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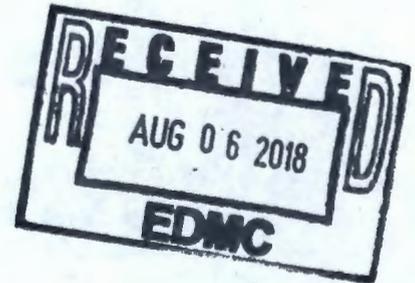
# Dangerous Waste Permit Application Part A Form For WA7890008967, Closure Unit Group 15, 600 Area Purgewater Storage and Treatment Facility

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788

**ch2m**<sup>SM</sup>

P.O. Box 1600  
Richland, Washington 99352



Approved for Public Release;  
Further Dissemination Unlimited

TS-6-1

13

**Dangerous Waste Permit Application Part A Form For WA7890008967,  
Closure Unit Group 15, 600 Area Purgewater Storage and Treatment Facility**

Program/Project: CHPRC

R. E. Fox  
CH2M HILL Plateau Remediation Company

Date Published  
April 2018

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Assistant Secretary for Environmental Management

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**APPROVED**  
By Janis D. Aerdal at 12:12 pm, Apr 23, 2018

Release Approval

Date

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|  |   |  |   |
|--|---|--|---|
|                                 |   | WASHINGTON STATE<br>DEPARTMENT OF<br><b>ECOLOG Y</b> | <b>Dangerous Waste Permit<br/>Application<br/>Part A Form</b> |
| Date Received  |   | Reviewed by: <i>[Signature]</i>                      | Date: 07   09   20   18                                       |
| Month  | Day   | Year   | Approved by: <i>[Signature]</i> for S. Dahl                   |
| 07   | 09  | 2018   | Date: 07   09   20   18                                       |
| Date Received: 06   13   20   18   |   |  |   |
| I. This form is submitted to: (place an "X" in the appropriate box) <b>CLOSED February 16, 2018 (18-NWP-027)</b> |   |  |   |
| <input checked="" type="checkbox"/>  | Request modification to a final status permit (commonly called a "Part B" permit)   |  |   |
| <input type="checkbox"/>   | Request a change under interim status   |  |   |
| <input type="checkbox"/>   | Apply for a final status permit. This includes the application for the initial final status permit for a site or for a permit renewal (i.e., a new permit to replace an expiring permit). |  |   |
| <input type="checkbox"/>   | Establish interim status because of the wastes newly regulated on:  |  | (Date)  |
| List waste codes:  |   |  |   |
| II. EPA/State ID Number  |   |  |   |
| W  | A   | 7 8 9 0 0 0 8 9 6 7                                  |   |
| III. Name of Facility  |   |  |   |
| US Department of Energy - Hanford Facility   |   |  |   |
| IV. Facility Location (Physical address not P.O. Box or Route Number)  |   |  |   |
| A. Street  |   |  |   |
| 825 Jadwin   |   |  |   |
| City or Town   |   | State  | ZIP Code  |
| Richland   |   | WA   | 99352   |
| County Code (if known)   | County Name   |  |   |
| 0 0 5  | Benton  |  |   |
| B. Land Type   | C. Geographic Location Latitude (degrees, mins, secs)   | Longitude (degrees, mins, secs)                      | D. Facility Existence Date Month Day Year                     |
| F  | Refer to TOPO Map (Section XV.)   |  | 0 3   0 2   1 9 4 3   |
| V. Facility Mailing Address  |   |  |   |
| Street or P.O. Box   |   |  |   |
| P.O. Box 550   |   |  |   |
| City or Town   |   | State  | ZIP Code  |
| Richland   |   | WA   | 99352   |

