

STATE ENVIRONMENTAL POLICY ACT  
ENVIRONMENTAL CHECKLIST FORMS

FOR  
THE 218-E-8 BORROW PIT DEMOLITION SITE  
CLOSURE PLAN

REVISION 0

November 1992

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

**A. BACKGROUND**

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

Closure of the 218-E-8 Borrow Pit Demolition Site.

Within this checklist, "218-E-8 Demolition Site" refers to the 218-E-8 Borrow Pit Demolition Site, and "Hanford Site" refers to the entire Hanford Site.

**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	Westinghouse Hanford Company
Richland Field Office	P. O. Box 1970
P. O. Box 550	Richland, Washington 99352
Richland, Washington 99352	

**Contact Persons:**

J. D. Bauer, Acting Program Manager	R. E. Lerch, Deputy Director
Office of Environmental Assurance,	Restoration and Remediation
Permits and Policy	(509) 376-5556
(509) 376-5441	

**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 218-E-8 Demolition Site 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 plans for future additions or expansions of the  
5 218-E-8 Demolition Site. However the entire borrow pit, of which the  
6 218-E-8 Demolition Site is but a part, is scheduled to be addressed under  
7 the *Comprehensive Environmental Response, Compensation, and Liability Act*  
8 (CERCLA) of 1980 at a later date.  
9

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

13 This *State Environmental Policy Act (SEPA) of 1971 Environmental*  
14 *Checklist* is being submitted to Ecology concurrently with the  
15 218-E-8 Demolition Site closure plan.  
16

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

21 In accordance with the *Hanford Federal Facility Agreement and Consent*  
22 *Order (Tri-Party Agreement)*, additional information concerning the  
23 218-E-8 Demolition Site is located in the Waste Information Data System.  
24

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

29 No applications to government agencies are known to be pending.  
30

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

34 In accordance with the Tri-Party Agreement, Ecology is the lead  
35 regulatory agency that will approve the 218-E-8 Demolition Site closure  
36 plan pursuant to the requirements of Washington Administrative Code,  
37 (WAC) 173-303-610 and 40 Code of Federal Regulations (CFR) Parts 265.381  
38 and 270.1. A *National Environmental Policy Act (NEPA) of 1969* review  
39 will be required before closure can proceed.  
40

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

46 The proposed action is the clean closure of the 218-E-8 Demolition Site.  
47 This site consists of a section of land approximately 20 feet (6 meters)  
48 by 20 feet (6 meters), which is situated within a multi-use borrow pit  
49 roughly 600 feet (180 meters) by 900 feet (275 meters) in size. The site  
50 was used to detonate a small amount [approximately 770 pounds  
51 (350 kilograms)] of shock-sensitive and reactive laboratory chemicals

1 that were determined to be either excess or beyond their designated stock  
2 life. The detonation event occurred in November of 1984.

3  
4 The discarded chemicals were placed in a shallow depression, dug  
5 expressly for the event, to control the detonation process. Conventional  
6 explosives were placed around the chemicals and detonated using electric  
7 blasting caps and primer cord.

8  
9 Because of the location of the 218-E-8 Demolition Site in the 200 East  
10 Area of the Hanford Site, the closure investigation began with a  
11 radiation survey of the site. The results of the radiation survey  
12 confirmed that there is no radiation above background levels at the  
13 218-E-8 Demolition Site. Any radiation encountered would have been from  
14 activities associated with the areas other than the demolition site  
15 inside the borrow pit. Soil samples would be taken to determine if there  
16 is any contamination and resulting action levels. Action levels are  
17 contaminant concentrations that would require an action and would be  
18 negotiated with Ecology. If it is found that all contamination is from  
19 218-E-8 Demolition Site activities alone, the soil would be treated  
20 and/or disposed of in a permitted landfill and closed as a RCRA site. If  
21 it is found that all contamination is from other nearby sources, the site  
22 would be closed as a RCRA site and remediated under CERCLA as part of  
23 200-PO-6 operable unit, which contains the borrow pit. If contamination  
24 is found in the soil from other sources in addition to 218-E-8 Demolition  
25 Site activities, the soil would be remediated in coordination with CERCLA  
26 activities. All equipment used in performing closure activities would be  
27 decontaminated or disposed of at a permitted facility.

