



## Department of Energy

Washington, DC 20585

July 10, 1998

The Honorable John T. Conway  
Chairman  
Defense Nuclear Facility Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004

Dear Mr. Chairman:

This letter transmits information concerning feedback and improvement processes under Integrated Safety Management. I committed to provide the Board this information at the Seventh Quarterly Briefing held on June 24, 1998.

The first enclosure discusses actions taken by the Office of Oversight to improve its followup of issues, deficiencies, and vulnerabilities identified as a result of Office of Environment, Safety and Health appraisals and vulnerability studies. It also includes the status of the evaluations listed in Enclosure 2 of your March 20, 1998 letter to Deputy Secretary Moler concerning feedback and improvement.

The second enclosure contains the newly revised, validated *Site Profiles*, which summarize the most significant environment, safety, and health, and safeguards and security issues at each site and their corrective action status.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter N. Brush", written over a horizontal line.

Peter N. Brush  
Acting Assistant Secretary  
Environment, Safety and Health

cc: R. Crowe  
E. Livingston  
G. Podonsky  
M. Whitaker

Enclosures



**Enclosure 1**  
**Summary of Office of Oversight Activities**  
**and the Department's Response to Issues**  
**Identified in Appraisals and Vulnerability Studies**

In the first two years of its operation, the Office of Oversight (EH-2) focused its appraisals on developing baselines of field environment, safety, and health (ES&H) management programs. As it does today, EH-2 conducted special studies and reviews at the request of senior management, and performed accident investigations and followup.

During Fall 1996, EH-2 performed a self-assessment of its programs and products. One area needing enhancement was the formal followup of identified ES&H and safeguard and security (S&S) issues, deficiencies, and vulnerabilities. EH-2 management took the following actions:

- The Office of Planning and Analysis was tasked with coordinating EH-2 followup activities.
- Integration teams, consisting of a representative from each office within Oversight, were established to facilitate followup.
- Each integration team collected information on ES&H and S&S concerns by reviewing a wide range of information sources such as past Office of Environment, Safety and Health (EH) assessments, vulnerability studies, externally generated reports, and Type A and B accident investigation (AI) reports.
- Issues were screened, consolidated, and prioritized for followup. Based on the issues, the teams prepared strategies for each site containing the status of issues being followed and recommendations regarding methods and milestones for followup activities (i.e., surveillances, followup reviews, etc.). These strategies were reviewed by EH-2 management and resources allocated as appropriate.
- Staff were assigned to review the status of vulnerabilities identified in EH's chemical, plutonium, spent fuel, and highly enriched uranium (HEU) vulnerability studies. Available information was provided to the integration teams.
- EH-2 is presently actively following the resolution of vulnerabilities at a number of sites:
  - Chemical safety vulnerabilities at East Tennessee Technology Park (ETTP), Sandia National Laboratory (SNL) - New Mexico (NM), and Pacific Northwest National Laboratory (PNNL),
  - Spent fuel vulnerabilities at Hanford and Idaho National Environmental Engineering Laboratory (INEEL),

- HEU vulnerabilities at the Oak Ridge (OR) Y-12 Plant, Oak Ridge National Laboratory (ORNL), ETTP, and Los Alamos National Laboratory (LANL), and
- Plutonium vulnerabilities at Argonne National Laboratory (ANL) -West, Hanford, LANL, Miamisburg Environmental Project, Rocky Flats Environmental Technology Site (RFETS), and Savannah River Site (SRS).

In addition, followup on the timeliness and effectiveness of field actions to correct deficiencies identified in EH-2's appraisals has become an integral part of the independent oversight program and the primary function of the EH-2 integration teams. Followup is also an essential element of EH-2's field activities, whether they are integrated safety management evaluations (ISMES), accident investigations (AIs), EH resident surveillances, or specific followup reviews. Also, analysis of performance data and trends provide input vital to the followup mission.

For example, formal followup reviews were conducted in June 1997 at RFETS and INEEL; at LANL in January 1998; and at INEEL again in May 1998. Followup reviews are scheduled during the remainder of 1998 at ETTP, FEMP, and the Hanford Site.

