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**STATE ENVIRONMENTAL POLICY ACT  
ENVIRONMENTAL CHECKLIST FORMS**

**FOR  
HANFORD PATROL ACADEMY DEMOLITION SITE  
CLOSURE PLAN**

**REVISION 0**

**November 1992**



**WASHINGTON ADMINISTRATIVE CODE  
ENVIRONMENTAL CHECKLIST FORMS  
[MAC 197-11-960]**

**A. BACKGROUND****1. Name of proposed project, if applicable:**

Closure of the Hanford Patrol Academy Demolition Sites (HPADS).

**2. Name of applicants:**

U.S. Department of Energy, Richland Field Office (DOE-RL) and Westinghouse Hanford Company (Westinghouse Hanford).

**3. Address and phone number of applicants and contact persons:**

U.S. Department of Energy  
Richland Field Office  
P.O. Box 550  
Richland, Washington 99352

Westinghouse Hanford Company  
P.O. Box 1970  
Richland, Washington 99352

**Contact Persons:**

J. D. Bauer, Acting Program Manager  
Office of Environmental Assurance,  
Permits, and Policy  
(509) 376-5441

R. E. Lerch, Deputy Director  
Restoration and Remediation  
(509) 376-5556

**4. Date checklist prepared:**

November 1992

**5. Agency requesting the checklist:**

Washington State  
Department of Ecology  
P.O. Box 47600  
Olympia, Washington 98504-7600

**6. Proposed timing or schedule: (including phasing, if applicable):**

Closure of the HPADS would begin and would be completed within 180 days after approval of the closure plan by the Washington State Department of Ecology (Ecology).

- 1 7. Do you have any plans for future additions, expansion, or further  
2 activity related to or connected with this proposal? If yes, explain.  
3

4 There are no additions or expansions planned following closure. The  
5 HPADS is located within the Hanford Patrol Academy firing range. It is  
6 planned that the Hanford Patrol would occupy the firing range area and  
7 continue training throughout the closure and postclosure periods.  
8 Training and closure activities would be coordinated.  
9

- 10  
11 8. List any environmental information you know about that has been prepared,  
12 or will be prepared, directly related to this proposal.  
13

14 This *State Environmental Policy Act (SEPA) of 1971* Environmental  
15 Checklist is being submitted to the Ecology concurrently with the HPADS  
16 closure plan.  
17

18 General Hanford Site information is found in the *Hanford Site National*  
19 *Environmental Policy Act (NEPA) Characterization* document, PNL-6415,  
20 Revision 4, Pacific Northwest Laboratory, 1991, Richland, Washington.  
21

22 In accordance with the *Hanford Federal Facility Agreement and Consent*  
23 *Order (Tri-Party Agreement)*, additional information concerning the HPADS  
24 is located in the Waste Information Data System.  
25

- 26  
27 9. Do you know whether applications are pending for government approvals of  
28 other proposals directly affecting the property covered by your proposal?  
29 if yes, explain.  
30

31 No applications to government agencies are known to be pending.  
32

- 33  
34 10. List any government approvals or permits that will be needed for your  
35 proposal, if known.  
36

37 In accordance with the Tri-Party Agreement, Ecology is the lead  
38 regulatory agency that will approve the HPADS closure plan pursuant to  
39 the requirements of Washington Administrative Code (WAC) 173-303-610 and  
40 40 Code of Federal Regulations (CFR), Parts 265.381 and 270.1. A  
41 *National Environmental Policy Act (NEPA) of 1969* review will be required  
42 before closure can proceed.  
43

- 44  
45 11. Give brief, complete description of your proposal, including the proposed  
46 uses and the size of the project and site. There are several questions  
47 later in this checklist that ask you to describe certain aspects of your  
48 proposal. You do not need to repeat those answers on this page.  
49

50 The proposed action is the clean closure of the HPADS. The HPADS  
51 consists of two small demolition soil pits located within the Hanford  
52 Patrol Academy training area, specifically the known distance rifle range

1 (KD range or #5 range). From 1984 through October 1991, discarded  
2 explosive, reactive, and shock-sensitive nonradioactive chemicals were  
3 detonated periodically in these soil pits. The soil pits are no longer  
4 used for the treatment of waste.  
5

6 In the early years, rifle fire was used to detonate individual chemical  
7 containers. Since late 1984, explosives were used to initiate the  
8 thermal treatment process. The discarded chemicals and explosives were  
9 placed in a specially dug hole to control the process.  
10

