ENVIRONMENTAL PROTECTION AND WASTE SERVICES DIVISION
FY 2002 PERFORMANCE EVALUATION REPORT

EXECUTIVE SUMMARY

Major accomplishments and *concerns*

The Environmental Management System (EMS), based on ISO 14001, is essentially complete and deployed. During FY02, several SBMS subject areas and procedures related to the EMS were developed or revised. Two independent assessments of the EMS were conducted in FY02. The results of these assessments are discussed in Part 4.B. *To close the one EMS Major nonconformance, a management review covering all required elements per ISO 14001 will be planned, scheduled, and conducted in the FY 03.* Elements of the EMS are being and will continue to be refined as necessary based on ongoing work activities, self-assessment, and to support new initiatives such as reducing operational dependency on the existing process waste treatment facility. *A determination regarding Level 1 support of ISO 14001 registration or self-declaration is needed in FY 03.*

There were no findings of regulatory non-compliance during several inspections conducted by State and Federal regulators. *However, the aging infrastructure continues to present a risk of incident as demonstrated this year by the release of Strontium 90 from a Bechtel Jacobs Company facility.*

During FY02, EPWS performed a study of external analytical service providers that identified significant potential cost savings. *An Operational Improvement Program request was submitted that would allow UT-Battelle a mechanism to utilize off-site laboratories at substantially reduced cost for analysis of required environmental samples as well as improve long-term service reliability.* Currently, most required environmental analytical costs are covered in the overhead budget because they cannot be tied to any specific generator.

The Legacy Material Disposition Initiative accomplished the following this fiscal year:

- 9,000 ft^3 of low-level waste shipped to Envirocare
- 704 legacy gas cylinders processed for recycle/disposal
- 9 moving vans of surplus equipment and furniture sent to surplus property sales
- 85 tones of scrap metal sent for recycle/disposal.
- 1,500 ft^3 of noncontaminated materials dispositioned at Y-12 sanitary/industrial landfill

It should be noted that this work was in addition to the ongoing management of waste generated by operations and research activities. A prioritized plan for FY 03-06 legacy material disposition actions to support ORNL revitalization, ES and H and other priorities has been initiated. *Continued incremental funding from the Legacy Tax and other available sources in FY03 and beyond is crucial and will also facilitate ORNL's transition to full fiscal responsibility for the cost of newly generated waste.*

In late FY 02, EM disclosed transition of the entire newly generated waste management program to SC. Significant effort has been spent planning this transition including development of the strategic vision of work scope to be transitioned, development of a preliminary cost estimate to

perform the new work scope, identification of facilities and staffing required to implement the new work scope, and a tentative schedule for implementation. *Continued management attention will be required in FY 03 to ensure an orderly and equitable transition supported by appropriate UT-Battelle contract modification and funding.*

The need to eliminate the use of the Process Waste Treatment Complex (PWTC) was emphasized by the EM move to transfer the responsibility of operation and maintenance of this system to SC. Reducing/eliminating discharges to this system will ultimately benefit UT-B and SC through contamination reduction, elimination of environmental vulnerabilities and ultimately significant cost avoidance associate with operating, maintaining and decommissioning the PWTC. *In the long-term, UT-B process wastewater flow elimination goals need to be effectively integrated into programmatic requirements and the appropriate subject areas via SBMS/EMS.* The submitted FY03 FEVARI OIP will enable reengineering efforts directed at minimizing process wastewater flows, define a cooling water management approach, and investigate sources discharging to the liquid and gaseous waste treatment systems so that options other than continued dependence on the aging treatment system infrastructure can be assessed.

ACRONYMS AND ABBREVIATIONS

ATS	Assessment Tracking System
CAA	Clean Air Act
CMC	Chemical Management Center
CWA	Clean Water Act
DOE-O	Department of Energy Oversight Office
ECR	Environmental Compliance Representative
EMS	Environmental Management System
EPO	Environmental Protection Officer
EPWS	Environmental Protection and Waste Services
ES&H	Environment, Safety, and Health
FEVARI	Facility Environmental Vulnerability Assessment Recommendation Implementation
FFCA	Federal Facility Compliance Agreement
FPE	Facility Process Evaluation
IO	Independent Oversight
ISMS	Integrated Safety Management System
GI	Generator Interface
LDRD	Laboratory Directed Research and Development
LLW	Low Level Waste
NOV	Notice of Violation
NGW	Newly Generated Waste
NPDES	National Pollutant Discharge Elimination System
OIP	Operations Improvement Program
ORNL	Oak Ridge National Laboratory
P-AAA	Price-Anderson Amendment Act
PEP	Performance Evaluation Plan
RCRA	Resource Conservation and Recovery Act

ROI	Return on Investment
SBMS	Standards Based Management System
PBM	Performance Based Management
PWTC	Process Waste Treatment Complex
TDEC	Tennessee Department of Environment and Conservation
TRU	Transuranic
TSCA	Toxic Substances Control Act

