

**Facility Environmental Vulnerability
Assessment Recommendations
Implementation (FEVARI) Project
Final Report on
Oak Ridge National Laboratory
Environmental Vulnerabilities**

**Environment Safety, Health and Quality Directorate
Environmental Protection and Waste Services Division
Environmental Management Programs**

February 2004

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**FACILITY ENVIRONMENTAL VULNERABILITY ASSESSMENT RECOMMENDATIONS
IMPLEMENTATION (FEVARI) PROJECT FINAL REPORT ON
OAK RIDGE NATIONAL LABORATORY ENVIRONMENTAL VULNERABILITIES**

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February 2004

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ACRONYMS & ABBREVIATIONS

µg/g	micrograms per gram
ACM	asbestos containing material
ADS	Activity Data Sheet
AMSE	American Museum of Science and Energy
ATS	Assessment Tracking System
BJC	Bechtel Jacobs Company LLC
CAS	Condition Assessment Survey
CAT	Category
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COG	cold off-gas
DOE	U.S. Department of Energy
DOSAR	Dosimetry Applications Research
ECO	Environmental Compliance Officer
EGCR	Experimental Gas-Cooled Reactor
ES&H	environment, safety, and health
EH-22	Office of Environment, Safety, and Health Programs
EM	Office of Environmental Management
FEVA	Facility Environmental Vulnerability Assessment
FEVARI	Facility Environmental Vulnerability Assessment Recommendations Implementation
FFA	Federal Facilities Agreement
FIMS	Facilities Information Management System
FMD	Facilities Management Division
F&O	Facilities and Operations
FY	fiscal year
GPP	general plant project
HEPA	high-efficiency particulate air
HFIR	High Flux Isotope Reactor
Hg	mercury
HMIS	Hazardous Material Information System
IH	Industrial Hygiene
ID	identification
ISM	Integrated Safety Management
LI	line item

LiBr	lithium bromine
LLW	low-level waste
LLLW	liquid low-level waste
LMDI	Legacy Material Disposition Initiative
LTS	Long-Term Stewardship
MDA	minimum detectable activity
mg/l	milligrams per liter
NNFD	Non-reactor Nuclear Facilities Division
NNSA	National Nuclear Security Administration
NPDES	National Pollutant Discharge Elimination System
OAP	Operational Awareness Program
OE	operations expense
OIP	Operations Improvement Program
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations
OSHA	Occupational Safety and Health Administration
PACM	presumed asbestos containing material
Pb	lead
PCB	polychlorinated biphenyl
pCi/g	picocuries per gram
PSO	Program Secretarial Office
RAIMS	Remedial Action Inventory Management System
RAOs	remedial action objectives
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RMS	Records Management Services
ROD	Record of Decision
RRD	Research Reactors Division
SBMS	Standards-Based Management System
SC	Office of Science
S&H	safety and health
SLLW	solid low-level waste
SNS	Spallation Neutron Source
STP	Sewage Treatment Plant
SWIFT	Stewardship, Waste, Infrastructure and Facilities Team

SWMUs	Solid Waste Management Units
TCLP	Toxic Characteristic Leaching Procedure
TSCA	Toxic Substance Control Act
UCAMS	Unclassified Computer Account Management System
UNC	Uncertainty
U.S.	United States of America

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1. INTRODUCTION

The original step in assessing the environmental impact and vulnerability of facilities at Oak Ridge National Laboratory (ORNL) began in 2000 as the U.S. Department of Energy (DOE) inspected the conditions associated with the tritium leak from the ORNL High Flux Isotope Reactor (HFIR). The resulting review¹ led to the Facility Environmental Vulnerability Assessment (FEVA) review process of ORNL facilities, which was conducted by UT-Battelle, LLC (UT-Battelle) as the ORNL management and operating contractor for the DOE Office of Science (SC).

The primary goal of FEVA² was to identify and establish an environmental vulnerability baseline at ORNL that could be used to support the Laboratory planning process and place environmental vulnerabilities in perspective. The information developed during the FEVA provided the basis for ORNL management to initiate immediate, near-term, and long-term actions to respond to the identified vulnerabilities. The FEVA evaluation of the vulnerabilities supported

- a more quantitative characterization of the sources,
- evaluation of contaminant pathways, and
- definition of risks for ORNL facilities and operations.

The FEVA was modeled after the Battelle-supported response to the problems identified at the High Flux Beam Reactor at Brookhaven National Laboratory in New York state. The FEVA report satisfied Corrective Action 3A1, which is contained in the Corrective Action Plan submitted by UT-Battelle to the DOE ORNL Site Office Manager on April 16, 2001 in response to the *Independent Review of the HFIR Tritium Leak*.

The FEVA successfully achieved its primary goal, as defined by ORNL management, by developing information about contamination sources and potential release pathways in DOE-SC/UT-Battelle-managed facilities at ORNL. As indicated in Corrective Action 3A1, the development and prioritization of long-term corrective actions for ORNL facilities has been accomplished through UT-Battelle's deployment of the Standards-Based Management System (SBMS), and by UT-Battelle's implementation of the new Facilities and Operations (F&O) model at ORNL. Other recommended actions and their current status were developed for consideration and are indicated in Table 1.

It should be noted that UT-Battelle assumed the management of ORNL on April 1, 2000. A due diligence review of ORNL facilities was not permitted as part of the contract transition. UT-Battelle has expended significant resources to determine facility conditions and vulnerabilities as summarized in this report and will continue to do so. Corrective actions taken with respect to identified vulnerabilities will reduce hazards in the workplace. This report is not intended to represent a due diligence review.

¹ *Independent Review of the High Flux Isotope Reactor Tritium Leak*, U.S. Department of Energy, February, 2001.

² *Facility Environmental Vulnerability Assessment*, ORNL/TM-2001/123, June, 2001.

Table 1. Recommended actions and current status of Corrective Action 3A1 of the UT-Battelle Corrective Action Plan for the Independent Review of the HFIR Tritium Leak.

Near-Term Actions: 2 years or less to implement	Status	Long-Term Actions: 2–10 years to implement	Status
Develop and communicate UT-Battelle environmental expectations and policy to staff and stakeholders	Complete	Support continued funding of and integration with DOE-EM Program activities at ORNL	FY04 funding provided
Complete excess chemical inventory reduction initiative	In process	Develop and implement Strategic Facilities Upgrade Plan (subsurface)	10 Year Site Plan issued FY04
Complete legacy waste identification and clean out	In process	Implement recently updated Pollution Prevention Program, which calls for an integrated multimedia environmental risk analysis process	
Complete funded infrastructure upgrades	In process	Complete facilities infrastructure upgrades (e.g., drinking water, sanitary sewer, storm sewer, off-gas, and vent systems)	In process
Support continued funding of and integration with DOE-EM program activities at ORNL	In process	Minimize the use of potable water for single-pass cooling water	Addressed in Liquid/Gaseous Waste Treatment Strategy
Evaluate and pilot elimination of contaminant discharges to process waste system	In process	Develop “zero discharge” operations except in key and limited areas, determined through an exclusion process	Drain WAC issued, Liquid/Gaseous Waste Treatment Strategy
Determine ROI benefit and regulatory impacts associated with minimizing single-pass cooling water	In process	Consolidate operations to the main ORNL site (vacate space at the Y-12 National Security Complex) and transition facilities to the DOE-EM Program	In process
Determine destination of discharges from vacuum system moisture traps	There is no central vacuum system.		
Review vulnerabilities noted by retired employees and reconcile with current conditions	Complete		
Conduct facility process evaluations as part of the Facility Operations and Maintenance Management System	Complete		
Develop the EMS with emphasis on pollution prevention and waste minimization to prioritize strategic investments to meet management expectations	Complete, EMS issued in SBMS, 09-16-03		

DOE – Department of Energy
 EM – Office of Environmental Management
 EMS – Environmental Management System
 ORNL – Oak Ridge National Laboratory

ROI – return on investment
 SBMS – Standards-Based Management System
 WAC – waste acceptance criteria

2. FACILITY ENVIRONMENTAL VULNERABILITY ASSESSMENT RECOMMENDATIONS IMPLEMENTATION (FEVARI) PROJECT

2.1 BACKGROUND

The evaluation of ORNL facilities for environmental vulnerabilities was conducted incrementally, beginning with the facilities that were judged most likely to present potential or actual environmental vulnerabilities (i.e., Category 1, 2, or 3 Nuclear Facilities). A total of 76 facilities were evaluated and reported in the FEVA³ report. These evaluations were conducted by a team of qualified ORNL management and technical staff members. Other ORNL facilities were also evaluated for vulnerabilities and the evaluation results were reported separately. These evaluations included 17 facilities in the 7900 area (the area around the HFIR), conducted pursuant to the DOE Office of Environment, Safety, and Health Programs' (EH-22) review of the HFIR tritium leak, and 48 facilities that were evaluated as part of the Operational Awareness Program (OAP), which were revisited by ORNL personnel. The 292 ORNL facilities managed by the DOE Office of Environmental Management (EM) were not evaluated during this effort. Nor were the facilities associated with the Spallation Neutron Source (SNS) as these are still under construction and pre-operational at the time of the issuance of this report.

The recommendation in the FEVA report to “*conduct facility environmental vulnerability assessments among the remaining ORNL facilities*” was carried out during the Facility Environmental Vulnerability Assessment Recommendations Implementation (FEVARI) Project from July, 2002 through March, 2003. Pilot assessments were conducted on three ORNL facilities to refine the assessment process. A report was prepared⁴ to document the results of these pilot assessments and guide future facility assessments. Facilities in the pilot include:

- Building 2523: the Decontamination Laundry;
- Building 4515: the High Temperature Materials Laboratory; and
- Building 6000: the Hollifield Ion Beam Facility.

Following completion of the pilot assessments, the remaining 479 ORNL facilities (plus the 48 revisited from OAP for a total of 527) were evaluated under the guidance identified in the FEVARI Project report documenting the pilot assessments⁴. The evaluations were conducted primarily by the assigned Facility Management Division (FMD) Complex Manager, or a member of their staff familiar with the facility, and operations personnel from ORNL research divisions.

³ *Facility Environmental Vulnerability Assessment*, ORNL/TM-2001/123, June 2001.

⁴ *Facility Process Evaluation Development and Implementation Report*, June, 2002.

The remaining facilities were divided into three groups to facilitate completion of the evaluation process.

- **Type 3 facilities** typically include office space, monitoring stations, environmental study areas, cooling towers, certain utilities, and personnel shelters near parking lots. There were 280 Type 3 facilities. These facilities were the least likely to contain hazardous materials or radiological areas. Minimal walk downs and documentation was required.
- **Type 2 facilities** include storage sheds and buildings, small laboratories, certain utilities, and other facilities that may contain process wastewater drains. There were 185 Type 2 facilities, plus the 48 facilities addressed by OAP for a total of 233. These facilities could contain small amounts of hazardous materials or radiological contamination. More rigorous walk downs and greater documentation was required.
- **Type 1 facilities** include the facilities associated with the ORNL Sewage Treatment Plant (STP), and an additional research laboratory and compressor building. There were 14 Type 1 facilities. These facilities were known to contain potentially hazardous or radiological contaminants. Rigorous reviews or walk downs, as well as analytical results (where appropriate) were documented.

The effort to complete the assessment of the final 527 facilities was supervised by Dirk Van Hoesen, Manager of the ORNL Environmental Management Programs (Legacy) for UT-Battelle, and coordinated by John A. Emison. The specific findings environmental vulnerabilities on a facility-by-facility basis are compiled in Tables 2 - 4.

An assessment has been submitted on the Assessment Tracking System (ATS) as “5059 FEVARI Assessment.” Conditions pertaining to the findings of environmental vulnerabilities in Tables 2 - 4 will be identified under 5059 and assigned to the FMD Complex of jurisdiction.

2.2 FACILITY EVALUATION RESULTS

Facility-specific issues were found in a relatively small number of ORNL facilities. The complete documentation of these evaluations is catalogued in three ring binders that have been transmitted to ORNL [Records Management Services](#) (RMS) for final archival.

The order of the facilities listed in Tables 2 - 4 is based on the sequential numbering of ORNL facilities and does not represent a prioritization. The following sections and tables summarize information for the evaluated facilities in each of the three facility groups. Issues relating to asbestos are not listed in this section, unless there are other issues in a specific facility that warrant notation. A more complete summary of facility evaluation reports on all facilities (with or without notable issues) is provided in the appendices of this document, which are similarly arranged by facility group and sorted by facility number.

2.2.1 Type 3 Facilities

There were a total of 280 Type 3 facilities at ORNL (see Appendix A). The facilities listed in Table 2 include only the Type 3 facilities identified with potential environmental vulnerabilities by the FMD Complex Managers, Facility Engineers, Operations Managers, or other personnel conducting the evaluations. The 12 facilities summarized in Table 2 represent only about 4% of all Type 3 facilities.

2.2.2 Type 2 Facilities

There were a total of 185 Type 2 facilities at ORNL, plus the 48 facilities addressed by OAP for a total of 233 (see Appendix B). Type 2 facilities were anticipated to have a higher probability of discovering potential environmental vulnerabilities, and therefore, a more rigorous evaluation process was

implemented for Type 2 facilities. Some degree of potential vulnerability was reported for 74 facilities, or approximately 40% of the Type 2 facilities, by FMD Complex Managers, Facility Engineers, Operations Managers or other individuals conducting the evaluations. Table 3 summarizes the Type 3 facilities at ORNL with potential environmental vulnerabilities and the recommended actions and status.

2.2.3 Type 1 Facilities

There were a total of 14 Type 1 facilities at ORNL (see Appendix C). Potential vulnerabilities were reported for 5 facilities, or approximately 33% of the Type 1 facilities. Table 4 summarizes the Type 1 facilities with potential environmental vulnerabilities.

This facility category was primarily composed of facilities associated with the ORNL STP. The liquid sludge from the ORNL STP has historically been dispositioned via the City of Oak Ridge's land application program for sewage sludge. While that program was operating, the ORNL sewage sludge was mixed with the City's sewage sludge and applied to approved locations on the Oak Ridge Reservation. This is the most inexpensive means of disposing of ORNL sewage sludge, but it is not presently a disposal option due to a malfunction of the City's equipment. Currently, ORNL sewage sludge is dried and placed in B-25 boxes for management and disposal by Bechtel Jacobs Company LLC (BJC) (the DOE-EM management and integrating contractor for DOE-EM managed facilities and programs at ORNL) as solid low-level waste (LLW).

ORNL sewage sludge is periodically sampled and analyzed. Analysis of one batch of sludge is reported in Table 5. In this particular batch of sewage sludge the Resource Conservation and Recovery Act (RCRA) action levels for lead and mercury were exceeded. However, as a management practice the FMD Utilities Complex has performed Toxic Characteristic Leaching Procedure (TCLP) analyses on an annual basis. The results of these analyses demonstrate that the metals in the sludge do not leach as the values have consistently been 1 to 2 orders of magnitude below TCLP limits for lead and mercury.

Table 2. Type 3 facilities at ORNL with potential environmental vulnerabilities.