|  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
|--|--|--|---|--|--|--|---|-----------------|------------|---|--|-------------|--|--|
| <b>VI. Facility contact (Person to be contacted regarding waste activities at facility)</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>Name (last)</b>   |  |  |   |  |  | <b>(first)</b>   |   |                 |            |   |  |             |  |  |
| Shoop  |  |  |   |  |  | Doug   |   |                 |            |   |  |             |  |  |
| <b>Job Title</b>   |  |  |   |  |  | <b>Phone Number (area code and number)</b>   |   |                 |            |   |  |             |  |  |
| Manager  |  |  |   |  |  | (509) 376-7395   |   |                 |            |   |  |             |  |  |
| <b>Contact Address</b>   |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>Street or P.O. Box</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| P.O. Box 550   |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>City or Town</b>  |  |  |   |  |  | <b>State</b>   |   | <b>ZIP Code</b> |            |   |  |             |  |  |
| Richland   |  |  |   |  |  | WA   |   | 99352           |            |   |  |             |  |  |
| <b>VII. Facility Operator Information</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>A. Name</b>   |  |  |   |  |  |  |   |                 |            | <b>Phone Number</b>   |  |             |  |  |
| Department of Energy Owner/Operator<br>CH2M HILL Plateau Remediation Company Co-Operator for 600 Area Purgewater Storage & Treatment Facility* |  |  |   |  |  |  |   |                 |            | (509) 376-7395<br>(509) 373-0293*                                   |  |             |  |  |
| <b>Street or P.O. Box</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| P.O. Box 550<br>P.O. Box 1600 *  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>City or Town</b>  |  |  |   |  |  | <b>State</b>   |   | <b>ZIP Code</b> |            |   |  |             |  |  |
| Richland   |  |  |   |  |  | WA   |   | 99352           |            |   |  |             |  |  |
| <b>B. Operator Type</b>  |  |  | F |  |  |  |   |                 |            |   |  |             |  |  |
| <b>C. Does the name in VII.A reflect a proposed change in operator?</b>  |  |  |   |  |  |  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Co-Operator* change |                 |            |   |  |             |  |  |
| If yes, provide the scheduled date for the change:   |  |  |   |  |  |  | <b>Month</b>  |                 | <b>Day</b> |   |  | <b>Year</b> |  |  |
|  |  |  |   |  |  |  | 1 0   |                 | 0 1        |   |  | 2 0 0 8     |  |  |
| <b>D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C.</b>   |  |  |   |  |  |  |   |                 |            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |             |  |  |
| <b>VIII. Facility Owner Information</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>A. Name</b>   |  |  |   |  |  | <b>Phone Number (area code and number)</b>   |   |                 |            |   |  |             |  |  |
| Doug S. Shoop, Operator/Facility-Property Owner  |  |  |   |  |  | (509) 376-7395   |   |                 |            |   |  |             |  |  |
| <b>Street or P.O. Box</b>  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| P.O. Box 550   |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>City or Town</b>  |  |  |   |  |  | <b>State</b>   |   | <b>ZIP Code</b> |            |   |  |             |  |  |
| Richland   |  |  |   |  |  | WA   |   | 99352           |            |   |  |             |  |  |
| <b>B. Owner Type</b>   |  |  | F |  |  |  |   |                 |            |   |  |             |  |  |
| <b>C. Does the name in VIII.A reflect a proposed change in owner?</b>  |  |  |   |  |  |  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                     |                 |            |   |  |             |  |  |
| If yes, provide the scheduled date for the change:   |  |  |   |  |  |  | <b>Month</b>  |                 | <b>Day</b> |   |  | <b>Year</b> |  |  |
|  |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>IX. NAICS Codes (5/6 digit codes)</b>   |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |
| <b>A. First</b>  |  |  |   |  |  | <b>B. Second</b>   |   |                 |            |   |  |             |  |  |
| 5 6 2 2 1 Waste Treatment & Disposal   |  |  |   |  |  | 9 2 4 1 1 0 Administration of Air & Water Resource & Solid Waste Management Programs |   |                 |            |   |  |             |  |  |
| <b>C. Third</b>  |  |  |   |  |  | <b>D. Fourth</b>   |   |                 |            |   |  |             |  |  |
| 5 4 1 7 1 Research & Development in the Physical, Engineering, & Life Sciences   |  |  |   |  |  |  |   |                 |            |   |  |             |  |  |

| X. Other Environmental Permits (see instructions) |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|---|--|------------------|---|---|---|---|---|---|---|---|---|----------------|----------------------------------|
| A. Permit Type                                    |  | B. Permit Number |   |   |   |   |   |   |   |   |   | C. Description |                                  |
| E   |  | A                | I | R | - | 0 | 6 | - | 1 | 0 | 0 | 4              | WAC 246-247, NOC Radioactive Air |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |
|   |  |                  |   |   |   |   |   |   |   |   |   |                |                                  |

**XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)**

Liquids associated with well activities and other processes are stored and treated by solar evaporation in the 600 Area Purgewater Storage and Treatment Facility. Raw water may be added to the unit for operational purposes.

