

6369235

STATE ENVIRONMENTAL POLICY ACT  
ENVIRONMENTAL CHECKLIST

FOR THE

HANFORD FACILITY,  
216-B-63 TRENCH CLOSURE

REVISION 0

March 2006

**RECEIVED**  
APR 06 2006  
**EDMC**

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



1 M-20-39. The 216-A-29 Ditch, 216-B-63 Trench, and the 216-S-10 Pond and Ditch TSD units are all  
2 within the 200-CS-1 source Operable Unit.  
3

4 **8. List any environmental information you know about that has been prepared, or will be**  
5 **prepared, directly related to this proposal.**

6 The original closure plan for the 216-B-63 Trench was submitted to the State of Washington Department  
7 of Ecology (Ecology) pursuant to Tri-Party Agreement milestone M-20-36 in April 1995. A revised  
8 closure plan is being prepared.

9 This SEPA Environmental Checklist is being submitted to Ecology to address the 216-B-63 Trench  
10 proposed closure activities. Environmental information that has been prepared directly related to this  
11 proposal is contained in DOE/RL-2004-017, *Remedial Investigation Report for the 200-CS-1 Chemical*  
12 *Sewer Group Operable Unit* and groundwater data contained in the Hanford Environmental Information  
13 System (HEIS). Because the closure plan proposes clean closure for soils and groundwater, no  
14 environmental information will be prepared directly related to this proposal. Any other information  
15 related to 216-S-10 Pond and Ditch after closure of the TSD unit will be performed in conjunction with  
16 Tri-Party Agreement past practice activities for the 200-CS-1 source operable unit and 200-BP-5  
17 groundwater operable unit.

18 The development of the revised closure plan has been coordinated with the 200-CS-1 source operable  
19 unit in accordance with Tri-Party Agreement milestone M-15-39C. This coordinated approach was  
20 established in June 2002 following the completion of negotiations between the Tri-Parties on the  
21 modifications to 200 Area waste site cleanup milestones through Tri-Party Agreement change requests  
22 M-13-02-01, M-15-02-01, M-16-02-01, and M-20-02-01.

23 The proposed closure strategy for the 216-B-63 Trench soils, structures, and groundwater is clean  
24 closure. This strategy is based upon analytical data summarized in the *Remedial Investigation Report for*  
25 *the 200-CS-1 Chemical Sewer Group Operable Unit* (DOE/RL-2004-17) and groundwater data contained  
26 in the Hanford Environmental Information System (HEIS).

27 General information concerning the Hanford Facility environment can be found in the *Hanford Site*  
28 *National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 17, September 2005.  
29 This document is updated annually by Pacific Northwest National Laboratory (PNNL), and provides  
30 current information concerning climate and meteorology, ecology, history and archeology,  
31 socioeconomic, land use and noise levels, and geology and hydrology. These baseline data for the  
32 Hanford Site and past activities are useful for evaluating proposed activities and their potential  
33 environmental impacts.  
34

35 **9. Do you know whether applications are pending for government approvals of other proposals**  
36 **directly affecting the property covered by your proposal? If yes, explain.**

37 No other applications are pending. However, see response to A8 regarding physical activities necessary  
38 to complete remediation of non-TSD unit constituents.  
39

40 **10. List any government approvals or permits that will be needed for your proposal, if known.**

41 DOE-RL forwards the aforementioned 216-B-63 Trench closure plan to Ecology for approval.  
42

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

4 The proposed closure strategy for the 216-B-63 Trench soils, structures, and groundwater is clean  
5 closure.

6 The 216-B-63 Trench is located in the 200 East Area of the Hanford Facility. The 216-B-63 Trench was  
7 constructed before 1970 as a percolation trench to receive emergency cooling water and chemical sewer  
8 waste from B Plant (221-B Canyon Building). The 216-B-63 Trench began waste management operation  
9 in March of 1970 by receiving the B Plant chemical sewer effluent. The 216-B-63 Trench received waste  
10 between March 1970 and February 1992. The 216-B-63 Trench received effluent from many buildings at  
11 the B Plant Complex. The trench terminated south of the 218-E-12B Burial Ground. It was designed to  
12 receive diverted contaminated cooling water in order to prevent the diverted water from reaching the 216-  
13 B-3 Pond. In February 1992, the B Plant chemical sewer effluent was combined with the B Plant cooling  
14 water effluent and discharged into the 216-B-3 Pond. The trench was taken out of service in 1992.

15 Current data for soils show that the three TSD unit constituents [sodium, sulfate, nitrate (as N)] either  
16 meet the clean closure standard using WAC 173-340-740(3) values or the constituent is not regulated.

