March 7, 2006

Fernald Closure Project
Letter No. C:CPD:2006-0051

Mr. Johnny W. Reising, Director
U. S. Department of Energy
Ohio Field Office – Fernald Closure Project
175 Tri-County Parkway
Cincinnati, Ohio 45246

Dear Mr. Reising:

CONTRACT DE-AC24-01OH20115, COMPREHENSIVE SAFETY AND HEALTH PROGRAM REVIEW, FEBRUARY 28, 2006

The purpose of this letter is to transmit the results of the Comprehensive Safety and Health Program Review (Assessment 2029267) for calendar year 2005. The assessment is based on the Voluntary Protection Program (VPP) elements and also includes criteria for the Integrated Safety Management (ISM) continuing core expectations.

The assessment team included Fluor Fernald Salaried employees and Wage employees represented by the Fernald Atomic Trades & Labor Council (FAT&LC) and the Greater Cincinnati Building & Construction Trades Council (GCBCTC), as well as two outside consultants. In addition, two members of the Department of Energy-Fernald Closure Project (FCP) staff monitored the performance of the assessment and attended assessment team meetings. Results of the assessment indicate that the principles of ISM and VPP continue to be adequately implemented at the FCP and the overall safety program remains effective.

If you have any questions about this review please contact Don Paine, Safety, Health and Radiological Control Director, at (513) 484-2251 or Brinley D. Varchol, Quality Assurance Program Director, at (513) 648-4269.

Sincerely,

Cornelius M. Murphy
Closure Project Director

CMM:PMB:dsm
Enclosure

c: With Enclosure

Mike Bishop, MS 90
Pete Branham, FAT&LC, MS 90
Gregg Johnson, MS 60
Ron Joseph, MS 99
Tony Lack, GCBCTC, MS 19
Keith Lanning, MS 19
John Lippitt, MS 90
Erwin O'Bryan, MS 88
Don Paine, MS 90
Diana Sparks, MS 99
Richard Tinsley, FAT&LC, MS 90
Brinley Varchol, MS 90
Scott Wallace, MS 90
Larry Waters, MS 90
Nelson Weichold, MS 55
Administrative Record (w/2 Enclosures), MS 6
DOE Records Center
File Record Subject Comprehensive Safety & Health Program Review
Letter Log Copy, MS 1

Without Enclosure

Christina Carr, DOE-OH/FCP, MS 2
Timothy L. Jones, DOE Contracting Officer, DOE/EMCBC
Dennis Sizemore, Fluor Fernald, Inc. Prime Contract, MS 1
Fluor Fernald, Inc.
Comprehensive Safety and Health Program Review
CY 2005

February 28, 2006

Management Assessment #2029267
Assessment #2029267
Comprehensive Safety and Health Program Review

Assessment Team:

Paul M. (Mike) Bishop 3/1/06
Pete Branham (FAT&LC) 3/2/06
Perry Dempsey 3/2/06
Gregg Johnson 3/2/06
Ron Joseph 3/2/06
Bill Kelley 3/2/06

Tony Lack (GCBCTC) 3/1/06
Keith Lanning 3/1/06
John Lippitt 3/2/06
Ervin O'Bryan 3/1/06
Diana Sparks 3/1/06
Assessment Team continued:

Richard Tinsley (FAT&LC) 3-2-06
Date

Scott Wallace 3-2-06
Date

Larry Waters 3/1/2006
Date

Nelson Weichold 3-2-2006
Date

Brinley D. Varchol, Assessment Team Lead 3/2/06
Date

Don Nordquist, Assessment Team Lead 2/28/06
Date

Ralph Bush, DuPont Safety Resource Consultant 3/1/06
Date

Approvals:

Don Paine, Safety, Health, and Rad Director 3/2/06
Date

Con Murphy, Closure Project Director 3/2/06
Date
# TABLE OF CONTENTS

Executive Summary ........................................................................................................... 5

I. Introduction .................................................................................................................. 10

II. Management Leadership ........................................................................................... 17

    A. Policy and Goals ..................................................................................................... 17
    B. Written Program ..................................................................................................... 19
    C. Responsibility ......................................................................................................... 21
    D. Authority and Resources ....................................................................................... 22
    E. Line Accountability .................................................................................................. 24
    F. Management Visibility ............................................................................................ 26
    G. Subcontractor Programs ......................................................................................... 28
    H. Annual Self-Evaluation ........................................................................................... 31

III. Employee Involvement ............................................................................................ 32

IV. Worksite Analysis ..................................................................................................... 37

    A. Pre-use/Pre-startup Analysis ................................................................................ 37
    B. Comprehensive Surveys ........................................................................................ 38
    C. Routine Hazard Assessments ............................................................................... 40
    D. Routine Hazard Analyses ..................................................................................... 42
    E. Employee Reports of Hazards ............................................................................... 44
    F. Accident Investigations .......................................................................................... 46
    G. Trend Analysis ....................................................................................................... 49

V. Hazard Prevention and Control .................................................................................. 51

    A. Access to Certified Professionals ......................................................................... 51
    B. Methods of Hazard Control .................................................................................. 52
    C. Work Rules, Procedures, and Personal Protective Equipment ............................ 53
    D. Positive Reinforcement ........................................................................................ 55
    E. Disciplinary System ............................................................................................... 56
    F. Preventive/Predictive Maintenance ....................................................................... 57
    G. Tracking System .................................................................................................... 58
    H. Emergency Procedures .......................................................................................... 60
    I. Medical Programs ................................................................................................... 62

VI. Safety & Health Training .......................................................................................... 63

VII. Review of Previous Corrective Actions ................................................................... 68

VIII. Overall Safety & Health Program Assessment ...................................................... 77
APPENDICES

Appendix A  Assessment Personnel ......................................................... 81
Appendix B  Personnel Contacted During the Assessment ....................... 86
Appendix C  Documents Reviewed .......................................................... 89
Executive Summary

The Comprehensive Safety & Health Program Review is a self-assessment of the Fernald Closure Project (FCP) programs and safety management system. This safety and health annual review provides an organized and standardized approach for evaluating the program as defined by the Voluntary Protection Program (VPP) criteria and the continuing core expectations of Integrated Safety Management (ISM). The report is organized by the VPP elements and sub-elements. The ISM elements are incorporated under the heading of the appropriate VPP criteria.