S99

Process Code S99 (referenced in 40 CFR 265, Appendix I, Table 2) is being used to identify the storage activity in the 600 Area Purgewater Storage and Treatment Facility. The unit is identified under WAC 173-303-400 as a chemical, physical, and biological treatment unit per Subpart Q of 40 CFR Part 265. Upon incorporation into the Hanford Facility Dangerous Waste Permit, the unit classification will change to miscellaneous unit per WAC 173-303-680.

The 600 Area Purgewater Storage and Treatment Facility consists of two aboveground modular containment units. Only one unit (unit 1) has been used. The process design for storage in this single unit is 3,785,400 liters. The second unit (unit 2) has never been used. Unit 1 and 2 will be closed by removal.

T04

Solar evaporation. Approximately 8,800 liters per day can be treated by solar evaporation in unit #1. This estimate is based on evaporation rates calculated for the Hanford Facility.

This unit was Clean Closed. Permit requirements were retired via a Class 1-prime modification (Rev 8c), quarter ending 6/30/18.

**EXAMPLE FOR COMPLETING ITEMS XII and XIII (shown in lines numbered X-1, X-2, and X-3 below):** A facility has two storage tanks that hold 1200 gallons and 400 gallons respectively. There is also treatment in tanks at 20 gallons/hr. Finally, a one-quarter acre area that is two meters deep will undergo *in situ vitrification*.