### **Oversight Activities and Site Response to Identified Issues**

Table 1 lists appraisal and accident investigation reports and vulnerability studies that correspond to documents identified on Enclosure 2 of Chairman Conway's March 20, 1998 letter to Deputy Secretary Moler, arranged by site<sup>1</sup>. For each, EH-2 activities, the site's response to identified issues, and the overall progress toward correcting those issues are summarized. The following conclusions are based on the data in the table:

- ***Although sites may eventually be responsive to Oversight issues, some corrective actions are not effective or timely.*** For example, at Hanford, several corrective actions for the ISME are complete, but many are still open or delinquent. An excessive amount of time was taken to complete many corrective actions. The April 1996 Rocky Flats Field Office (RFFO) status report on actions being taken in response to the ISME did not comprehensively address all issues and provided no future corrective actions, or dates. EH-2 continues to follow actions taken on six of the Pantex ISME issues that remain open either because the corrective actions are not yet completed or actions taken have not adequately resolved the problems identified.

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<sup>1</sup> The site profiles are provided as Enclosure 2. The reports "Independent Oversight Baseline Assessment of the Effectiveness of Safety Management Programs with DOE," and "Effectiveness of Safety Management Programs Within the DOE, January 1—December 31, 1996," are not included. These reports compile information from other EH-2 appraisal reports and as such no response was requested or expected. The report "Radiological Protection Programs in the DOE Complex," May 1996, is likewise not included. It is a statistical overview of radiological occurrence data, and no response was requested nor expected. Lastly, the reports "Plutonium Intake by Crane Operator at SRS F-Canyon" and "Curium Intake by Shredder Operator, Building 513, LLNL" are not included as these reports were produced by Savannah River and Lawrence Livermore National Laboratory, respectively.

- ***Some sites are responsive only after a serious event or events or repeated visits by the Office of Oversight.*** The corrective action plans for the LANL electrical shock accident at Technical Area 53, Building MPF-14, were initially unresponsive, prompting EH-2 announce formal followup activities. Although recently there has been a high degree of responsiveness to the issues identified in the Brookhaven National Laboratory ISME and special review of the tritium plume, this comes after DOE was forced to terminate the contract with the management and operating (M&O) contractor due to its failure to correct long-standing ES&H management issues.
- ***Sites are more responsive than program offices.*** For all four LANL accident investigations led by EH-2, there was no program office review or approval of the corrective action plans (CAPs). Environmental Management (EM) and Nuclear Energy (NE) have not developed corrective actions in response to the Sandia ISME.
- ***Sites tend to close out actions before they are fully implemented and determined to be effective.*** At Idaho, the EH-2 followup review of June 1997 identified inadequacies in management of the closure process for corrective actions. Also, lessons learned from the judgments of need (JONs) have not been applied to site-wide operations. The LANL followup, conducted in January 1998, found uneven implementation of institutional requirements. Of special concern are continued weaknesses in the implementation of work planning, electrical safety, and corrective action programs.

**Table 1**  
**Current Status of Corrective Actions in Response to**  
**EH-2 Appraisals and EH Vulnerability Studies**

<b>Appraisal/ Study</b>	<b>Report Date</b>	<b>Corrective Action Plan</b>	<b>Followup</b>	<b>Comments – Brief Description of Corrective Action Status</b>
<b>Argonne National Laboratory-West (ANL-W)</b>				
Highly Enriched Uranium (HEU) Vulnerability Study	12/96	Yes	Included in integration team issue prioritization process	There was only one item at ANL-W and it has been closed.
Plutonium Vulnerability Study	11/94	Yes	Included in integration team issue prioritization process	Two of the items have been closed out and corrective actions are underway with satisfactory progress on the remaining six.
<b>Brookhaven National Laboratory (BNL)</b>				
Integrated Safety Management Evaluation (ISME)	4/97	Yes	Scheduled for 7/98	On May 1, 1997, the Secretary terminated the contract with Associated Universities Inc., which operated BNL from 1947 until 1/98. Factors cited in reaching this decision were the erosion of public trust in BNL management, and the results of the 1997 ISME, which identified weaknesses in the safety management program at BNL. In 7/97, Energy Research (ER) issued an action plan and subsequent implementation plan that outlined six high level actions to address ES&H management concerns and community trust issues. The new contractor, Brookhaven Science Associates, assumed responsibility for laboratory operations in 3/98 and a permanent Brookhaven Group (BHG) manager has been selected.
Special Study: BNL Tritium Plume Recovery Activities	2/97; 4/97 ISME	Yes	10/97	The 10/97 review found that significant progress was being made toward identification and remediation of the tritium plume and that actions were proceeding on schedule. Although the tritium remediation project has now been completed, the overall groundwater program will be a topic of the 7/98 followup review.

Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Brookhaven National Laboratory (BNL) – continued</b>				
Type A Accident Investigation (AI): Construction Fatality at BNL	9/97	Yes	To be determined	This investigation was led and supported by EH. Initial corrective action plan (CAP) was unresponsive to some judgments of need (JONs). 3/98 EH memo to BHG documented comments and requested revised CAP. EH-2 is currently working with BHG and Energy Research (ER) to resolve these comments. Revised CAP from BHG is expected by 7/98.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME Lines of Inquiry (LOIs)	Issues included work planning, problems with implementing core safety programs, and hazard controls, and so were similar to the general findings in the ISME. All issues are reported complete.
<b>East Tennessee Technology Park (ETTP)</b>				
Special Study: ETTP Facility Disposition	9/97	Yes	Surveillance in last qtr. CY98.	23 of 26 actions completed according to site. To date, site has not been fully responsive to last three open items which are related to integrated safety management (ISM). DOE ETTP site office verification is not formally planned and is not documented.
Surveillance of Job Hazard Analysis Program Implementation for Energized Electrical Work	4/97	Yes	Completed	Site corrective actions were responsive. Issue has been closed.
Type A AI: Welding & Cutting Fatality at the K-33 Building	3/97	Yes	Scheduled for 7/98	8/97 Environmental Management (EM) memo to Oak Ridge (OR) approving CAP. EH provided review comments to OR in 8/97. EH-2 followup visit scheduled for 7/98 to assess effectiveness of corrective actions.

Table 1 -- Current Status of Corrective Actions in Response to EH-2 Appraisals and EH Vulnerability Studies (as of June 13, 1998)

Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>East Tennessee Technology Park (ETTP) – continued</b>				
HEU Vulnerability Study	12/96	Yes	Included in integration team issue prior. process	Site contractor states all deposit removal activities completed 1/98. OR has advised EH that verification to be completed in near future.
Plutonium Vulnerability Study	11/94	Yes	Included in integration team issue prior. process	OR sites are working in concert to address the issue of repackaging of all plutonium metal, to be completed by 5/02. Presently ahead of schedule.
<b>Fernald Environmental Management Project (FEMP)</b>				
ISME	5/96	Yes	Scheduled for 9/98	Corrective actions have met both the intent and letter of issues raised.
Surveillance on Roles & Resp. & Policy for Qual. Assurance	11/97	Yes	Completed	Site corrective actions were responsive. Issue will be closed after corrective actions are proven effective.
<b>Hanford</b>				
ISME	4/96	Yes	Scheduled for 10/98	Some corrective actions are complete, but many are open or delinquent. Examples: the site wide deficiency tracking system due 7/97 has failed to meet its performance goals; and DOE-Richland (RL) has not formalized an assessment/surveillance process or policies/procedures for implementing O 5480.24 (Nuclear Criticality Safety). Excessive time was taken to complete many corrective actions. Example: The ES&H management plan was to be completed by 12/96 but was not until 9/97.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	Hanford implemented a three phase plan in response to 8/97 and 10/97 Secretarial directives. Phase 3 (facility assessments) is underway with a final report due 10/98.
Plutonium Vulnerability Study	11/94	Yes	Included in ISME LOIs	25 of the 34 total corrective actions are still open.

Table 1 -- Current Status of Corrective Actions in Response to EH-2 Appraisals and EH Vulnerability Studies (as of June 13, 1998)

Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Idaho National Engineering and Environmental Laboratory (INEEL)</b>				
ISME	10/95	No	5/98	Idaho (ID) did not address all the issues raised in the report including consolidation of procedures, strengthening of self-assessment programs and oversight of subcontractors. The 5/98 followup report noted that only recent progress had occurred on the consolidation of procedures and strengthening of oversight of subcontractors, and little improvement in programs for oversight, corrective actions and hazards identification.
Type A AI: Electrical Shock at TRA-609, Test Reactor Area	9/96	Yes (initial CAP 12/96; revised CAP 5/98)	6/97	5/97 EH memo to ID provided comments on the initial CAP. Initial submittal of the corrective actions plan did not integrate the corrective actions of ID and Lockheed-Martin (LMITCO) into an effective plan responding to the JONs. EH-2 AI program staff, in conjunction with Nuclear Energy (NE), have been involved in numerous reviews of the draft corrective action plans in 1997 and 1998. 6/97 followup identified inadequacies in management of the closure process for corrective actions. Also, lessons learned from the JONs have not been applied to site-wide operations. 6/98 EH memo to ID provided comments on the revised CAP. NE is reviewing revised CAP.
Type A AI: Fall Fatality at Radioactive Waste Mgt. Complex Transuranic Storage Area - Retrieval Enclosure	4/96	Yes	6/97	8/96 EH memo to ID commented on the CAP, but withheld "concurrence." 10/96 ID memo to EM discussing "progress" in reference to a memo from EM to ID. EH-2 followup review report noted JONs specific to the TSA-RE subcontractor had been closed prior to completing all actions. Also, lessons learned based on JONs had not been applied to all subcontractor operations and hazards analysis were still problematic.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	The three items identified have been closed at INEEL.
HEU Vulnerability Study	12/96	Yes	Included in ISME LOIs	INEEL response to this study was timely and effective.