Each element and sub-element was scored with two (2) criteria; a color rating [green, yellow, or red] and a trend direction denoted by arrows.

The 2005 Comprehensive Safety & Health Program Review Scores are listed on page 8 in comparison with the results from the 2001, 2002, 2003, and 2004 program reviews. For CY2005, there are three findings and fourteen recommendations, with an overall rating of ☢ with a directional indication of trending as ↓.

This assessment focuses on document reviews, observations of work activities, and interviews with personnel at all levels of the organization. These interviews are designed to determine whether employees have an understanding of the safety program at the FCP; how hazards are identified and mitigated; how their management is involved in the safety process; and whether employees have received adequate safety training. Many employees' opinions and perceptions are included in the report. This provides a feedback pathway to upper management regarding the thoughts, concerns, and recommendations of the workforce with respect to the overall site safety performance and culture.

Based on the results of this review, it is apparent that the FCP continues to maintain a strong safety and health program that is compliant with the elements of both VPP and ISM. The workforce is actively involved in work planning, identifying hazards in the workplace, and developing methods to mitigate those hazards. The results of this year's review demonstrate that trailing indicators such as lost workday incident rates and OSHA recordable incident rates show an effectively managed industrial safety program. Problems with leading indicators, however, such as reduced safety communications, LOTO problems, a PAAA NOV, increased vehicle accidents, line accountability, safety and health training, and maintaining the programmatic aspects of ISM demonstrate a reduction from last year.

This Review includes two additional areas of interest that have not been included in previous ISM/VPP Reviews. Those two areas are: Critical Actions to Closure and input from a DuPont Safety Consultant. The results of those two evaluations are as follows:

I. Critical Actions to Closure (CAC)

The FCP is scheduled to complete closure by July 2006. As such, the Review Team evaluated issues that could impact the risk of a safe closure. This resulted in the following actions:
CAC 1:

Recognizing that the safe closure of the Fernald site is imminent and that the issues identified in this report can serve as a tool to focus the energies of project management in support of an effective safety culture, senior Fluor Fernald leadership has committed to immediately evaluating the issues and recommendations contained in this report and to formulating an action plan to address these items. This action plan will be developed by senior management and safety professionals and tied to the key project activities planned through site closure. Furthermore, the action plan will be focused on a specific number of both immediate and long term actions (covering both the findings and recommendations from this report) that will be incorporated into the operational parameters of the projects and tracked to completion through site closure. The following three Critical Actions to Closure can be used by this management team in the formulation of an effective action plan.

Responsible Person: Con Murphy

Target Due Date: 3/17/2006

CAC 2:

Safety, not schedule, must be the Number 1 priority. Interviews and observations during this review demonstrated that safe work is sometimes assumed, rather than aggressively managed. Examples are as follows: decreased emphasis on safety walkthroughs, periodic safety meetings, Safe Work Groups, and meaningful safety discussions at pre-shift meetings. This observation was also made by the DuPont representative on this team.

With the increased pace of closure activities, safety communications should be improved. Some thoughts for improved practices:

- Safety discussions should reflect actual issues, not generic items.
- Safety meetings should be led by line management and/or workers, not safety professionals.
- The frequency of Safety walkthroughs should be increased, as frequent as daily, and should focus on “find and fix”.
- Good Housekeeping is a challenge, but must be maintained.
- Line management (especially mid-level managers) must recognize and embrace their role and accountability for safety in their areas of responsibility.
- The Safety organizations for Silos 1, 2, 3, and Decontamination & Demolition (D&D) should be centralized under one field manager.

Responsible Person: Con Murphy

Target Due Date: 3/31/2006
CAC 3:

Operations, Safe Shutdown, and D&D will be occurring concurrently at Silos 1&2, until the facility is determined to be completely isolated and turned over to D&D. Therefore, the coordination and communications among these three functions is very important. There are some ongoing discussions to coordinate Ops, Safe Shutdown, and D&D. These should be completed and formalized, so each individual organization fully understands their roles, responsibilities, authorities and accountability for the work being performed.

The work integration planning among operations, safe shutdown and D&D functions should be completed and implemented prior to start of D&D in silos. Consideration should be given to structuring the daily meeting similar to Silos 1&2 shift turnover meetings to ensure all required personnel are present and Lessons Learned from the previous days activities are discussed. Additionally, specific work planning or brainstorming sessions should be conducted with small groups of specialist and not made a part of the regular integration meetings, until adequate recommendations and appropriate parameters of operations are ready to be communicated and integrated into the overall work process.

Responsible Person: Dennis Carr/Mark Cherry

Target Due Date: 3/31/2006

CAC 4:

From a Lessons Learned viewpoint, the FCP has recent experience at CAWWT and Silos 1&2 D&D with D&D work concurrent with operations. Interviews noted examples in which the coordination could have been improved.

Lessons Learned (concurrent D&D and Operations) from experiences at CAWWT and Silos 1&2 D&D (both positive and negative results) should be reviewed for applicability for the upcoming Silos D&D. Furthermore, a method should be established to ensure that daily lessons learned and operational conditions are communicated to the work force (at all projects) at the start of their shifts in a consistent and uniform way.

Responsible Person: Con Murphy

Target Due Date: 3/31/2006
II. Input from DuPont

Mr. Ralph Bush, a DuPont Safety Resource Consultant, provided the following input. He was asked by Con Murphy, Closure Project Director, to both join this review team and to mentor FCP Management and Supervision.