| Section XII. Process Codes and Design Capacities |                               |   |   |                            |                                 |                                  | Section XIII. Other Process Codes |                               |    |    |                            |                                 |                                  |                        |
|--|-------------------------------|---|---|----------------------------|---------------------------------|----------------------------------|-----------------------------------|-------------------------------|----|----|----------------------------|---------------------------------|----------------------------------|------------------------|
| Line Number                                      | A. Process Codes (enter code) |   |   | B. Process Design Capacity |                                 | C. Process Total Number of Units | Line Number                       | A. Process Codes (enter code) |    |    | B. Process Design Capacity |                                 | C. Process Total Number of Units | D. Process Description |
|  | 1                             | 2 | 3 | 1. Amount                  | 2. Unit of Measure (enter code) |                                  |                                   | 1.                            | 2. | 3. | 1. Amount                  | 2. Unit of Measure (enter code) |                                  |                        |
| X 1  | S                             | 0 | 2 | 1,600                      | G                               | 002                              | X 1                               | T                             | 0  | 4  | 700                        | C                               | 001                              | In situ vitrification  |
| X 2  | T                             | 0 | 3 | 20                         | E                               | 001                              |                                   |                               |    |    |                            |                                 |                                  |                        |
| X 3  | T                             | 0 | 4 | 700                        | C                               | 001                              |                                   |                               |    |    |                            |                                 |                                  |                        |
| 1  | S                             | 9 | 9 | 3,785,400                  | L                               | 001                              |                                   |                               |    |    |                            |                                 |                                  |                        |
| 2  | T                             | 0 | 4 | 8,830                      | V                               | 001                              | 2                                 |                               |    |    |                            |                                 |                                  |                        |
| 3  |                               |   |   |                            |                                 |                                  | 3                                 |                               |    |    |                            |                                 |                                  |                        |
| 4  |                               |   |   |                            |                                 |                                  | 4                                 |                               |    |    |                            |                                 |                                  |                        |
| 5  |                               |   |   |                            |                                 |                                  | 5                                 |                               |    |    |                            |                                 |                                  |                        |
| 6  |                               |   |   |                            |                                 |                                  | 6                                 |                               |    |    |                            |                                 |                                  |                        |
| 7  |                               |   |   |                            |                                 |                                  | 7                                 |                               |    |    |                            |                                 |                                  |                        |
| 8  |                               |   |   |                            |                                 |                                  | 8                                 |                               |    |    |                            |                                 |                                  |                        |
| 9  |                               |   |   |                            |                                 |                                  | 9                                 |                               |    |    |                            |                                 |                                  |                        |
| 1 0  |                               |   |   |                            |                                 |                                  | 1 0                               |                               |    |    |                            |                                 |                                  |                        |
| 1 1  |                               |   |   |                            |                                 |                                  | 1 1                               |                               |    |    |                            |                                 |                                  |                        |
| 1 2  |                               |   |   |                            |                                 |                                  | 1 2                               |                               |    |    |                            |                                 |                                  |                        |
| 1 3  |                               |   |   |                            |                                 |                                  | 1 3                               |                               |    |    |                            |                                 |                                  |                        |
| 1 4  |                               |   |   |                            |                                 |                                  | 1 4                               |                               |    |    |                            |                                 |                                  |                        |
| 1 5  |                               |   |   |                            |                                 |                                  | 1 5                               |                               |    |    |                            |                                 |                                  |                        |
| 1 6  |                               |   |   |                            |                                 |                                  | 1 6                               |                               |    |    |                            |                                 |                                  |                        |
| 1 7  |                               |   |   |                            |                                 |                                  | 1 7                               |                               |    |    |                            |                                 |                                  |                        |
| 1 8  |                               |   |   |                            |                                 |                                  | 1 8                               |                               |    |    |                            |                                 |                                  |                        |
| 1 9  |                               |   |   |                            |                                 |                                  | 1 9                               |                               |    |    |                            |                                 |                                  |                        |
| 2 0  |                               |   |   |                            |                                 |                                  | 2 0                               |                               |    |    |                            |                                 |                                  |                        |
| 2 1  |                               |   |   |                            |                                 |                                  | 2 1                               |                               |    |    |                            |                                 |                                  |                        |
| 2 2  |                               |   |   |                            |                                 |                                  | 2 2                               |                               |    |    |                            |                                 |                                  |                        |
| 2 3  |                               |   |   |                            |                                 |                                  | 2 3                               |                               |    |    |                            |                                 |                                  |                        |
| 2 4  |                               |   |   |                            |                                 |                                  | 2 4                               |                               |    |    |                            |                                 |                                  |                        |
| 2 5  |                               |   |   |                            |                                 |                                  | 2 5                               |                               |    |    |                            |                                 |                                  |                        |

| XIV. Description of Dangerous Wastes   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
|--|-------------------------------------|---|---|---|---------------------------------------|---------------------------------|---|---|---|---|---|---|---------------------|
| <p><b>Example for completing this section:</b> A facility will receive three non-listed wastes, then store and treat them on-site. Two wastes are corrosive only, with the facility receiving and storing the wastes in containers. There will be about 200 pounds per year of each of these two wastes, which will be neutralized in a tank. The other waste is corrosive and ignitable and will be neutralized then blended into hazardous waste fuel. There will be about 100 pounds per year of that waste, which will be received in bulk and put into tanks.</p> |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| Line Number  | A. Dangerous Waste No. (enter code) |   |   |   | B. Estimated Annual Quantity of Waste | C. Unit of Measure (enter code) | D. Processes  |   |   |   |   |   |                     |
|  | (1) Process Codes (enter)           |   |   |   |                                       |                                 | (2) Process Description [If a code is not entered in D (1)] |   |   |   |   |   |                     |
| X 1  | D                                   | 0 | 0 | 2 | 400                                   | P                               | S   | 0 | 1 | T | 0 | 1 |                     |
| X 2  | D                                   | 0 | 0 | 1 | 100                                   | P                               | S   | 0 | 2 | T | 0 | 1 |                     |
| X 3  | D                                   | 0 | 0 | 2 |                                       |                                 |   |   |   |   |   |   | Included with above |
| 1  | F                                   | 0 | 0 | 1 | 2,200                                 | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 2  | F                                   | 0 | 0 | 2 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 3  | F                                   | 0 | 0 | 3 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 4  | F                                   | 0 | 0 | 4 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 5  | F                                   | 0 | 0 | 5 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 6  | D                                   | 0 | 0 | 7 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 7  | D                                   | 0 | 1 | 9 |                                       | M                               | S   | 9 | 9 | T | 0 | 4 |                     |
| 8  |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 9  |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 10   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 11   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 12   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 13   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 14   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 15   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 16   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 17   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 18   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 19   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 20   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 21   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 22   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 23   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 24   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |
| 25   |                                     |   |   |   |                                       |                                 |   |   |   |   |   |   |                     |