INTRODUCTION

UT-Battelle's plan for the Oak Ridge National Laboratory (ORNL) is guided by a commitment to achieving simultaneous excellence in the areas of science and technology; laboratory operations and environment, safety, and health (ES&H); and community service. Performance-based management at ORNL flows naturally from the macro level to the micro level through several documents of increasing detail. At the highest level is the Institutional Plan, a five-year high-level strategic planning document, which is managed by the Office of Strategic Planning and issued on an annual basis. The UT-Battelle Leadership Team has developed a Laboratory Agenda to provide a structured framework for the long-term initiatives, critical outcomes, and near-term actions. The Annual Performance Evaluation Plan (PEP) outlines those critical outcomes and measures, based on the Laboratory Agenda and negotiations with our DOE customer, of performance that are utilized for fee determination for a specific fiscal year. Organizational and management system self-assessment plans and schedules are utilized to further refine the performance-based management process at the directorate, division, group, program, project, and management system levels.

This performance evaluation report will provide feedback on Environmental Protection and Waste Services Division's (EPWS) performance against a wide variety of performance data sources--not only results of the critical outcomes, but a summary of results from various sources of management investment, self-assessment, self-discovered events and conditions, and external evaluations of performance. The purpose of the performance evaluation process is to assess strengths and areas for improvement and to provide feedback for the next fiscal year's performance planning and assessment cycle.

PART 1: RESULTS OF THE CRITICAL OUTCOMES AND PERFORMANCE MEASURES

EPWS developed, negotiated and executed critical outcomes in two overall areas: an eight element composite indicator for environmental protection and waste services (2.6.4) and a three element indicator to measure performance related to mitigating environmental risks identified in the previous year's Facility Environmental Vulnerability Assessment (2.11).

Performance Measure 2.6.4 Environmental and Waste Services Composite

Indicator	FY - 2002 Target/Points	
Reportable releases to the environment: (1) Includes CERCLA Reportable Quantity exceedances and releases of petroleum products attributable to UT-Battelle activities that require notifications of the regulators.	Outstanding: 0 releases Excellent: 1 release Good: 2 releases Marginal: 3 releases or more	5 4* 3 2
Significant findings from inspections conducted by regulatory agencies: (0) Includes UT-Battelle's accepted (or validated) findings of regulatory noncompliance that require a formal response, corrective action, or result in an enforcement action. Does not include recommendations, best management practices, etc., or nonregulatory findings issues by TDEC-DOE-O.	Outstanding: 0 findings Excellent: 1 findings Good: 2 findings Marginal: 3 findings	5* 4 3 2
Reportable permit noncompliances: (3) Includes UT-Battelle NPDES noncompliances and reportable air permit noncompliances, reportable Clean Water Act and Clean Air Act noncomformances, including limit exceedances. A single "event" that results in multiple permit exceedances or nonconformances will be counted as one noncompliance for this indicator. Does not include TSCA unauthorized use notifications as described in the ORO TSCA FFCA.	Outstanding: 0 noncompliances Excellent: 1-4 noncompliances Good: 5-8 noncompliances Marginal: 9-10 noncompliances	5 4* 3 2
Investment a minimum of $300,000 of ORNL funds into pollution prevention projects that have a cumulative return on investment > 33%.	Outstanding: >$350K Excellent: $300K <Funds ˜ $350K Good: $250K <Funds ˜ $300K Marginal: Funds ˜$250K	5* 4 3 2
The cumulative waste package rejection rate (R) for the period October 1, 2001, to September 30, 2002, will be less than 2% with no accompanying regulatory violations. (4th Qtr. 2.13% and YTD cumulative .99%)	Outstanding: R <1.0% Excellent: 1.0% <R ˜ 2% Good: 2%<R ˜ 2.5% Marginal: R > 2.5%	5* 4 3 2
Transfer items through the CMC Program from custodians who no longer have a need for the chemical item(s) to custodians who do have current needs for them. (goal - 1500 items) Cumulative items 2,082 exceeding goal by 39%.	Outstanding: Items > 1500 Excellent: 1000 < Items ˜ 1500 Good: 500 < Items ˜ 1000 Marginal: Items ˜ 500	5* 4 3 2
Submit waste certification packages for hazardous and mixed waste in 90-day accumulation areas (excluding those selected for Table 2QA verification per ORNL/TM-13288) within 30 days of placement in the accumulation area. (4th Qtr. .52%, Cumulative 63%)	Outstanding: % Submitted > 75 by Day 30 Excellent: 50 <% Submitted ˜75 Good: 40 <% Submitted ˜50 Marginal: % Submitted ˜40	5 4* 3 2
Implement a program and supporting activities and documentation to be in compliance with the requirements of Revision 1 of the Bechtel Jacobs Company Low-Level Waste Master Waste Stream Profiles for >85% of LLW generated by the date listed, and full laboratory compliance by June 30, 2002. (Completed March 31, 2002)	Outstanding: January 2, 2002 Excellent: February 15, 2002 Good: March 31, 2002 Marginal: June 30, 2002	5 4 3* 2
Composite Average Score		4.4

During FY02, there were no findings from inspections conducted by regulators. This is an extremely important metric–it indicates that UT-Battelle is meeting the expectations of the regulators. Compliance inspections were conducted in the following regulatory areas: the Clean Water Act (CWA), the Clean Air Act (CAA), the U.S. Department of Agriculture (soils), and the Resource Conservation and Recovery Act (RCRA). Positive observations were made by the regulators in all compliance areas.

