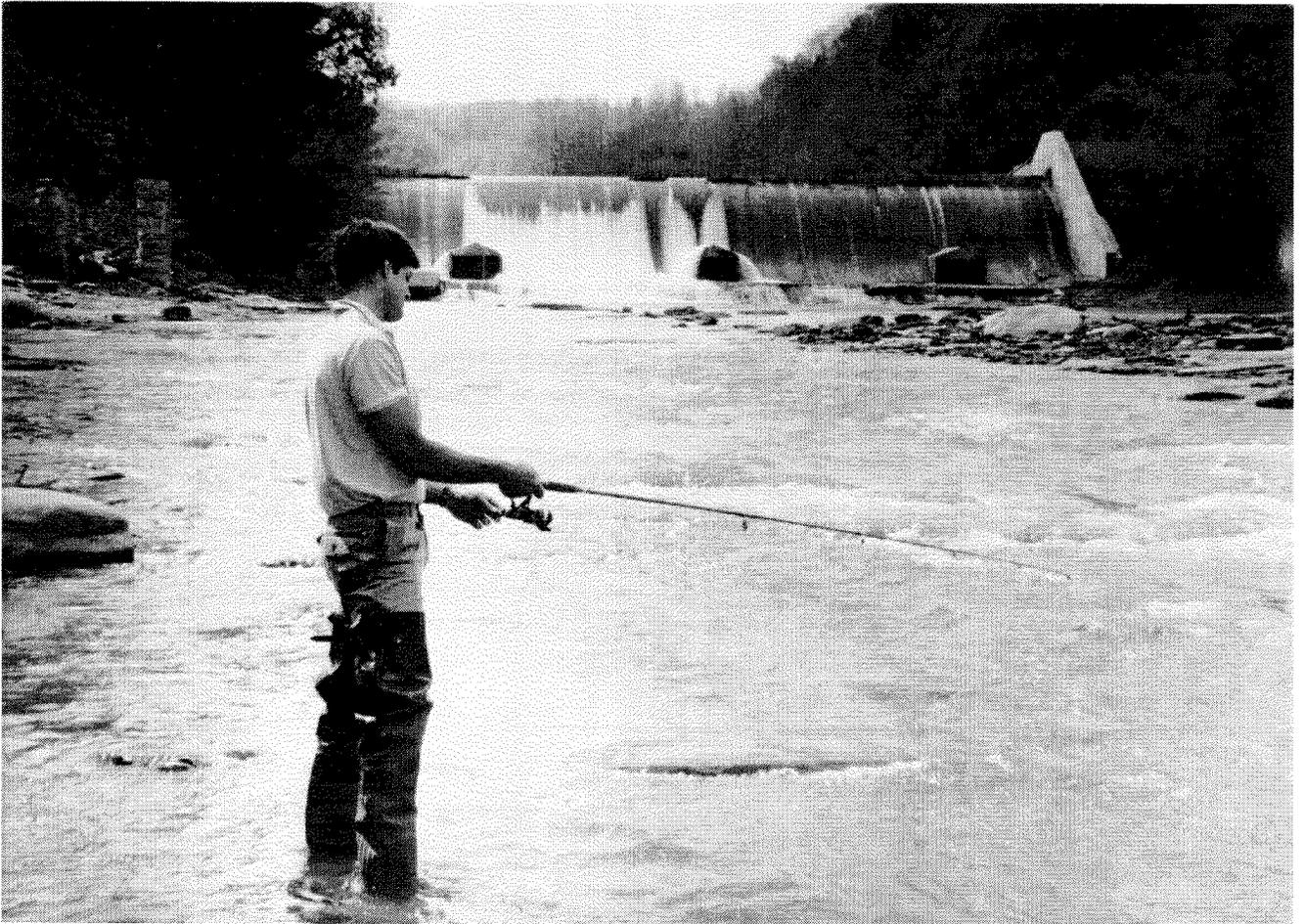


Appendix A

1993 Environmental Monitoring Program



Environmental Sampling — an Art as well as a Science

1993 Environmental Monitoring Program

The following schedule represents the West Valley Demonstration Project's routine environmental monitoring program for 1993. This schedule meets or exceeds the minimum program needed to satisfy the requirements of DOE Order 5400.1. It also meets requirements of DOE 5400.5 and DOE/EH-0173T. Specific methods and recommended monitoring program elements are found in DOE/EP-0096, *Effluent Monitoring*, and DOE/EP-0023, *Environmental Surveillance*, which are the bases for selecting most of the schedule specifics. Additional monitoring is mandated by operational safety requirements (OSRs) and air and water discharge permits (40 CFR 61 and SPDES), which also require formal reports. Specific requirements are identified in the schedule under MONITORING/REPORTING REQUIREMENTS.

Schedule of Environmental Sampling

The following table is a schedule of environmental sampling at the West Valley Demonstration Project. Locations of the sampling points are shown in Figures A-1 through A-9. The index below is a list of the codes for various sample locations. Table headings in the schedule are as follows:

- **Sample Location Code.** The physical location where the sample is collected is described. The code consists of seven characters. The first character identifies the sample medium as Air, Water, Soil/Sediment, Biological, or Direct Measurement. The second character specifies on-site or off-site. The remaining characters describe the specific location (e.g., AFGRVAL is Air off-site at Great Valley).
- **Monitoring/Reporting Requirements.** The bases for monitoring that location and any additional references to permits or OSRs are noted, as are the reports generated from sample data.
- **Sampling Type/Medium.** This describes the collection method and the physical characteristics of the medium.
- **Collection Frequency.** This indicates how often the samples are collected or retrieved.
- **Total Annual Sample Collections.** The number of discrete physical samples collected annually for each group of analytes.
- **Analyses Performed/Composite Frequency.** Parameters analyzed for the samples taken at each collection event, plus the frequency of composite and parameters analyzed for the composite samples.