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
XC1402	AMSE Museum	There is no asbestos survey for the Museum. Older floor tile is suspect.	Submit information to Asbestos Survey/CAS	Information posted on CAS
XF1304	Silo E	Bucket of unknown material.	Material should be characterized and disposed.	ATS item assigned to Jimmy Stone
XG1401	Freels Bend Log Cabin	Flammable chemicals are improperly stored. Chemical compatibility may be an issue.	Flammable chemicals should be removed or stored in proper cabinet. ECO should determine chemical compatibility.	ATS item assigned to Jimmy Stone
XG1404	Freels Bend Variable Dose Irradiation Facility	Possible residual radiological contamination; possible asbestos in old wiring insulation; possible PCBs in air duct gaskets.	Facility is closed and locked. Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
XH1402	Freels (Bend) White Barn	Possible asbestos in old wiring insulation; possible fiberglass issue; possible RCRA material in residual amounts.	Conduct asbestos survey. ECO should determine if there are RCRA compliance issues and initiate request for funding is necessary.	ATS item assigned to Jimmy Stone
XH1403	Lagoon (2) Freels Bend	Analytical results were reviewed by ORNL Environmental Compliance, which recommends additional characterization of lagoon sediment for arsenic and barium.	ADS for analytical work should be submitted.	ATS item assigned to Jimmy Stone
XH1405	White Barn Silo	Silo is part of XH1402 and may have similar environmental issues as notes above.	Conduct asbestos survey. ECO should determine if there are RCRA compliance issues and initiate request for funding is necessary.	ATS item assigned to Jimmy Stone
0950	Walker Branch East Instrument House	Flammable chemicals are improperly stored. ACM in glazing and PACM in wire insulation.	West Complex to remove flammables. ACM and PACM to be addressed during maintenance or at end of life cycle.	Assign ATS item to West Complex to address flammables
0954	Refuse Transfer Station	Identified as possible solid waste site, characterization recommended.	ADS for characterization submitted but not approved. (Building planned for demolition)	No additional action required
2033	Measurements and Controls Bldg.	Chemicals stored in basement should be identified. PACM in carpet, floor tile, baseboard, ceiling tile, and piping insulation.	West Complex to remove flammables. ACM and PACM to be addressed during maintenance or at end of life cycle.	Assign ATS item to West Complex to address flammables
2528A	2528 Storage Tank	Possible internal tank contamination, sampling and smearing recommended.	ADS for characterization submitted and approved.	Sampling and analysis is pending
3115	HX Lab and Solid State Offices	ACM and PACM in floor tile, baseboard, ceiling tile, glazing. Lithium Bromine (LiBr) in 5-gal containers in process of being overpacked.	West Complex completed LiBr overpack. ACM and PACM to be addressed during maintenance or end of life cycle.	Action Complete

ACM - asbestos containing material

ADS - Activity Data Sheets

AMSE - American Museum of Science and Energy

ATS - Assessment Tracking System

CAS - Condition Assessment Survey

ECO -Environmental Compliance Officer

LiBr - lithium bromine

PACM - presumed asbestos containing material

PCBs -polychlorinated byphenals

RCRA -Resource Conservation and Recovery Act

Table 3. Type 2 facilities with identified potential environmental vulnerabilities.

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
1542	Cylinder Storage Shed	Improperly stored drum with rad tape and a sealed drum with no markings.	West Complex will remove and dispose of drum.	ATS item to be assigned to West Complex
1553	1504 Service Pit	PACM in process water and steam line insulation; floor drains may go to storm water system; improperly stored grease and oil.	West Complex will address sink and drain question. ACM and PACM to be addressed during maintenance or at end of life cycle.	ATS item to address Sink and Drain question to be assigned to West Complex
1560	East Greenhouse	PACM in process water and steam line insulation; contaminated table; unmarked bottle of clear liquid.	West Complex has removed the unmarked bottle. ACM and PACM to be addressed during maintenance or at end of life cycle.	Action Complete
2008	ORNL Whole Body Counter	PACM in ceiling tile, floor tile, pipe insulation, baseboards, mastic, and sheet rock joint compound; old contaminated lab hoods are abandoned in place.	Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
2521F	Sewage Treatment Digester	Internal radioactive contamination	Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
2636	West Precipitator	Residual fly ash contains inorganic arsenic and other hazardous materials.	Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
2637	East Precipitator	Residual fly ash contains inorganic arsenic and other hazardous materials.	Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
2638	Steam Plant Scale House	PACM in baseboards; possible PCBs in wiring insulation.	Issues noted to be addressed during maintenance, electrical upgrades, or at end of life cycle.	Information posted on CAS
3010A	Bulk Shielding Reactor Support Facility North Annex	Possible radiological contamination, chemical contamination in hoods and exhausts, possible Pb in paint, ACM or PACM in floor tile, insulation, and transite.	Issues noted to be addressed during maintenance, electrical upgrades, or at end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS
3095	Reactor Area Equipment Building	SLLW trash, possible Hg in various old instruments and devices, known Hg spills on slab, possible Pb and PCBs in paint, Beryllium formerly stored here. Facility is sprinklered without floor drains and roof leaks.	Dispose SLLW; dispose of old instruments; evaluate if sprinklered facility without floor drains is acceptable. Repair roof.	ATS Item to be assigned to West Complex
3112	3112 Storage	Floor drain was not on sink/drain survey. Facility is sprinklered and there is drain on the paved pad only 4 feet away.	Metals & Ceramics or F&O to plug the floor drain and correct the Sink and Drain Survey.	ATS Item to be assigned to West Complex
3500	I & C Division Offices	Asbestos in floor tile, mastic, pipe insulation and PACM in many forms throughout the facility; electrical problems; chemical and/or radiological contamination in ventilation system.	Issues noted to be addressed during maintenance or at end of life cycle.	Information posted on CAS
3501	Sewage Pumping Station	Asbestos in glazing; PACM in gaskets; electrical problems; soil contamination on south side.	Utilities Complex will address all issues during maintenance or at end of life cycle.	Information posted on CAS

Table 3. Type 2 facilities with identified potential environmental vulnerabilities (continued).

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
3503A	3503A Storage Pad	Contaminated soil and concrete pad, flaking paint possible Pb or PCBs, junk equipment is SLLW.	ADS should be submitted to request funds for clean up and demolition.	ATS Item to be assigned to West Complex to submit the ADS
3550T	Intercomparison Study Dilutions Laboratory	Radioactive contamination in hoods and possible contamination in mud dabber nests. Ceiling tile is asbestos.	Proposed on D&D, dependent on funding.	ADS submitted, AA2D0049
3607	Cask Storage Building	Radiological contaminated parts and oil	Dispose of contaminated parts and oil.	ATS Item to be assigned to NNFD
5507	Electron Spectrometer Facility	37 buckets of PCB samples are improperly stored.	PCB samples have been properly labeled and managed.	No additional action needed
6010	ORELA	RBAs, CAs, and High Radiation Areas are present in this facility.	D&D to be addressed at maintenance or at end of life cycle.	Information posted on CAS
7631	Low-Risk Inactive Storage Facility	Possible Pb or PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed.
7000	Septic Tank for 7000 Area	Possible chemical or radiological contamination in septic tank sludge.	Submit ADS requesting funds to characterize sludge.	ATS Item to be assigned to Utilities Complex
7019	RRD Warehouse Facility - Cat C Storage	PACM in glazing and walls; possible lead-based paint.	PACM to be addressed at maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No action needed at this time
7020B	Temporary Waste Storage Facility	Possible lead-based paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS; no action needed at this time
7020C	Temporary Waste Storage Facility	Possible lead-based paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS; no action needed at this time
7020E	Temporary Waste Storage Facility	Possible lead-based paint; chemical storage noted but there is no HMIS Control Area.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator. HMIS Control Area should be established or chemicals removed.	Information posted on CAS; ATS Item to be assigned to East Complex to establish HMIS Control Area
7020F	HP Office Trailer	Possible lead-based paint; PACM in floor tile and mastic.	PACM to be addressed at maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS; no action needed at this time
7022	Gas Cylinder Storage Shed	HMIS Control Area, evaluation indicates possible PCBs, Pb, or Hg.	East Complex will have IH screening when HMIS Control Areas are closed. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	ATS Item assigned to East Complex

Table 3. Type 2 facilities with identified potential environmental vulnerabilities (continued).

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
7030	Heavy Equipment Storage	HMIS Control Area, evaluation indicates possible PCBs, Pb, or Hg.	East Complex will have IH screening when HMIS Control Areas are closed. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	ATS Item assigned to East Complex
7035E	Utility Mechanics Storage	HMIS Control Area, evaluation indicates possible PCBs/Pb in paint. Transite is asbestos.	East Complex will have IH screening when HMIS Control Areas are closed. Training for PCBs in paint should be considered. ACM and PACM will be addressed at maintenance or end of life cycle.	ATS Item assigned to East Complex
7035F	Shed Storage Facility	HMIS Control Area, evaluation indicates possible PCBs/Pb in paint.	East Complex will have IH screening when HMIS Control Areas are closed. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	ATS Item assigned to East Complex
7037	Cold Storage Facility	Pumps may be internally contaminated.	Possible candidates to go into the LMDI Excess Pump and Motor Campaign.	ATS Item assigned to East Complex
7039	Material Staging Facility	HMIS Control Area, evaluation indicates possible PCBs/Pb in paint.	East Complex will have IH screening when HMIS Control Areas are closed. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	ATS Item assigned to East Complex
7041	Storage Building	HMIS Control Area, possible PCBs in oil. Contamination in process of being removed.	East Complex will have IH screening when HMIS Control Areas are closed. LMDI, Excess Pumps and Motors Campaign will address oil.	ATS Item assigned to East Complex
7057	Sandblast Cleaning Facility	Possible radiological contamination, PACM in duct work.	Fixed contamination will be addressed during maintenance or end of life cycle.	Information posted on CAS
7060	Steel Yard	PACM in floor tile, possible PCBs, Pb.	PACM to be addressed during maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time.
7062	Crane Inspection Crew Offices	Possible PCB, Pb.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time
7069	Gas Service Facility	Legacy petroleum products from spills on asphalt.	Spills to be addressed during maintenance or end of life cycle.	Information posted on CAS
7069E	Underground Storage Tank	Possible spilled petroleum products.	Spills to be addressed during maintenance or end of life cycle.	Information posted on CAS
7069F	Underground Storage Tank	Possible spilled petroleum products.	Spills to be addressed during maintenance or end of life cycle.	Information posted on CAS
7071	Liquid Nitrogen Storage Tank	Possible legacy spills.	Spills to be addressed during maintenance or end of life cycle.	Information posted on CAS

Table 3. Type 2 facilities with identified potential environmental vulnerabilities (continued).

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
7078G	Sprinkler Control Building	Possible PCBs/Pb in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time
7078H	Sprinkler Control Building	Possible PCBs/Pb in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time
7081	Portable Generator Storage Shed	Possible legacy spills. Possible PCBs/Pb in paint.	Spills to be addressed during maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS
7086	Flammable Gas Storage	Possible legacy spills. Possible PCBs/Pb in paint.	Spills to be addressed during maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS
7089	Flammable Storage	Possible legacy spills. Possible PCBs/Pb in paint.	Spills to be addressed during maintenance or end of life cycle. Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS
7090	Electrical Storage West	Fluorescent bulbs.	East Complex will remove and dispose.	ATS Item to be issued to East Complex
7091	Electrical Storage East	Fluorescent bulbs.	East Complex will remove and dispose.	ATS Item to be issued to East Complex
7092	Hustler Mower Storage	Possible legacy oil spills.	Spills to be addressed during maintenance or end of life cycle.	Information posted on CAS
7093	Physics Division Storage	Possible PCBs in pump oil.	Possible candidates to go into the LMDI Excess Pump and Motor Project.	No additional action needed at this time
7094	Physics Division Storage	Possible PCBs in pump oil.	Possible candidates to go into the LMDI Excess Pump and Motor Campaign.	No additional action needed at this time
7095	Physics Division Storage	Possible PCBs/Pb in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time
7548	Hazardous Waste Storage Shed	Possible radiological contamination.	Addressed by RCT procedures.	No additional action needed at this time
7605	Storage Building	Fixed contamination on monorail and PACM in baseboard, floor tile, and glazing.	Fixed contamination and PACM to be addressed at maintenance or end of life cycle.	Information posted on CAS
7606B	Research SVC - Maintenance Building	Possible Pb or PCBs in paint. ACM or PACM in floor tile and mastic, and ceiling tile.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator. ACM and PACM to be addressed at maintenance or end of life cycle.	No additional action needed at this time

Table 3. Type 2 facilities with identified potential environmental vulnerabilities (continued).

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
7607	EGCR River Pump Station	Possible Pb or PCBs in paint, or PCBs in pump oil.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator. Possible candidates to go into the LMDI Excess Pump and Motor Project.	No additional action needed at this time
7608	Plasma Torch Cutting Demonstration Facility	Possible Pb or PCBs in paint, and PCBs in wire insulation.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator PCBs in wire insulation to be addressed at maintenance, electrical work, or end of life cycle.	Information on PCBs in wire insulation posted on CAS
7609	Stack Monitoring House	Possible Pb or PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator	No additional action needed at this time
7614	7602 Vent Stack	Radioactive contamination, possible Pb and PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator. Fixed contamination to be addressed at maintenance or end of life cycle.	Information posted on CAS
7615	REDC Storage	Radioactive contamination, possible Pb and PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator Fixed contamination to be addressed at maintenance or end of life cycle.	Information posted on CAS
7624	Robotics Storage Bldg.	Radioactive contamination, possible Pb and PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator Rad contamination to be addressed at maintenance or end of life cycle.	Information on rad contamination posted on CAS
7631	Low-Risk Inactive Storage Facility	Possible Pb or PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator	No additional action needed at this time
7632	Low-Risk Inactive Storage Facility	Possible Pb or PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator	No additional action needed at this time
7633	Low-Risk Inactive Storage Facility	Possible Pb or PCBs in paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator	No additional action needed at this time
7709	Health Physics Research Reactor	NiCd batteries sitting out-of-doors, crane with flaking paint (possible pb-base and/or PCBs), motor on crane is suspect PCB also out-of-doors. Lead bricks indoors; PACM in pipe insulation.	Remove batteries; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator; motor is possible candidate to go into the LMDI Excess Pump and Motor Project; dispose of Pb bricks.	ATS Item to be assigned to East Complex
7875	Monitoring Storage Building	Possible lead-based paint.	Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	No additional action needed at this time

Table 3. Type 2 facilities with identified potential environmental vulnerabilities (continued).

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed or Assigned
7914	Equipment and Parts Storage	HMIS Control Area should be established; operator should determine whether lack of floor drains is an acceptable environmental risk; building insulation is PACM.	RRD should establish HMIS Control Area and evaluate the risk of no floor drains in sprinklered facility is the lowest risk.	ATS Item to be assigned to RRD Complex
7914A	Equipment Storage	Floor drains pose a potential environmental risk.	Floor drains should be evaluated to determine if the environmental risk is acceptable.	ATS Item to be assigned to RRD Complex
7915	Operations Storage Building	Floor drains pose a potential environmental risk; building insulation is PACM.	Floor drains should be evaluated to determine if the environmental risk is acceptable.	ATS Item to be assigned to RRD Complex
7930A	7930 Filter Pit	Connected to a broken process waste line.	Funding requested in ADS.	No additional action needed at this time.
7969	Haz Material Enclosure	Facility should be posted as Flammable area; designated PACM because an Asbestos survey has not yet been done.	RRD should accomplish the appropriate posting.	ATS Item to be assigned to RRD Complex
7985	P&E/HFIR Storage 4	Paint and solvents should be removed to a HMIS Control Area.	RRD should move the materials to a HMIS Control Area.	ATS Item to be assigned to RRD Complex
9999-01	Motor generator	Asbestos visible, likely PCBs in wiring insulation.	Issues will be addressed at maintenance or end of life cycle.	Information posted on CAS

ACM - asbestos containing material

ADS - Activity Data Sheets

ATS - Assessment Tracking System

CAS - Condition Assessment Survey

ECO - Environmental Compliance Officer

EGCR - Experimental Gas-Cooled

Reactor

Hg - mercury

HMIS - Hazardous Material Information

System

IH - Industrial Hygiene

LiBr - lithium bromine

LMDI - Legacy Material Disposition

Initiative

PACM - presumed asbestos containing

material

Pb - lead

PCBs - polychlorinated byphenals

RCRA - Resource Conservation and

Recovery Act

RCT - Radiological Control Technician

RRD - Research Reactors Division

SLLW - solid low-level waste

Table 4. Type 1 facilities with potential environmental vulnerabilities.