28  
29 Postclosure care would be required only if the treatment unit in question  
30 cannot attain closure. If the underlying soils or the groundwater are  
31 contaminated, the site will not be considered closed until the  
32 remediation of the 200-PO-8 operable unit under CERCLA is complete.

- 33  
34 12. Location of the proposal. Give sufficient information for a person to  
35 understand the precise location of your proposed project, including a  
36 street address, if any, and section, township, and range, if known. If a  
37 proposal would occur over a range of area, provide the range or  
38 boundaries of the site(s). Provide a legal description, site plan,  
39 vicinity map, and topographic map, if reasonably available. While you  
40 should submit any plans required by the agency, you are not required to  
41 duplicate maps or detailed plans submitted with any permit applications  
42 related to this checklist.

43  
44 The 218-E-8 Demolition Site is located within the 218-E-8 Borrow Pit in  
45 the 200 East Area, which is roughly in the center of the Hanford Site.  
46 The location within the 200 East Area is approximately 200 feet  
47 (61 meters) inside the eastern boundary fenceline and 1,500 feet  
48 (457 meters) south of the northern boundary. The 218-E-8 Demolition Site  
49 is in Section 35, Township 13 N, Range 26 E.  
50  
51

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_.

Flat terrain.

- b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope in the 200 East Area is less than 10 percent.

- c. What general types of soils are found on the site? (for example, clay, sandy gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The main soil types found in the area are gravel and sand.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

The floor of the borrow pit has been periodically disturbed, but due to its gravelly nature and the grading activities conducted in the past, the soil tends to be relatively stable.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

No fill would be required for this closure.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No.

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

None.

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

None.

**2. Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during

1 construction and when the project is completed? If any, generally  
2 describe and give approximate quantities, if known.  
3

4 There could be minor amounts of dust and vehicle exhaust from closure  
5 activities. No volatile organic carbon emissions are expected  
6 because the detonation events were designed to eliminate most of the  
7 chemicals and the event occurred in November of 1984  
8

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

11 No.  
12

13 c. Proposed measures to reduce or control emissions or other impacts to  
14 the air, if any?  
15

16 None.  
17

18  
19 3. Water

20  
21 a. Surface

22  
23 1) Is there any surface water body on or in the immediate vicinity  
24 of the site (including year-round and seasonal streams,  
25 saltwater, lakes, ponds, wetlands)? If yes, describe type and  
26 provide names. If appropriate, state what stream or river it  
27 flows into.

28 No.  
29

30  
31 2) Will the project require any work over, in, or adjacent to  
32 (within 200 feet ) the described waters? If yes, please describe  
33 and attach available plans.

34 No.  
35

36  
37 3) Estimate the amount of fill and dredge material that would be  
38 placed in or removed from surface water or wetlands and indicate  
39 the area of the site that would be affected. Indicate the source  
40 of fill material.

41 None.  
42

43  
44 4) Will the proposal require surface water withdrawals or  
45 diversions? Give general description, purpose, and approximate  
46 quantities if known.

47 No.  
48  
49

1 5) Does the proposal lie within a 100-year floodplain? If so, note  
2 location on the site plan.

3  
4 No.

5  
6 6) Does the proposal involve any discharges of waste materials to  
7 surface waters? If so, describe the type of waste and  
8 anticipated volume of discharge.

9  
10 No.

11  
12 b. Ground

13  
14 1) Will ground water be withdrawn, or will water be discharged to  
15 ground water? Give general description, purpose, and approximate  
16 quantities if known.

17  
18 No.

19  
20 2) Describe waste material that will be discharged into the ground  
21 from septic tanks or other sources, if any (for example:  
22 Domestic sewage; industrial, containing the following  
23 chemicals...; agricultural; etc.). Describe the general size of  
24 the system, the number of such systems, the number of houses to  
25 be served (if applicable), or the number of animals or humans the  
26 system(s) are expected to serve.

27  
28 None.

29  
30 c. Water Run-off (including storm water)

31  
32 1) Describe the source of run-off (including storm water) and method  
33 of collection and disposal, if any (include quantities, if  
34 known). Where will this water flow? Will this water flow into  
35 other waters? If so, describe.