**XV. Map**  
 Attach to this application a topographic map of the area extending to at least one (1) mile beyond property boundaries. The map must show the outline of the facility; the location of each of its existing and proposed intake and discharge structures; each of its dangerous waste treatment, storage, recycling, or disposal units; and each well where fluids are injected underground. Include all springs, rivers, and other surface water bodies in this map area, plus drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. The instructions provide additional information on meeting these requirements.

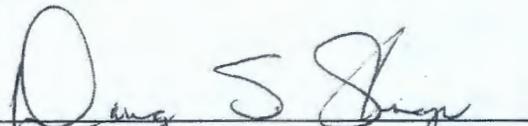
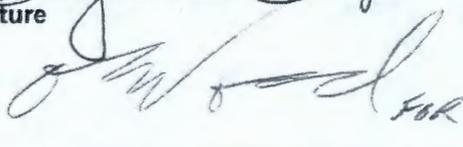
Topographic map is located in the Ecology Library

**XVI. Facility Drawing**  
 All existing facilities must include a scale drawing of the facility (refer to instructions for more detail).

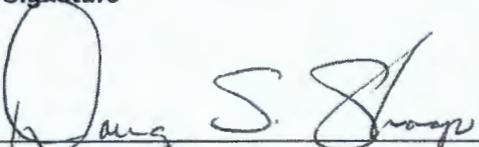
**XVII. Photographs**  
 All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, recycling, and disposal areas; and sites of future storage, treatment, recycling, or disposal areas (refer to instructions for more detail).

**XVIII. Certifications**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| Operator   | Signature   | Date Signed           |
|--|---|-----------------------|
| Name and Official Title (type or print)<br>Doug S. Shoop, Manager<br>U.S. Department of Energy<br>Richland Operations Office                                     |               | 6/6/18                |
| <b>Co-Operator*</b><br>Name and Official Title (type or print)<br>Ty Blackford<br>President and Chief Executive Officer<br>CH2M HILL Plateau Remediation Company | Signature<br> | Date Signed<br>6/6/18 |

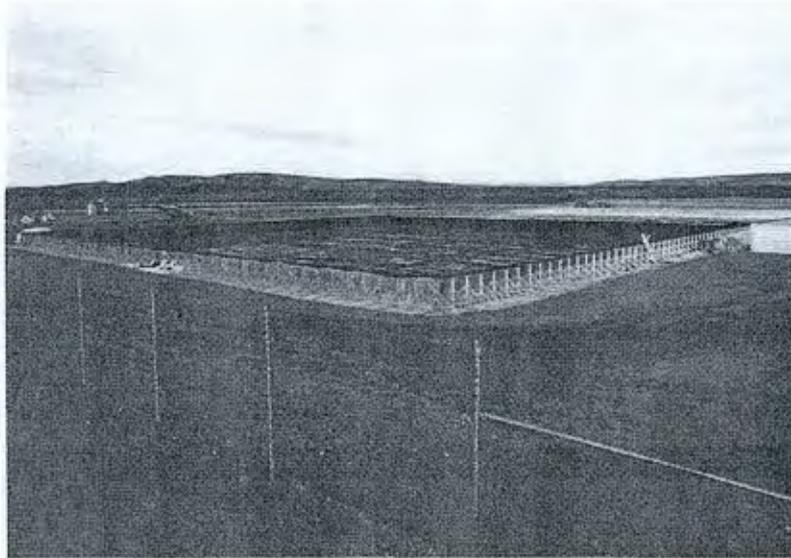
**Co-Operator – Address and Telephone Number\***  
 P.O. Box 1600  
 Richland, WA 99352  
 (509) 373-0293

| Facility-Property Owner  | Signature  | Date Signed |
|--|--|-------------|
| Name and Official Title (type or print)<br>Doug S. Shoop, Manager<br>U.S. Department of Energy<br>Richland Operations Office |  | 6/6/18      |