Facility Number	Facility Name	Potential Environmental Vulnerability Issues	Action Steps	Actions Completed/Assigned
2521	Sewage Treatment Plant	Radiological areas, possible Pb-based paint, pathogens.	Issues will be addressed at maintenance or end of life cycle; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS.
2521A	Sewage Treatment Aeration Basin	Radiological areas, possible Pb-based paint, pathogens.	Issues will be addressed at maintenance or end of life cycle; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS.
2543	East Aeration Pond	Radiological areas, possible Pb-based paint, pathogens, heavy metals.	Issues will be addressed at maintenance or end of life cycle; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS.
2544	West Aeration Pond	Radiological areas, possible Pb-based paint, pathogens, heavy metals.	Issues will be addressed at maintenance or end of life cycle; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS.
2548	Sludge Drying Facility	Radiological areas, possible Pb-based paint, pathogens, heavy metals.	Issues will be addressed at maintenance or end of life cycle; Interim guidance on Pb and PCBs in paint has been issued by the ORNL PCB Coordinator.	Information posted on CAS.

CAS - Condition Assessment Survey
 PCBs - polychlorinated byphenals

PACM - presumed asbestos containing material
 RCRA - Resource Conservation and Recovery Act

Pb - lead

Table 5. Analytical results for a batch of ORNL sewage sludge accepted by the City of Oak Ridge for land application on the Oak Ridge Reservation.

Date Sampled	Lab Sample Identifier	Analysis Name	Result Value	UNC (uncertainty)	Units	MDA (minimum detectable activity)
June 21, 2000	A001730129	ALPHA ACTIVITY	42.000	2.4	pCi/g	0.79
June 21, 2000	A001730129	ARSENIC	1.9000	-	µg/g	-
June 21, 2000	A001730129	BETA ACTIVITY	340.00	4.1	pCi/g	1.40
June 21, 2000	A001730129	CADMIUM	4.2900	-	µg/g	-
June 21, 2000	A001730129	CHROMIUM	34.500	-	µg/g	-
June 21, 2000	A001730129	COPPER	547.00	-	µg/g	-
June 21, 2000	A001730129	LEAD	496.00	-	µg/g	-
June 21, 2000	A001730129	MERCURY	6.6400	-	µg/g	-
June 21, 2000	A001730129	MOLYBDENUM	6.7500	-	µg/g	-
June 21, 2000	A001730129	NICKEL	29.500	-	µg/g	-
June 21, 2000	A001730129	RESIDUE - TOTAL	27800	-	mg/l	-
June 21, 2000	A001730129	SELENIUM	10.800	-	µg/g	-
June 21, 2000	A001730129	STRONTIUM-89/90	54.000	1.5	pCi/g	1.60
June 21, 2000	A001730129	URANIUM	4.3800	-	µg/g	-
June 21, 2000	A001730129	ZINC	1670.0	-	µg/g	-

Note: sludge was analyzed for uranium but none was detected.

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3. PLANT-WIDE OR GENERAL ENVIRONMENTAL MANAGEMENT ISSUES

It became apparent during the FEVARI Project facility evaluations that there are other, general issues relating to environmental vulnerability that are not easily associated with just one ORNL facility. A total of 12 general issues were identified during the facility evaluations, which are discussed in the following sections. Some issues are obvious and well known, while others may be more obscure.

An assessment has been submitted to the ATS as “5059 FEVARI Assessment”. Conditions pertaining to plant-wide or general environmental management issues (noted in the following sections) will be identified in ATS under 5059 and assigned to the appropriate ORNL organization.

3.1 SOIL, SURFACE WATER, AND GROUNDWATER CONTAMINATION

Soil, surface water, and groundwater contamination problems will continue to challenge facility engineers, facility operations managers, and ORNL management for the foreseeable future, perhaps even for generations. Although there is an Interim Record of Decision (ROD) for Bethel Valley⁵ that addresses contaminated buildings, infrastructure, soil, and groundwater, it specifically excludes “active facilities and infrastructure” from the clean up scope. This means that contamination in the soil/water matrix beneath active DOE-SC/UT-Battelle-managed facilities, and the issues associated with contaminated duct work (above or below ground) or process drains is not addressed in the Interim ROD. The issue of duct work is addressed in Section 3.9 of this document (Waste Treatment Systems and Facility Boundary Issues with BJC).

The Bethel Valley Interim ROD does not establish a decision in regards to groundwater. The final groundwater decision, and any accompanying remedy, will be addressed in a future ROD after the selected remedy for Bethel Valley has been implemented. The lack of a final ROD delays DOE’s adoption of specific Land Use Controls for active facilities, leaving another unknown for future consideration. These issues are well summarized in a white paper on subsurface contamination issued prepared by UT-Battelle⁶.

UT-Battelle’s response, recommendations, or actions to conditions concerning soil, surface water, and groundwater contamination are summarized in Table 6.

⁵ *Record of Decision for Interim Actions in Bethel Valley, Oak Ridge, Tennessee, DOE/OR/01-1862&D4*

⁶ *White Paper Discussing Issues and Recommendations Concerning Subsurface Contamination in Bethel Valley at Oak Ridge National Laboratory During and After Completion of U.S. Department of Energy, Office of Environmental Management Interim Actions*, by S.D. Van Hoesen and K.M. Billingsley, May 2002.

Table 6. Response, recommendation, or action for soil, surface water and groundwater contamination.

Condition	Action
The UT-Battelle Stewardship, Waste, Infrastructure and Facilities Team (SWIFT) should address environmental issues in regards to unfunded legacies and liabilities.	SWIFT is operational.
BJC is presently performing an engineering evaluation of the groundwater in Bethel Valley. UT-Battelle should assign resources to monitor the progress of this evaluation and advocate UT-Battelle's long-term interests in groundwater quality.	UT-Battelle's coordination with DOE-EM/BJC should continue.
Active, vigorous participation in the DOE-EM/BJC planning process, with an eye towards representing the vital interests of the ORNL site and DOE-SC managed facilities and operations, should continue to be an integral aspect of the DOE-SC/UT-Battelle Environmental Management Programs (Legacy).	This is accomplished through the Environmental Management Programs (Legacy) coordination between UT-Battelle and BJC.
The ORNL Environmental Sampling and Data Evaluation Team (managed by UT-Battelle) is the primary means by which a release, which migrates to surface water might be detected, traced to its source, and documented; as such it should be continued.	This is accomplished through the ORNL Environmental Protection Services Group .

BJC - Bechtel Jacobs Company LLC
 DOE-EM - U.S. Department of Energy Office of Environmental Management
 DOE-SC - U.S. Department of Energy Office of Science

ORNL - Oak Ridge National Laboratory
 SWIFT - Stewardship, Waste, Infrastructure and Facilities Team

3.2 VECTOR-BORNE CONTAMINATION

Vectors include plants, insects, birds, and small mammals. Vectors carry contamination, usually from soil or water, but sometimes from vegetation, and deposit it in numerous ways in the form of animal nests, feces, or vegetal growth. Ants sometimes bring contamination to the surface as they build nests and deposit grains of soil at the surface. Various sorts of flying insects, especially the so-called dirt dabbler (a type of wasp chiefly of the superfamilies Vespoidea and Sphecoidea), can deposit contaminated soil in its nest at various elevations; even behind exterior siding and soffit materials, or in cracks in masonry. Animal vectors (geese, frogs, groundhogs, raccoons, etc.) are numerous at ORNL; even in the most heavily used areas of Bethel Valley. Such vectors deposit contamination in the form of feces or by tracking contamination as they move.

Various forms of vegetation are responsible for bringing contamination to the surface and disseminating the contamination via leaf fall or seedling dispersal. Numerous contaminated trees, shrubs, and vines were removed from the ORNL main campus and dispositioned in 2002⁷. This work was accomplished by a combination of funding from the FEVARI Project and the ORNL general grounds maintenance budget. The stumps of removed trees and shrubs were treated with herbicides to inhibit re-growth.

Vectors have been responsible for reportable occurrences, and it is likely this will continue as long as contamination exists at/near the soil surface, under buildings, and in various forms of conduit and duct work (at or below grade). Some reduction in animal vectors is likely to occur with DOE-EM/BJC's completion of the Surface Impoundments Operable Unit closure by the end of 2003. UT-Battelle's response, recommendations, or actions to conditions concerning vector-borne contamination are summarized in Table 7.

⁷ Section 2.1.5 of "White Paper Discussing Issues and Recommendations Concerning Subsurface Contamination in Bethel Valley at Oak Ridge National Laboratory During and After Completion of U.S. Department of Energy, Office of Environmental Management Interim Actions," by S.D. Van Hoesen and K.M. Billingsley, May 2002.

Table 7. Response, recommendation, or action for vector-borne contamination.

Condition	Action
The ORNL FMD should instruct Complex Managers to take note of vector-borne contamination events and take reasonable measures to disrupt or eliminate animal and insect vectors, remove contaminated plant vectors, and initiate treatment with herbicides or other means to inhibit vegetation re-growth.	ATS item for FMD.

ATS - Assessment Tracking System
 FMD - Facility Management Division
 ORNL - Oak Ridge National Laboratory

3.3 SOLID WASTE MANAGEMENT UNITS

There are 20 Solid Waste Management Units (SWMUs) at ORNL that are managed by UT-Battelle. Some SWMUs are pending evaluation and characterization. These sites are listed in Table 8, which does not include SWMUs managed by BJC.

By definition, none of the SWMUs identified at ORNL are in the DOE-EM remedial program, even though they are listed in the Remedial Action Inventory Management System (RAIMS), which is a BJC-operated system that is the official reporting mechanism of SWMUs to DOE. Furthermore, the assurance that the ORNL SWMUs are being appropriately managed and controlled is potentially compounded by another plant-wide or general problem, the inconsistencies among the various facility data sets identifying which organization is the owner/operator of a given facility (see Section 3.4).

UT-Battelle’s response, recommendations, or actions to conditions concerning SWMUs are summarized in Table 9.

Table 8. UT-Battelle-managed Solid Waste Management Units (SWMUs)

Unit_ID	Unit_Title
414	Active LLLW Collection Tank B-2-T
415	Active LLLW Collection Tank B-3-T
416	Active LLLW Collection Tank C-6-T
417	Active LLLW Collection Tank F-111
421	Active LLLW Collection Tank N-71
422	Active LLLW Collection Tank P-3
423	Active LLLW Collection Tank P-4
443	Active LLLW Holding Tank F-126
516	Coal Pile Settling Basin (2545)
543	DOSAR Site
631	Isotope Technology Building (3047A)
764	Pistol Range
814	Sewage Aeration Pond (East) - (2543)
815	Sewage Aeration Pond (West) - (2544)
817	Sewage Treatment Plant (2521)
818	Sewage Treatment Plant (7904)
852	Thorium Handling Facility (7019)
882	Waste Oil Storage Area (3550)
889	Waste Oil Storage Tank (7075)
1556	0901 Electrical Substation

DOSAR – Dosimetry Applications Research
 LLLW – liquid low-level waste

Table 9. Response, recommendation, or action for SWMUs

Condition	Action
Prepare and submit ADSs for site characterization of ORNL SWMUs (based on a vulnerability priority).	ATS item for ORNL Environmental Protection.

ADSs - Activity Data Sheets
 ATS - Assessment Tracking System
 ORNL - Oak Ridge National Laboratory
 SWMUs – Solid Waste Management Units

3.4 INCONSISTENCIES IN FACILITY RESPONSIBILITY DATA SETS

There are three basic types of inconsistencies that are encountered in the various facility data sets accessible to subscribers of the ORNL Unclassified Computer Account Management System (UCAMS).

1. There is disagreement about who is responsible for the management of ORNL facilities (i.e., whether a given facility is managed by UT-Battelle or BJC).
2. There are inconsistencies among the various facility data sets identifying which UT-Battelle organization has responsibility for a given facility. In some cases, there appear to be facilities that are not assigned to any organization.
3. There is a lack of consistency across the data sets for the name used for a given facility. It should be noted that the UT-Battelle contract does not list the facilities UT-Battelle is responsible for; rather, it says that UT-Battelle is responsible for all facilities at the ORNL site that are not assigned to contractors reporting to another DOE Program Secretarial Office (PSO).

The various data sets available to UCAMS subscribers on the ORNL internal web site, include the:

- ORNL Facility Index, found at: http://www-sap.ornl.gov/scripts/wgate/ZKWWW_FACINDEX/!?_FUNCTION=Z_K_WWW_FACINDEX_MENU ;
- the Facility Responsibility Directory, found at: http://www.fo.ornl.gov/apps/prod/fac_resp/ ; and
- the Condition Assessment Survey (CAS), found at: <http://www.pe.ornl.gov/cais/> .

Other data sets that are available to a limited number of organizations, or upon request include:

- the Facilities Information Management System (FIMS), which is the official Federal real property system;
- the Remedial Action Inventory Management System (RAIMS), which is a BJC operated system that “officially” reports SWMUs to DOE; and
- the UT-Battelle and BJC facilities listed in each company’s DOE contract.

The inconsistencies among these data sets exist primarily for two reasons.

- Each data set has its own distinct function, criteria, or requirements that do not quite jibe with the function, criteria, or requirements of the other data sets.
- There is not a specific ORNL-wide mission or responsibility to accumulate and reconcile the inconsistencies of ownership, number, naming, etc., of all facilities on the ORNL site.

UT-Battelle’s response, recommendations, or actions to conditions concerning inconsistencies in facility responsibility data sets are summarized in Table 10.

Table 10. Response, recommendation, or action for inconsistencies in facility responsibility data sets.

Condition	Action
The UT-Battelle Environmental Management Programs (Legacy) has initiated a review with BJC to reconcile the lists of facilities for which UT-Battelle and BJC are contractually obligated. UT-Battelle has provided a list of disputed facilities to BJC.	List of disputed facilities transmitted to BJC; other issues will also be explored.
An effort is under way by the F&O Directorate to reconcile certain facility-related data sets. This effort should include reconciliation of all other data sets mentioned in this section, including the BJC-operated RAIMS data set.	ATS item for F&O Directorate

ATS - Assessment Tracking System
 BJC -Bechtel Jacobs Company LLC

F&O - Facilities and Operations
 RAIMS - Remedial Action Information Management System

3.5 ASBESTOS CONTAINING MATERIAL AND PRESUMED ASBESTOS CONTAINING MATERIAL

Asbestos containing material (ACM) and presumed asbestos containing material (PACM) are present in many forms and applications in dozens of ORNL facilities, and constitute a significant challenge in managing or disposing of legacy materials. ACM and PACM are present in floor tile, carpet, baseboard, mastic, glazing, ceiling tile, lab tops, gaskets, wiring insulation, pipe insulation, and likely other applications. Due to the age of most ORNL facilities, it is not unusual for asbestos to be an issue. However, ACM and PACM are not limited to just the older ORNL facilities; several newer office-type buildings, including several of the so-called “generic” office buildings contain ACM or PACM.

Line management of facilities with ACM (except ORNL facilities located at the Y-12 National Security Complex) are required to follow the requirements identified in the [SBMS Subject Area: Asbestos](#), issued on August 26, 2003, which includes the following procedures/guidelines.

- Procedure: Communication of Hazard for Asbestos, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/asbestos/pro1.cfm>
- Procedure: Qualification and Training, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/asbestos/pro2.cfm>
- Procedure: Planning for Asbestos Removal Work Operations, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/asbestos/pro3.cfm>
- Procedure: Performing Asbestos Removal, Renovation, and/or Disposal Operations, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/asbestos/pro4.cfm>

UT-Battelle’s response, recommendations, or actions to conditions concerning ACM and PACM are summarized in Table 11.

Table 11. Response, recommendation, or action for ACM and PACM.

Condition	Action
The CAS program (which includes asbestos surveys and abatement) is providing compliance information to line management and asbestos removal services and should be continued.	No additional action needed at present.

CAS – Condition Assessment Survey

3.6 TIMELINESS OF HAZARDOUS MATERIAL INFORMATION SYSTEM INVENTORY REPORTS

Much progress has been made towards implementation of the Hazardous Material Information System (HMIS). All hazardous materials that are shipped to ORNL are barcoded upon receipt and tracked to specific HMIS control areas. This provides an accurate and comprehensive list of hazardous materials shipped to ORNL. Additionally, ORNL research divisions have completed the inventory of items that were ordered prior to barcoding at receiving. However, the placement of barcodes on each of the identified items is in process and has not been completed. It should be noted that HMIS is not programmed to account for items that do not have a barcode. Thus, the implementation of a real-time, or even a near real-time inventory system for hazardous materials is contingent on completing the barcoding process. The HMIS staff estimates that ORNL divisions are approximately 70-percent complete in the barcoding task.