There was only one reportable release to the environment in FY02 resulting in an *Excellent* rating. In December 2001, several drops of oil were released to a creek that resulted in a visible sheen. No negative environmental consequences were associated with this release.

In FY02, only three National Pollution Discharge Elimination System permit nonconformances were attributed to UT-Battelle activities resulting in an *Excellent* rating. In February 2002, a pH nonconformance was detected at an outfall near the Steam Plant. Operational changes were made that brought the pH back into an acceptable range. In April 2002, a chlorine exceedance was measured at an outfall near the High Flux Isotope Reactor. Operational corrections reduced the chlorine levels to permissible levels. In May 2002, toxicity limits were exceeded at the Sewage Treatment Plant. Operational corrections were made that reduced the toxicity to acceptable levels.

Pollution prevention projects, investment and return reflect a total investment of $601,337 with associated cost avoidance and savings of $849,123 for a return on investment that exceeds the 33 percent requirement (41.21 percent) in FY 02. This pollution prevention investment is considered to be augmented by the Operational Improvement Program (OIP) and Legacy Material Initiatives by $106,000 with an approximate Return on Investment (ROI) of $405,000 or 382 percent to further justify the *Outstanding* rating indicated in the table. The cumulative waste package rejection rate experienced for the year was less than 1 percent (.99 percent), and items transferred to users under the Chemical Management program exceeded the goal by 582 items or 39 percent netting *Outstanding* ratings for both of these indicators. The Chemical Management program transferred 2,082 items to new users including researchers at Sandia and Argonne National Laboratories as well as ORNL.

Waste certification documentation for hazardous and mixed waste was submitted within 30 days of placement in 90-day accumulation areas 63 percent of the time earning an *Excellent* rating. While performance continues to show improvement, the overall rating was impacted by project requirements for pop-up 90-day areas and container repackaging activities and costs.

Establishment of the program to be in compliance with the requirements of Rev 1 of the Bechtel Jacobs Company Low Level Waste (LLW) Master Waste Stream Profiles was frustrated by the lack of available monetary and personnel resources early in the fiscal year. Programmatic requirements changed significantly from certifying to Bechtel Jacobs Company storage criteria to Nevada Test Site disposal requirements. This change resulted in the need to increase the level of rigor and documentation associated with waste characterization and certification. Changes to ORNL Waste Certification Program requirements and guidance were required that in turn impacted waste generator characterization and certification activities and costs.

The average score for the Environmental and Waste Services composite indicator is 4.4 representing an overall rating of *Excellent.* Organizational effectiveness as well as the maturity of the regulatory compliance and waste management programs is accurately reflected in these individual and composite ratings. Excellent UT-Battelle environmental compliance performance by operating and research organizations was sustained. Challenges included reduced EPWS oversight of UT-Battelle activities, as well as diversion of key EPWS core resources to the

development of EMS and major legacy material removal initiatives. This sustained level of performance is attributed to the improving service and utilization of deployed resources such as Environmental Compliance Representatives (ECR), Generator Interfaces (GI) and other technical support personnel and the strengthening of the Standards Based Management System (SBMS) subject areas and procedures associated with the EMS.

Performance Measure 2.11 Mitigate environmental risks as identified in the Facility Environmental Vulnerability Assessment Recommendation Implementation (FEVARI)

Performance Indicator 2.11		
1 of 3: Complete priority contaminated vegetation removal and issue white paper on Science/EM responsibilities for subsurface contamination, both as agreed upon by DOE.	Outstanding: Prior to completion date (05/31/02) Excellent: By the completion date Good: Within 1 month after completion date Marginal: > 1 month after completion date	**5*** 4 3 2
2 of 3: In accordance with plan for pilot facility process evaluations (FPE) agreed to with DOE by 02/27/02, complete and document pilot FPE and issue schedule for completing remaining FPE.	Outstanding: Prior to completion date (06/28/02) Excellent: By the completion date Good: Within 1 month after completion date Marginal: > 1 month after completion date	**5*** 4 3 2
3 of 3: Verify process waste discharge reduction and generator compliance with UT-Battelle Waste Acceptance Criteria.	Outstanding: Prior to completion date (09/30/0202) Excellent: By the completion date Good: Within 1 month after completion date Marginal: > 1 month after completion date	**5*** 4 3 2
Performance Indicator Average Score		**5**

All three of the FEVARI milestones were completed ahead of schedule and are summarized below:

Removed 14 radioactively contaminated trees from various ORNL locations and the bushes along Central Avenue at the South Tank Farm and issued the *White Paper Discussing Issues and Recommendations Concerning Subsurface Contamination in Bethel Valley at ORNL During and After Completion of EM Interim Actions* on May 29, 2002.