36  
37 The Hanford Site receives approximately 6 to 7 inches (15 to  
38 18 centimeters) of annual precipitation that seeps into the  
39 ground through the porous soils at the site. Because of the low  
40 rainfall and the warm climate, this water will return to the air  
41 through evapotranspiration.

42  
43 2) Could waste materials enter ground or surface waters? If so,  
44 generally describe.

45  
46 No.

47  
48 d. Proposed measures to reduce or control surface, ground, and run-off  
49 water impacts, if any:

50  
51 None.  
52

1 4. Plants

2  
3 a. Check or circle the types of vegetation found on the site.

- 4  
5  deciduous tree: alder, maple, aspen, other  
6  evergreen tree: fir, cedar, pine, other  
7  shrubs  
8  grass  
9  pasture  
10  crop or grain  
11  wet soil plants: cattail, buttercup, bulrush, skunk cabbage,  
12 other  
13  water plants: water lily, eelgrass, milfoil, other  
14  other types of vegetation

15  
16 Forbes and grasses might be seasonally present.

17  
18 b. What kind and amount of vegetation will be removed or altered?

19  
20 The 218-E-8 Demolition Site is a disturbed site and contains only  
21 small quantities of grasses and/or forbes.

22  
23 c. List threatened or endangered species known to be on or near the  
24 site.

25  
26 There are no know threatened or endangered species known to exist in  
27 or near the demolition site.

28  
29 d. Proposed landscaping, use of native plants, or other measures to  
30 preserve or enhance vegetation on the site, if any:

31  
32 Because the borrow pit might still be used on occasion for activities  
33 that include waste storage and tumbleweed incineration, and will be  
34 remediated under future CERCLA activities, no revegetation or  
35 landscaping would occur under this closure plan.

36  
37 5. Animals

38  
39 a. Circle any birds and animals which have been observed on or near the  
40 site or are known to be on or near the site:

41  
42 birds: hawk, heron, eagle, songbirds, other:.....  
43 mammals: deer, bear, elk, beaver, other:.....  
44 fish: bass, salmon, trout, herring, shellfish, other:.....

45  
46 While there are many species of animals found on the Hanford Site,  
47 none of these species exclusively use the demolition site area.  
48 Additional information on the Hanford Site animals can be found in  
49 the environmental document referred to in the answer to Checklist  
50 Question A.8.  
51

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

3  
4       The demolition site is not known to be used by any threatened or  
5       endangered species. Additional information regarding endangered  
6       species on the Hanford Site can be found in the environmental  
7       document referred to in the answer to Checklist Question A.8.

- 8  
9       **c. Is the site part of a migration route? If so, explain.**

10  
11       While the Hanford Site and the adjacent Columbia River are part of  
12       the broad Pacific Flyway used primarily for waterfowl migration, the  
13       site itself is not used in such a manner.

- 14  
15       **d. Proposed measures to preserve or enhance wildlife, if any:**

16  
17       None

18  
19       **6. Energy and Natural Resources**

- 20  
21       **a. What kinds of energy (electric, natural gas, oil, wood stove, solar)**  
22       **will be used to meet the completed project's energy needs? Describe**  
23       **whether it will be used for heating, manufacturing, etc.**

24  
25       None

- 26  
27       **b. Would your project affect the potential use of solar energy by**  
28       **adjacent properties? If so, generally describe.**

29  
30       No

- 31  
32       **c. What kinds of energy conservation features are included in the plans**  
33       **of this proposal? List other proposed measures to reduce or control**  
34       **energy impacts, if any:**

35  
36       None

37  
38       **7. Environmental Health**

- 39  
40       **a. Are there any environmental health hazards, including exposure to**  
41       **toxic chemicals, risk of fire and explosion, spill, or hazardous**  
42       **waste, that could occur as a result of this proposal? If so,**  
43       **describe.**

44  
45       It is believed that the waste inventory that was treated, which  
46       consisted of discarded explosive, ignitable, and/or reactive,  
47       nonradioactive chemical compounds, was totally consumed during the  
48       thermal detonation event. It also is believed that any remaining  
49       residues have been decomposed by the natural processes of oxidation  
50       and hydration. It is also possible that some dangerous residues  
51       might have remained on the site along with small shards of glass or  
52       metal remnants from the containers that were detonated.