The HMIS program is presently working with the ORNL Fire Department and the FMD to evaluate HMIS control areas on a room-by-room basis, and to set limits for various categories of hazardous materials on a room-by-room basis. The basis for the limits of hazardous materials relates to the fire zone. Completing the barcoding of the existing hazardous material inventory will facilitate the real-time tracking of hazardous materials to a specific room within a specific facility. These limits and inventories could be incorporated into the Facility Use Agreements, which would be a means of avoiding a future “legacy” chemical situation.

UT-Battelle’s response, recommendations, or actions to conditions concerning the timeliness of HMIS inventory reports are summarized in Table 12.

Table 12. Response, recommendation, or action for timeliness of HMIS inventory reports.

Condition	Action
Some hazardous materials procured by ORNL do not have an expiration date assigned by the manufacturer. The feasibility of assigning an expiration date to every hazardous material item, as well as the feasibility of incorporating expiration dates into a meaningful materials management approach should be evaluated.	ATS item for Operational Safety.

ATS - Assessment Tracking System

ORNL - Oak Ridge National Laboratory

3.7 ENVIRONMENTAL-RELATED ISSUES ASSOCIATED WITH OLD FACILITIES

There are four notable legacy contaminants that are present in many older ORNL facilities, old equipment, spill sites on floors, soil, and groundwater. Mercury, lead, beryllium, and polychlorinated biphenyls (PCBs) were widely used for decades at ORNL before they were regulated under the Toxic Substances Control Act (TSCA) and RCRA, or identified as contaminants of concern in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) clean-up activities. In some cases these contaminants are still in use at ORNL. As a result, the presence of these substances is pervasive in ORNL’s main plant area.

Mercury, lead, and beryllium constitute a significant challenge for the ORNL Legacy Materials Disposition Initiative (LMDI), and frequent sampling is required to classify equipment for disposition or disposal. Beryllium has been used in numerous nuclear-related facilities and has been stored in an unknown number of other facilities, with varied effectiveness of containment barriers. Mercury is found in manometers, thermometers, thermostats, and switches internal to many types of equipment. In addition, a large volume of mercury was used in the OREX process at ORNL. Mercury also contaminates the groundwater in the 4500 area. This contaminated water is deliberately captured in basement sumps in order to avoid contamination by in-seepage. It should be noted that the National Pollutant Discharge

Elimination System (NPDES) water quality criteria are very stringent in regards to mercury contamination.

PCBs and lead have been found in paint covering equipment and building structures. Informal guidance from ORNL Environmental Protection Services regarding the management of paint chip waste has been shared with the F&O Directorate. A draft procedure to address PCBs paint chip waste (but not RCRA metals) has been written and is in review prior to inclusion on the SBMS. PCBs also exist in many electric transformers, capacitors, gaskets, older plastic-type wiring insulation, grease, and oil predating 1979. ORNL along with DOE has disclosed unauthorized uses of PCBs on the Oak Ridge Reservation. This disclosure was made in “*The Oak Ridge Reservation Polychlorinated Biphenyl Federal Facilities Compliance Agreement*,” August 19, 1997.

Line management of facilities with identified PCBs is obligated to manage PCB-containing items/materials pursuant to the SBMS Subject Areas concerning PCBs. These Subject Areas and associated procedures are maintained by the ORNL Environmental Management System. The Subject Area: Polychlorinated Biphenyl (PCB) Waste, Managing, is found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWsa.cfm>, and contains the following procedures/guidelines.

- Procedure: Planning PCB Waste Generation and Establishing PCB Waste Storage Areas, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWpro1.cfm>
- Procedure: Generating PCB Waste, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWpro2.cfm>
- Procedure: Characterizing PCB Waste and Initiating Waste Certification, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWpro5.cfm>
- Procedure: Packaging PCB Waste, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWpro6.cfm>
- Procedure: Operating PCB Waste Storage Area, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBWs/PCBWpro4.cfm>

The Subject Area: Polychlorinated Biphenyls (PCBs), Management of Non-waste is found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBSa.cfm>, and contains the following procedures/guidelines.

- Procedure: Identifying and Reporting PCB and PCB-Contaminated Equipment, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro1.cfm>
- Procedure: Labeling PCB and PCB-Contaminated Equipment, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro2.cfm>
- Procedure: Using and Inspecting PCB and PCB-Contaminated Equipment, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro3.cfm>
- Procedure: Storing PCB Items for Reuse, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro4.cfm>
- Procedure: Using PCBs in Research and Development, Treatability Studies, and Samples, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro5.cfm>
- Procedure: Discovering Unauthorized Uses of PCBs, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro6.cfm>
- Procedure: Disposition of PCB Items for Resale or Recycle, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro7.cfm>
- Procedure: PCB Spill Clean Up Requirements, found at <http://sbms.ornl.gov/sbms/SBMSearch/SubjArea/PCBs/PCBpro8.cfm>

Guidance maintained by the Environmental Management System on managing mercury and lead wastes is provided in the SBMS Subject Area: Hazardous and Mixed Waste Management, and found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HmwmSA.cfm>. This Subject Area includes the following procedures/guidelines.

- Procedure: Planning for Waste Generation, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro1.cfm>
- Procedure: Establishing a Satellite Accumulation Area, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro2.cfm>
- Procedure: Establishing a 90-Day Accumulation Area, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro4.cfm>
- Procedure: Generating Hazardous and Mixed Wastes, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro6.cfm>
- Procedure: Packaging Hazardous and Mixed Waste, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro8.cfm>
- Procedure: Characterizing Hazardous and Mixed Waste, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro9.cfm>
- Procedure: Operating a Satellite Accumulation Area, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro3.cfm>
- Procedure: Operating a 90-Day Accumulation Area, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro5.cfm>
- Procedure: Treating Hazardous and Mixed Waste in Generator Areas, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro7.cfm>
- Procedure: Spill Response and Clean-up, found at <http://sbms.ornl.gov/sbms/sbmsearch/SubjArea/Hmwm/HMWMpro10.cfm>

Guidance concerning the management of hazardous chemicals, lead, and beryllium waste is provided in the Worker Safety and Health Management System maintained SBMS Subject Area: Chemical Safety, which is found at http://sbms.ornl.gov/sbms/SBMSearch/msd/Wsh/wsh_msdcfm, and includes the following procedures/guidelines.

- Procedure: Planning for the Use of Hazardous Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro1.cfm>
- Procedure: Hazardous Chemical Request/Procurement, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro2.cfm>
- Procedure: Storing and Handling Hazardous Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro3.cfm>
- Procedure: Storing and Handling Flammable and Combustible Liquids, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro4.cfm>
- Procedure: Using Hazardous Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro5.cfm>
- Procedure: Time/Condition-Sensitive Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro6.cfm>
- Procedure: Maintenance of Hazardous Materials Inventory, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro7.cfm>
- Procedure: Training/Awareness for Use of Hazardous Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro8.cfm>
- Procedure: Transporting Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro9.cfm>
- Procedure: Disposition/Disposal of Excess Chemicals, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro10.cfm>
- Procedure: Spills and Other Adverse Chemical Conditions, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/chemsafepro11.cfm>
- Procedure: Working with Lead, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/leadpro1.cfm>
- Procedure: Working with Beryllium, found at <http://sbms.ornl.gov/sbms/sbmsearch/subjarea/chemsafe/berylliumpro1.cfm>

UT-Battelle's response, recommendations, or actions to conditions concerning environmental-related issues associated with old facilities are summarized in Table 13.

Table 13. Response, recommendation, or action for environmental-related issues associated with old facilities.

Condition	Action
The FMD will evaluate their internal procedures and work plans to determine if facilities with mercury, lead, beryllium, and PCB materials, spills sites, and unused equipment are being adequately managed per SBMS requirements.	ATS for FMD
ORNL Environmental Protection has evaluated issues relating to management of PCB paint chip waste (but not RCRA metals) and has drafted a new procedure which will be included in SBMS. EP should complete the same evaluation for RCRA paint chip waste.	ATS for ORNL Environmental Protection

ATS - Assessment Tracking System
 FMD - Facility Management Division

PCB - polychlorinated biphenyl
 SBMS - Standards-Based Management System

3.8 POTENTIAL FUTURE RCRA-DRIVEN REMEDIATIONS, AS OPPOSED TO CERCLA-DRIVEN REMEDIATIONS

Once the DOE-EM effort and the CERCLA process addressing the Federal Facilities Agreement (FFA) priority sites is completed, any remaining contaminated sites and facilities may be subject to remediation under RCRA. CERCLA allows remediations to be tailored to health risk reduction and conducted according to remedial action objectives (RAOs). RCRA provides no such flexibility.

The waste treatment systems at ORNL, including the central gaseous waste system that discharges through the 3039 stack; the Process Waste System; and the Liquid Low-Level Waste (LLLW) System are not addressed in the Bethel Valley Interim ROD. These systems are likely to be viewed by regulators as operating systems that would be more appropriately closed under RCRA, rather than CERCLA, if these systems continue to operate beyond the completion of the current CERCLA clean up activities being conducted by DOE-EM/BJC. However, if DOE-EM/BJC uses these systems to support the CERCLA closure actions, and the systems are no longer needed to support the DOE-SC mission, then the systems could be closed under CERCLA. If the systems are needed to support future DOE-SC missions, then the burden of closing the systems under RCRA could potentially be the responsibility of DOE-SC.

UT-Battelle’s response, recommendations, or actions to conditions concerning future RCRA-driven remediations, as opposed to CERCLA-driven remediations are summarized in Table 14.

Table 14. Response, recommendation, or action for potential future RCRA-driven remediations, as opposed to CERCLA-driven remediations.

Condition	Action
Active, vigorous participation in the DOE-EM/BJC planning process, with an eye towards representing the vital interests of the ORNL site and DOE-SC-managed facilities and operations, should continue to be an integral aspect of the UT-Battelle Environmental Management Programs (Legacy).	ORNL Environmental Management Programs (Legacy) coordination should continue between UT-Battelle and BJC; no additional action required.
The “roadmap” outlined in the <i>Oak Ridge National Laboratory Liquid and Gaseous Waste Strategic Plan</i> , ORNL/TM-2003-197 will allow UT-Battelle to disconnect from the waste treatment systems in a timely manner and minimize likelihood of a RCRA closure.	The <i>Oak Ridge National Laboratory Liquid and Gaseous Waste Treatment System Strategic Plan</i> , ORNL/TM-2003-197 has been issued. Implementation is funded for FY04 in the second year of a two year OIP.

BJC - Bechtel Jacobs Company LLC
 DOE-EM - U.S. Department of Energy Office of Environmental Management

DOE-SC - U.S. Department of Energy Office of Science
 OIP – Operations Improvement Program
 RCRA - Resource Conservation and Recovery Act

3.9 WASTE TREATMENT SYSTEMS AND RELATED BOUNDARY ISSUES WITH BJC

The awareness of the issue of facility boundaries grew out of UT-Battelle’s response to the strontium-90 incident in the summer of 2002, in relation to the cell and hot off-gas systems. The UT-Battelle Environmental Management Program (Legacy) was tasked to define the specific responsibilities and ownership boundaries/interfaces for the cell and hot off-gas systems. A regular discussion between UT-Battelle and BJC on the specifics of ownership boundaries has been initiated with a goal of formalizing an agreement.

A second, parallel issue is also being worked with BJC, which is defining the boundary of BJC-managed facilities in the ORNL main plant area. This issue is an important one, since BJC has quantities of waste containers located outside of buildings managed by BJC that need to be removed or acknowledged by both parties as the responsibility of BJC. Currently, UT-Battelle safety documentation does not account for the presence of BJC radiological or chemical wastes that are located outside of BJC facilities, and these containers may or may not be considered in BJC’s safety documentation.

UT-Battelle’s response, recommendations, or actions to conditions concerning waste treatment systems and related boundary issues with BJC are summarized in Table 15.

Table 15. Response, recommendation, or action for waste treatment systems and related boundary issues with BJC.

Condition	Action
Boundaries have been proposed to BJC on the gaseous waste systems that minimize vulnerability to UT-Battelle.	The UT-Battelle Manager of the Environmental Management Programs (Legacy) has submitted a proposed boundary to BJC and negotiations are underway.

BJC - Bechtel Jacobs Company LLC

ORNL - Oak Ridge National Laboratory

3.10 LONG-TERM STEWARDSHIP

Long-Term Stewardship (LTS) has certain similarities to the soil, surface water, and groundwater contamination issues identified in section 3.1, except that issues identified in section 3.1 have immediate application, whereas LTS relates to the conditions and issues remaining at the close of the DOE-EM remediation era. Management issues relating to LTS of the ORNL site commence with the dichotomous time frame of the DOE-EM and DOE-SC missions, and the division of these functions between their prime contractors (UT-Battelle is the DOE-SC management and operations contractor, and BJC is the DOE-EM management and integrating contractor). DOE-SC/UT-Battelle managers work on a time frame of decades, whereas the DOE-EM remedial program is focused on meeting CERCLA requirements in the near-term, and is unburdened by long-term considerations.

Clearly, it is in DOE-SC/UT-Battelle’s best interest to be aware that DOE-EM/BJC may eventually turn over all sites and facilities to DOE-SC/UT-Battelle when the DOE-EM mission is completed in approximately 2015. The capability to handle these sites, and conduct the long-term monitoring required by environmental regulations, will be a valuable asset if these facilities and sites, such as the SWMUs at ORNL (see Section 3.3) become the responsibility of DOE-SC/UT-Battelle. In the near term, continuing the existing UT-Battelle Environmental Management Programs (Legacy) interface with BJC is obviously in the best interests of UT-Battelle. Furthermore, a more active and comprehensive role may be warranted. Given the uncertainties of the outcome of the regulatory process for the ORNL environmental clean up, as well as potential clean up budget issues, UT-Battelle’s direct participation in BJC’s planning process should be considered.

Current DOE-EM plans call for the return of responsibility for facilities and property to ongoing site programs after active clean up is completed. Except where contaminated sites/facilities are returned to pristine conditions, responsibilities for monitoring and maintenance will continue for many decades. Many remediation technologies are effective only for a finite duration (e.g., the effective design-life of hydrologic caps is typically 30 years). Because contaminants left in place at ORNL would still require isolation after the end of the design-life, caps would need to be replaced, and/or an alternative remedial action, based on current technologies and regulations, would need to be developed and implemented. In addition, groundwater clean up options recommended in the Bethel Valley Interim ROD include groundwater treatment facilities that will continue to operate for decades. Decisions and commitments that are made during the active remediation period legally subject the long-term steward to monitoring, maintenance, operations, reporting requirements, and the associated costs.

DOE-EM is heavily pressured to minimize active clean up costs and risks. Near-term cost savings can sometimes be achieved at the expense of long-term operations, maintenance and monitoring. With the shift of LTS (recently renamed “legacy management”) outside of DOE-EM, clean up programs have less incentive to balance near-term and long-term costs. LTS costs can be quite high. The Oak Ridge fiscal year 2001 (FY01) Life-Cycle Baseline estimates costs during a 56-year LTS period for ORNL at over half a billion dollars. This figure is more than half the cost of LTS for the entire Oak Ridge Reservation. Annual ORNL projected costs range from nearly \$9 Million to over \$26 Million.

UT-Battelle’s response, recommendations, or actions to conditions concerning LTS are summarized in Table 16.

Table 16. Response, recommendation, or action for LTS.

Condition	Action
UT-Battelle should have increased participation in the evaluation of remedial alternatives and designs, with respect to impacts on LTS cost and requirements.	Implementation of the SWIFT charter seeking resolution to the roles and responsibilities that are faced by DOE-EM, DOE-SC, and NNSA.