Table 1 -- Current Status of Corrective Actions in Response to EH-2 Appraisals and EH Vulnerability Studies (as of June 13, 1998)



Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Los Alamos National Laboratory (LANL)</b>				
ISME	10/96	Yes	1/98	Overall, LANL ISM system provides good framework for facilitating safety improvements; slow progress is being made. LANL relies on implementation of ISM system to address issues raised from ISME and Type A AIs. Initial program office response was inadequate, and did not address issues raised concerning DOE line management, nor provide a critical review of the ISM system compared to ISME results (e.g., crosswalk of ISME issues to ISM system). Some ISME issues not originally addressed by LANL ISM system included: configuration management, training and qualification of facility managers, and prioritization of ES&H activities. These areas are now being addressed in revisions to the ISM system plans. Progress on issues related to DOE line management, such as authorization basis review and approval process, and weak roles, responsibilities, and authorities, remains an issue.
Type A AI: Electrical Shock at Technical Area 53, Building MPF- 14	8/96	Yes	1/98	No program office review or approval of the CAP. Corrective actions initially unresponsive. 7/97 EH-2 memo to AL emphasized concern about the continuation of electrical events at LANL and announced followup activities. EH-2 1/98 on-site followup review noted improvements, specifically in ISM system, which provides a good framework for continued progress. The most significant improvements were in accountability and safety awareness; however, implementation of institutional requirements is uneven. Of special concern are continued weaknesses in the implementation of work planning, electrical safety, and CAPs.
Type A AI: Forklift Accident on 11/22/95	1/96	Yes	1/98	No program office review or approval of the CAP. CAP transmitted to EH-2 in 3/97 following written request for CAP update. EH-2 followup visit to LANL in 1/98 assessed corrective action completion and effectiveness.

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Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Los Alamos National Laboratory (LANL) - continued</b>				
Type A AI: Electrical Accident with Injury in Technical Area 21, Tritium Science and Fabrication Facility	4/96	Yes	1/98	1//97 EH memo to AL provided concurrence of AL, Los Alamos Area Office (LAAO), and LANL CAPs. No program office review/approval of the CAP. Corrective actions were initially unresponsive. 7/97 EH-2 memo to AL emphasized concern about the continuation of electrical events at LANL and announced followup activities. EH-2 1/98 on-site followup, observed improvements, specifically in ISM system, which provides a good framework for continued progress. Most significant improvements were in accountability and safety awareness; however, implementation of institutional requirements is uneven. Of special concern are continued weaknesses in the implementation of work planning, electrical safety, and CAPs.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	An initial site response plan was transmitted by LANL to LAAO in 9/94. The plan identifies 14 corrective actions in the areas of chemical holdings, facility maintenance, and operational control and management systems to address Chemical Vulnerability Study (CSV) findings. Three of the 14 corrective actions are still open. However, the corrective actions addressed only those deficiencies identified at the 5 facilities visited by the working group. The lessons learned from the CVS were not effectively translated to other parts of the Lab. For example, the EH residents noted that the CVS did not include a review of the significant amounts of flammable gasses and gaseous chlorine supplies either stored or in use at two LANL facilities. These vulnerabilities were subsequently addressed and mitigated by DOE LAAO and LANL following submission of EH resident surveillance issues. LANL's failure to translate the lessons learned across the Lab may have contributed to one or more State of New Mexico compliance orders.
HEU Vulnerability Study	12/96	Yes	Included in integration team issue prioritization process	LANL is addressing the EH identified HEU vulnerabilities in conjunction with their 97-1 plan. As of 3/31/98, two of the 19 HEU vulnerability study findings have been completely closed by LANL. A third corrective action was due for completion in 6/98. Work on the remaining corrective actions is on-going with the next corrective action due for completion in 9/98. All other corrective actions are targeted for completion by 9/05.