Issued the *Facility Process Evaluation Development and Implementation Report* documenting pilot Facility Process Evaluations (FPE) and presenting a schedule for completing the remaining FPE on June 27, 2002.

Issued the *Process Wastewater Minimization at ORNL, Reducing Vulnerabilities Associated with the Continued Use of the ORNL Process Wastewater System* on September 27, 2002.

The need to eliminate the use of the PWTC was emphasized in late FY 02 by the EM move to transfer the responsibility for operation and maintenance of this system back to SC. Reducing or eliminating discharges to this system will ultimately benefit SC and UT-Battelle through contamination reduction, elimination of environmental vulnerabilities and ultimately significant cost avoidance. FEVARI accomplishments in FY 02 have led to well defined FY 03 initiatives to assist with re-engineering efforts to minimize process wastewater flows.

PART 2: SUMMARY OF RESULTS FROM LABORATORY DIRECTED RESEARCH AND DEVELOPMENT (LDRD), PROGRAM DEVELOPMENT, AND TECHNOLOGY TRANSFER INITIATIVES

NONE.

PART 3: SUMMARY OF RESULTS FROM INFRASTRUCTURE IMPROVEMENT (Strategic Facilities Plan, GPP, GPE, IGPP, Capital Projects), OPERATIONS IMPROVEMENT PROGRAM (OIP), AND LAB RESERVES-FUNDED INITIATIVES

The FEVARI OIP was initiated with a funding level of $400 k and supported the following key achievements:

- The three DOE PEP milestones were all completed ahead of schedule.
- Cost savings of $100 k /yr was achieved for reduced chemical usage in the 6000 area cooling tower at a cost of $55 k
- Costs of $350 k for cleaning up future contaminated vegetation situations similar to the mimosa tree north of 3047 were avoided by pre-emptive cutting of identified contaminated vegetation at a cost of $51 k

In addition, approximately $700 k of additional OIP and reserve funding was provided to launch the Legacy Material Disposition Initiative that accomplished the following at the end of FY 02:

- 9,000 ft^3 of low-level waste shipped to Envirocare
- 704 legacy gas cylinders processed for recycle/disposal
- 9 moving vans of surplus equipment and furniture sent to surplus property sales
- 85 tons of scrap metal sent for recycle/disposal.
- 1,500 ft^3 of noncontaminated materials dispositioned at Y-12 sanitary/industrial landfill

The Chemical Management Center (CMC) OIP was funded at a level of $250K for operations in Building 7013. At FY-end CMC operations costed $248K for management, staff, transportation, building operations and maintenance and space charges including utilities.

- Transitioned 3,292 "unneeded" items to new users, the manufacturer, or managed storage in 7013 (CMC inventory).

- Successfully shipped research grade materials to Sandia and Argonne National Labs to facilitate their research and reduce their chemical acquisition costs.

The ROI (146%) is calculated by using the cost to operate the CMC, the avoided costs of items moved to users and the avoided waste management costs.

A number of unplanned events in FY 2002 resulted in increased scope for EPWS and more specifically LWS. Terrorist attacks on the United States resulted in increased security measures including the need to safely open and inspect suspicious mail received at ORNL. LWS developed and implemented an approach to open, inspect, and test suspicious mail to ensure that ORNL employees were not exposed to potentially deadly biological agents. ORNL implemented a pilot program to transition management of newly generated hazardous waste from EM to SC. The pilot was successfully completed with shipments occurring in August and September to a procured vendor. Late in the fiscal year, EM disclosed transition of the entire newly generated waste management program to SC in FY 04. Significant effort was spent planning for this transition including development of the strategic vision of work scope to be transitioned, development of a preliminary cost estimate to perform the transferred work scope, identification of facilities and staffing levels required to implement the scope transferred, and a tentative schedule for implementation. An expenditure allocation of $75K was allowed for this unplanned work that will continue into 03.

EPWS OIP and reserve funding acquisition, cost assimilation and work execution are considered to be extremely effective in that they contribute to the reduction of the hazard footprint, establish ORNLs ultimate ability to receive responsibility for management of newly generated waste as well as enable revitalization.

PART 4: SUMMARY OF RESULTS FROM SELF-ASSESSING ACTIVITIES

A. EPWS Self Assessment Plan

EPWS conducted performance assessment in the general categories of Customer Focus, Financial Performance, Staff Results, Organizational Effectiveness and Compliance in accordance with our 2002 Self Assessment Plan. Performance objectives and goal, linkage, indicator, assessment method and results are summarized in Appendix A.

Significant actions taken by EPWS in 2002 as a result of ongoing self-assessment include: deployed personnel changes to better serve specific customer needs, improved management of the EPO/ECR program, revised several SBMS documents to reflect the fact that UT-Battelle's EMS is based on ISO 14001, initiated a study that identified external analytical providers that represent significant cost savings and risk reduction opportunities for UT-Battelle.