DOE-EM - U.S. Department of Energy Office of Environmental Management
 DOE-SC - U.S. Department of Energy Office of Science
 LTS - Long-Term Stewardship

NNSA - National Nuclear Security Administration
 SWIFT - Stewardship, Waste, Infrastructure and Facilities Team

3.11 EVALUATION OF LINE MANAGEMENT COMPLIANCE

An assessment of the UT-Battelle Environmental Management System conducted in October 2002 by Bet Zimmerman of Pacific Northwest National Laboratory, found that Laboratory management does not have an established and documented procedure to ensure that line management is in a state of compliance with environmental rules and regulations. The assessment stated:

"Accountability for environment, safety and health (ES&H) performance is improving, but some managers may not fully understand how to implement this accountability. Top management should clearly reinforce and demonstrate that all organizations (including corporate personnel and researchers/managers who generate significant levels of funding) are held to the same standard, and that environmentally responsible operations are an integral part of the way UT-Battelle does business. Because they have established a constructive relationship with regulators based on trust, Environmental Protection and Waste Services Division staff have been able to smooth things over with regulators when there are environmental problems. However, they can only do this so many times before this trust "capital" is depleted. If organizations experience repeat problems demonstrating a lack of understanding or commitment to environmentally responsible operations, top management (not just the Environment Safety, Health, and Quality Directorate staff and management) must actively reinforce UT-Battelle expectations."

Another observation from the assessment report stated: "UT-Battelle has not established and maintained a documented procedure for periodically evaluating compliance with relevant environmental legislation and regulations." Inspections on a limited basis may address both observations.

UT-Battelle's response, recommendations, or actions to conditions concerning line management compliance are summarized in Table 17.

Table 17. Response, recommendation, or action for line management compliance.

Condition	Action
Conduct periodic assessments of line management to ensure compliance with environmental regulations.	ATS action for Environmental Protection Services.

ATS – Assessment Tracking System

3.12 IDENTIFICATION OF OUTDOOR WASTE CONTAINERS

Much of the issue of ownership of outdoor waste containers was resolved in 2002 when UT-Battelle and BJC identified all waste container B-25 boxes that were outdoors on the ORNL site. Ownership of the B-25 box containers were then divided between the two companies and managed accordingly. In order to resolve in its entirety the issue of outdoor waste containers, it is apparent that the same process needs to be applied to waste container drums and waste container SeaLands.

UT-Battelle’s response, recommendations, or actions to conditions concerning outdoor waste containers are summarized in Table 18.

Table 18. Identification of outdoor waste containers.

Condition	Action
An unknown number of waste containers consisting of drums and SeaLand containers are located outdoors on the ORNL site. An exhaustive survey needs to be conducted in order to identify the number and location of such containers, and to resolve the ownership and the responsibility to manage such containers.	ATS action for Laboratory Waste Services.

ATS – Assessment Tracking System

4. ENVIRONMENT, SAFETY, AND HEALTH MANAGEMENT PLAN ACTIVITY DATA SHEETS

ORNL's Environment, Safety, and Health (ES&H) Management Plan identifies the ES&H activities considered necessary during the performance of the Laboratory's missions, planning for ORNL infrastructure needs that support research, development, and ES&H at ORNL to ensure:

- the health and safety of employees and the public;
- protection of the environment; and
- compliance with applicable laws, regulations, DOE policies and orders, and other ES&H requirements.

This plan was developed using risk-based planning and priority-setting methodologies consistent with Integrated Safety Management (ISM) principles to

- establish and communicate ES&H expectations to all stakeholders;
- support the development of departmental budgets and secure funding for ES&H programs and activities;
- support the integration of ES&H principles in site-wide work planning and execution; and
- assess ES&H performance and provide feedback to promote continuous improvement.

The ES&H Management Plan was derived from the various levels and systems of ORNL's organizational structure. ORNL's self-assessment programs and external assessments were key in identifying and characterizing ES&H issues documented herein, and on the submitted Activity Data Sheets (ADSs). The risk-based prioritization methodology used to develop this plan was adopted by ORNL to prioritize overhead activities, landlord capital requirements, and ES&H programmatic activities.

Table 19 identifies the ES&H-related projects that were funded, at least in part. The table is sorted to show compliance-related items and other items not directly related to compliance. A large number of unfunded projects have been proposed for FEVARI issues and are identified in Table 20. Each proposed project is entered into the ES&H Management Plan information system as an ADS. Additional ADSs will be entered as FEVARI issues are identified.

Table 19. Funded ES&H-related projects responsive to FEVARI needs.

ADS No.	Project Title
Funded Compliance-Related Projects	
A00D0043	Building 1506 Renovations
A02D0004	Replace Degraded COG HEPA Filters in Building 7920
A99D0018	Fire Protection Systems Upgrade Line Item
A99D0156	Upgrade Electrical Panels and Breaker System in 4501
AA1D0035	Renovate 4500N Laboratories for Condensed Matter Sciences Division
AA2D0047	Replace Building 3525 Air Handlers
AA2D0049	Surplus Facilities Cleanout, Deactivation, and Demolition (FWP ERKG001)
AA2D0051	ORNL Legacy Material Disposition (Compliance)
AA2D0097	Utility Modifications
AA2D0099	Replace Tertiary Filter – Sewage Treatment Plant
AA2D0108	Upgrade Sewage Collection
AA2D0114	Fire Protection Systems Upgrade – 7930
AA2D0119	Disposal of Special Nuclear Materials (FY03 Operations Improvement Program{OIP} Project)
AA2D0120	Safety Analysis Documentation, Building 3047 (FY03 OIP Project)
AA3D0014	Characterization of Inactive Storage Tank, 2528A
AA3D0022	4501 – Legacy Cleanout in East and West Basement
C97D0071	Fire Protection Systems Upgrade – General Plant Project (GPP)
P98D0019	ORNL S&H – Building Electrical System Upgrades
Other Funded Projects	
A01D0019	Rebuild Steam Station and Supply Piping, 7920
A99D0017	Laboratory Facilities HVAC Upgrade Line Item
AA2D0002	ORNL Legacy Material Disposition (Improvement)
AA2D0124	Liquid and Gaseous Waste Treatment Facility Reengineering (FY03 OIP Project)
AA2D0126	Chemical Management Center Operations (FY03 OIP Project)

COG - cold off-gas

FY - fiscal year

HEPA - high-efficiency particulate air

HVAC - Heat, ventilation, and air conditioning

GPP - General Plant Project

OIP - Operational Improvement Program

ORNL - Oak Ridge National Laboratory

S&H - safety and health

Table 20. Unfunded ES&H-related projects responsive to FEVARI needs.

ADS No.	Project Title
Unfunded Compliance-Related Projects	
AA0D0042	Update Nuclear Facility Drawings (FWP ERKCL58)
Other Unfunded Projects	
A00D0032	Replace Hood/Secondary Confinement, Exhaust System 7920
A01D0010	Install System to Collect LLLW, Hot Cells and Hoods, 4501
A01D0031	Replace Cranes/Hoisting Devices in NNFD CAT 2 Facilities
A95D0009	Building 4505, Scope and Legacy Wastes
A99D0038	Continuous Air Monitor Replacement, Building 3525
AA0D0017	Manipulator Repair Facility (LI)
AA1D0021	Pollution Prevention Projects to Reduce Hazardous Waste Generation
AA1D0023	Sewage Treatment Plant Denitrification System
AA2D0050	Single-Pass Cooling Equipment Replacement
AA2D0052	Process Waste Drain Contaminant Discharge Elimination
AA2D0079	4501 - HEPA Ventilation System Repair
AA2D0081	Building 2026 HEPA Ventilation System Repair
AA3D0013	Investigation of SWMU #0.75, ORNL Facility 0954
AA3D0015	Reduction of Long-Term Environmental Stewardship Risks
AA3D0017	ORNL Gaseous and Liquid Waste Treatment (LI)
AA3D0018	ORNL Gaseous Waste System Upgrade (GPP)
AA3D0019	Add Low-Level Radioactive Waste System to 3525
AA3D0031	Refurbish the 7920 Decontamination Glove Box
AA3D0032	Upgrade Process Drains in Building 7920
AA3D0037	ORNL Gaseous Waste System Disconnection (OE)
C97D0061	Potable Water System Upgrade I (LI)
C97D0062	Potable Water System Upgrade II (LI)
AA4D002	OSHA External Regulation Assessment Remediation (new)

CAT - Category

GPP - General Plant Project

HEPA - high-efficiency particulate air

LI - line item

LLLW - liquid low-level waste

NNFD - Non-reactor Nuclear Facilities Division

OE - operational expense

ORNL - Oak Ridge National Laboratory

OSHA – Occupational Safety and Health Administration

SWMU - Solid Waste Management Unit

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5. FACILITY WALK-DOWNS

Facility walk-downs were accomplished primarily by the FMD Complex Managers and their staffs. The three appendices to this report constitute the facility inspections that were accomplished during the final phase of FEVARI and are incorporated herein. Appendix A provides information on the Type 3 facilities, Appendix B provides information on the Type 2 facilities, and Appendix C provides information on the Type 1 facilities located on the ORNL site.

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APPENDIX A

SUMMARY OF FACILITY ISSUES FOR FEVARI TYPE 3 FACILITIES

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APPENDIX A						
Summary of Facility Issues - FEVARI Type 3						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
X176230	3515 Trailer	See Note # 7				N/A
X186600	Electrical equipment trailer		Kevin Norris John A. Emison	09/19/02		None.
X185249	Trailer		Norman Farrow, Dirk Van Hoesen, John Emison	10/03/02	08/23/02	None.
XC1402	AMSE Museum		Glenn Anderson, John A. Emison	10/03/02		There is no asbestos survey for the Museum. Older floor tile is suspect.
XC1403	Solar Exhibit		Glenn Anderson, John A. Emison	10/03/02		None.
XC1404	Automobile Exhibit		Glenn Anderson, John A. Emison	10/03/02		None.
XC1405	Museum Office Trailer		Glenn Anderson, John A. Emison	10/03/02		None.
XE1451	Barn B (Solway Bend)		J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XF1301	Barn D (Solway Bend)		J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XF1303	Barn E (Solway Bend)		J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XF1304	Silo E		Warren Webb, Mike Finger, John A. Emison	09/23/02		Contents of a bucket should be characterized and disposed.
XF1305	East Bethel Valley Entrance		Sheila Holbert	07/17/02		None.
XF1576	SHED D	See Note # 1				N/A
XF1577	SHED W	See Note # 1				N/A
XF1578	SHED E	See Note # 1				N/A
XF1579	NEW SWINE BARN	See Note # 1				N/A

APPENDIX A						
Summary of Facility Issues - FEVARI Type 3						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
XF1580	Twin I Barn (Solway Bend)		J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XF158X	Solway Barn		J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XG1401	Freels Bend Log Cabin	Pete Hoke	J.M. Finger, S.D. Van Hoesen, J.A. Emison, S.R. Cline	07/19/02	08/14/02	Flammable chemicals are improperly stored. Chemical compatibility may be an issue.
XG1402	Freels Bend Machine Storage Shed	Pete Hoke	Steve Cline, John Emison	07/26/02	08/14/02	None.
XG1403	Freels Bend, Van Guilder Barn	Pete Hoke	Steve Cline	07/17/02		None.
XG1404	Freels Bend Variable Dose Irradiation Facility	Pete Hoke	Steve Cline, John Emison	08/08/02	08/14/02	Possible residual radiological contamination; possible asbestos in old wiring insulation; possible PCBs in air duct gaskets.
XG1405	Freels Bend Shed	Pete Hoke	Steve Cline, John Emison	07/26/02	08/14/02	None.
XG1406	Freels Bend Control Room	Pete Hoke	Steve Cline, John Emison	08/08/02	08/14/02	None.
XG1407	Freels Bend Block Building	Pete Hoke	Steve Cline, John Emison	07/26/02		None.
XG1408	Freels Bend Aluminum Building	Pete Hoke	Steve Cline, John Emison	07/26/02		None.
XG1409	Freels Bend Pump House	Pete Hoke	J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XG1410	Freels Bend Donkey Arena	Pete Hoke	Steve Cline, John Emison	08/08/02	08/14/02	None.
XH1326	Freels Bend Barn	Pete Hoke	Steve Cline, John Emison	07/26/02	08/14/02	None.

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XH1327	Donkey Barn (Freels Bend)	Pete Hoke	J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XH1401	Sheep Barn, Freels Bend	Pete Hoke	Steve Cline, John Emison	07/26/02	08/14/02	None.
XH1402	Freels White Barn	Pete Hoke	S.R. Cline, J.M. Finger, S.D. Van Hoesen, John Emison	08/14/02	08/14/02	Possible asbestos in old wiring insulation; possible fiberglass issue; possible RCRA material in residual amounts.
XH1403	Lagoon (2) Freels Bend	Pete Hoke	S.R. Cline, J.M. Finger, S.D. Van Hoesen, John Emison	08/14/02	08/14/02	Analytical results were reviewed by ORNL Environmental Compliance which recommends additional characterization of lagoon sediment for Arsenic and Barium.
XH1404	Underground Silo (Freels Bend)	Pete Hoke	J.M. Finger, S.D. Van Hoesen, J.A. Emison	08/14/02	08/14/02	None.
XH1405	White Barn Silo	Pete Hoke	Steve Cline, John Emison	07/19/02		None. However, the silo is part of XH1402 and may have similar environmental issues as notes above.
801	Environmental Study Area	See Note # 2				N/A
802	Environmental Study Area	See Note # 2				N/A
804	Environmental Study Area	See Note # 2				N/A
807	Cs-137 Erosion/Runoff Study Area	See Note # 4				N/A
809	Environmental Study Area	See Note # 2				N/A
810	Environmental Study Area	See Note # 2				N/A
811	Environmental Study Area	See Note # 2				N/A
812	Environmental Study Area	See Note # 2				N/A

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0817	Ozone Generator Bldg	Pete Hoke	T.F. Orlin, W.I. Dothard	06/27/02	08/23/02	None.
0818	Atmospheric Instrument Trailer	Pete Hoke	T.F. Orlin	07/26/02	08/23/02	ACM in floor tile.
0819	Farm Implement Storage Shed	Pete Hoke	T.F. Orlin	07/26/02		None.
0820	CO2 Tank	Pete Hoke	T.F. Orlin	07/26/02		None.
0821	Ambient Air Station 39	Pete Hoke	J.F. Hughes, M. Carr, T. Beatty	07/30/02		None.
0822	ESD/NOAA USAF Instrument Trailer	Pete Hoke	Charles Lamb, John A. Emison	10/04/02		None.
0823	Free Air CO2 Experiment (FACE) Complex	Pete Hoke	T.F. Orlin	07/26/02		None.
0823A	FACE Ring # 1	Pete Hoke	T.F. Orlin	07/26/02		None.
0823B	FACE Ring # 2 Shed	Pete Hoke	T.F. Orlin	07/26/02		None.
0823C	FACE Ring # 3 Shed	Pete Hoke	T.F. Orlin	07/26/02	08/23/02	None.
0823D	FACE Ring # 4 Shed	Pete Hoke	T.F. Orlin	07/26/02		None.
0823E	FACE CO2 Evaporators	Pete Hoke	T.F. Orlin	07/26/02		None.
0855	Operations Building 0800 Area	Pete Hoke	T.F. Orlin	07/26/02	08/23/02	None.
0858	Sycamore Plantation Trailer	Pete Hoke	T.F. Orlin	07/26/02		PACM in floor tile.
0870	Raccoon Creek Monitoring Station	See Note # 6				N/A
0900	Firearms Range	See Note # 3				N/A
0901	161 KV Substation	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.

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0902	Main Reservoir	Joe Whedbee	Kevin Norris, John Emison	09/04/02	09/06/02	None.
0903	Bethel Valley Church	Pete Hoke	T.F. Orlin, J.V. Laforge	08/28/02		None.
0907	Walker Branch Watershed Lab	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		PACM in labtops.
0911	Environmental Study Area	See Note # 2				N/A
0913	Environmental Study Area	See Note # 2				N/A
0914	Environmental Study Area	See Note # 2				N/A
0917	Environmental Study Area	See Note # 2				N/A
0920	Environmental Study Area	See Note # 2				N/A
0922	Environmental Study Area	See Note # 2				N/A
0929	Ish Creek Weir (East and West Seep Gauging Station)	Pete Hoke	Rick Dailey	07/30/02		None.
0931	Ish Creek Monitoring Station	Pete Hoke	Mike Finger, John Emison	10/03/02		None.
0932	WBW Soil Block #1	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/23/02	None.
0933	WBW Soil Block #2	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/23/02	None.
0934	Walker Branch Sub-Surface Weir	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/23/02	ACM in floor tile.
0935	WBW Sub-Surface Weir	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02		Personnel safety concern noted in Facility Evaluation Report.
0936	ESD Twin Towers Walker Branch	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		None.
0941	ATTD/NOAA Inst. Bld. #2	Pete Hoke	T.F. Orlin, J.V. Laforge	08/13/02		ACM in floor tile.
0945A	Rain Gage 1 Site	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02		None.