11 Because of the volatile nature of the chemicals and the use of explosives  
12 for thermal treatment, the closure strategy is to test for demolition  
13 residues that might remain, and to verify that any residues that might  
14 exist do not pose a risk to human health or the environment. Suitable  
15 field screening techniques would be used to assess the areas to be closed  
16 and the adequacy of the field screening would be confirmed by laboratory  
17 analysis of field samples. Upon the lead regulatory agency concurrence  
18 with the field screening and laboratory confirmation results, randomly  
19 selected samples might be used to document closure. If waste residues  
20 are found to pose any threat to public health or the environment, soil  
21 removal or other measures will be undertaken to minimize such hazards  
22 before closure is complete. All equipment used in performing closure  
23 activities would be decontaminated or disposed of at a permitted  
24 facility.  
25

26 The original demolition sites initially were small, shallow pits  
27 approximately 1.5 feet (0.5 meter) deep and 10 feet (3.0 meters) in  
28 diameter. These pits were expanded slightly with time and the closure  
29 areas are now larger. The closure area for Pit Number One is defined as  
30 33 feet (10 meters) by 98 feet (30 meters) and for Pit Number Two the  
31 closure area is defined as 108 square feet (10 square meters). Both pits  
32 are defined as 3.0 feet (1.0 meter) deep. The final closure areas will  
33 be determined by the field screening surveys and/or the analytical  
34 results.  
35

36 Postclosure care would be required only if the treatment unit in question  
37 cannot attain closure. If the underlying soils or the groundwater is  
38 contaminated, the site will not be considered closed until the  
39 remediation of the 1100-EM-1 operable unit under CERCLA is complete.  
40

- 41 12. Location of the proposal. Give sufficient information for a person to  
42 understand the precise location of your proposed project, including a  
43 street address, if any, and section, township, and range, if known. If a  
44 proposal would occur over a range of area, provide the range or  
45 boundaries of the site(s). Provide a legal description, site plan,  
46 vicinity map, and topographic map, if reasonably available. While you  
47 should submit any plans required by the agency, you are not required to  
48 duplicate maps or detailed plans submitted with any permit applications  
49 related to this checklist.  
50

51 The HPADS is located on a firing range within the Hanford Patrol Academy,  
52 which is about 2 miles (3.2 kilometers) south-southwest of the 300 Area

1 on the Hanford Site and 0.5 mile (0.8 kilometer) north of the Horn Rapids  
2 Road, which is the northern boundary of the city of Richland. The  
3 Hanford Patrol Academy is in Section 8, Township 10 N, Range 28 E.  
4  
5

6 **B. ENVIRONMENTAL ELEMENTS**  
7

8 **1. Earth**  
9

- 10 a. **General description of the site (circle one): Flat, rolling, hilly,**  
11 **steep slopes, mountainous, other \_\_\_\_\_.**  
12  
13 Rolling, slightly sloped sand dunes.  
14  
15  
16 b. **What is the steepest slope on the site (approximate percent slope)?**  
17  
18 42 percent. The angle of repose of the sand dunes is approximately  
19 30 degrees.  
20  
21 c. **What general types of soils are found on the site? (for example,**  
22 **clay, sandy gravel, peat, muck)? If you know the classification of**  
23 **agricultural soils, specify them and note any prime farmland.**  
24  
25 Sand and sandy gravel.  
26  
27 d. **Are there surface indications or history of unstable soils in the**  
28 **immediate vicinity? If so, describe.**  
29  
30 Small migrating sand dunes are present in the area but are stabilized  
31 by periodic firing range maintenance.  
32  
33 e. **Describe the purpose, type, and approximate quantities of any filling**  
34 **or grading proposed. Indicate source of fill.**  
35  
36 The closure areas would be graded for safety reasons during closure  
37 to match the surrounding surface.  
38  
39 f. **Could erosion occur as a result of clearing, construction, or use?**  
40 **If so, generally describe.**  
41  
42 No.  
43  
44 g. **About what percent of the site will be covered with impervious**  
45 **surfaces after project construction (for example, asphalt or**  
46 **buildings)?**  
47  
48 None.  
49

1 h. Proposed measures to reduce or control erosion, or other impacts to  
2 the earth, if any:

3  
4 None.

5  
6 **2. Air**

7  
8 a. What types of emissions to the air would result from the proposal  
9 (i.e., dust, automobile, odors, industrial wood smoke) during  
10 construction and when the project is completed? If any, generally  
11 describe and give approximate quantities, if known.

12  
13 There could be minor dust and vehicle exhaust from closure  
14 activities. No volatile residuals are expected to be in the soil.