17 For groundwater, the RCRA indicator parameters are specific conductance, pH, total organic carbon, and  
18 total organic halides. Groundwater quality parameters are chloride, iron (filtered), manganese (filtered),  
19 phenols, sodium (filtered), and sulfate. The 216-B-63 Trench has been in an interim status indicator  
20 parameter evaluation (detection-level) program since 1988. There are no RCRA indicator parameters  
21 exceedances nor are there significant detections that could be attributed to this trench.

22 No physical activities are required for closure. After closure, appearance of the land will be consistent  
23 with land use determinations of the Hanford Facility.

24  
25 **12. Location of the proposal. Give sufficient information for a person to understand the precise**  
26 **location of your proposed project, including a street address, if any, and section, township,**  
27 **and range, if known. If a proposal would occur over a range of area, provide the range or**  
28 **boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic**  
29 **map, if reasonably available. While you should submit any plans required by the agency, you**  
30 **are not required to duplicate maps or detailed plans submitted with any permit applications**  
31 **related to this checklist.**

32 The 216-B-63 Trench is located in the 200 East Area of the Hanford Facility. The 216-B-63 Trench was  
33 constructed before 1970 as a percolation trench to receive emergency cooling water and chemical sewer  
34 waste from B Plant (221-B Canyon Building). The ditch was an open, unlined, man-made earthen trench  
35 that was closed at one end (did not convey effluent to another facility). The trench was approximately  
36 427 m (1,400 ft) long, 1.2 m (4 ft) wide, and averaged 3 m (10 ft) deep. The side slope was 1.5:1. The  
37 first 3.1 m (10 ft) of the trench contained a 5.1 cm (2-in) rockfill. A 40.6 m (16-in.) inlet pipe  
38 approximately 1.5 m (5 ft) long entered the trench 1 m (3 ft) below grade. In addition to the trench itself,  
39 the TSD unit also includes the 15-inch pipe extending to the 207-B basin.

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EVALUATIONS FOR  
AGENCY USE ONLY

1 B. ENVIRONMENTAL ELEMENTS

2 1. Earth

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

5 Flat.

6  
7 b. What is the steepest slope on the site (approximate percent  
8 slope)?

9 The approximate slope of the land is less than 2 percent.

10

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

14 Soil types consist mainly of eolian and fluvial sands and gravel.  
15 More detailed information concerning specific soil classifications  
16 can be found in the *Hanford Site National Environmental Policy Act*  
17 *(NEPA) Characterization*, PNL-6415, Revision 17, September 2005.  
18 Farming is not permitted on the Hanford Facility.

19

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

22 No.

23

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

26 No filling or grading is required.

27

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

30 No.

31

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

35 Not applicable. No construction is proposed as part of this project.

36

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EVALUATIONS FOR  
AGENCY USE ONLY

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

3 None.

4

5 2. Air

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

10 None. No physical activities are required to support closure of the  
11 216-B-63 Trench.

12

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

15 No.

16

17 c. Proposed measures to reduce or control emissions or other  
18 impacts to the air, if any?

19 None since no emissions are anticipated for the closure of the  
20 216-B-63 Trench.

21

22 3. Water

23 a. Surface

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

29 No. The 216-B-63 Trench is over 7 kilometers from the  
30 Columbia River.

31

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

35 The work would not require any activity in or near the described  
36 waters and drainage.

37

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AGENCY USE ONLY

- 1 3) Estimate the amount of fill and dredge material that would  
2 be placed in or removed from surface water or wetlands and  
3 indicate the area of the site that would be affected. Indicate  
4 the source of fill material.

5 There would be no dredging or filling from or to surface water  
6 or wetlands.

- 7  
8 4) Will the proposal require surface water withdrawals or  
9 diversions? Give general description, purpose, and  
10 approximate quantities if known.

11 No surface water withdrawal or diversion would be required.

- 12  
13 5) Does the proposal lie within a 100-year floodplain? If so,  
14 note location on the site plan.

15 The 216-B-63 Trench is not within the 100-year or 500-year  
16 floodplain [*Hanford Site National Environmental Policy Act*  
17 (*NEPA*) *Characterization*, PNL-6415, Revision 17,  
18 September 2005].

- 19  
20 6) Does the proposal involve any discharges of waste materials  
21 to surface waters? If so, describe the type of waste and  
22 anticipated volume of discharge.

23 No.

24  
25 b. Ground

- 26 1) Will ground water be withdrawn, or will water be  
27 discharged to ground water? Give general description,  
28 purpose, and approximate quantities if known.