Between January 30 and February 3, 2006 Mr. Bush participated in employee interviews and field observations, including the following:

- Attended a half day safety and health orientation
- Attended 2 ISM/VPP team meetings
- Interviewed 13 individuals
- Attended an electrical safety committee meeting
- Participated in a Safety Walk-Through at the Waste Treatment and Packaging facility
- Observed a lockout-tagout briefing for an Operations Work Instruction (OWI)

Mr. Bush’s preliminary perceptions are as follows:

Communications to the workers about safety and health are not as good as they should be. Procedures require a monthly safety meeting, but recently these often are not conducted. When they are conducted, they are conducted by the safety professionals, and line management and line supervisors participate only passively. The pre-shift turnover meetings correctly cover “production”, but often do not cover the hazards expected in the work anticipated in the shift and do not cover what must be done to mitigate those risks. Procedures require that safety walk-throughs should be conducted 1 to 4 times per month, but recently they have been less frequent. When they are conducted, line supervision often does not participate.

Almost everyone at Fluor Fernald is concerned about the closure of the site and the loss of their own job. Most are preoccupied with concerns like “When will I be laid-off?” “How will I continue to support my family?” At this time, more than ever, communications about safety and health should be more frequent, more personal, more focused on the work and provided by line supervision/management.

The Waste Treatment and Packaging facility is very nearly finished operating. The facility will then be dismantled and disposed of in an environmentally effective manner. There will be, however, a time when the facility will be in an operating mode, a safe shutdown mode and a decontamination and demolition mode; all at the same time. Managers, supervisors and workers do not feel there are sufficient safe guards, currently in place, to assure an injury free, illness free transition through these three phases.
## Summary Results:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Leadership</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Policy and Goals</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Written Program</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Authority and Resources</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Line Accountability</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↓</td>
<td>Yellow</td>
<td>↑</td>
<td>Yellow</td>
<td>↑</td>
<td>Yellow</td>
<td>↓</td>
</tr>
<tr>
<td>Management Visibility</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Subcontractor Programs</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↓</td>
<td>Yellow</td>
<td>↑</td>
<td>Yellow</td>
<td>↑</td>
<td>Yellow</td>
<td>↓</td>
</tr>
<tr>
<td>Annual Self-Evaluation</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Employee Involvement</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Worksite Analysis</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Pre-use/Pre-startup Analysis</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Comprehensive Surveys</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Routine Hazard Assessments</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Routine Hazard Analyses</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Employee Reports of Hazards</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Accident Investigations</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Trend Analysis</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Hazard Prevention and Control</td>
<td>Yellow</td>
<td>↑</td>
<td>Yellow</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Access to Certified Professionals</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Methods of Hazard Control</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Work Rules, Procedures, and PPE</td>
<td>Yellow</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Positive Reinforcement</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Disciplinary System</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Preventive/Predictive Maintenance</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Tracking System</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Emergency Procedures</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Medical Programs</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Safety &amp; Health Training</td>
<td>Green</td>
<td>↓</td>
<td>Yellow</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Overall Rating</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↑</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
<td>Green</td>
<td>↓</td>
</tr>
</tbody>
</table>
The overall 2005 Safety & Health program evaluation is:

I. Introduction
Beginning on January 3, 2006, and continuing through February 9, 2006, the Fluor Fernald Quality Assurance Department led a comprehensive review of the Fluor Fernald Safety & Health Program. The assessment team consisted of personnel from Quality Assurance, Quality Control, Safety & Health, Radiological Control, Projects, a representative from DuPont Corporation, and Union representatives from FAT&LC and GCBCTC. The purpose of the assessment was to evaluate the effectiveness of the Fernald Safety & Health Program in accordance with the elements of VPP, the ISM description, and implementation of the ISM core functions and guiding principles. The elements covered in the scope of the review included the following: Management Leadership, Employee Involvement, Worksite Analysis, Hazard Prevention and Control, and Safety & Health Training. Additionally, the ISM continuing core expectations were evaluated in the context of the self-assessment. The continued implementation of the Safety Management System Description, PL-3081, was reviewed across a variety of site functions and projects.

Approach
This comprehensive review is conducted annually as a self-assessment of our program and is submitted to the DOE to meet the VPP annual self-evaluation criteria. This year the report is even more critical as the FCP is entering its final months of operations and D&D leading towards the closure of the Fernald Site. Consistent with past practices and to minimize the time impact of Safety & Health reviews on the site population, Fluor Fernald chose to combine the annual VPP self-assessment of the Safety & Health Program and the ISM self-assessment. Due to the close relationship of the criteria for both, these items were combined into the checklists used for the assessment. Checklists were developed using the U.S. Department of Energy Voluntary Protection Program Part IV: Onsite Review Handbook, DOE/EH-0436 and the Integrated Safety Management System Guide, Volume 1, Chapter IV. The assessment team focused on document reviews, personnel interviews, and the observation of work activities, where warranted.

In addition to the Union representatives participating on the assessment team, the IGUA supported the assessment process and provided input through interviews and an evaluation of this report. As a result, all represented organizations were a part of this year’s self-assessment and evaluation of Fernald’s Safety and Health Program implementation.