15  
16 b. Are there any off-site sources of emissions or odors that may affect  
17 your proposal? If so, generally describe.

18  
19 No.

20  
21 c. Proposed measures to reduce or control emissions or other impacts to  
22 the air, if any?

23  
24 None.

25  
26  
27 **3. Water**

28  
29 **a. Surface**

30  
31 1) Is there any surface water body on or in the immediate vicinity  
32 of the site (including year-round and seasonal streams,  
33 saltwater, lakes, ponds, wetlands)? If yes, describe type and  
34 provide names. If appropriate, state what stream or river it  
35 flows into.

36  
37 No.

38  
39 2) Will the project require any work over, in, or adjacent to  
40 (within 200 feet ) the described waters? If yes, please describe  
41 and attach available plans.

42  
43 No.

44  
45 3) Estimate the amount of fill and dredge material that would be  
46 placed in or removed from surface water or wetlands and indicate  
47 the area of the site that would be affected. Indicate the source  
48 of fill material.

49  
50 None.  
51

- 1 4) Will the proposal require surface water withdrawals or  
2 diversions? Give general description, purpose, and approximate  
3 quantities if known.  
4

5 No.

- 6  
7 5) Does the proposal lie within a 100-year floodplain? If so, note  
8 location on the site plan.  
9

10 No.

- 11  
12 6) Does the proposal involve any discharges of waste materials to  
13 surface waters? If so, describe the type of waste and  
14 anticipated volume of discharge.  
15

16 No.

17  
18 **b. Ground**

- 19  
20 1) Will ground water be withdrawn, or will water be discharged to  
21 ground water? Give general description, purpose, and approximate  
22 quantities if known.  
23

24 No.

- 25  
26 2) Describe waste material that will be discharged into the ground  
27 from septic tanks or other sources, if any (for example:  
28 Domestic sewage; industrial, containing the following  
29 chemicals...; agricultural; etc.). Describe the general size of  
30 the system, the number of such systems, the number of houses to  
31 be served (if applicable), or the number of animals or humans the  
32 system(s) are expected to serve.  
33

34 None.

35  
36 **c. Water Run-off (including storm water)**

- 37  
38 1) Describe the source of run-off (including storm water) and method  
39 of collection and disposal, if any (include quantities, if  
40 known). Where will this water flow? Will this water flow into  
41 other waters? If so, describe.  
42

43 The Hanford Site receives approximately 6 to 7 inches (15 to  
44 18 centimeters) of annual precipitation that seeps into the  
45 ground through the porous soils. Because of the low rainfall and  
46 the warm climate, this water returns to the air through  
47 evapotranspiration.  
48

- 49 2) Could waste materials enter ground or surface waters? If so,  
50 generally describe.  
51

52 No.

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d. Proposed measures to reduce or control surface, ground, and run-off water impacts, if any:

None.

4. Plants

a. Check or circle the types of vegetation found on the site.

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

Forbes and grasses seasonally might be present.

b. What kind and amount of vegetation will be removed or altered?

Small quantities of forbes and grasses might be removed during closure. Periodically throughout the Hanford Patrol Academy firing range complex, the vegetation is removed systematically to minimize potential brush fires and for firing range safety precautions.

c. List threatened or endangered species known to be on or near the site.

None. Additional information on the Hanford Site environment can be found in the environmental document referred to in the answer to Checklist Question A.8.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

- birds: hawk, heron, eagle, songbirds, other:.....
- mammals: deer, bear, elk, beaver, other:.....
- fish: bass, salmon, trout, herring, shellfish, other:.....

1 There are many species of birds and animals on the 560 square mile  
2 (1,450 square kilometer) Hanford Site and some occasionally might be  
3 seen near the HPADS; however, there are no animal species that are  
4 specifically known to use the small area of the HPADS. Additional  
5 information on the Hanford Site animal species can be found in the  
6 environmental document referred to in the answer to Checklist  
7 Question A.8.  
8

- 9 **b. List any threatened or endangered species known to be on or near the**  
10 **site.**

11 The HPADS site is not known to be used by any threatened or  
12 endangered species. Additional information concerning endangered and  
13 threatened species on the Hanford Site can be found in the  
14 environmental document referred to in the answer to Checklist  
15 Question A.8.  
16  
17

- 18 **c. Is the site part of a migration route? If so, explain.**

19 The Hanford Site and the adjacent Columbia River are part of the  
20 broad Pacific Flyway for waterfowl migration and other birds also  
21 migrate along the river. Birds might fly over the closure areas.  
22  
23