In late FY 2001 and early FY 2002, LWS conducted an assessment of lab-wide implementation of the ORNL "no radioactivity added" program using a team of independent experts from PNNL and BNL. The independent assessment concluded that the basic program was sound but included several observations for improvement. As a result of an LWS review of its operations, LWS stood down operations in December of 2002 to review recent occurrences and events, safety principles and expectations, and operating requirements and procedures in order to re-focus LWS on safe and compliant operations. In January and February, LWS asked an independent team of experts from waste services, safety, and compliance to review operational procedures related to handling and testing of potentially shock sensitive and explosive wastes. As a result, additional training was provided to LWS personnel and an external, third party

review was conducted by a recognized expert. Recommendations from the team and the consultant were implemented to more safely manage these materials.

With regard to Financial performance (Appendix B), EPWS was slightly under (.2 percent) the authorized spending level for the fiscal year and incurred a credit variance on organization burden. The continuing increase in sale of services is represented by the increase in hours charged to non-EPWS overhead accounts of 7.3 percent. Spending of additional reserve dollars, made available primarily at year-end for the Legacy Material initiative, was highly successful and contributed to EPWS's ability to operate within its ORNL overhead budget. *However, the uncertainty associated with funding availability and timing has made work planning and execution extremely difficult throughout the year.*

Hazardous, mixed, low-level, and transuranic (TRU) waste forecast versus actual quantities (FY01 and 02) are summarized in Appendix C. Waste generation rates for hazardous and mixed wastes exceeded the FY 2002 generator developed forecast by approximately 10,000 kgs. The FY 2002 forecast was 66,238 kgs while actuals through September totaled 77,895 kgs. LLW and TRU waste generation rates are virtually on target with the forecast (707 m^3 compared to 713 m^3 as forecasted through August).

B. ISO 14001 Environmental Management System Audit

The organizational effectiveness category of EPWS' self-assessment plan included the performance objective, "Deployment of Environmental Management System (SBMS)" to ensure the flowdown of critical Laboratory Agenda elements related to SBMS. Two assessments of UT-Battelle's EMS were conducted in FY02. In November 2001, qualified auditors from PNNL and UT-Battelle performed a baseline review of UT-Battelle's EMS. This review identified 5 major gaps and several minor gaps with the ISO 14001 Standard. As a result of this review a corrective action plan was developed that will address these major and minor gaps over a several year period. In August 2002, a follow up assessment was conducted by PNNL and BNL staff to evaluate the progress made by UT-Battelle in the eight months since the previous assessment. One major gap (management review) and several minor gaps were identified in this follow up assessment. The auditors commented that "excellent progress had been made" and that UT-Battelle could be ready to pursue registration in a year.

C. Independent Oversight ORNL ISMS/SBMS Evaluation---Results applicable to EPWS

Independent oversight (IO) conducted an evaluation of the status of ORNL's ISMS during FY02. The objectives included determination of the status and effectiveness of ORNL's evolution of its ISMS to a single, systems–based approach. A draft report was recently issued for factual accuracy review and it is clear that EPWS and ORNL's EMS will be affected by the recommendations and resulting corrective actions related to ISMS, PBM-MS and R2A2 processes. The evaluation of deployment of personnel/purchased services is considered particularly relevant to EPWS and ORNL's EMS thus it has been included in its entirety as Appendix D. EPWS corrective actions in response to the recommendations below will be developed and entered into the assessment tracking system (ATS).

Recommendations:

8.1.1 Line management should ensure that direction is provided to guide appropriate implementation of the Work Control Subject Area within the ESH and Q Directorate.

8.2.1 ESH and Q Directorate management should consider increasing communication with the line organizations regarding use of Subject Matter Experts in supporting work activities, and in the overall benefits of the purchased service approach.

PART 5: SUMMARY OF RESULTS FROM EXTERNAL ASSESSMENTS AND SELF-DISCLOSING EVENTS AND CONDITIONS

External Assessments

Several inspections were conducted by regulators during FY2002:

Clean Air Act and associated permits 12/12/01, 1/23/02, and 1/30/02

Clean Water Act and associated permits 6/2/02

Resource Conservation and Recovery Act 5/10./02

U.S. Department of Agriculture 6/11/02

No findings were reported during any of these regulatory inspections.

Environmental Incidents

Strontium release from 3039 - An elevated level of strontium was detected in June 2002. Although no regulatory limits or action levels were exceeded, considerable ambient and stack monitoring data was collected by EPWS staff.

Notices of Violation (NOVs) - ORNL received two NOVs from the Tennessee Department of Environment and Conservation during FY02. Both NOVs were related to exceedances at the Sewage Treatment Plant. No follow up action was required.

Reportable Release - There was one reportable release to the environment in FY02. In December 2001, several drops of oil were released to a creek that resulted in a visible sheen. No negative environmental consequences were associated with this release.

Legacy PCB Contamination – 3180 ppm of PCBs were discovered in paint on the floor of the sign shop in Building 7007 in November of 2001. Legacy PCB contamination was also

discovered in filters associated with the Building 3019 off-gas system. These issues were reported to EPA.