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0945B	Rain Gage 2 Site	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		None.
0945C	Rain Gage 3 Site	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		None.
0945D	Rain Gage 4 Site	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		None.
0945E	Through-Fall Experiment Site	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02		None.
0945F	Through-Fall Experiment Storage Bldg.	Pete Hoke	T.F. Orlin, J.V. Laforge	09/19/02		None.
0950	Walker Branch East Instrument House	Pete Hoke	T.F. Orlin, J.V. Laforge	08/27/02		Flammable chemicals are improperly stored. ACM in glazing and PACM in wire insulation.
0951	Walker Branch West Instrument House	Pete Hoke	T.F. Orlin, J.V. Laforge	08/27/02		ACM in glazing and PACM in wire insulation.
0952	Walker Branch East Weir	Pete Hoke	T.F. Orlin, J.V. Laforge	08/27/02		None.
0953	Walker Branch West Weir	Pete Hoke	T.F. Orlin, J.V. Laforge	08/27/02		None.
0954	Refuse Transfer Station	Pete Hoke	T.F. Orlin, J.V. Laforge	09/25/02		Identified as possible solid waste site, characterization recommended.
0955	Walker Branch Storage Bldg.	Pete Hoke	T.F. Orlin, J.V. Laforge	08/13/02		None.
0956	Spring Water Pump House	Pete Hoke	T.F. Orlin, J.V. Laforge, Vickie Martin	09/20/02		None.
0957	Sample Storage Building	Pete Hoke	T.F. Orlin, J.V. Laforge	08/13/02		None.
0958	Water Well	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02	08/30/02	None.

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0960	Water Well	Pete Hoke	T.F. Orlin, J.V. Laforge	08/23/02	08/30/02	None.
0961	Visitor Overlook	Pete Hoke	T.F. Orlin	07/12/02	07/12/02	None.
0963	White Oak Creek Headwaters Monitoring Station	Pete Hoke	T.F. Orlin, J.V. Laforge	09/09/02		None.
0965	Personnel Shelter, Overlook	Pete Hoke	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
0966	West Bethel Valley Entrance		Sheila Holbert	07/16/02		None.
1000	Engineering Office Bldg.	Pete Hoke	T.F. Orlin	07/12/02		ACM and PACM in floor and ceiling tile, carpet, pipe insulation; electrical system in poor condition.
1055	Water Well No. 9	Pete Hoke	T.F. Orlin	10/02/02		None.
1057	Met Tower C (also, MT2)	Pete Hoke	K.R. Birdwell	08/15/02		None.
1058	Substation 7-2	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
1061	Health Protection Services Office Bldg.	Pete Hoke	T.F. Orlin, W.I. Dothard	07/12/02		None.
1062	West Office Bldg.	Pete Hoke	T.F. Orlin	06/25/02		None.
1096	Personnel Shelter	Pete Hoke	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
1507	Life Sciences Data Analysis Bldg.	Pete Hoke	T. F. Orlin, W. Dothard	07/12/02	07/19/02	None.

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1509	Environmental Engineering Office Bldg.	Pete Hoke	T. F. Orlin, W. Dothard	07/12/02	07/19/02	None.
1552	Water Monitoring Equipment Building	Pete Hoke	T. F. Orlin, W. Dothard	08/13/02		None.
1556	East Cooling Tower	Pete Hoke	Pete Hoke, T.F. Orlin	06/20/02	07/19/02	None.
1557	West Cooling Tower	Pete Hoke	Pete Hoke, T.F. Orlin	06/21/02	07/19/02	None.
1558	Northwest Tributary Monitoring Station	Pete Hoke	T. F. Orlin, W. Dothard	08/13/02		None.
1563	Substation No. 234-4	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
1566	First Creek Monitoring Station	Pete Hoke	J.F. Hughes, Rick Dailey	07/30/02		None.
2003	Process Water Control Station	Pete Hoke	Kevin Norris, John Emison	09/03/02	09/06/02	ACM and PACM in gaskets, glazing, and pipe insulation.
2013		Demolished				N/A
2016A	Pump Station #1 Core Hole 8		Glenn Anderson, John Emison	09/17/02	09/27/02	None.
2016B	Pump Station #2 Core Hole 8		Glenn Anderson, John Emison	09/17/02	09/27/02	None.
2016C	Groundwater Collection & Transfer for Core Hole 8		Glenn Anderson, John Emison	09/17/02		None.
2033	Measurements and Controls Bldg.	Pete Hoke	P.B. Hoke, J.V. Laforge, H. Cothron	07/25/02		Chemicals stored in basement should be identified. PACM in carpet, floor tile, baseboard, ceiling tile, and piping insulation.
2088	Emergency Generator for Bldg. 2000	Pete Hoke	Kevin Norris, John Emison	09/03/02	09/06/02	ACM in glazing.

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2093	Environmental Storage Bldg.	Pete Hoke	V.S. Martin, J.V. Laforge	09/12/02		None.
2097	Cooling Tower for 2001	Pete Hoke	Pete Hoke, T.F. Orlin	06/21/02		PACM in piping insulation.
2098	Substation No. 6-3	Joe Whedbee	Kevin Norris, John Emison	09/03/02	09/06/02	None.
2102	PCM Trailer	Pete Hoke	V.S. Martin, J.V. Laforge	09/13/02		None.
2510	Air Compressor Building	Pete Hoke	Kevin Norris, John Emison	09/04/02		PACM in baseboard.
2517	Human Resources Training Bldg.	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02		ACM in floor tile, mastic, transite, piping insulation. PACM in ceiling tile.
2518	F & O Directorate Office Bldg.	Pete Hoke	PB Hoke, J.V. Laforge	07/16/02		ACM in floor tile, mastic, piping insulation.
2528A	2528 Storage Tank	Pete Hoke	P.B. Hoke, J.V. Laforge, John A. Emison	09/25/02		Possible internal tank contamination, sampling and smearing recommended.
2540	Steam Plant Substation	Pete Hoke	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
2572	Emergency Generator for 2500	Pete Hoke	V.S. Martin, J.V. Laforge	09/12/02		None.
2609	Post 3	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02	07/26/02	PACM in baseboard and carpet.
2630	Cask Component Drop Test Facility	Pete Hoke	J.V. Laforge	09/13/02		None.

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2632	5000-KVA Substation (Steam Plant)	Joe Whedbee	Kevin Norris, John Emison	09/19/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
2640	Portal 6	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02	07/26/02	None.
2641	Portal 6B	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02	07/26/02	Posted: "May not meet OSHA requirements."
2642	Portal 7	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02		None.
2645	Emergency Generator - Coal Handling Facility	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None.
2646	Substation No. 33-6 2500 Area	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
2648	Fire Training Facility	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02		PACM in walls.
2655	Liquid/Gaseous Waste Support	See Note #9				N/A
2661	Chem Tech ESH&Q, Training Bldg.	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02		None.
3000	13.8 DV Substation	Joe Whedbee	Kevin Norris, John Emison	09/19/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.

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3078	Septic tank for 3000 Substation	Joe Whedbee	John K. Mongar, John Emison	09/20/02		None.
3111	Portal 8A	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02	07/26/02	PACM in baseboard, ceiling, and floor tile.
3115	HX Lab and Solid State Offices	Pete Hoke	J. Coombs, H. Cothron	09/27/02		ACM and PACM in floor tile, baseboard, ceiling tile, glazing. LiBr in 5-gal containers in process of being over-packed.
3129	Post 3	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02		PACM in baseboard and floor tile.
3132	Emergency Generator for 3127, 3129, 3027	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None.
3135	Portal 8D	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02		PACM in baseboard, floor tile and pipe insulation.
3147	Efficiency and Renewable Resources	Pete Hoke	J. Coombs, H. Cothron	09/27/02		PACM in carpet and baseboard.
3156	Energy Office & Support Facilities	Pete Hoke	J. Coombs, H. Cothron	09/27/02		PACM in carpet, floor and ceiling tiles.
3160	3019 Motor Control Center		T.L. Harvey, Tom McConnell	09/17/02		None.
3538	Cooling Tower	Pete Hoke	J.V. Laforge	09/24/02		PACM in piping insulation and transite.
3546	I & C Office Annex	Pete Hoke	V.S. Martin, J.V. Laforge	07/16/02	07/19/02	PACM in floor tile, mastic, carpet.
3598	Emergency Generator for 3500 Area	Pete Hoke	Kevin Norris, John Emison	09/03/02		PACM in piping insulation.
3606	I&C Office Building (South Office Annex)	Pete Hoke	V.S. Martin, J.V. Laforge	09/12/02		None.

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3609	Substation No. 25-1-C 3500 Area	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
3619	White Oak Creek Flume	Pete Hoke	J.F. Hughes, Rick Dailey	07/30/02		None.
3620	Hot Off-Gas Collection Pot	See Note #8				N/A
4000	13.8/2.4 KV Substation	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
4001	Pumping Station	See Note # 8				N/A
4005	Portal 8C	Pete Hoke	Sheila Holbert, John Emison, John Brown	07/16/02		PACM in baseboard and floor tile.
4007	Waste Operations Support Facility	Greg Palko	Hurtis Hodges	08/30/02		None.
4503	Standby Emergency Generator for 4500N telephone vault	Joe Whedbee	Kevin Norris, John Emison	09/03/02	09/06/02	None.
4510	Cooling Tower for 4509	Joe Whedbee	Kevin Norris, John Emison	09/09/02	09/27/02	PACM in insulation.
4511	Cooling Tower for 4509 (shutdown)	Joe Whedbee	Kevin Norris, John Emison	09/09/02	09/27/02	PACM in insulation and transite.
4512	Laboratory Emergency Response Center	Greg Palko	Hurtis Hodges	09/26/02		PACM in several forms and locations throughout facility.

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4513	HTML Electrical Substation	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
4514	Generator for HTML	Joe Whedbee	Kevin Norris, John Emison	09/09/02		PACM in floor tile.
4521	Cooling Tower for 4509	Joe Whedbee	Kevin Norris, John Emison	09/09/02	09/27/02	PACM in piping insulation.
4557	Portal 7B	Greg Palko	Sheila Holbert, John Emison, John Brown	07/16/02		None.
4559	Personnel Shelter	Greg Palko	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
4560	Lift station for 4512		John K. Mongar, John Emison	09/20/02		None.
5000	Main Portal Building	Greg Palko	Hurtis Hodges	08/30/02		PACM and ACM in ceiling tile and insulation. Lead-based paint may be present.
5002	Science & Technology Partnerships Office Bldg. (Guest Users Bldg.)	Greg Palko	Hurtis Hodges	08/30/02		PACM in baseboard, carpet, ceiling and floor tile throughout the facility.
5100	Joint Institute of Computer Science	not yet built				N/A
5500A	South Office Annex (Center for Transportation)	Greg Palko	Steve Bridges	08/30/02		PACM in baseboard, floor and ceiling tile throughout the facility.
5507A	Biosafety Level 3 Trailer	Gary Denton	Darrell Talley, Wayne Johnson	09/19/02		PACM in baseboard and floor tile.

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5554	Electrical Substation for 5505	Joe Whedbee	Kevin Norris, John Emison	09/03/02		PACM in gaskets. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
6001	Cooling Tower for 6000	Gary Denton	Wayne Johnson	09/19/02	09/21/02	PACM in transite and piping insulation.
6003	Physics Office Building	Demolished				N/A
6007	Joint Institute for HIR	Gary Denton	Darrell Talley, Wayne Johnson	09/19/02		PACM in baseboard, floor tile and carpet.
6008	Joint Institute for HIR Office/Lab	Gary Denton	Darrell Talley, Wayne Johnson	09/19/02		PACM in baseboard and floor tile.
6011	C&TD Office Building	Gary Denton	Darrell Talley, Wayne Johnson	09/19/02		PACM in various forms throughout the facility.
6012	Computer Science Research Facility	Gary Denton	Darrell Talley, Wayne Johnson	09/19/02	09/27/02	PACM in various forms throughout the facility.
6013	Chemical Feed System Enclosure	Gary Denton	Wayne Johnson	09/19/02	09/27/02	PACM in glazing.
6016	Outfall 314 Dechlorination System	Gary Denton	Wayne Johnson	09/19/02		None.
6551	West Reservoir on Haw Ridge	Joe Whedbee	Jim Baxter, Kevin Norris, John Emison	09/05/02	09/06/02	None.
6552	East Reservoir on Haw Ridge	Joe Whedbee	Jim Baxter, Kevin Norris, John Emison	09/05/02	09/06/02	None.
6553	Standby Generator and Valve Pit	Gary Denton	Jim Baxter	09/05/02	09/06/02	PACM in floor tile.
6555	Met Tower B (MT3)	Gary Denton	K.R. Birdwell	08/15/02		None.
6556E	Forest Management Trailer	Gary Denton	Wayne Johnson	09/19/02	09/27/02	PACM in accutile and floor tile.
6556Q	Forest Management Trailer	Gary Denton	Wayne Johnson	09/19/02	09/27/02	PACM in ceiling and floor tile.
6556S	Forest Management Trailer	Gary Denton	Wayne Johnson	09/19/02	09/27/02	PACM in mastic and linoleum.

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7020D	Office Trailer (at SWSA 6)	Gary Denton	Wayne Johnson	09/19/02		PACM in accutile, floor tile, baseboard.
7043	Personnel Shelter	Gary Denton	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
7044	Substation 27-8, West of 7003	Gary Denton	Kevin Norris, John Emison	09/03/02	09/06/02	None. Facility owner is required to manage PCB-containing equipment pursuant to ORNL Environmental Management procedures.
7046	ESH&Q Office Building	Gary Denton	Wayne Johnson	09/19/02		None.
7053	Personnel Shelter	Gary Denton	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
7063	Emergency Generator for Bldg. 7003	Gary Denton	Kevin Norris, John Emison	09/03/02	09/06/02	PACM in glazing.
7067	Asbestos/CAS Office	Gary Denton	Wayne Johnson	09/19/02		PACM in baseboard, ceiling, and floor tile.
7072	Portal 20B	Gary Denton	Sheila Holbert, John Emison, John Brown	07/16/02	07/26/02	PACM in ceiling and floor tile.
7073	Air Monitoring Station (#7)	Gary Denton	M. Carr, T. Beatty, R. Allen	08/06/02		None.
7074	Portal 20C	Gary Denton	Sheila Holbert, John Emison, John Brown	07/16/02		None.
7077A	Reservation Services Offices	Gary Denton	Wayne Johnson	09/19/02		PACM in floor tile.
7083	Model Airplane Shop	Gary Denton	Wayne Johnson	09/19/02		PACM in floor tile.
7097	Crane & Elevator Crew Office	Gary Denton	Wayne Johnson	09/19/02		None.