Table 1 -- Current Status of Corrective Actions in Response to EH-2 Appraisals and EH Vulnerability Studies (as of June 13, 1998)

Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
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<b>Los Alamos National Laboratory (LANL) - continued</b>				
Plutonium Vulnerability Study	11/94	Yes	Resident surveillances	LANL is addressing the Pu vulnerability study findings in conjunction with their 94-1 plan. As of 3/98, 31 of the 49 findings have been completely closed by LANL. The next corrective action is scheduled for completion in 9/02. Work on remaining corrective actions is on-going and depends on stabilization of legacy residues and repackaging of excess Pu by 2005. In 2/96, EH residents performed a surveillance of the vulnerability study and made several observations, which were transmitted to LAAO, AL and DP in 3/96. The surveillance also found that LAAO and AL had not performed any recent followup activities and that the responsibility for addressing the Pu vulnerabilities had not been clearly defined.

<b>Lawrence Livermore National Laboratory (LLNL)</b>				
ISME	11/97	Yes	Scheduled for 8/98	LLNL implementing ISM beginning with Building 332 operations; followup scheduled for 9/98 to review corrective actions addressing the criticality concerns. DNFSB identified problems with the work smart standards (WSS) process at LLNL.
OAK Surveill. of Pu Vulner. Issue Followup at LLNL	5/98	Response not yet received	To be determined	No comments at this time.
LLNL Surveill. of Correct. Action to Mitigate Lack of Integ. Work Plan. & Cont. Process	2/98	Corrective actions included in ISME response	To be determined	Site proposed corrective actions were responsive.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	Corrective actions have been completed by LLNL and verified by OAK.
Plutonium Vulnerability Study	11/94	Yes	Included in ISME LOIs	12 of the 18 corrective actions are still open; however, of the 12 open items, four have been closed by LLNL, but need OAK validation.

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Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Oak Ridge National Laboratory (ORNL)</b>				
Special Study: OR Molten Salt Reactor Experiment	October 1995	N/A	10/96 & 4/98 along with EH-2 emer. mgt. Eval.	The contractor is on schedule for abating the hazards and has accomplished numerous corrective actions to reduce safety risk: (1) chemically neutralized ACB Cell material; (2) isolated or drained moderators; (3) treated toxic gasses; and (4) safely trapped gaseous fissile material.
Chemical Safety Vulnerability Study	9/94	Yes	Included in integration team issue prioritization process	ORNL had one item, which is scheduled for completion in the 1 <sup>st</sup> qtr., FY99.
HEU Vulnerability Study	12/96	Yes	Included in integration team issue prioritization process	ORNL had one item, which is on schedule.
Plutonium Vulnerability Study	11/94	Yes	Included in integration team issue prioritization process	OR sites are working in concert to address the issue of repackaging of all plutonium metal, to be completed by 5/02. Presently ahead of schedule.
<b>Pantex</b>				
ISME	10/96	No	To be scheduled for 1 <sup>st</sup> qtr CY99	Corrective actions not always effective because root cause not corrected. DOE Amarillo Area Office (AAO) and Mason Hanger Corporation (MHC) have been responsive to the issues raised in the 10/96 ISME. Although CAP was formally submitted by AAO or MHC for the ISME, EH-2 continues to follow actions taken on six of the issues that remain either because the corrective actions are not yet completed or actions taken have not adequately resolved the problems identified.