A concern related to waste container identification numbers (ATS Condition Number 1114.1) was identified by Waste Services and determined to constitute an off-normal occurrence. The investigation determined that personnel error and lack of clearly defined technical direction contributed to the misinterpretation of certification program requirements. Corrective actions required that the boxes be inspected when submitted for certification. During the follow-up inspections, additional problems were discovered related to the presence of non-conforming items in the waste containers. LWS is supporting the generator's closure of this subsequent occurrence by opening, inspecting, and repackaging the problem containers.

PART 6: ORGANIZATION STRENGTHS AND AREAS FOR IMPROVEMENT

Strengths:

- 1 Experienced staff
- 2 Excellent relationships with the regulators
- 3. Ability to lead major new legacy material disposition initiative.
- 4. Strong customer focus
- 5. Technical excellence
- 6. Commitment to completion of the task at hand (read that "can do attitude")
- 7. Organizational agility (ability to "shuffle" the organization to accomplish the task)
- 8. Ability to change as necessary to accommodate changing drivers, scope and business approaches

Areas for Improvement:

- 1. Close remaining gaps related to ISO 14001
- 2. Execution of PBMS-MS
- 3. Interfaces, synergies, roles, and responsibilities with BJC
- 4 Flexibility to utilize external analytical service providers
- 5. Customer interface
- 6. EPWS's ability to verify compliance status of UT-Battelle activities (reduction in oversight)
- 7. Work Planning and Control
- 8. Resource management and planning given uncertain funding

Appendix A

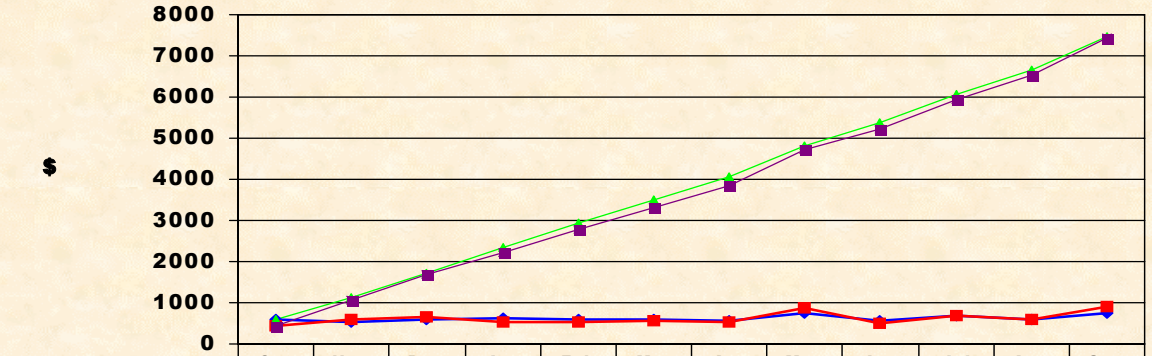
Environmental Protection and Waste Services
2002 Self Assessment Plan

ENVIRONMENTAL PROTECTION & WASTE SERVICES

2002 Self Assessment Plan – (Revision 2 – April 9, 2002) **FY 02 4th Quarter Summary**

Performance Objective	Linkage	Indicator	Assessment Method	Performance Goal	Performance Level	Frequency or Date	Responsible Person	Status
Category 1 – Customer Focus								
Human Customer Satisfaction	PEP-26	Solicited and unsolicited feedback	Review comments	Obtain input in timely manner and manner	Satisfactory/Needs Improvement	Quarterly	Downer	Needs Improvement
Annual Site Environmental Report (ASER)	PEP-26	Report published by Oct. 1	Schedule with milestones	Met deadline	Satisfactory/Needs Improvement	Annually	Skipper/Hughes	Satisfactory
Enhance/maintain Web Sites for EPWS	PEP-26	Review of each service area quarterly	Periodically assess accuracy & completeness of information on Web sites	Provide accurate & useful Web sites	Satisfactory/Needs Improvement	Quarterly	Byrn/Skipper/ Mapa	Satisfactory
Continue effective liaison between TEEC, DOE-O and ORNL/DOE	PEP-26	Rating from interview responses	Feedback from DOE and TEEC (verbal/written/ interview)	No negative feedback	Satisfactory/Needs Improvement	Semiannual	Byrn/Anderson	Satisfactory – no negative feedback received in FY 02
Category 2 – Financial Performance								
Spend rate is consistent with projected budget	PEP-21	Overhead budgets cannot be exceeded substantially	Division & Organization Managers evaluate cost vs. budget (constantly monitor)	Actual costs approximate budget	< 5% variance = Outstanding 5-9% variance = Excellent > 10% variance = Good Overrun = Marginal	Monthly	Div. Dir/Div. Mgrs/Chapman	Outstanding – (.2% variance)
Maintain accurate rate	PEP-21	Actual rate vs. standard rate	Comparison reports	Maintain a favorable variance	< 5% favorable var. = Outstanding 5-9% favorable var. = Excellent > 10% favorable var. = Good Unfavorable variance = Marginal	Monthly	Div. Dir/Div. Mgrs/Chapman	Excellent – (1.5% favorable var.)
Direct Charge % of total budget increases	PEP-23	Hours charged to non-EPWS overhead accounts	Comparison report based on hours charged in PALS/SAP	3% growth	>5% growth = Outstanding 3-5% growth = Excellent 1-3% growth = Good <1% growth = Marginal	Quarterly	Chapman/Div. Dir/Div. Mgrs/Ellis	7.3% increase = Outstanding
Category 3 – Staff Results								
Increase Leadership Skills	PEP-16	IADs completed	Execute IADS	Establish and retain critical skills	Satisfactory/Needs Improvement	Annual	EPWS Managers	Satisfactory – IADS completed
Leadership Effectiveness	PEP-16	ORNL EEO/WFD Performance Measures	Reporting against ORNL specified criteria	Exceed	Exceed/Meet/Below	Quarterly	Bates/Downer	Exceeds
Staff Development	PEP-16	IADs completed	Execute IADS	Establish and retain critical skills	Satisfactory/Needs Improvement	Annual	EPWS Managers	Satisfactory – IADS completed
Staff Satisfaction	PEP-16	Survey results	ORNL survey	Improved relative to prior survey	Data collected 2nd quarter 2001	As determined at lab level	EPWS Managers	ORNL's Quality of Work Environment Survey