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7098	Transportation Services Office	Gary Denton	Wayne Johnson	09/19/02		None.
7549	Cryogenics Barrier Project Facility	See Note # 4				N/A
7553	Pump House - TSF Water Supply		Wayne Johnson	09/19/02		None.
7554A	MK-Ferguson Trailer	See Note #5				N/A
7565	Environmental Study Area #821	See Note #2				N/A
7568	Portal 19		Sheila Holbert, John Emison, John Brown	07/16/02		None.
7571	Met Tower A (MT4)		K.R. Birdwell	08/15/02		None.
7606A	Robotics R&D Lab and Offices	Gary Denton	J.R. Barnett	09/19/02		PACM in floor, ceiling tile, carpet, mastic.
7611	Portal 30	Gary Denton	Sheila Holbert, John Emison, John Brown	07/16/02		PACM in baseboard and floor tile.
7618	Diesel Generator for Bldg. 7600	Joe Whedbee	Kevin Norris, John Emison	09/03/02		None.
7619	Cooling Tower for 7600 Area		Wayne Johnson	09/19/02		PACM in piping insulation.
7650	ENVIRONMENTAL STUDY AREA #613	See Note #2				N/A
7655	Environmental Study Area	See Note #2				N/A
7660	Environmental Study Area	See Note #2				N/A
7672	Personnel Shelter	Gary Denton	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
7730	Environmental Study Area	See Note #2				N/A
7731	Environmental Study Area	See Note #2				N/A

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7732	Environmental Study Area	See Note #2				N/A
7733	Environmental Study Area	See Note #2				N/A
7734	FREELS BEND AREA	See Note #2				N/A
7740A	Melton Hill Radio Facility		Gary Inman, J. Emison	09/24/02		None.
7740B	Emergency Generator		Gary Inman, J. Emison	09/24/02		None.
7740C	Melton Hill Paging Bldg.		Gary Inman, J. Emison	09/24/02		None.
7750	Septic tank transfer manhole (TSR)	Joe Whedbee	John K. Mongar, John Emison	09/20/02		None.
7753	Environmental Study Area #911	See Note #2				N/A
7755	DOSAR Reservoir	Joe Whedbee	John K. Mongar, John Emison	09/20/02		None.
7756	Meter house, HPM	Gary Denton	John K. Mongar, John Emison	09/20/02		None.
7803	Lab Trailer	See Note #4				N/A
7849	Melton Branch Tributary Weir (White Oak Creek Weir)	Gary Denton	Rick Dailey	07/30/02		
7850	ENVIRONMENTAL STUDY AREA #712	See Note #2				N/A
7851	ENVIRONMENTAL STUDY AREA #717	See Note #2				N/A
7864	Gaging Station-East Seep	Gary Denton	J.F. Hughes, Rick Dailey	07/30/02		None.
7865	Gaging Station-West Seep	Gary Denton	J.F. Hughes, Rick Dailey	07/30/02		None.
7866	Sampling Station at MB Wier		Rick Dailey	08/23/02		None.

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7867	Wier- Melton Branch	Gary Denton	J.F. Hughes, Rick Dailey	07/30/02		None.
7868	Sampling Station at WOC		Rick Dailey	08/23/02		None.
7869	Stream Flow Monitor Station # 5 (WOD Monitoring Station)	Gary Denton	J.F. Hughes, Rick Dailey	07/30/02		None.
7872	Melton Branch Monitoring Station <i>(shared with BJC, not on original Type 3 list)</i>		J.F. Hughes, Rick Dailey	07/30/02		None.
7873	Ish Creek Monitoring Station	See Note #7				N/A
7878A	Temporary Waste Storage Tent	See Note #6				N/A
7893	Personnel Shelter	Gary Denton	Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
7910	Research Reactors Office Building	M.A. Spann	M.A. Spann	09/10/03		None.
7921	Emergency Generator for Bldg 7920	M.A. Spann	Kevin Norris, John Emison	09/03/02		PACM in insulation.
7931	Emergency Generator for Bldg 7930	M.A. Spann	B.D. Patton	10/03/02		None.
7947	Melton Branch Headwater Flume		J.F. Hughes, Rick Dailey	07/30/02		None.
7948	Melton Branch Monitoring Station		Rick Dailey	07/30/02		None.
7949	Melton Branch Tributary Weir		Rick Dailey	07/30/02		None.
7950	ENVIRONMENTAL STUDY AREA #851	See Note #2				N/A
7951	ENVIRONMENTAL STUDY AREA #852	See Note #2				N/A

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7953	Pump house for HPRR Waterline	Joe Whedbee	John K. Mongar, John Emison	09/20/02		None.
7953A	Trailer	M.A. Spann	Paula Wright, S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	PACM in floor tile and mastic.
7953C	Construction Trailer at HFIR	Salvaged				N/A
7955	Portal 19B, HFIR	M.A. Spann	Sheila Holbert, John Emison, John Brown	07/16/02		None.
7958	Portal 23, HPRR	M.A. Spann	Sheila Holbert, John Emison, John Brown	07/16/02		Posted: "May not meet OSHA requirements."
7964A	Triplewide Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964B	Triplewide Office Trailer	M.A. Spann	Paula Wright, S.D. Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964C	Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964D	Triplewide Office Trailer	M.A. Spann	Paula Wright, S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	PACM in floor tile.
7964E	7964E Conference Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964F	Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964H	Office Trailer Doublewide	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7964I	Office Trailer Doublewide	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7965A	Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.

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Summary of Facility Issues - FEVARI Type 3						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7965B	Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7965C	Office Trailer	M.A. Spann	S.D. Van Hoesen, John A. Emison	09/24/02	09/24/02	None.
7967A	Melton Branch Subsurface Weir	M.A. Spann	Charles Lamb, John A. Emison	10/04/02		None.
7967B	Subsurface Weir Instrument Building	M.A. Spann	Charles Lamb, John A. Emison	10/04/02		PACM in floor tile.
7967C	Soil Block		T.F. Orlin, J.V. Laforge	08/23/02		None.
7968	Trailer	M.A. Spann	Jim Buchanan	10/03/02		None.
7975	Water Monitoring Storage Building	M.A. Spann	J.F. Hughes, Rick Dailey	07/30/02		None.
7984	Personnel Shelter		Jerry Coker, Dirk Van Hoesen, John Emison	07/15/02	07/12/02	None.
9983-FX	Environmental Office Trailer		Steve Cline	09/23/02		None.
1060COM	1060 Commerce Park, Oak Ridge		Glenn Anderson, John Emison	09/30/02		Leased facilities, no asbestos survey.
111UNV	111 Union Valley Road, Oak Ridge		Glenn Anderson, John Emison	10/2/2002		Leased facilities, no asbestos survey.
701SCA	701 Scarboro Road, Oak Ridge		Glenn Anderson, John Emison	10/3/2002		Leased facilities, no asbestos survey.

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Summary of Facility Issues - FEVARI Type 3						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
Notes:						
	#1, Transferred in FIMS to DOE-ORO.					
	#2, These facilities no longer meet the DOE FIMS definition of "facility."					
	#3, BJC has a sign on the facility indicating it is theirs.					
	#4, Email from Steve Nolan indicating this is a BJC facility.					
	#5, Removed from the site by MK-Ferguson.					
	#6, This is listed as a BJC facility in the Swanks/Thiesing agreement.					
	#7, Removed from ORNL Facility Index per email from David Kennard 08-28-02.					
	#8, BJC facility per email from Chris Scott.					
	#9, Not in the ORNL Facility Index, Condition Assessment Survey, or FIMS.					

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APPENDIX B

SUMMARY OF FACILITY ISSUES FOR FEVARI TYPE 2 FACILITIES

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
NTRC	National Transportation Research Center		Glenn Anderson, John Emison	03/11/03		None.
115UNV	Receiving, Acceptance, Testing & Storage Facility, SNS		Ron J. Cornwell, John Emison	11/06/02		None.
0927	Storage Building for 0902	Joe Whedbee	John K. Mongar, Dirk Van Hoesen, John Emison	09/06/02	09/06/02	None.
0946	Katy's Kitchen Water Well	Pete Hoke	T. F. Orlin, W. Dothard	12/11/02		None.
0967	Trailer	Pete Hoke	John P. Stovall	10/30/02		None.
1508	Aquatic Storage Bldg	Pete Hoke	T. F. Orlin, W. Dothard	08/13/02		None.
1510	Aquatic Storage Building 1	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02		None.
1511	Aquatic Storage Building 2	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/30/02	None.
1512	Aquatic Storage Building 3	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/30/02	None.
1513	Aquatic Storage Building 4	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/30/02	None.
1514	Aquatic Storage Building 5	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02	08/30/02	None.
1515	Aquatic Storage Building 6	Pete Hoke	T.F. Orlin, J.V. Laforge	08/16/02		None.
1542	Cylinder Storage Shed	Pete Hoke	T. F. Orlin, W. Dothard	08/13/02		Improperly stored drum with rad tape and a sealed drum with no markings.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
1553	1504 Service Pit	Pete Hoke	T.F. Orlin	11/11/02		PACM in process water and steam line insulation; floor drains may go to storm water system; improperly stored grease and oil.
1559	Boat Shed	Pete Hoke	T.F. Orlin, P. Hoke	12/12/02		ACM in Transite shell.
1560	East Greenhouse	Pete Hoke	T.F. Orlin	10/16/02		PACM in process water and steam line insulation; contaminated table; unmarked bottle of clear liquid.
1561	West Greenhouse	Pete Hoke	T.F. Orlin	10/10/02		PACM in steam line insulation.
2007	Calibration Lab	Pete Hoke	J. Coombs	11/18/02		PACM in ceiling tile, floor tile, pipe insulation, baseboards, mastic, and sheet rock joint compound; old part of facility in poor condition.
2008	ORNL Whole Body Counter	Pete Hoke	J. Coombs	11/18/02		PACM in ceiling tile, floor tile, pipe insulation, baseboards, mastic, and sheet rock joint compound; old contaminated lab hoods are abandoned in place.
2009	Cafeteria Warehouse	Pete Hoke	J. Coombs	11/19/02		None.
2010	ORNL Cafeteria	Hurdis Hodges	Tom Orlin	04/30/03		None.
2011	Electric and AC Service Center	Hurdis Hodges	Tom Orlin	04/29/03		None.
2016	Security Patrol HQ Annex	Pete Hoke	J.V. Laforge, Vickie Martin	12/06/02		Asbestos in floor tile; PACM in many forms; electrical problems.
2017	Storage Building	Hurdis Hodges	Tom Orlin	04/29/03		None.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
2018	Electrical & Air Conditioning Service Building	Hurdis Hodges	Tom Orlin	05/01/03		None.
2019	Laser Laboratory	Pete Hoke	Jerry Coombs Pete Hoke	12/11/02		ACM in float tile and insulation.
2061	Stack	Pete Hoke	Pete Hoke, John Emison	02/25/03		None.
2069	Change House	Pete Hoke	J. Coombs	11/19/02		ACM and/or PACM in floor tile, transite, roofing shingles, pipe insulation, mastic, and ceiling tile; facility in poor condition and recommended for demolition.
2087	Storage I-E	Pete Hoke	J. Coombs	11/19/02		None; recommended for demolition.
2092	Storage	Pete Hoke	J. Coombs	11/19/02		ACM in glazing; recommended for demolition.
2506	P&E Maintenance Shop	Demolished				N/A
2521F	Sewage Treatment Digester	Joe Whedbee	Ray Arp	02/28/03		Internal radioactive contamination
2522	Fuel Storage Tank behind 2519	Joe Whedbee	J.W. Mathys	11/12/02		None.
2525	Fabrication Department Shop A	Hurdis Hodges	Tom Orlin	04/29/03		None.
2536	Coal Sample Preparation Lab	Joe Whedbee	J.W. Mathys	11/12/02		PACM in baseboards and lab tops.
2549	Storage Building Steam Plant	Joe Whedbee	J.W. Mathys	11/13/02		None.
2555	Fuel Oil Storage Tanks	Joe Whedbee	J.W. Mathys	11/20/02		None.
2621	Waste Operations Support Shop	Hurdis Hodges	Tom Orlin	04/29/03		None.
2628	Fire Protection Maintenance and Storage Building	Pete Hoke	J.V. Laforge	12/06/02		None.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
2636	West Precipitator	Joe Whedbee	J.W. Mathys	11/13/02		Residual flyash contains inorganic arsenic and other hazardous materials.
2637	East Precipitator	Joe Whedbee	J.W. Mathys	11/13/02		Residual flyash contains inorganic arsenic and other hazardous materials.
2638	Steam Plant Scale House	Joe Whedbee	J.W. Mathys	11/13/02		PACM in baseboards; possible PCBs in wiring insulation.
2644	Coal Yard Runoff Treatment Plant	Joe Whedbee	J.W. Mathys	11/13/02		PACM in transite.
2652A	Radiological Surveillance Trailer	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02	07/19/02	None.
2652B	Radiological Surveillance Trailer	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02	07/19/02	None.
2652C	Radiological Surveillance Trailer	Pete Hoke	PB Hoke, J.V. Laforge	07/09/02	07/19/02	None.
2653	Coal Yard Building	Pete Hoke	J.V. Laforge	12/06/02		None.
2664	Sodium Metabisulfite Building	Pete Hoke	J.V. Laforge, Vickie Martin	12/11/02		None.
3008	Source & Special Materials Vault	Pete Hoke	J. Coombs	11/19/02		None.
3010A	Bulk Shielding Reactor Support Facility North Annex	Pete Hoke	J. Coombs	12/11/02		Possible radiological contamination, chemical contamination in hoods and exhausts, possible Pb in paint, ACM or PACM in floor tile, insulation, and transite.
3013	Geo. Disposal Lab	Pete Hoke	J. Coombs	11/19/02		PACM in transite, glazing, roof shingles; recommended for demolition.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
3095	Reactor Area Equipment Building	Pete Hoke	J. Coombs	12/11/02	08/27/02	SLLW trash, possible Hg in various old instruments and devices, known Hg spills on slab, possible Pb and PCBs in paint, Beryllium formerly stored here. Facility is sprinkelered without floor drains.
3104	West Complex Maintenance Shop	Pete Hoke	J. Coombs	11/19/02		PACM in floor tile, baseboards, and pipe insulation.
3112	3112 Storage	Greg Palko	Ron Baldwin, John Emison	03/04/03		Floor drain was not on sink/drain survey. Facility is sprinkelered and there is drain on the paved pad only 4 feet away.
3138	Roof Therman Test Facility	Pete Hoke	J. Coombs	11/19/02		PACM in steam line insulation.
3153	Envelope Systems Research Center	Pete Hoke	J. Coombs	11/19/02		None.
3161	QSD Storage Building	Pete Hoke	J. Coombs	12/11/02		None.
3162	QSD Storage Building	Pete Hoke	J. Coombs	12/11/02		None.
3500	I & C Division Offices	Pete Hoke	J.V. Laforge, P.B. Hoke	12/06/02		Asbestos in floor tile, mastic, pipe insulation and PACM in many forms throughout the facility; electrical problems; chemical and/or radiological contamination in ventilation system.
3501	Sewage Pumping Station	Pete Hoke	J.V. Laforge, Vickie Martin	12/06/02		Asbestos in glazing; PACM in gaskets; electrical problems; soil contamination on south side.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
3503A	3503A Storage Pad		Glenn Anderson, John Emison	03/11/03		Contaminated soil and concrete pad, flaking paint possible Pb or PCBs, junk equipment is SLLW.
3523	RIS Sensor Development, South Annex	Pete Hoke	J.V. Laforge, Vickie Martin	12/10/02		PACM in floor tile, baseboards, and glazing.
3532	Paint Storage Shed	Hurdis Hodges	Tom Orlin	04/29/03		None.
3536	Nitrogen Cylinder Tank Trailer		Jerry Coker, John Emison	03/06/03		None.
3542	Storage Facility for 3506 & 3517	Pete Hoke	J.V. Laforge, Vickie Martin	12/06/02		PACM in floor tile.
3543	MSR Development Lab	Pete Hoke	J.V. Laforge	11/08/02		PACM in carpet.
3550T	Intercomparison Study Dilutions Laboratory	Pete Hoke	J.V. Laforge, Vickie Martin	12/11/02		Radioactive contamination in hoods and possible contamination in mud dobber nests. Ceiling tile is asbestos.
3584	Solvent Containment Operations	Demolished decades ago	N/A	N/A		N/A
3602	Cylinder Tank Storage for 3525	Pete Hoke	J. V. Laforge, Vickie Martin	12/06/02		None.
3605	TSD Storage Building	Pete Hoke	J. V. Laforge, Vickie Martin	12/06/02		PACM in transite.
3607	Cask Storage Building	Pete Hoke	J. V. Laforge, Vickie Martin	12/06/02		Radiologically contaminated parts and oil
3610	Storage Building	Pete Hoke	PB Hoke, J.V. Laforge	09/25/02		None.
3610A	Flammable Storage	Removed from site by MK-F	N/A	N/A	N/A	N/A
3621	Spill Response Vehicle Storage Facility	Pete Hoke	J.V. Laforge, Vickie Martin	12/06/02		None.

