to the established measures to reduce or control environmental health hazards.*

#### b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

*The site is located within an industrial area. Moderate size trucks and equipment such as forklifts are used regularly in the immediate vicinity of the RPL/325 building. Other noisy equipment, such as track hoes and jackhammers, are used within 100 to 200 m of the RPL/325 building, supporting the demolition of other buildings within the 300 Area of the Hanford Site.*

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [\[help\]](#)

*The proposed project will not affect the level of truck and equipment usage within the vicinity of the RPL/325 Building, except for the very occasional presence of cement trucks during daylight hours to support overpackaging waste within grout-filled boxes. This is not expected to be a common or regular occurrence, and would not substantially alter the noise profile in the site vicinity.*

- 3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

*No measures to reduce or control noise impacts will be needed.*

#### 8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)

*The RPL/325 Building, or RPL, is a nuclear hazard category 2 facility operated by PNNL to perform physical and chemical research with radioactive materials. Most of the immediately surrounding area was once used for nuclear material testing, production, and research, but most of the other buildings in the 300 Area have been demolished or are currently being demolished, including all of those in the immediate vicinity of RPL/325. The current proposal will not affect current or future land use of adjacent areas.*

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)

*The 300 Area portion of the Hanford Site may have been used for agriculture prior to 1943, as it includes the site of the long-gone hamlet of Fruitvale. Since the mid-1940s it has been an industrial zone dedicated to nuclear fuel production, materials testing, and related research.*

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversized equipment access, the application of pesticides, tilling, and harvesting? If so, how:

*The proposal will not affect any surrounding working farm or forest-based business.*

- c. Describe any structures on the site. [\[help\]](#)

*The RPL/325 Building is a concrete and steel two-story building with a basement built in 1953. The total footprint of the building is approximately 65,000 ft<sup>2</sup>, and it is approximately 40 ft tall. There are several small ancillary / support buildings attached to or very near the RPL/325 Building, including a package boiler, bottle docks, etc.*

- d. Will any structures be demolished? If so, what? [\[help\]](#)

*No buildings will be demolished as a result of the proposed action. Most other buildings within the 300 Area have already been demolished as part of the general Hanford Site cleanup and environmental remediation.*

- e. What is the current zoning classification of the site? [\[help\]](#)

*The site is not currently within the Richland city limits, and is thus not zoned by the City of Richland. The Hanford Site land use plan does not include zoning, beyond the broad "Industrial" designation.*

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

*The 300 Area is classified as "Industrial" in the Hanford Site Comprehensive Land Use Plan. The site is within the Urban Growth Area for the City of Richland; the Comprehensive Plan for the City of Richland designates the area where the RPL/325 Building is located as Business Research Park.*

- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

*The site is greater than 1/4 mile from the Columbia River; it is not subject to a shoreline master plan or program.*

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)

*Neither the proposed project location nor the surrounding area is classified as environmentally sensitive (i.e., not a wetland, geological hazard, habitat for a threatened species, etc.)*

- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

*Approximately 75 to 100 people regularly work at the RPL/325 Building. This number will not change due to the proposed modifications to the HWTU permit.*

j. Approximately how many people would the completed project displace? [\[help\]](#)

*The completed project would not displace any workers or other people.*

k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

*No measures to avoid or reduce displacement impacts are needed.*

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

*The proposed action is a minor alteration of an existing use of the property and it will not affect the current land use, nor will it restrict future use options for the site.*

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

*There are no nearby agricultural or forest lands that could be affected by the proposal.*

## 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)

*The proposed HWTU modification will not require the addition or elimination of housing units.*

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)

*The proposed HWTU modification will not require the addition or elimination of housing units.*

c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

*No measures to reduce or control housing impacts will be required.*

## 10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)

*The RPL/325 Building air emissions stack is approximately 85 ft tall, made of metal. Most of the RPL/325 Building is constructed of concrete panels and/or metal siding. No change will occur to the exterior of the RPL/325 Building as a result of this project.*

b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

*The proposed activity will not include any actions that would obstruct or modify views of or from the surrounding area.*