A diverse team of 18 employees was established from across the site and outside consultants; the team included salaried employees and wage employees from FAT&LC and GCBCTC. The assessment team was divided into sub-teams according to the major elements of VPP: Management Leadership, Employee Involvement, Worksite Analysis, Hazard Prevention and Control, Safety & Health Training and an evaluation of corrective actions from last year’s Comprehensive Safety & Health Review and DOE ISM Annual Review. The ISM elements were incorporated into the appropriate VPP element as identified in the following table.
<table>
<thead>
<tr>
<th>ISM CONTINUING CORE EXPECTATIONS</th>
<th>VPP ELEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCE-1  The annual updates in response to budget execution process are completed. DOE direction is provided as part of the annual program and budget execution guidance including direction regarding major mission changes. The contractor updates the safety performance objectives, performance measures, and commitments so that they reflect and promote continual improvement and address major mission changes, as required. The ISMS description is updated and submitted for approval as scheduled by the contracting officer.</td>
<td>Management Leadership</td>
</tr>
<tr>
<td>CCE-2  System effectiveness, measured as described in the contractor's ISM Description, is satisfactory. Safety performance objectives, performance measures, and commitments are met or exceeded, and they are revised as appropriate for the next year.</td>
<td>Management Leadership</td>
</tr>
<tr>
<td>CCE-3  Work activities reflect effective implementation of the functions of ISMS. Work is defined. Hazards are identified. Actions to prevent or eliminate the hazards are taken. Controls are developed and implemented. Work is properly authorized. Work is accomplished within controls. Appropriate worker involvement is a priority.</td>
<td>Employee Involvement Worksite Analysis Hazard Prevention &amp; Control</td>
</tr>
<tr>
<td>CCE-4  Contractor and DOE implementing mechanisms continue to support the principles of ISMS. Promulgated roles and responsibilities are clear. Line management is responsible for safety. Required competence is commensurate with responsibilities and the technical and safety system knowledge of managers and staff continues to improve.</td>
<td>Management Leadership Employee Involvement Safety &amp; Health Training</td>
</tr>
<tr>
<td>CCE-5  Contractor and DOE budget processes continue to ensure that priorities are balanced. Budget development and change control processes ensure that safety is balanced with production. Facility procedures ensure that production is balanced with safety.</td>
<td>Management Leadership</td>
</tr>
<tr>
<td>CCE-6  An effective feedback and improvement process, using progressively more demanding criteria, is functioning at each level of the organization from the worker and individual activities through the facilities and the site, including the ISMS feedback and improvement process used by and within DOE. The expectations of DOE 450.5 are in place. Issues management is effective so that issues are identified, evaluated, and closed. Issues identified in ISMS verifications and previous ISMS annual update reviews are effectively addressed.</td>
<td>Management Leadership Employee Involvement</td>
</tr>
<tr>
<td>CCE-7  List A/List B is reviewed and updated, as necessary, at least annually and concurrent with the budget cycle. The process for effecting changes to the standards and requirements identified in the Contract per DEAR List A and List B is being utilized and is effective. Authorization Agreements and Authorization Basic documents are maintained current. Changes in agreement upon standards and requirements are included to reflect mission changes. An effective, dynamic process to keep standards and requirements current is apparent.</td>
<td>Management Leadership Worksite Analysis</td>
</tr>
<tr>
<td>CCE-8  Performance objectives and criteria (POC) guidance for contractor and DOE assessments focus the reviews on the adequate implementation of the core functions and the principles of Integrated Safety Management in a manner consistent with the approved ISMS description. ISMS assessments utilize the POCs.</td>
<td>Worksite Analysis</td>
</tr>
<tr>
<td>CCE-9  Relevant records reflect an improving ISMS. Records include routine DOE and contractor self-assessment reports, independent and focused assessments reports, incident investigations, occurrence reports, DOE PAAA enforcement action reports, enforcement activity conducted by external state and Federal ES&amp;H agencies, and other relevant documentation that provide evidence as to the status of implementation, integration, and effectiveness of the Integrated Safety Management system. Feedback, improvement and change control of the contractor ISMS description is in place and effective.</td>
<td>Management Leadership Worksite Analysis</td>
</tr>
</tbody>
</table>
Assessment Process
The sub-team members are listed in Appendix A by sub-team assignment. Each sub-team was responsible for document reviews, personnel interviews, and observation of work activities, where warranted. The personnel contacted and the documents reviewed are summarized in Appendices B and C, respectively. There were approximately 208 interviews conducted by the assessment team during the course of the assessment. Each major element is addressed in the body of the text with a summary of assessment team results, conclusions, strengths and weaknesses discussed for each, as appropriate. Procedural nonconformances identified are listed as findings and will be tracked according to QA-0001, Fluor Fernald Nonconformance Identification and Tracking System. Recommendations from the team are listed after the strengths and weaknesses. Corrective action(s), responsible parties, and target due dates are indicated for each recommendation.

The corrective actions for the recommendations were reviewed and approved by the responsible person prior to issuance of the report. For the purpose of this assessment, recommendations will be considered as observations. A recommendation identifies a condition that is not a procedural nonconformance; however, if the condition was resolved, it could lead to excellence in safety and health performance. Recommendations can also be based on employee opinions on how a process could be improved or streamlined. Recommendations will be tracked through their closure in the Sitewide Commitment Tracking System as Level 2 commitments (Commitment numbers are assigned to each response).

Notification of the assessment was transmitted to the Safety & Health Program Director and Project Directors at the end of December 2005. The assessment team conducted a pre-assessment kickoff meeting on Tuesday, January 3, 2006 at 2:00 p.m. in the Delta conference room. The pre-assessment agenda was as follows:

- Safety/Value Creation/Balance Topics
- Opening Remarks/Purpose of the assessment
- Introductions
- Assessment Scope and Requirements
- Planned Approach to Assessment, Persons to be Contacted, and Schedule
- Questions

The post-assessment meeting was held on February 23, 2006. The agenda was as follows:

- Safety/Value Creation/Balance Topics
- Opening remarks
- Review of assessment results
- Discussion of assessment results with project personnel
- Proposed schedule for issuance of final assessment report

This evaluation provides management with an overall Safety & Health Program rating. The rating system used and outlined below is identical to that used during previous Comprehensive Safety & Health Reviews.
Scoring Method
Each sub-element, where applicable, was scored with a color rating and a trending indicator described below. This scoring method was adopted from the DOE Environment, Safety & Health Office of Oversight Environment, Safety & Health Appraisal Process Protocols, dated July 1999. From the sub-element scores, each major element was given an overall rating consisting of a color score and a trend indicator. The overall program was then rated based on the site's performance in each of the major elements. Below is a description of the individual ratings.

<table>
<thead>
<tr>
<th>COLOR</th>
<th>PROGRAMMATIC INDICATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN</td>
<td>Effective Performance</td>
<td>Indicates effective overall performance. Specific issues or deficiencies may warrant additional attention and resolution, but they do not significantly degrade overall effectiveness.</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Improvement Needed</td>
<td>Indicates a need for improvement and significant increased attention. A yellow rating provides an early warning that gives an opportunity to correct and improve performance. A yellow rating also provides a way for highlighting an area that had effective performance during the evaluation period, but because of changing conditions or process adjustments needs closer management attention during the next performance period.</td>
</tr>
<tr>
<td>RED</td>
<td>Significant Weakness(es)</td>
<td>Indicates significant weakness(es) and an immediate need for attention and resources to resolve management system or programmatic weaknesses. A significant weakness would normally be a rollup of a number of deficiencies.</td>
</tr>
</tbody>
</table>

The second type of score, an arrow, was used to indicate the current trend of activities within each element during the past year.