**Comments**

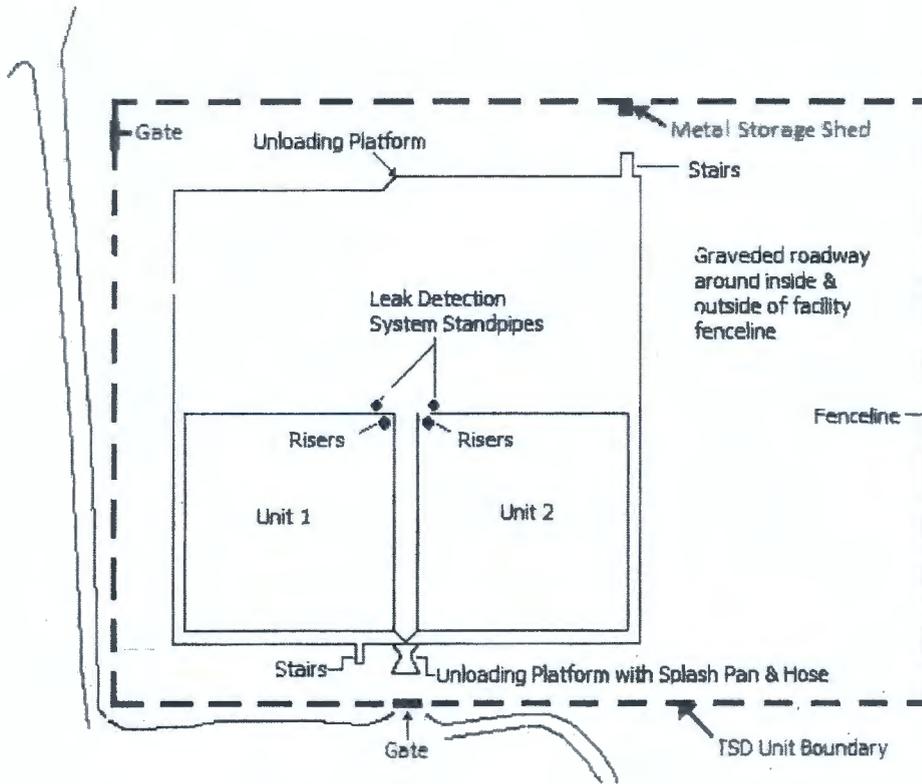
|  |
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|--|

600 Area Purgewater Storage & Treatment Facility



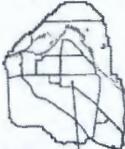
89122121-3CN

(Photo Taken 1989)





**The Hanford Site**



Unit Location

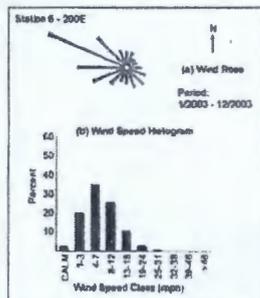
**600 Area Purgewater Storage and Treatment Facility**

Prepared for  
**US DEPARTMENT OF ENERGY**  
RICHLAND OPERATIONS OFFICE

Created and Published by: Central Mapping Services  
Richland, Portland WA (509) 373-3030

**ATTENDED USE: REFERENCE ONLY**  
Proprietary: Licensed Government Center  
Coordinate System: Washington State Plane, South Zone, Metric  
Horizontal Datum: NAD83  
Vertical Datum: NAVD83  
Topographic Data  
ESRI, Seattle, Washington, WA

- TSD Unit Boundary
- Contours at 1 Meter Intervals
- Disposition Contours at 1 Meter Intervals
- Injection and Withdrawal Wells
- DOE Operating Areas
- Hanford Facility
- SWMUs and Known Releases
- Linear SWMUs and Known Releases
- Spot SWMUs and Known Releases
- Buildings
- Structures
- Concrete
- Major Roads
- Service Roads
- Railroads
- Fences



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