

Hanford Well Maintenance and Inspection Plan

Previously BHI-01265, Revision 0

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

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Terms

WAC	<i>Washington Administrative Code</i>
TSD	treatment, storage, and disposal
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RCW	<i>Revised Code of Washington</i>

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1.0 INTRODUCTION

This document presents the well maintenance and inspection plan for use in supporting groundwater activities at the Hanford Site. Wells located across the Hanford Site are used by Site contractors for a variety of groundwater programs. As such, these wells require various types of inspections and/or maintenance during their lifecycles. The wells that must be maintained are defined in Section 2.0, “Requirements.”

2.0 REQUIREMENTS

Washington Administrative Code (WAC) 173-160, “Minimum Standards for Construction and Maintenance of Wells,” states “It is the responsibility of the resource protection well operator, resource protection well contractor and the property owner to take whatever measures are necessary to guard against waste and contamination of the groundwater resource.”

The provisions of the dangerous waste section of the *Resource Conservation and Recovery Act of 1976 Permit for the Treatment, Storage, and Disposal of Dangerous Waste at the Hanford Site* Permit are controlled by the “State of Washington Hazardous Waste Management Act of 1976” (RCW 70.105). Part II.F.2.a of Ecology 1994 states that “...the Permittees shall inspect the integrity of active resource protection wells as defined by WAC 173-160-030 subject to this Permit at least once every five (5) years.” Wells subject to the RCRA Permit requirements are defined as wells actively monitoring treatment, storage, and disposal (TSD) unit closures (in Part V of the Permit); TSD operating units (in Part III of the Permit); and TSD units undergoing post-closure/modified closure (Part VI of the Permit).

3.0 SCHEDULE

The list of RCRA wells to be considered for maintenance or inspection will be based on a review of information on the current wells. This review may include field sampling notations, previous inspection results, or other data collected during sampling of the wells. In addition, the installation date and/or location of a well will also be considered.

Well inspections, consistent with the requirements in permit condition II.F.2.a, will occur in 2015, and continue every 5 years after that. The schedule will accommodate changes that will occur with the addition of new wells, adjustments in the TSD unit closures, and wells that are no longer needed for monitoring.

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4.0 WELL INSPECTIONS

Well inspections are conducted as an integral part of field maintenance activities. Inspections include visual examination of the well site, surface components of the well structure (e.g., barrier posts, concrete surface pad and seal, protective well casing, well cap), identification of equipment installed in the well, and where possible measurements of the depths to water and/or bottom of the well. Inspections are documented on field reports.

5.0 WELL MAINTENANCE

Based on review of the 5 year inspection results, or other evaluations such as field sampling notations, well sampling issues, etc., well maintenance for groundwater monitoring wells will be performed as needed. Well maintenance will include the following tasks, as necessary, to restore the well to its intended use:

1. Removing groundwater sampling pump system and/or aquifer testing instrumentation/equipment
2. Inspecting and repairing (or replacing, as necessary) the sampling pump system and/or aquifer testing instrumentation/equipment
3. Cleaning the well casing perforations
4. Inspecting and cleaning well screen or repair of well screen (if possible)
5. Removing debris and fill material
6. Performing borehole video camera surveillance
7. Re-installing sampling and/or aquifer testing instrumentation/equipment
8. Redeveloping the well after performing maintenance
9. Inspecting final conditions after well maintenance (e.g. cap is replaced, concrete surface pad integrity, lock is secure, etc.)
10. Documenting well conditions and maintenance activities

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6.0 REFERENCES

[WA7890008967](#), 2007, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, as amended, Washington State Department of Ecology, Richland, Washington *Resource Conservation and Recovery Act of 1976*, [42 U.S.C. 6901, et seq.](#)

[RCW 18.104](#), “Well Construction,” *Revised Code of Washington*, as amended.

[RCW 70.105](#), “State of Washington Hazardous Waste Management Act of 1976,” *Revised Code of Washington*, as amended.

[WAC 173-160](#), “Minimum Standards for Construction and Maintenance of Wells,” *Washington Administrative Code*, as amended.

[WAC 173-162](#), “Regulation and Licensing of Well Contractors and Operators,” *Washington Administrative Code*, as amended.

[WAC 173-303-645](#), “Releases from regulated units,” *Washington Administrative Code*, as amended.

7.0 BIBLIOGRAPHY

DOE-RL, 1994, *Hanford Site Groundwater Management Program*, [DOE/RL-89-12](#), as amended, U.S. Department of Energy, Richland Operations Office, Richland, Washington.