<table>
<thead>
<tr>
<th>ARROW</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>↑</td>
<td>Overall, safety programs in this area show signs of great improvement.</td>
</tr>
<tr>
<td>↑</td>
<td>Overall, safety programs in this area show signs of modest improvement.</td>
</tr>
<tr>
<td>→</td>
<td>Overall, safety programs in this area show no change from previous status.</td>
</tr>
<tr>
<td>↓</td>
<td>Overall, safety programs in this area show signs of modest decline.</td>
</tr>
<tr>
<td>↓</td>
<td>Overall, safety programs in this area show signs of great decline.</td>
</tr>
</tbody>
</table>
Recent Fernald Safety Performance

Safety Performance at Fernald continued at a high level during calendar year 2005. While Leading Indicator data in 2005 (ORPS Reports, RDRs, NCRs, First Aid Cases, near misses, etc.) pointed to a lessening of focus on compliance with applicable requirements, actual performance based on trailing indicators (OSHA Recordable Injuries, Hazardous Material Releases and Radiation/Contamination Exposure) was excellent. In spite of the continued workforce reduction at the FCP and an increase in fieldwork, OSHA Recordable Injuries and First Aid cases were at the lowest levels they have ever been on the Fernald site.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>OSHA Recordables</th>
<th>First Aid Cases</th>
<th>Total Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>12</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>2004</td>
<td>18</td>
<td>63</td>
<td>81</td>
</tr>
<tr>
<td>2003</td>
<td>34</td>
<td>74</td>
<td>108</td>
</tr>
<tr>
<td>2002</td>
<td>46</td>
<td>91</td>
<td>136</td>
</tr>
<tr>
<td>2001</td>
<td>16</td>
<td>63</td>
<td>79</td>
</tr>
<tr>
<td>2000</td>
<td>40</td>
<td>84</td>
<td>124</td>
</tr>
<tr>
<td>1999</td>
<td>37</td>
<td>75</td>
<td>112</td>
</tr>
<tr>
<td>1998</td>
<td>32</td>
<td>85</td>
<td>117</td>
</tr>
<tr>
<td>1997</td>
<td>54</td>
<td>161</td>
<td>215</td>
</tr>
</tbody>
</table>

Examples of this safe work performed during CY 2005 included:

- **Soil and Disposal Facility Project**: Impacted material placement into the OSDF continued at a record pace, with 2.75 million cubic yards of material placed to date. As of December 31, 2005, Cell 7 was 94% filled and Cell 8 was 63% filled. Soil remediation continued, with over 70% of the FCP site achieving "clean" certification from EPA. This project experienced the greatest challenge in completing fieldwork without injury, and as a result completed work in CY 2005 with 30 First Aid cases and 7 OSHA Recordable Injuries.

- **Silos Operations**: 1&2 Advanced Waste Retrieval (AWR) project was completed and the Silos 1&2 structures were safely demolished; Silos 1&2 Waste Treatment & Packaging (WT&P) operations began in May 2005, with 2,500 waste containers filled during CY 2005; Silo 3 waste retrieval continued, with 1,800 waste containers filled during CY 2005. Work performed in CY 2005 was completed with 10 First Aid cases and 4 OSHA Recordable Injuries. Portions of the Advanced Wastewater Treatment Plant (AWWT) were demolished and the remaining portions reconfigured and streamlined to better serve the needs of the site after closure (during the Legacy Management phase).

- **D&D**: The Decontamination & Demolition Project has successfully razed 224 structures and 129 trailers to date, and has done so in an extremely safe and efficient manner. Work performed in CY 2005 was completed with 3 First Aid cases and no OSHA Recordable Injuries.
- **O&S:** The Operations and Support group continued to provide labor resources to FCP other site projects during CY 2005 in a safe manner. Work performed in CY 2005 was completed with 3 First Aid cases and no OSHA Recordable Injuries.

- **WPP/SP-7:** Waste Pits operations were completed with an outstanding safety record, and associated structures safely demolished. Soil Pile 7 excavation began in CY 2005 and has proceeded safely. Work was completed in CY 2005 with 2 First Aid cases and 1 OSHA Recordable.

In spite of the FCP's continued outstanding performance, Leading Indicator data must not be ignored. Data points such as Radiological Deficiency Reports (RDRs), Nonconformance Reports (NCRs), Occurrence Reports (ORPS) and vehicular accident rates all point to the need for an enhanced focus on compliance with requirements and attention to detail. Specific examples of this can be seen in the Preliminary Notice of Violation (PNOV) issued to the FCP by DOE/EH-6 in August 2005 regarding programmatic deficiencies associated with Radiological Protection and Quality Improvement, and the electrical arc flash event which occurred in December 2005 and was described in Occurrence Report 2005-0043. In both instances, multiple examples of inattention to detail were cited as contributing factors to the events.