- 24 **d. Proposed measures to preserve or enhance wildlife, if any:**

25 None.  
26  
27

28  
29 **6. Energy and Natural Resources**

- 30  
31 **a. What kinds of energy (electric, natural gas, oil, wood stove, solar)**  
32 **will be used to meet the completed project's energy needs? Describe**  
33 **whether it will be used for heating, manufacturing, etc.**

34 None.  
35  
36

- 37 **b. Would your project affect the potential use of solar energy by**  
38 **adjacent properties? If so, generally describe.**

39 No.  
40  
41

- 42 **c. What kinds of energy conservation features are included in the plans**  
43 **of this proposal? List other proposed measures to reduce or control**  
44 **energy impacts, if any:**

45 None  
46  
47  
48

## 1 7. Environmental Health

- 2  
3 a. Are there any environmental health hazards, including exposure to  
4 toxic chemicals, risk of fire and explosion, spill, or hazardous  
5 waste, that could occur as a result of this proposal? If so,  
6 describe.  
7

8 It is believed that the waste inventory that was treated, which  
9 consisted of discarded explosive, ignitable, and/or reactive,  
10 nonradioactive chemical compounds, was totally consumed during the  
11 various thermal detonation events. It also is believed that any  
12 remaining residues should have been decomposed by the natural  
13 processes of oxidation and hydration. It also is possible that  
14 negligible amounts of dangerous residues might have remained on the  
15 closure areas along with small shards of glass or metal remnants from  
16 the containers that were detonated.  
17

- 18 1) Describe special emergency services that might be required.  
19

20 Hanford Site security, fire response, and ambulance services are  
21 on call at all times in the event of an onsite emergency.  
22

- 23 2) Proposed measures to reduce or control environmental health  
24 hazards, if any:  
25

26 The field screening and analytical sampling results would  
27 determine if there are any remaining residues that pose a threat  
28 to human health or the environment. If there are remaining  
29 residues, the contaminated soil will be removed and disposed of  
30 in approved disposal sites. Removal would be carried out in  
31 accordance with approved procedures for removal of dangerous  
32 waste.  
33

34 b. Noise  
35

- 36 1) What type of noise exists in the area which may affect your  
37 project (for example: traffic, equipment, operation, other)?  
38

39 None.  
40

- 41 2) What types and levels of noise would be created by or associated  
42 with the project on a short-term or a long-term basis (for  
43 example: traffic, construction, operation, other)? Indicate  
44 what hours noise would come from the site.  
45

46 There would be minor noise from equipment used for sampling and  
47 closure activities during normal day shift operations.  
48

- 49 3) Proposed measures to reduce or control noise impacts, if any:  
50

51 None.  
52

1 8. Land and Shoreline Use

2  
3 a. What is the current use of the site and adjacent properties?

4  
5 The HPADS currently are part of the firing range used for training  
6 purposes by the Hanford Patrol.

7  
8 b. Has the site been used for agriculture? If so, describe.

9  
10 No portion of the Hanford Site, including the locations of the  
11 proposed action, has been used for agricultural purposes since 1943.

12  
13 c. Describe any structures on the site.

14  
15 The HPADS is located near an earthen berm that is used for the  
16 KD range target butt.

17  
18 d. Will any structures be demolished? If so, what?

19  
20 No.

21  
22 e. What is the current zoning classification of the site?

23  
24 The Hanford Site is zoned by Benton County as an Unclassified Use (U)  
25 district.

26  
27 f. What is the current comprehensive plan designation of the site?

28  
29 The 1985 Benton County Comprehensive Land Use Plan designates the  
30 Hanford Site as the "Hanford Reservation". Under this designation,  
31 land on the Hanford Site may be used for "activities nuclear in  
32 nature". Nonnuclear activities are authorized "if and when DOE  
33 approval for such activities is obtained".

34  
35 g. If applicable, what is the current shoreline master program  
36 designation of the site?

37  
38 Not applicable.

39  
40 h. Has any part of the site been classified as an "environmentally  
41 sensitive" area? If so, specify.

42  
43 No.

44  
45 i. Approximately how many people would reside or work in the completed  
46 project?

47  
48 None.

49  
50 j. Approximately how many people would the completed project displace?

51  
52 None.

1 k. Proposed measures to avoid or reduce displacement impacts, if any:

2 None.

3  
4  
5 l. Proposed measures to ensure the proposal is compatible with existing  
6 and projected land uses and plans, if any:

7 Does not apply. (Refer to answer to Checklist Question B.8.f.)  
8  
9

10  
11 **9. Housing**

12  
13 a. Approximately how many units would be provided, if any? Indicate  
14 whether high, middle, or low-income housing.