1) Describe special emergency services that might be required.

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

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

The sampling would determine if there are any remaining residues that might pose a threat to human health or the environment. If there are, the contaminated soil will be removed and disposed of in RCRA approved disposal sites. Removal would be carried out in accordance with approved procedures for removal of dangerous waste by trained waste workers.

b. Noise

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

None.

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.

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

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

None.

8. Land and Shoreline Use

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

The 218-E-8 Demolition Site is part of a larger borrow pit. This larger borrow pit was used and might still be used for a variety of activities, such as asbestos disposal, and tumbleweed incineration. These other uses in the borrow pit do not impact the proposed activities for the demolition site.

*Asbestos will not be displaced in this borrow pit*

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

No portion of the Hanford Site, including the site of the unit, has been used for agricultural purposes since 1943.

c. Describe any structures on the site.

None.

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

No.

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

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

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

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

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

Not applicable.

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

No.

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

None.

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

None.

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

None.

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

Does not apply. (Refer to answer to checklist question B.8.f.)

9. Housing

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

None.

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

3  
4 None.

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

6  
7 None.

8  
9  
10 10. Aesthetics

11 a. What is the tallest height of any proposed structure(s), not  
12 including antennas; what is the principal exterior building  
13 material(s) proposed?

14  
15 No structures are proposed.

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

17  
18 None.

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

20  
21 None.

22  
23  
24 11. Light and Glare

25 a. What type of light or glare will the proposal produce? What time of  
26 day would it mainly occur?

27  
28 None.

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

31  
32 No.

33 c. What existing off-site sources of light or glare may affect your  
34 proposal?

35  
36 None.

37 d. Proposed measures to reduce or control light and glare impacts, if  
38 any:

39  
40 None.

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42  
43 12. Recreation

44 a. What designated and informal recreational opportunities are in the  
45 immediate vicinity?

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47 None.

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

No.

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

None.

13. Historic and Cultural Preservation

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

No places or objects listed on, or proposed for, national, state, or local preservation registers are known to be on or next to the site. Additional information regarding the cultural resources on the Hanford Site environment can be found in the environmental documents referred to in the answer to Checklist question A.8.

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 unit. Additional information regarding this can be found in the environmental documents referenced in the answer to Checklist question A.8.

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

None.

14. Transportation

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.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The unit is within a controlled location and public transportation is not allowed to this location.

c. How many parking spaces would the completed project have? How many would the project eliminate?

1 None.

- 2  
3 d. Will the proposal require any new roads or streets, or improvements  
4 to existing roads or streets, not including driveways? If so,  
5 generally describe (indicate whether public or private).

6 No.

- 7  
8  
9 e. Will the project use (or occur in the immediate vicinity of) water,  
10 rail, or air transportation? If so, generally describe.

11 No.

- 12  
13  
14 f. How many vehicular trips per day would be generated by the completed  
15 project? If known, indicate when peak volumes would occur.

16 None.

- 17  
18  
19 g. Proposed measures to reduce or control transportation impacts, if  
20 any:

21 None.

22  
23  
24 15. Public Services

- 25  
26 a. Would the project result in an increased need for public services  
27 (for example: fire protection, police protection, health care,  
28 schools, other)? If so, generally describe.

29 No.

- 30  
31  
32 b. Proposed measures to reduce or control direct impacts on public  
33 services, if any:

34 None.

35  
36  
37 16. Utilities

- 38  
39 a. Circle utilities currently available at the site: electricity,  
40 natural gas, water, refuse service, telephone, sanitary sewer, septic  
41 system, other:

42 None.

- 43  
44  
45 b. Describe the utilities that are proposed for the project, the utility  
46 providing the service, and the general construction activities on the  
47 site or in the immediate vicinity which might be needed.

48 None.

2 SIGNATURES

3  
4 The above answers are true and complete to the best of my knowledge. We  
5 understand that the lead agency is relying on them to make its decision.  
6  
7  
8

9  
10 James D. Bauer  
11 J. D. Bauer, Acting Program Manager  
12 Office of Environmental Assurance,  
13 Permits and Policy  
14 U.S. Department of Energy  
15 Richland Field Office  
16  
17  
18

11/20/92  
Date

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

10-30-92  
Date