While the trends indicated by these data points have not yet manifested into measurable safety performance concerns, with the final push toward safe completion of the project it will be more critical than ever to ensure that all personnel are focused on the task at hand.
### Calendar Year 2005

<table>
<thead>
<tr>
<th>Description</th>
<th>Fluor Fernald</th>
<th>Fluor Fernald &amp; Fernald Closure Subs</th>
<th>Construction Subs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost Workday Incidence Rate</td>
<td>0.08</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>OSHA Recordable Incidence Rate</td>
<td>0.75</td>
<td>0.81</td>
<td>0.80</td>
</tr>
<tr>
<td>Total CY2005 Effort Hours</td>
<td>2,657,322</td>
<td>2,974,946</td>
<td>2,990,546</td>
</tr>
</tbody>
</table>

Estimated employment for the FCP for CY2005 = 1,201

### Calendar Year 2004

<table>
<thead>
<tr>
<th>Description</th>
<th>Fluor Fernald</th>
<th>Fluor Fernald &amp; Fernald Closure Subs</th>
<th>Construction Subs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost Workday Incidence Rate</td>
<td>0.00</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>OSHA Recordable Incidence Rate</td>
<td>0.82</td>
<td>0.99</td>
<td>0.98</td>
</tr>
<tr>
<td>Total CY2004 Effort Hours</td>
<td>2,666,903</td>
<td>3,638,691</td>
<td>3,677,838</td>
</tr>
</tbody>
</table>

Estimated employment for the FCP for CY2004 = 1,482

### Calendar Year 2003

<table>
<thead>
<tr>
<th>Description</th>
<th>Fluor Fernald</th>
<th>Fluor Fernald &amp; Fernald Closure Subs</th>
<th>Construction Subs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost Workday Incidence Rate</td>
<td>0.19</td>
<td>0.47</td>
<td>0.46</td>
</tr>
<tr>
<td>OSHA Recordable Incidence Rate</td>
<td>0.69</td>
<td>1.44</td>
<td>1.42</td>
</tr>
<tr>
<td>Total CY2003 Effort Hours</td>
<td>3,185,481</td>
<td>4,726,675</td>
<td>4,802,000</td>
</tr>
</tbody>
</table>

Estimated employment for the FCP for CY2003 = 2,313.

- **Fluor Fernald** - Fluor Fernald employees & temporary employees that are subject to direct supervision of Fluor Fernald
- **Fluor Fernald & Subs** - Fluor Fernald employees, temporary employees, and all subcontractors (construction subcontractors and all other subcontractors)
- **Fernald Closure Project** - Fluor Fernald employees, temporary employees, construction subcontractors, all other subcontractors and DOE-FCP employees
- **Construction Subs** - Construction subcontractors only
- **Lost workday incidence rate** - includes those injuries, which resulted in lost time away from work, as well as transferred and restricted cases.
II. A. Element: Management Leadership
Sub-element: Policy and Goals

Results

The Fluor Fernald Site Safety Policy, Challenges, Goals, and Vision are clearly communicated site-wide. Activities at all five projects (Environmental Closure Project, Soils Disposal Facility Projects, Soil Pile 7 (SP7) & Waste Management Project, Decontamination & Demolition Project, and Silos Project) across the site were observed, personnel were interviewed, and documents were reviewed. Evidence exists at each of the projects that the Site Safety and Health Goals, Vision, and Challenges are communicated, distributed, and promoted adequately. Although the degree of communication varies from project to project, all projects impart the goals visually (posters and signs) as well as verbally (Pre-Shift Briefings, Pre-Job Briefings, monthly safety meetings, Safety Committee meetings, etc.) satisfactorily.

Specifics that were witnessed are as follows:

Environmental Closure Project
The ECP conducts safety briefings each morning at its pre-shift Air Monitor and Water Monitor meetings. There are safety posters throughout the facility. The Project conducts regular safety meetings.

Soils Disposal Facility Projects
The SDF Project conducts a Pre-Shift Briefing daily, as well a safety briefing after lunch. There are posters in the break room and lunchroom.

Decontamination & Demolition Project
The Decontamination and Demolition Project conducts safety briefings at least twice per day—one at a Pre-Shift Briefing and secondly immediately after lunch. The Project completes a Safety Task Assignment for each work task performed. The Project has posters of Safety Goals, Challenges, and Vision in the break room.

Soil Pile 7 (SP7) & Waste Management Project
The SP7 Project holds a morning Pre-Shift Briefing. They conduct regular safety meetings. Their break room has the site’s Safety Posters mounted on the wall.

Silos Project
The Silos Project (consisting of Waste Treatment & Packaging, Silo 3, Shipping, and Converted Advanced Wastewater Treatment Facility organizations) has shiftly Pre-Shift Briefings in which safety topics are discussed. There are safety meetings—although they are not always regularly conducted. Safety Walkthroughs are not regularly conducted. There are numerous postings throughout the Silos facilities and break rooms.

Employees interviewed across the site and at all levels had wide-ranging levels of knowledge of the safety goals, vision, and challenges. However, they were only generally aware of those goals and challenges, but were acutely aware of how they translated into their own work area and working conditions. They knew collectively that those goals and challenges were incorporated into their safety basis documents and into their work procedures, and they knew by following their procedures that they were doing work
safely—all of which are inherent in the Integrated Safety Management System Guiding Principles and Core Functions.

A weakness identified from last year’s VPPISMS Audit was that key roles and responsibilities for project managers and directors need to be revised to remain current. That continues to be the case, as is reported in ensuing sections of this audit.

**Conclusion**

The Site Safety Goals, Challenges, and Vision are communicated adequately across the site; therefore, this area is assessed as effective with a GREEN rating. However, due to the prolonged uncorrected problem of the roles and responsibilities of project-level management not being kept current, coupled with regular safety meetings and safety walkthroughs not being effective in communicating safety goals the trend from the previous assessment is downward (down arrow).

**Strengths:**

- None.

**Weaknesses:**

- Roles and responsibilities for project directors and managers need to be revised, as was identified last year also.
- Safety Meetings are not held regularly at all Projects.
- Safety Walkthroughs are not performed regularly, which negatively impacts communicating safety goals and challenges.

**Recommendations**

[See the Recommendations in Section II.F regarding increased emphasis on Safety Walkthroughs.]

Responsible Person: Con Murphy
II. B. Element: Management Leadership
Sub-element: Written Program

Results

The Safety and Health Program at the FCP is comprised of several documents. Presidential Policy PO-SH-01, Integrated Safety Management, documents the importance of safety and health at the FCP and establishes a framework for the site safety culture. RM-0016, Management Plan, defines management’s role in safety and documents the responsibility of each Project to accomplish work safely. Document PL-3081, Safety Management System Description, implements the expectations of DOE Policy 450.5 and describes how the core functions and guiding principles of ISM are incorporated into work planning and execution. Safety requirements are contained in RM-0021, Safety Performance Requirements (SPR) Manual. These documents provide the structure for the S&H Program at the FCP. Requirements from these documents flow down to all levels of the organization and are incorporated into the Project’s work planning and execution processes. S&H Program documents are available on the site intranet to all employees with access to the Fluor Fernald computer system; however, these documents are not readily available to field personnel who do not have computer access.