29 No.

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

38 None.

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**EVALUATIONS FOR  
AGENCY USE ONLY**

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

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

6            The Hanford Facility receives only 15.2 to 17.8 centimeters of  
7            annual precipitation. Precipitation runs off the existing  
8            buildings and seeps into the soil on and near the buildings. This  
9            precipitation does not reach the groundwater or surface waters.

10  
11           2) Could waste materials enter ground or surface waters? If  
12           so, generally describe.

13           No waste materials can enter ground or surface waters as a result of  
14           closure.

15  
16        **d. Proposed measures to reduce or control surface, ground, and**  
17        **run-off water impacts, if any:**

18           No measures are proposed to reduce or control surface, ground, and  
19           run-off impacts.

20  
21        **4. Plants**

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

- 23         deciduous tree: alder, maple, aspen, other  
24         evergreen tree: fir, cedar, pine, other  
25         shrubs  
26         grass  
27         pasture  
28         crop or grain  
29         wet soil plants: cattail, buttercup, bulrush, skunk cabbage,  
30        other  
31         water plants: water lily, eelgrass, milfoil, other  
32         other types of vegetation

33  
34           The most common vegetation community in the 200 East Area is  
35           sagebrush/cheatgrass or Sandberg's bluegrass. Native vegetation  
36           resides in the immediate vicinity of the 216-B-63 Trench.

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

3       No vegetation would be removed or altered during 216-B-63 Trench  
4       closure activities.

5  
6       **c. List threatened or endangered species known to be on or near**  
7       **the site.**

8       No known threatened or endangered species are known to be on or  
9       near the 216-B-63 Trench. Additional information on species can be  
10      found in *Hanford Site National Environmental Policy Act (NEPA)*  
11      *Characterization*, PNL-6415 (Revision 17, September 2005).

12  
13      **d. Proposed landscaping, use of native plants, or other measures to**  
14      **preserve or enhance vegetation on the site, if any:**

15      None.

16  
17      **5. Animals**

18      **a. Indicate (by underlining) any birds and animals which have**  
19      **been observed on or near the site or are known to be on or near**  
20      **the site:**

21      birds: Raptors (burrowing owls, ferruginous, redtail, and Swainson's  
22      hawks) eagles, songbirds,  
23      animals: deer, elk, coyotes, rabbits, rodents.

24  
25      Additional information on animals can be found in *Hanford Site*  
26      *National Environmental Policy Act (NEPA) Characterization*,  
27      PNL-6415 (Revision 17, September 2005).

28  
29  
30      **b. List any threatened or endangered species known to be on or**  
31      **near the site.**

32      One federal and state listed threatened or endangered species has  
33      been identified on the 1,517 square kilometer Hanford Site along the  
34      Columbia River (the bald eagle) and three in the Columbia River  
35      (steelhead, spring-run Chinook salmon, and bull trout). In addition,  
36      the state listed white pelican, sandhill crane, and ferruginous hawk  
37      also occur on or migrate through the Hanford Site.

38

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EVALUATIONS FOR  
AGENCY USE ONLY

1 c. Is the site part of a migration route? If so, explain.

2 The Hanford Site is a part of the broad Pacific Flyway. However,  
3 the 216-B-63 Trench location is not known as a haven for migratory  
4 birds.

5  
6 d. Proposed measures to preserve or enhance wildlife, if any:

7 This project contains no specific measures to preserve or enhance  
8 wildlife.

9  
10 **6. Energy and Natural Resources**

11 a. What kinds of energy (electric, natural gas, oil, wood stove,  
12 solar) will be used to meet the completed project's energy needs?  
13 Describe whether it will be used for heating, manufacturing, etc.

14 None.

15  
16 b. Would your project affect the potential use of solar energy by  
17 adjacent properties? If so, generally describe.

18 No.

19  
20 c. What kinds of energy conservation features are included in the  
21 plans of this proposal? List other proposed measures to reduce  
22 or control energy impacts, if any:

23 None.

24  
25 **7. Environmental Health**

26 a. Are there any environmental health hazards, including exposure  
27 to toxic chemicals, risk of fire and explosion, spill, or hazardous  
28 waste that could occur as a result of this proposal? If so,  
29 describe.

30 No.

31  
32 1) Describe special emergency services that might be required.

33 No special emergency services are known to be required.

34  
35 2) Proposed measures to reduce or control environmental  
36 health hazards, if any:

37 None.

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**EVALUATIONS FOR  
AGENCY USE ONLY**

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**b. Noise**

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

None is anticipated.