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<b>Rocky Flats Environmental Technology Site (RFETS)</b>				
ISME	8/95	Yes	6/97	In 4/96, RFFO provided EH a status report on actions being taken in response to the ISME. The report (with an Rocky Flats Field Office and contractor section) did not comprehensively address all issues. Overall the report provided a status, but provided no future corrective actions or dates. The 6/97 followup found that significant improvement has been made in ISME issue areas (criticality safety, fire protection).
Radiation Protection Program Special Surveillance	11/97	Yes	Surveillance scheduled for 6/98	The site shows that all corrective actions are complete, but their effectiveness has not been validated by the Office of Oversight.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	Field office assessment in 7/97 identified no formal plan in place to track/correct vulnerabilities identified in the Chemical Safety Vulnerability assessment. The contractor subsequently developed a formal plan in 11/97. Progress towards resolution of the issues had been ongoing, however; as of 11/97 (i.e., in first issuance of plan) the contractor identified that 3 of 5 site-specific vulnerabilities and 3 of 8 generic vulnerabilities required no further action.
HEU Vulnerability Study	12/96	Yes	Included in integration team issue prioritization process	Contractor reports 20 of 28 items are still open. 14 of the 20 open items are binned as “Work in progress, progress < 50%.”
Plutonium Vulnerability Study	11/94	Yes	Included in ISME LOIs	Majority of items still open in the “work in progress, progress < 50%” category.
<b>Sandia National Laboratories (SNL)</b>				
ISME	8/97	Contractor: Yes AL/KAO: Yes DP: Yes EM, NE: No	Scheduled for 1 <sup>st</sup> quarter CY99	Responses to the ISME developed individually by DP, AL/KAO, and SNL contain broad, corporate-level corrective action commitments which are not directly linked to the weaknesses identified in the ISME report. Thus, it is difficult to determine whether the actions will be effective in addressing those weaknesses. Since the majority of corrective actions, and implementation of SNL’s ISM system, are to be completed by 10/98, an EH-2 followup visit is planned for early CY99.

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Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Sandia National Laboratories (SNL) – continued</b>				
Plutonium Vulnerability Study	November 1994	Yes (see comments)	Included in ISME LOIs	Corrective actions were developed to address two specific vulnerabilities identified but no corrective actions were developed for the four institutional vulnerabilities identified for SNL.
Chemical Safety Vulnerability Study	September 1994	Yes	Included in ISME LOIs	Many corrective actions became inapplicable as a result of organizational changes that were “redirected” in the past year. The new corrective actions have not been reviewed yet to determine whether they will be effective in correcting the deficiencies originally identified.
<b>Savannah River Site (SRS)</b>				
ISME	1/96	Yes	Scheduled for 1 <sup>st</sup> Quarter FY99	Two issues remain open: (1) weaknesses in canyon fire protection systems and safety compensatory measures, and (2) protracted authorization basis document improvement schedule. Compensatory measures in place, but canyon fire protection systems not to be complete until 2/00. The draft SRS Technology Center safety analysis report was forwarded to DOE-Savannah River (SR) for review and approval.
SR Surveillance of Cond. of Ops. & Procedure Compliance	1/98	Yes	Continuous tracking by EH residents	CAP submitted as part of the SR response. Too early to determine corrective action effectiveness.
Chemical Safety Vulnerability Study	9/94	Yes	Included in ISME LOIs	Items are being completed on schedule
Plutonium Vulnerability Study	11/94	Yes	Included in ISME LOIs	Of 40 vulnerabilities identified, three were categorized as “risk accepted;” four mitigated; 12 were closed, and the rest remain open. The open vulnerabilities are being closed according to the published schedule. Corrective actions have been integrated into 94-1 implementation plan and schedule.

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Appraisal/ Study	Report Date	Corrective Action Plan	Followup	Comments – Brief Description of Corrective Action Status
<b>Oak Ridge Y-12</b>				
Y-12 Surveillance of Use of Lessons Learned from ORPS Report Related to Gauge Calibration Issues at LANL	12/97	Yes	To be scheduled	Site corrective actions were responsive. Issue is considered resolved and will be closed when all actions are completed and validated.
Surveillance of Y-12 assessment of Potential Hazards Associated with Transuranic Contamination	3/97	Yes	Completed	Site corrective actions were responsive. Issue has been closed.
HEU Vulnerability Study	12/96	Yes	Included in integration team issue prioritization process	Y-12 initiated numerous corrective actions, the status of which EH has reviewed. Recent reports from Y-12 indicate progress, but EH notes the following: (1) funding is on hold for repairs (e.g., roof leaks) and some other items; (2) about 10 items are significantly past due. EH intends to follow up on these and other items during the ISME scheduled for this fall. Also, site residents are monitoring activities.
Plutonium Vulnerability Study	11/94	Yes	Included in integration team issue prioritization process	OR sites are working in concert to address the issue of repackaging of all plutonium metal, to be completed by 5/02. Presently ahead of schedule.

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<b>Albuquerque Operations Office, Transportation Safety Division</b>				
Special Review of Radiation Protection Program	11/97	Yes	To be determined	AL submitted a corrective action plan in 12/97. The responses were weak. However, DP established a committee composed of external members to review TSD operations in response to our report. The results of this review are expected to be published by 7/98. Preliminary indications are that the recommendations of this committee will steer AL towards more effective corrective actions. However, this needs to be confirmed when appropriate.

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