A process is in place and functioning to effect changes to the standards and requirements contained in the Fluor Fernald contract with DOE. A review and sign-off process is in place, which requires both DOE and Fluor Fernald functional area managers to review and approve proposed changes before the contracting process is implemented.

FCP work activities include construction, operations, demolition, waste management, and soil excavation. These wide ranging activities are administratively authorized through multi-tiered S&H Project-specific documents that flow down safety requirements to all levels. The Fluor Fernald S&H Project staff is appropriate for the size of the workforce, scope of operations, complexity of hazards, and the nature of operations at the FCP.

The S&H Program includes the following functions: safety analysis, industrial hygiene, occupational safety, radiological control, emergency preparedness, and medical. While S&H Project resources have been evaluated as adequate, the Fluor Fernald S&H Program resources have been reduced to below the level necessary for effective maintenance of the written program. Program documents and procedures are in place for each of the S&H Program functions that define and implement requirements, but some are outdated, in need of revision, or do not reflect the current FCP management structure. These deficiencies have been identified in previous reports (e.g., Preliminary Notice of Violation Follow-Up Response Report and the Electrical Arc Flash Accident Investigation Report) and corrective actions have been identified (and are being implemented) to correct these deficiencies.

Although individuals knew where to retrieve controlled documents, copies of all Fluor Fernald site policies and procedures are not readily available to personnel in the field. Nevertheless, the site safety philosophy as described in the site Presidential Policy on ISM has been well communicated to personnel in the field. This was apparent during interviews when field personnel cited the importance given to safety expectations and responsibilities during site orientation as well as the continued emphasis given to safety in daily meetings.
All interviewed employees could describe the basic tenets of the site safety policy. Documents containing safety requirements (e.g., RM-0021, *Safety Performance Requirements Manual*) are also not readily available to field personnel; however, the requirements of these documents are transmitted to workers through safety briefings; work authorization documents, including traveler packages, FEMP Work Permits, and Radiological Work Permits; operating procedures and standing orders; as well as daily pre-job and after lunch safety meetings.

**Conclusion**

This assessment concludes that the Fluor Fernald written safety program remains in place and is comprehensive (green color rating) with a slight change in performance during the past year (downward arrow), indicating the need for revisions and updates to the current documents and augmentation of current S&H programmatic staff. The S&H Program adequately addresses site activities and implements the expectations of DOE Policy 450.5.

**Strengths:**

- Project-level S&H implementation remains effective.
- Project-level workers, supervision, and management personnel are acutely aware of the administrative requirements for the work they perform.

**Weaknesses:**

- Some of the Programmatic S&H documents are outdated and in need of revision.
- More S&H Programmatic resources are needed to maintain the written program through closure.

**Recommendations**

The weaknesses of the S&H written program have been identified and documented in recent Fluor Fernald Noncompliance Tracking System (NTS) reports (e.g., NTS-OH-FN-FFI-FEMP-2005-0002) and Occurrence Reports (e.g., Arc Flash Incident, EM-OH-FCP-FFI-FEMP-2005-0043). The necessary actions to correct the weaknesses identified in this assessment have been established in the Fluor Fernald Commitment Tracking System (CTS). Therefore, no additional recommendations are contained in this assessment.
II. C. Element: Management Leadership
Sub-element: Responsibility

Results

The Safety Management System Description Plan, PL-3081, specifies the framework for implementation of the comprehensive safety and health requirements as directed by the Prime Contract with the Department of Energy. The Safety Management System Description Plan segments the Fernald site into 24 Functional Areas, each headed by a Functional Area Manager. It is the responsibility of each of the five Project Directors to implement the requirements of the 24 Functional Areas.

The lines of responsibility are clearly defined in the Safety Management System Description Plan and the subsequent lower tier documents. Attachment 4 of the Safety Management System Description Plan delineates the 24 Functional Areas with the associated governing documents. Together they were developed to satisfy the requirements of the Prime Contract.

Standing Orders, where appropriate, were developed to further specify and implement safety and health requirements through proper Conduct of Operations. Standing Orders stipulate the responsibilities of Operations personnel in a facility including their safety responsibilities.

Interviews conducted with management and workers indicate that they understand their responsibility for safety on the job for themselves as well as for their coworkers. None of the employees interviewed expressed confusion regarding overlapping or gaps in safety responsibilities. Management and employees understand their authority and responsibility to stop work. This is discussed in more detail in Section II.D, Authority and Resources.

Conclusion

There is documented evidence that adequate and clearly assigned safety and health responsibility is in place. Interviews with employees at the various levels of management, supervision, and crafts indicate that workers understand their safety and health responsibilities. This assessment concludes that there is continued effective performance in the area of "Responsibility" under Management Leadership, resulting in a green rating and no change in previous status (constant arrow).

Strengths: Weaknesses:

- The organization is adept at maintaining a clear and current line of responsibility for safety even with the constant and frenetic pace of the site downsizing.
- None

Recommendations

None

Assessment #2029267
Results

Authority
In virtually all the interviews with craft, supervisors, and management, each interviewee expressed his/her clear authority to not participate in an unsafe act, his/her Stop Work Authority to intervene with others to stop unsafe acts, and his/her authority to effect changes or revisions to work documents to correct unsafe acts or conditions. Moreover, workers described instances during the interviews when they had either witnessed work being stopped or had stopped work themselves—at least to get clarification on a safety issue. A union representative stated that he had never known a safety issue not to be resolved fully. Interviews with Safety and Health Management ascertained that the organizational responsibilities are proper and in place to ensure that managers and supervisors discharge their safety duties in accordance with the Safety Management System Description, PL-3081, and other applicable requirements and commitments. When all the interviews were completed, there was an overall perception of a rather sound and stable safety culture.