Appendix B
EP/WS Overhead Cost
FY2002



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Monthly Plan	590	531	590	620	590	590	561	738	561	679	590	738
Monthly Actual	445	602	645	539	535	556	529	884	494	697	607	912
Cumulative Plan	590	1122	1712	2332	2922	3512	4073	4811	5372	6051	6641	7454
Cumulative Actual	445	1047	1692	2231	2766	3322	3851	4734	5228	5925	6532	7444

OAK RIDGE NATIONAL LABORATORY
U. S. DEPARTMENT OF ENERGY

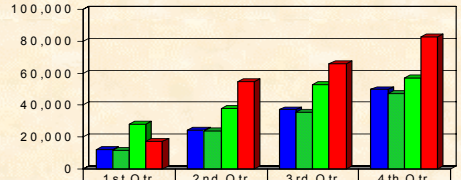
UT-BATTELLE

Appendix C
Waste Forecast vs Actuals

ORNL - Waste Forecast vs Actuals

Fy 2002 - Cumulative

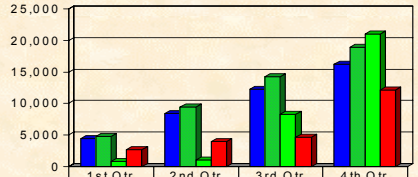
Hazardous Waste



	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Forecast Fy 03	12,339	24,236	37,162	49,777
Forecast Fy 02	11,817	23,634	35,451	47,268
Act Fy 02	28,061	37,738	52,873	56,874
Act Fy 01	17,197	54,748	65,815	82,500

kg's

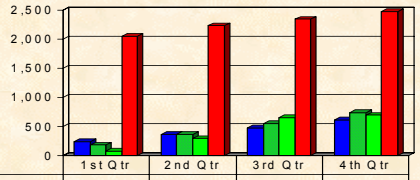
Mixed Waste



	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Forecast Fy 03	4,440	8,453	12,286	16,200
Forecast Fy 02	4742	9484	14226	18970
Act Fy 02	808	1,029	8,244	21,020
Act Fy 01	2,739	3,988	4,672	12,188

kg's

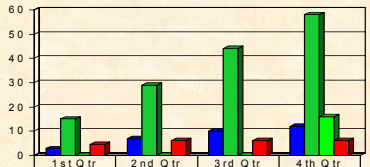
Low-Level Waste



	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Forecast Fy 03	243	362	479	614
Forecast Fy 02	184	368	552	736
Act Fy 02	72	295	653	693
Act Fy 01	2,053	2,231	2,341	2,474

m^3

Tru Waste



	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Forecast Fy 03	3	7	10	12
Forecasst Fy 02	15	29	44	58
Act Fy 02	0	0	0	16
Act Fy 01	5	6	6	6

m^3

OAK RIDGE NATIONAL LABORATORY
U. S. DEPARTMENT OF ENERGY

Forecast Fy 03 = Baseline generation only
Forecast Fy 02 has been straight lined quarterly for this report

UT-BATTELLE

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Appendix D

Deployment of Personnel/Purchased Services
(Excerpted from 10/03/02 Draft – Evaluation of ORNL ISMS/SBMS Program)

8.0 DEPLOYMENT OF PERSONNEL/PURCHASED SERVICES

Recognizing that effective use of Subject Matter Experts is critical to the SBMS delivery of the ISMS, the ESH&Q Directorate – which is responsible for the organizations, systems, and personnel (Subject Matter Experts) providing matrixed safety support to line organizations – was examined. Areas of focus included work control activities conducted by the ESH&Q Directorate, and deployment of ESH&Q services to support R&D activities.

8.1 Work Control in the ESH&Q Directorate

The activities of the ESH&Q Directorate include supporting the work of other organizations and conducting work internal to the Directorate. The work supporting other organizations places the role of work planning and control on the requester, typically line management. In these situations, ESH&Q personnel work within the bounds of and actively support work reviews and controls prepared by the requesting line organization in accordance with the strategy of the requesting organization.