Summary of Monitoring Program Changes in 1993

<i>Location Code</i>	<i>Description of Changes</i>
WNSWAMP	An automated sampler was to be installed at this site in 1993; this is now projected for 1994. Sample frequency is being upgraded from monthly to weekly and analytes are being added.
ANLLWTV ANLAUNV	On-site effluent ventilation monitoring points were upgraded in 1993 at the low-level waste treatment and contaminated clothing laundry exhausts. Inclusion in the routine monitoring program is projected for 1994.
ANLAGAM ANNDAAM	Installations for on-site monitoring of ambient air near the lag storage area and the NDA, possible "diffuse sources," were begun.
WNNDATR	Groundwater sample site added for routine monitoring of the NDA trench interceptor project.
All SSWMU Monitoring Wells	<p>Sampling frequency and parameters monitored have been changed to reflect completion of the 1991 and 1992 sampling program. This included reducing the frequency of sampling for VOCs to quarterly at selected on-site wells showing historical VOC contamination. Remaining on-site wells are sampled for VOCs annually.</p> <p>Drinking water parameters were monitored for the required one-year duration and have been dropped from the routine program.</p> <p>Sampling for individual SSWMUs is subject to change to address specific concerns arising from ongoing RFI evaluations. Changes will be reflected in annual updates to Appendix A. Designations of "upgradient," "crossgradient," and "downgradient" have been changed for some wells upon further hydrogeological analysis for RFI purposes.</p>
WNSDADR	Added surface water runoff analysis from SDA trench 14 membrane cover project for compliance with SPDES.
WNW0910	Non-RCRA well installed in 1992 downgradient of the NDA. Samples from this well were added to the routine monitoring program in 1993.
WNNDADR	Added TOC and TOX to routine monitoring requirements.
Well Points	Sampling of well points added for annual monitoring for radiological parameters.
WNCOOLW WNDMPNE WNDNKEL WNERB53 WNFRC67 WNSP005 WNSP008 WNSW74 WNSWAMP	Sites added to Monthly Environmental Monitoring Trend Report in November 1993.

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Air Effluent (Fig. A-1)	Page
ANSTACK - Main Plant	A - 1
ANSTSTK - Supernatant Treatment	A - 1
ANCSSTK - Cement Solidification	A - 1
ANCSRFK - Size-reduction Facility	A - 1
ANSUPCV - Supercompactor	A - 3
ANLLWTV - Low-level Waste Treatment Ventilation	A - 3
ANLAUNV - Contaminated Clothing Laundry Ventilation	A - 3
ANLAGAM - Lag Storage Area, Ambient	A - 5
ANNDAAAM - NDA Area, Ambient	A - 5
 Liquid Effluent and On-site Water (Fig. A-2)	
WNSP001 - Lagoon 3 Weir Point	A - 7
WNSP006 - Facility Main Drainage	A - 9
WNSP007 - Sanitary Waste Discharge	A - 9
WNSTPBS - Sanitary Waste Sludge*	A - 9
WNSDADR - SDA Trench 14 Cover Runoff*	A - 9
WNSWAMP - Swamp Drainage Point	A - 11
WNSW74A - Swamp Drainage Point	A - 11
WN8D1DR - Waste Farm Underdrain	A - 11
WNSP008 - French Drain LLWT Area	A - 13
WNSP005 - South Facility Drainage	A - 13
WNCOOLW - Cooling Tower*	A - 13
WNFRC67 - Frank's Creek East	A - 15
WNERB53 - Erdman Brook	A - 15
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WNDCELD - Drum Cell Drainage	A - 15
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* Not detailed on map.

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AFTCORD - Thomas Corners Sampler	A - 35
AFSPRVL - Springville Sampler	A - 35
AFWEVAL - West Valley Sampler	A - 35
AFDNKRK - Dunkirk (background) Sampler	A - 35
AFBOEHN - Dutch Hill Road Sampler	A - 35
AFRT240 - Route 240 Sampler	A - 35
AFRSPRD - Rock Springs Road Sampler	A - 35
AFGRVAL - Great Valley (background) Sampler	A - 35
AFBLKST - Bulk Storage Warehouse Sampler	A - 35
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AFFXFOP - Fox Valley Fallout*	A - 37
AFTCFOP - Thomas Corners Fallout*	A - 37
AF24FOP - Route 240 Fallout*	A - 37
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SF Soil Series - Air Sampler Area Soil***	A - 37
SFCCSED - Cattaraugus Creek at Felton Bridge	A - 37

** Not detailed on map. ** ANRGFOP is located at the site meteorological tower. Other fallout samples are taken at off-site ambient air collection locations as are the SF Soil Series samples. *** Taken at corresponding off-site ambient air sampler locations.*

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BFFCATD - Cattaraugus Creek Fish, Downstream of Dam	A - 39
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BFMCTLS - Milk, South, Background	A - 39
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