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.**

None is anticipated.

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 216-B-63 Trench site is not in use. Adjacent properties are industrial/research.

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

No portion of the 200 East Area has been used for agricultural purposes since 1943.

c. **Describe any structures on the site.**

There are no structures at the 216-B-63 Trench site.

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

Not applicable. There are no structures on the site (refer to Section B.8.c).

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

Does not apply. The site is located on Federal lands and as such is not subject to the Growth Management Act (State of Washington land use authority). However, for completeness, the Hanford Site is

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EVALUATIONS FOR  
AGENCY USE ONLY

1 currently included in the Benton County Comprehensive Plan (June  
2 22, 1998) as the undesignated "Hanford Sub-Area".  
3

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

5 The Federal land management decision process has determined  
6 through NEPA [*Hanford Comprehensive Land-Use Plan*  
7 *Environmental Impact Statement Record of Decision* (64 FR 61615,  
8 November 12, 1999)] that the 200 East Area geographic area, which  
9 includes the 216-B-63 Trench, is designated Industrial-Exclusive.  
10

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

13 Does not apply.  
14

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

17 No.  
18

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

21 Not applicable.  
22

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

25 None.  
26

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

29 Does not apply.  
30

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

33 Does not apply (refer to Section B.8.f.).  
34

35 **9. Housing**

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

38 None.

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EVALUATIONS FOR  
AGENCY USE ONLY

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

None.

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

Does not apply.

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?

No new structures are being proposed.

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

None.

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

None.

11. Light and Glare

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

None.

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

No.

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

None.

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EVALUATIONS FOR  
AGENCY USE ONLY

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

3 None.

4  
5 12. Recreation

6 a. What designated and informal recreational opportunities are in  
7 the immediate vicinity?

8 None.

9  
10 b. Would the proposed project displace any existing recreational  
11 uses? If so, describe.

12 No.

13  
14 c. Proposed measures to reduce or control impacts on recreation,  
15 including recreation opportunities to be provided by the project  
16 or applicant, if any?

17 None.

18  
19 13. Historic and Cultural Preservation

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

23 No places or objects listed on, or proposed for, national, state, or  
24 local preservation registers are known to be on or next to the  
25 216-B-63 Trench.

26  
27 b. Generally describe any landmarks or evidence of historic,  
28 archaeological, scientific, or cultural importance known to be on  
29 or next to the site.

30 There are no known archaeological, historical, or Native American  
31 religious sites on or near the 216-B-63 Trench.

32  
33 c. Proposed measures to reduce or control impacts, if any:

34 None.

35

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EVALUATIONS FOR  
AGENCY USE ONLY

- 1 14. Transportation
- 2 a. Identify public streets and highways serving the site, and  
3 describe proposed access to the existing street system. Show on  
4 site plans, if any.
- 5 Does not apply.
- 6
- 7 b. Is site currently served by public transit? If not, what is the  
8 approximate distance to the nearest transit stop?
- 9 No. The distance to the nearest public transit stop is approximately  
10 50 kilometers, located at Washington State University Tri-Cities.
- 11
- 12 c. How many parking spaces would the completed project have?  
13 How many would the project eliminate?
- 14 Not applicable.
- 15
- 16 d. Will the proposal require any new roads or streets, or  
17 improvements to existing roads or streets, not including  
18 driveways? If so, generally describe (indicate whether public or  
19 private).
- 20 No.
- 21
- 22 e. Will the project use (or occur in the immediate vicinity of)  
23 water, rail, or air transportation? If so, generally describe.
- 24 No.
- 25
- 26 f. How many vehicular trips per day would be generated by the  
27 completed project? If known, indicate when peak volumes  
28 would occur.
- 29 No additional vehicular traffic will be required.
- 30
- 31 g. Proposed measures to reduce or control transportation impacts,  
32 if any:
- 33 None.
- 34

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EVALUATIONS FOR  
AGENCY USE ONLY

1 15. Public Services

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

5 No.

6  
7 b. Proposed measures to reduce or control direct impacts on public  
8 services, if any:

9 Does not apply.

10

11 16. Utilities

12 a. Circle utilities currently available at the site: electricity, natural  
13 gas, water, refuse service, telephone, sanitary sewer, septic  
14 system, other:

15 No utilities currently are available at the 216-B-63 Trench.

16

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

20 No utilities are proposed for the closure of the 216-B-63 Trench.

1 SIGNATURES

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

5  
6  
7  
8  
9



5/30/06

10 Keith A. Klein, Manager  
11 U.S. Department of Energy  
12 Richland Operations Office

Date

13  
14  
15