15 None.  
16

17  
18 b. Approximately how many units, if any, would be eliminated? Indicate  
19 whether high, middle, or low-income housing.

20 None.  
21

22  
23 c. Proposed measures to reduce or control housing impacts, if any:

24 None.  
25  
26  
27

28 **10. Aesthetics**

29  
30 a. What is the tallest height of any proposed structure(s), not  
31 including antennas; what is the principal exterior building  
32 material(s) proposed?

33 No structures are proposed.  
34

35  
36 b. What views in the immediate vicinity would be altered or obstructed?

37 None.  
38

39  
40 c. Proposed measures to reduce or control aesthetic impacts, if any:

41 None.  
42  
43  
44

45 **11. Light and Glare**

46  
47 a. What type of light or glare will the proposal produce? What time of  
48 day would it mainly occur?

49 None.  
50  
51

1 b. Could light or glare from the finished project be a safety hazard or  
2 interfere with views?

3  
4 No.

5  
6 c. What existing off-site sources of light or glare may affect your  
7 proposal?

8  
9 None.

10  
11 d. Proposed measures to reduce or control light and glare impacts, if  
12 any:

13  
14 None.

15  
16  
17 **12. Recreation**

18  
19 a. What designated and informal recreational opportunities are in the  
20 immediate vicinity?

21  
22 None.

23  
24 b. Would the proposed project displace any existing recreational uses?  
25 If so, describe.

26  
27 No.

28  
29 c. Proposed measures to reduce or control impacts on recreation,  
30 including recreation opportunities to be provided by the project or  
31 applicant, if any?

32  
33 None.

34  
35  
36 **13. Historic and Cultural Preservation**

37  
38 a. Are there any places or objects listed on, or proposed for, national,  
39 state, or local preservation registers known to be on or next to the  
40 site? If so, generally describe.

41  
42 No places or objects listed on, or proposed for, national, state, or  
43 local preservation registers are known to be on or next to the HPADS.  
44 Additional information regarding the cultural resources on the  
45 Hanford Site can be found in the environmental documents referred to  
46 in the answer to Checklist Question A.8.  
47

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9
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known archaeological, historical, or Native American religious sites on or next to the HPADS. Additional information regarding this can be found in the environmental documents referenced in the answer to Checklist Question A.8.

- 10  
11  
12  
13  
14
- c. Proposed measures to reduce or control impacts, if any:

None.

15  
16

14. Transportation

- 17  
18  
19  
20  
21  
22
- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Does not apply.

- 23  
24  
25  
26  
27  
28
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The HPADS is not publicly accessible and, therefore, is not served by public transit.

- 29  
30  
31  
32  
33
- c. How many parking spaces would the completed project have? How many would the project eliminate?

None.

- 34  
35  
36  
37  
38  
39
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

None.

- 40  
41  
42  
43  
44
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- 45  
46  
47  
48  
49
- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None.

1 g. Proposed measures to reduce or control transportation impacts, if  
2 any:

3  
4 None.

5  
6 **15. Public Services**

7  
8 a. Would the project result in an increased need for public services  
9 (for example: fire protection, police protection, health care,  
10 schools, other)? If so, generally describe.

11  
12 No.

13  
14 b. Proposed measures to reduce or control direct impacts on public  
15 services, if any:

16  
17 None.

18  
19  
20 **16. Utilities**

21  
22 a. Circle utilities currently available at the site: electricity,  
23 natural gas, water, refuse service, telephone, sanitary sewer, septic  
24 system, other:

25  
26 None.

27  
28 b. Describe the utilities that are proposed for the project, the utility  
29 providing the service, and the general construction activities on the  
30 site or in the immediate vicinity which might be needed.

31  
32 None.  
33

1 SIGNATURES

2  
3 The above answers are true and complete to the best of my knowledge. We  
4 understand that the lead agency is relying on them to make its decision.  
5  
6  
7

8  
9 James D. Bauer  
10 James D. Bauer, Acting Program Manager  
11 Office of Environmental Assurance,  
12 Permits, and Policy  
13 U.S. Department of Energy  
14 Richland Field Office  
15  
16  
17

11/20/92  
Date

18  
19 R. E. Lerch  
20 R. E. Lerch, Deputy Director  
21 Restoration and Remediation  
22 Westinghouse Hanford Company  
23  
24

10-30-92  
Date