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4509	Compressor House		Kevin R. Blackwell, Fred Morgeson, John Emison	07/29/03		None.
5507	Electron Spectrometer Facility	Gary Denton	Gary Denton, Ronnie Crawford, J.R. Barnett, D. Talley, S. Riser	03/10/03		37 buckets of PCB samples are improperly stored.
6000B	Atomic Physics Research Laboratory	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in floor tile, mastic, and pipe insulation.
6010	ORELA	Gary Denton	Jason Taylor, Wayne Johnson	11/25/02		RBAs, CAs, and High Radiation Areas are present in this facility.
6025	Computational Physics & Engineering	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		ACM is present through the facility in floor tile and mastic.
7000	Septic Tank for 7000 Area	Joe Whedbee	J.W. Mathys	11/12/02		Possible chemical or radiological contamination in septic tank sludge.
7001	General Stores	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in baseboard, ceiling and floor tile through the facility; several HMIS Control Areas.
7002	Garage and Iron Working Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7003	Welding and Brazing Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7005	Lead Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7006	Storage Building	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7007	Paint Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7009	Carpenter Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7010	Dry Lumber Storage	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7012	Central Fabrication Shop	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7013	Chemical Reuse Building	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7015	Metal Storage & Cutting Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7018	Bulk Receiving and Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in glazing, baseboard, ceiling and floor tile, and pipe insulation.
7019	RRD Warehouse Facility - Cat C Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in glazing and walls; possible lead-based paint.
7020	Interim Grounds Equipment Storage	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7020B	Temporary Waste Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible lead-based paint.
7020C	Temporary Waste Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible lead-based paint.
7020E	Temporary Waste Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible lead-based paint; chemical storage noted but there is no HMIS Control Area.
7020F	HP Office Trailer	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible lead-based paint; PACM in floor tile and mastic.
7021	Fabrication Equipment Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in glazing and insulation.

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Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7022	Gas Cylinder Storage Shed	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		HMIS Control Area, evaluation indicates possible PCBs, Pb, or Hg.
7026	Metals & Ceramics Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.
7030	Heavy Equipment Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		HMIS Control Area, evaluation indicates possible PCBs, Pb, or Hg.
7031	Fabrication Storage Shed	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7033	Line Crew Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7035	Vacuum Asbestos Equipment & Cleaning Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7035A	Paint Mix Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7035B	Storage	Gary Denton	S.C. Riser, J.R. Barnett	05/01/03		None.
7035C	Equipment Storage	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7035D	Can Drying Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7035E	Utility Mechanics Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		HMIS Control Area, evaluation indicates possible PCBs/Pb in paint. Transite is asbestos.
7035F	Shed Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		HMIS Control Area, evaluation indicates possible PCBs/Pb in paint.

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Summary of Facility Issues - FEVARI Type 2

Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7037	Cold Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	12/13/02		Pumps may be internally contaminated.
7039	Material Staging Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		HMIS Control Area, evaluation indicates possible PCBs/Pb in paint.
7041	Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	12/04/02		HMIS Control Area, possible PCBs in oil. Contamination in process of being removed.
7042	Core Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	12/13/02		None.
7055	Grounds Equipment Storage Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7057	Sandblast Cleaning Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible radiological contamination, PACM in duct work.
7058	Regulator Repair Facility	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7060	Steel Yard	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		PACM in floor tile, possible PCBs, Pb, or Hg.
7061	Environmental Surveillance and Protection Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		None.
7062	Crane Inspection Crew Offices	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible PCB, Pb, or Hg.
7065	Rigger Equipment Storage	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.

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Summary of Facility Issues - FEVARI Type 2

Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7066	Grounds Equipment Storage	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7069	Gas Service Facility	Gary Denton	Jason Taylor, Wayne Johnson	10/08/02		Legacy petroleum products from spills on asphalt.
7069E	Underground Storage Tank	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible spilled petroleum products.
7069F	Underground Storage Tank	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible spilled petroleum products.
7070	Storage Shed	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7071	Liquid Nitrogen Storage Tank	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible legacy spills.
7077	Craft Support Office	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7078G	Sprinkler Control Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible PCBs/Pb in paint.
7078H	Sprinkler Control Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible PCBs/Pb in paint.
7079	Bottle Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		None.
7080	Cardboard Compressor	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7081	Portable Generator Storage Shed	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible legacy spills. Possible PCBs/Pb in paint.
7082	Salt Storage Building	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7085	90-day Waste Storage Area	Gary Denton	S.C. Riser, J.R. Barnett	05/01/03		None.
7086	Flammable Gas Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible legacy spills. Possible PCBs/Pb in paint.
7089	Flammable Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible legacy spills. Possible PCBs/Pb in paint.
7090	Electrical Storage West	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Fluorescent bulbs.
7091	Electrical Storage East	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Fluorescent bulbs.
7092	Hustler Mower Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible legacy oil spills.
7093	Physics Division Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	date not recorded		Possible PCBs in pump oil.
7094	Physics Division Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	date not recorded		Possible PCBs in pump oil.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7095	Physics Division Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	date not recorded		Possible PCBs/Pb in paint.
7096	Environmental Protection Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	date not recorded		None.
7548	Hazardous Waste Storage Shed	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible radiological contamination.
7575	SWSA # 7		R. Bowman, S. Riser, J.R. Barnett	3/10/2003		None.
7576	Bulk Contaminated Soil Facility	Not in CAS or FIMS	N/A	N/A		N/A
7577	TRU Storage Facility	Not in CAS or FIMS	N/A	N/A		N/A
7578	Class 34 Waste Retrievable Storage	Not in CAS or FIMS	N/A	N/A		N/A
7580	SLLW Staging Facilities	Not in CAS or FIMS	N/A	N/A		N/A
7600	Containment Building	Gary Denton	S.C. Riser, J.R. Barnett	4/29/2003		None.
7601	R&P's Division Office Building	Gary Denton	S.C. Riser, J.R. Barnett	4/29/2003		None.
7603	Robotic System Laboratory	Gary Denton	S.C. Riser, J.R. Barnett	5/1/2003		None.
7603A	Fuel Oil Storage Tanks	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		None.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7604	Utility Building	Gary Denton	S.C. Riser, J.R. Barnett	05/01/03		None.
7605	Storage Building	Gary Denton	J.R. Barnett	10/08/02		Fixed contamination on monorail and PACM in baseboard, floor tile, and glazing.
7606B	Research SVC - Maintenance Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint. ACM or PACM in floor tile and mastic, and ceiling tile.
7607	EGCR River Pump Station	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint, or PCBs in pump oil.
7608	Plasma Torch Cutting Demonstration Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint, and PCBs in wire insulation.
7609	Stack Monitoring House	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint.
7610	Storage House - R&P	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7613	Waste Retention Basin	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		None.
7614	7602 Vent Stack	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Radioactive contamination, possible Pb and PCBs in paint.
7615	REDC Storage	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Radioactive contamination, possible Pb and PCBs in paint.
7616	Septic Tank for 7600 Area	Joe Whedbee	J.W. Mathys	11/12/02		None.
7624	Robotics Storage Bldg.	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Radioactive contamination, possible Pb and PCBs in paint.
7630	Low-Risk Inactive Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		None.
7631	Low-Risk Inactive Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7632	Low-Risk Inactive Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint.
7633	Low-Risk Inactive Storage Facility	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	11/05/02		Possible Pb or PCBs in paint.
7671	Storage Building	This shed is located within the fence of BJC's HWOG complex.	N/A	N/A		N/A
7709	Health Physics Research Reactor	M.A. Spann	Glenn Anderson, John Emison	11/12/02		NiCd batteries sitting out-of-doors, crane with flaking paint (possible pb-base and/or PCBs), motor on crane is suspect PCB also out-of-doors. Lead bricks indoors; PACM in pipe insulation.
7710	DOSAR Facility - HPRR	Gary Denton	S.C. Riser, J.R. Barnett	09/16/03		None.
7712	Dosar Low Energy Accelerator	Gary Denton	S.C. Riser, J.R. Barnett	04/29/03		None.
7735	Radiation Calibration Laboratory		S.C. Riser, J.R. Barnett	04/29/03		None.
7740	Radio Transmission Facility Melton Hill		Gary Inman, John Emison	09/24/02		None.
7754	Drilling Equipment Storage	Demolished.	N/A	N/A	N/A	N/A
7758	HFIR Parts Storage	M.A. Spann	Glenn Anderson, John Emison	11/12/02		PACM in building insulation.
7848	Epicore II Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.

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<i>Summary of Facility Issues - FEVARI Type 2</i>						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7858	White Oak Lake Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.
7859	Sample Equipment Storage Building (WAG 6)	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.
7859A	Sample Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.
7871	White Oak Creek Sampling Station		S.R. Lewis, Joan F. Hughes	08/01/03		None.
7875	Monitoring Storage Building	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	12/04/02		Possible lead-based paint.
7878B	Equipment Storage Tent	Transitioned to BJC-Swanks/ Thiesing Agreement	N/A	N/A	N/A	N/A
7891	SWSA Office Trailer	Gary Denton	R. Bowman, S. Riser, J.R. Barnett	02/27/03		None.
7904	Sewage Treatment Plant for 7900	No longer exists.	N/A	N/A	N/A	N/A
7911B	Monitoring Equipment Bldg. for 7911		Joan Hughes	11/25/02		None.
7911C	Instrument Shed for 7911		Joan Hughes	11/25/02		None.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7914	Equipment and Parts Storage	M.A. Spann	Glenn Anderson, John Emison	11/12/02		HMIS Control Area should be established; operator should determine whether lack of floor drains is an acceptable environmental risk; building insulation is PACM.
7914A	Equipment Storage	M.A. Spann	Glenn Anderson, John Emison	11/12/02		Operator should determine whether lack of floor drains is an acceptable environmental risk.
7915	Operations Storage Building	M.A. Spann	Glenn Anderson, John Emison	11/12/02		Operator should determine whether lack of floor drains is an acceptable environmental risk; building insulation is PACM.
7918	REDC Office and Training Facility	M.A. Spann	Dirk Van Hoesen, John Emison	09/24/02	09/24/02	PACM in numerous forms and locations throughout the facility.
7923	REDC Cooling Tower		G. D. Campbell	03/10/03		None.
7924	Materials Storage Tent	M.A. Spann	Glenn Anderson, John Emison	11/12/02		None.
7924A	REDC Storage Building		G. D. Campbell	03/10/03		None.
7924B	REDC Storage Building		G. D. Campbell	03/10/03		None.
7925A	REDC Chemical Storage Building		G. D. Campbell	03/10/03		None.
7925B	REDC Acid Storage Building		G. D. Campbell	03/10/03		None.
7927	Storage Tent (Rubb Tent)	M.A. Spann	Glenn Anderson, John Emison	11/12/02		None.
7930A	7930 Filter Pit		G. D. Campbell	03/10/03		Connected to a broken process waste line.
7936	REDC Storage Building		G. D. Campbell	03/10/03		None.
7939	REDC Air Compressor Backup Generator		G. D. Campbell	03/10/03		None.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7953B	Construction Trailer (HFIR)	M.A. Spann	Glenn Anderson, John Emison	11/13/02		PACM in floor tile and mastic.
7969	Haz Material Enclosure	M.A. Spann	Glenn Anderson, John Emison	11/13/02		Facility should be posted as Flammable area; designated PACM because an Asbestos survey has not yet been done.
7977A	Cold Source Liquid Nitrogen Tank	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7980A	HFIR Storage 1	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7980B	HFIR Storage 2	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7980C	HFIR Storage 3	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7980D	HFIR Storage 4	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7980E	HFIR Storage 5	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7981A	P&E/HFIR Storage 1	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7981B	P&E/HFIR Storage 2	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7981C	P&E/HFIR Storage 3	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
7982	REDC TRU Waste Drum Staging Area		G. D. Campbell	03/10/03		None.
7983	REDC Storage		G. D. Campbell	03/10/03		None.
7985	P&E/HFIR Storage 4	M.A. Spann	Glenn Anderson, John Emison	11/13/02		Paint and solvents should be removed to a HMIS Control Area.

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Summary of Facility Issues - FEVARI Type 2						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
7986	P&E/HFIR Storage 5	M.A. Spann	Glenn Anderson, John Emison	11/13/02		None.
9201-2	Fusion Energy Administration & Laboratory Building	Gary Denton	S.C. Riser, J.R. Barnett	07/29/03		None.
9204-1	Engineering Technology	Goes to BWXT FY03	N/A	N/A	N/A	N/A
9207	Biology Building	Hurtis Hodges	John Emison, J.V. Laforge	03/21/03		None.
9210	Mammalian Genetics	Cleanout and decontamination planned for FY04.	N/A	N/A	N/A	N/A
9211	Co-Carcinogenesis	Hurtis Hodges	John Emison, J.V. Laforge	03/21/03		None.
9220	Molecular Biology Division	Hurtis Hodges	John Emison, J.V. Laforge	03/21/03		None.
9224	Molecular Biology Facility	Hurtis Hodges	John Emison, J.V. Laforge	03/21/03		None.
9401-1	Engineering Technology Laboratory Facility	Goes to BWXT FY03	N/A	N/A	N/A	N/A
9409-15	Cooling Tower	Belongs to BWXT under MOU	N/A	N/A	N/A	N/A
9610-2	Chemical Storage	Dan O'Conner	Judy Hardt, Dirk Van Hoesen	10/23/02	10/23/02	ORNL Legacy Material Disposition Initiative is actively working to remove/dispose of materials from this facility.
9743-2	Pigeon Quarters	Hurtis Hodges	John Emison, J.V. Laforge	03/21/03		None.

APPENDIX B						
<i>Summary of Facility Issues - FEVARI Type 2</i>						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
9999-01	Motor generator	Hurtis Hodges	Dirk Van Hoesen, Judy Hardt, Scott Aaron	03/27/03		Asbestos visible, likely PCBs in wiring insulation.
9999-03	Electrical Switchgear and Rectifier	Goes to BWXT FY04	N/A	N/A		None.
9999-4	Electrical Equipment	Dan O'Conner	Dirk Van Hoesen	10/23/02	10/23/02	None.

APPENDIX C

SUMMARY OF FACILITY ISSUES FOR FEVARI TYPE 1 FACILITIES

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APPENDIX C						
Summary of Facility Issues - FEVARI Type 1						
Facility Number	Facility Name	Complex Mgr./ Notes	Reviewer(s)	Completion Date	SDVH Field check	Issues
1060	Life Sciences Laboratory	Pete Hoke	W.I. Dothard, T.F. Orlin	3/31/2003		None.
2521	Sewage Treatment Plant	Jim Baxter	Ray Arp	1/16/2003		Radiological areas, possible Pb-based paint, pathogens.
2521A	Sewage Treatment Aeration Basin	Jim Baxter	Ray Arp	1/16/2003		Radiological areas, possible Pb-based paint, pathogens.
2521B	Emergency Generator Building	Jim Baxter	Ray Arp	1/16/2003		None.
2521C	Sludge Drying Bed	Jim Baxter	Ray Arp	1/16/2003		None.
2521D	Aerator Shed	Jim Baxter	Ray Arp	1/16/2003		None.
2521E	Calgon Tank Shed	Jim Baxter	Ray Arp	1/16/2003		None.
2543	East Aeration Pond	Jim Baxter	Ray Arp	1/16/2003		Radiological areas, possible Pb-based paint, pathogens, heavy metals.
2544	West Aeration Pond	Jim Baxter	Ray Arp	1/16/2003		Radiological areas, possible Pb-based paint, pathogens, heavy metals.
2545	Coal Yard Runoff Retention Basin	Jim Baxter	Ray Arp	1/16/2003		None.
2546	Monitoring Building for 2545	Pete Hoke	Steve Lewis, Joan Hughes	01/10/03		None.
2548	Sludge Drying Facility	Jim Baxter	Ray Arp	1/16/2003		Radiological areas, possible Pb-based paint, pathogens, heavy metals.
2663	Ozone Generator Equipment Facility	Jim Baxter	Ray Arp	1/16/2003		None.
6014	Compressor Building	Gary Denton	R. Bowman, Steffon Riser J.R. Barnett	02/27/03		None.