ESH&Q Directorate personnel also perform routine and non-routine activities internal to the Directorate. Routine activities include surveillance and maintenance, sampling, monitoring, inspections, laboratory protocols, and repetitive operations. Non-routine activities include any routine operation having additional hazards beyond the scope of those previously analyzed, new protocols, and other operations, such as waste repackaging and non-destructive testing. This review focused on whether the work activities performed by the Directorate have adequate work controls, and whether the Directorate was prepared for the October 1, 2002, roll-out of the SBMS Procedure *Work Control for Operations, Maintenance and Services*.

Status of Activities:

The majority of work activities performed by the ESH&Q Directorate are routine evolutions performed repetitively by highly qualified personnel. In particular, the Operational Safety Services Division, Quality Services Division, Health Services Division , and Environmental Protection and Waste Services Division perform the vast majority of their activities according to Standard Operating Procedures, using personnel who can demonstrate qualification through training, experience, and education. The Standard Operating Procedures reviewed adequately describe the work to be performed, and follow a standard format that generally includes: Purpose, Scope, Definitions, General Information, Materials, Responsibilities, Procedure, Applicable Standards, References, and Records.

Assessment Results:

Strengths

- Activities within the ESH&Q Directorate are generally highly proceduralized according to standardized work controls and are subject to rigorous hazard analysis and hazard control identification processes.

- In a majority of the divisions, there are formal qualification programs to demonstrate competency, and most professions in the ESH&Q Directorate are subject to nationally recognized registration/certification programs.

- Those non-routine operations performed by the ESH&Q Directorate that were reviewed demonstrated the presence of strong work control processes.

Opportunities for Improvement

1. There is currently no roll-out strategy for ESH&Q Directorate operations to ensure compliance with or equivalency to the SBMS Procedure *Work Control for Operations, Maintenance, and Services* (scheduled to be implemented on October 1, 2002), nor has an implementation plan been submitted for an extended effective date.

   Some Group Leaders believe that the ESH&Q Directorate has been granted a grace period for implementation of the new procedure. Several managers indicated that direction had been provided to follow the new procedure; others indicated that such direction had not yet been received; one manager was unfamiliar with the procedure. This lack of consensus could be readily eliminated through positive management direction.

2. A significant number of the personnel were not familiar with the procedure and few demonstrated robust knowledge.

Recommendation:

8.1.1 Line management should ensure that direction is provided to guide appropriate implementation of the Work Control Subject Area within the ESH&Q Directorate.

8.2 Deployment of ESH&Q Services to Line Organizations

The objectives of this assessment element included determining if line organizations are receiving adequate and appropriate support from the deployed ESH&Q services, and if the purchased service business model is ensuring that appropriate ESH&Q services are utilized.

Status of Activities:

The ESH&Q Directorate supports line organizations through deploying resources, primarily labor, on either a task, percent allocation, or full-time basis. These deployments are arranged by mutual agreements between the line organization and the ESH&Q service provider. Historically, a significant portion of the costs of these services, excluding Radiological Safety Services, were accounted for in Laboratory overhead. The current accounting philosophy is to shift many of these costs to direct-charge (i.e., purchased service business model).

Assessment Results:

Strengths

- **In general, the line organization is satisfied that they receive adequate and appropriate support from the ESH&Q service providers; ESH&Q staff concur with this.**

- Several line organizations offered that ESH&Q management has shown a willingness to resolve inadequate performance by deployed staff members.

- Most line managers were familiar with the objectives and use of the purchased service business model. Almost all line managers stated they would use the same level of ESH&Q services regardless of the business model used, indicating that they obtain ESH&Q resources based on needs not cost.

- A significant number of line managers offered that the ISMS initiatives in conjunction with the purchased service model were improving the the assessment and mitigation of hazards and increasing their involvement in the work planning process.

Opportunities for Improvement

1. Line organizations (non-ESH&Q Directorate) are generally concerned that recent reductions in health and safety staff have impacted technical capability and effectively eliminated needed contingency personnel. For example, several line organizations indicated that more technical capability is needed in fire protection engineering, pressure vessel safety, and fully qualified Radiological Control Technicians.

2. These same line organizations are very parochial regarding ESH&Q deployed staff, typically indicating that they are very satisfied with currently assigned personnel, and would not be receptive to rotation of ESH&Q staff.

3. Several line organizations interviewed stated that ESH&Q management (with the exception of the Radiological Safety Services Group Leader) has not routinely solicited feedback on adequacy or appropriateness of the deployed staff.

4. There is no overall consensus on whether the purchased service business model for ESH&Q services has yet had a significant impact, positively or negatively, on ensuring that appropriate services are used.

5. Several line managers are waiting to see if overhead rates decline with an increasing use of the purchased service business model.

6. Most line managers believe that the cost of purchased service personnel will exceed the cost of an equivalently-qualified individual from the line manager's organization.

Recommendation:

8.2.1 ESH&Q Directorate management should consider increasing communication with the line organizations regarding use of Subject Matter Experts in supporting work activities, and in the overall benefits of the purchased service approach.