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PAGE 4**ENGINEERING CHANGE NOTICE**Page 1 of 21. ECN No **618168**Proj.
ECN

2. ECN Category (mark one) Supplemental <input type="checkbox"/> Direct Revision <input checked="" type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedeure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>	3. Originator's Name, Organization, MSIN, and Telephone No. J. W. Lindberg, Earth and Environmental Technical Services, H6-06, 376-5005 8H230		4. Date Nov. 14, 1994	
	5. Project Title/No./Work Order No. Interim-Status Ground-Water Monitoring Plan for the 216-S- 10 Pond and Ditch	6. Bldg./Sys./Fac. No. 216-S-10 Pond and Ditch	7. Approval Designator QE	
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-EN-AP-018, Rev. 0		9. Related ECN No(s). NA	10. Related PO No. NA

11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. NA	11c. Modification Work Complete NA Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) NA Cog. Engineer Signature & Date
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12. Description of Change

A paragraph is being added to the section entitled GROUND-WATER MONITORING SYSTEM, at the end of subsection "Monitoring Parameters" on page 56. To implement this change page 56 is replaced, and page 56.1 is added. Pages 56 and 56.1 are attached.

13a. Justification (mark one) As-Found <input type="checkbox"/>	Criteria Change <input type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input type="checkbox"/>
<input type="checkbox"/>	Facilitate Const. <input checked="" type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

13b. Justification Details

The groundwater monitoring plan (WHC-SD-EN-AP-018, Rev. 0) provides an inadequate amount of detail concerning the contaminant constituents to be analyzed and frequency of sampling after the first year of sampling. The added paragraph provides the detail necessary to appropriately change the constituents to be analyzed after the first year of sampling. The changes will include a reduction in the number of constituents analyzed for a significant cost savings.

14. Distribution (include name, MSIN, and no. of copies)

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SUPPORTING DOCUMENT

1. Total Pages **184**

2. Title Interim-Status Ground-Water Monitoring Plan for the 216-S-10 Pond and Ditch	3. Number WHC-SD-EN-AP-018	4. Rev No. 0-A
5. Key Words Groundwater Monitoring RCRA Sampling and Analysis Network Well Design	6. Author Name: J. W. Lindberg <i>J. W. Lindberg</i> 12/15/94 Signature Organization/Charge Code BH230/R4044	

7. Abstract
Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch.

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approximately 100 ft from the northeastern border of the S-10 facility. This well will provide downgradient coverage of the portion of the S-10 facility that continues to receive waste water.

Well 299-W26-12. This deep well will be placed approximately 20 ft from well 299-W26-11, along the northeast portion of the S-10 facility. There are two primary reasons for the installation of this well: 1) it is adjacent to the portion of the facility that is continuing to receive wastewater (i.e., where vertical flow may exist), and 2) it will continue to provide a monitoring point at the bottom of the aquifer as the ground-water flow direction changes toward the east.

Well 299-32-77. This well may be used to evaluate the water quality downgradient of the pond portion of the S-10 facility. This well would also be useful in comparing ground-water quality data between the southwest and northeast corners of the S-10 facility.

Surveying

After monitoring-well installation is completed, the location and elevation of all wells will be surveyed by qualified surveyors. The elevation of the top of the casing and a brass marker in the concrete pad will be determined within 0.04 ft. A mark will be placed on the casing to indicate the location that was surveyed. The areal location will be determined to the nearest 0.5 ft. All measurements will be referenced to a common datum (preferably a Hanford Site datum).

Monitoring Parameters

Ground-water samples will be collected during each quarter at a minimum, for constituents listed in Table 3.2, in conformance with 40 CFR 265, Subpart F. In addition, constituents listed in the Sampling and Analysis Plan, as contained in Appendix E, will be analyzed once during the first year of sampling.

If after the first year of sampling on a quarterly basis, comparisons of groundwater analysis results with background concentrations indicate hazardous constituents from the S-10 facility are significantly affecting the groundwater, then the regulatory agencies will be notified and a groundwater quality assessment program will be initiated. If these comparisons show that groundwater is not significantly affected by the facility, groundwater samples collected subsequently in the indicator parameters evaluation program will be analyzed for Groundwater Quality Parameters on an annual basis, Groundwater Contamination Indicator Parameters semi-annually, and some additional site specific and other useful parameters. These additional site specific and other useful parameters at the S-10 facility would include analyses such as gross alpha and beta for screening potential radioactive constituents and alkalinity and turbidity for checking the quality of the sampling and analysis program. Site specific and other

| useful parameters may change from time to time based on the results of
| sampling.

GEOLOGIC AND HYDROGEOLOGIC CHARACTERIZATION

Hydrogeologic characterization will be conducted to describe the geologic and hydrogeologic conditions and properties that control contaminant

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DISTRIBUTION SHEET

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DISTRIBUTION	J. W. Lindberg	Date 11/14/94
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Interim-Status Ground-Water Monitoring Plan for the 216-S-10 Pond and Ditch		ECN No. 618168

Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
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