- c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

*No measures to reduce or control aesthetic impacts are needed.*

## 11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

*The proposed modification to the RPL/325 Building HWTU will not require any additional lighting, and will not involve activities that would create additional light or glare.*

- b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

*The proposed modification to the RPL/325 Building HWTU will not require any additional lighting, and will not involve activities that would create additional light or glare.*

- c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

*There is existing lighting around the RPL/325 Building, and some remaining lighting elsewhere in the 300 Area. As more of the 300 Area is remediated and as the final buildings are demolished, the amount of lighting is likely to decrease, except for the in immediate vicinity of the RPL/325 Building, which will remain in place.*

- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

*No measures to reduce or control light or glare impacts are needed.*

## 12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

*The RPL/325 Building is located within a highly industrialized, controlled-access Property-Protection Area; there are no designated or informal recreational opportunities in the immediate vicinity. The Columbia River, which offers various aquatic-related recreational opportunities, is located approximately 1/3 mile east of the RPL/325 Building.*

- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

*The proposed activity would not displace nor have any effect on existing recreational uses.*

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

*No measures will be required to reduce or control impacts on recreation.*

## 13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [\[help\]](#)

*The RPL/325 Building is a contributing property to the Hanford Site Manhattan Project and Cold War Era Historic District. Most other 300 Area contributing properties to the District have already been demolished. There are no pre-historic or archeological sites within at least 1/4 mile of the RPL/325 building.*

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)

*The entire 300 Area has been surveyed for cultural resources, and records of these surveys are maintained in the Hanford Cultural Resources Laboratory database. The area surrounding the RPL/325 building is a highly disturbed industrial site; any surface or near-surface evidence of pre-Hanford occupation or past use has long been lost. The proposal will not require excavation or any other activities that would have the potential to cause effect to historic or cultural resources.*

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [\[help\]](#)

*Both RL and PNSO have well developed processes for compliance with Section 106 of the National Historic Preservation Act, and this process has been followed numerous times at and near the RPL/325 Building. DOE performs this process for each excavation, remediation, or other action that has the potential to cause effects to cultural or historic resources, and consults with local tribes and the State Historic Preservation Office as part of the Section 106 process. The proposed work involves no actions that would trigger the need for site specific cultural resource reviews or formal implementation of the Section 106 compliance process.*

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

*The proposed HWTU modification is not expected to physically alter the RPL/325 Building. All maintenance, repair, and modification work at the RPL/325 Building is conducted in accordance with 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," and the "Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (DOE/RL-97-56)."*

#### 14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [\[help\]](#)

*Access to the site is via Stevens Drive, north to the entrance to the 300 Area, then on DOE-owned, controlled access roads within the 300 Area of the Hanford Site.*

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [\[help\]](#)

*The RPL/325 Building is not served by public transit; the nearest public bus stop is approximately 1.2 miles south.*

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)

*The proposed project will not eliminate any parking spaces, and will not generate a need for additional parking spaces.*

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [\[help\]](#)

*The proposed RPL/325 Building HWTU modification will not require improvements to existing streets or roads.*

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)

*The project will neither use nor require water, rail, or air transport.*

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)

*The modification to the HWTU for the RPL/325 Building will not change the estimated current 75 to 150 vehicle trips per day.*

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

*The proposal will not affect the movement of agricultural, forest, or other commodities.*

- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)

*No measures to reduce or control transportation impacts are needed.*

## 15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [\[help\]](#)

*The proposed HWTU modification will not increase the need for fire or police protection, or other public services such as schools or health care.*

- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

*No measures are needed to reduce impacts to public services.*

## 16. Utilities

- a. Circle utilities currently available at the site: [\[help\]](#)  
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,  
other \_\_\_\_\_

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [\[help\]](#)

*No new or modified utilities will be required to support the proposed action.*

**C. SIGNATURE [\[HELP\]](#)**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: \_\_\_\_\_

Name of signee \_\_\_\_\_

Position and Agency/Organization \_\_\_\_\_

Date Submitted: \_\_\_\_\_