Furthermore, during the course of this audit, there was no evidence to suggest that unsafe conditions are occurring because of inadequate or misplaced designation of authority. Individual projects are mostly administered through Standing Orders that specify clear roles and responsibilities for safety functions.

Resources

Equipment:
Through interviews and field observations, it was determined that resources for safety equipment, including personal protective equipment (PPE) are abundant and available. Recently, when the investigation for an arc flash incident revealed that flame retardant PPE was not on site, it was procured and available immediately.

Staff:
Concerning Safety & Health Staffing, it has been a source of concern raised in previous audits and assessments. Safety & Health Management has expressed concern about the staff being stretched thin, that reorganization due to downsizing has led to reallocation of resources in a less-than-optimal manner; and one manager in the Environmental Closure Project has voiced apprehension over the loss of valuable safety representation. Safety and Health Management also disclosed that there was not the support staff available to maintain the Safety Walkthrough Program. A recent Safety Walkthrough conducted, as a demonstration for the audit team did not have a Safety and Health representative in attendance. Additionally, an audit team member found three Fire Doors propped open and unattended. Had there been a more robust S&H Staff, this may have been noticed and prevented by the S&H representatives.
It was noted in a Conduct of Operations assessment at Soil Pile 7, none of the fifteen craft workers could identify their safety representative by name. The apparent cause is that the representative is rarely in the area due to other assignments.

Outside of Safety & Health staffing, the downsizing of other personnel and organizations may have impacted safety such that it at least indirectly contributed to several occurrences. There is no longer a dedicated Lessons Learned Coordinator, which may have been a factor in a recent arc flash incident involving personal injury. Another contributing factor to the arc flash incident could be due to the disbandment of the Electrical Safety Committee earlier in the year. The Operations Readiness Group, which when viable would conduct assessments in struggling areas, was disbanded. That organization could have averted the numerous Lockout/Tagout violations identified in occurrence reports.

**Conclusion**

The overall rating for this category is GREEN because of the proficiency of the workforce understanding and exercising the "safety" authority, and because of the site’s dedication to providing sufficient safety equipment. However, the overwhelming loss of personnel resources, both within and outside the Safety & Health organization has contributed to the diminishing of the rating to declining (downward arrow).

<table>
<thead>
<tr>
<th>Strengths:</th>
<th>Weaknesses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work force knowledgeable and proficient with Safety Authority.</td>
<td>• Numerous skilled safety personnel and organizations have been downsized or discontinued.</td>
</tr>
<tr>
<td>• Abundant safety equipment and PPE.</td>
<td></td>
</tr>
</tbody>
</table>

**Recommendations**

The Site Staffing Plan and Manpower Plan should be prudently scrutinized to ensure that key personnel are not released while their skills are still needed for a safe site shutdown.

Responsible Person: Don Paine
II. E. Element: Management Leadership  
Sub-element: Line Accountability

Results

Personal Accountability

Across the site, personnel interviewed at the senior management level, the supervisory level, and the worker level all communicated that they felt fully accountable for their personal safety and the safety of their coworkers. They conveyed the sense of a strong safety culture at Fernald. Instances were related about safety concerns and perceived safety issues that were quickly and sufficiently resolved.

Line Management Accountability

During the audit, there appeared to be a disparity of safety accountability among the projects on site. At some projects, Line Management is rarely seen in the work areas, and that even when they are in the field; they are not holding their supervisors accountable for safety. Interviews with Safety and Health Management expressed that there is no accountability for performing the regular Safety Walkthroughs. Safety and Health Management further discussed that Line Management needs to be more accountable overall. The audit uncovered areas of lapses of accountability. While the majority of the site projects generally displayed consistent, responsible, safety practices, other projects had experienced repeated safety lapses of recurrent issues, which could be indicative of less-than-stellar performance in accountability.

Substantiating evidence of not maintaining full accountability includes:

- Three Fire Doors were propped open and unattended in the WT&P Facility for as long as several days until it was brought to management’s attention by one of the ISMS Auditors;
- A PAAA NOV which cited several Radiological Deficiency Reports for similar infractions;
- Safety Committee meetings no longer regularly held;
- Safety Walkthroughs not conducted regularly as specified in the procedure;
- A laborer was not wearing safety glasses in the presence of his supervisor. When it was pointed out to the supervisor, the supervisor was not wearing hearing protection in an area requiring hearing protection.

These instances, when evaluated individually, and when resolved appropriately and sufficiently, can be viewed as isolated workplace situations that are part of industry. However, collectively and repeatedly, these cases point to a condition where Line Accountability could be culpable and should be addressed.
Conclusion

Line Accountability across the site varies considerably. On most projects, there is evidence of sufficient and proper accountability. However, where there are occasional lapses, there are significant issues. Coupled with the lack of corrective action from the previous years and the previous evaluations, this category remains rated as Yellow. Additionally, there has been decline since the preceding assessment, so the trend is indicated moderately downward (down arrow).

Strengths:

- A pervasive, prevalent sense of personal accountability for safety by the workforce.

Weaknesses:

- Incidents are not addressed effectively.
- The recommendations and corrective actions from the prior years have not been implemented.

Recommendations

A renewed rigorous commitment from mid-level managers and supervisors should be exacted by site management regarding safety. Site Management could convene project-wide safety seminars to include stressing Line Management accountability for worker safety.

Responsible Person: Con Murphy
II. F. Element: Management Leadership
Sub-element: Management Visibility

**Results**

Management visibility in the field and accessibility is adequate based on the interviews with line management and workers. Most line management and workers expressed that they recognize senior management in their work area on a routine basis or that the frequency of their visits are adequate. One line supervisor mentioned that he prefers that his senior management minimize their field visits because such visits can intimidate some workers. Conversely, one supervisor stated that their management is not in the field enough.

Management in each project is performing safety walkthroughs; however, these walkthroughs are not consistently documented. While some projects keep detailed records of completed walkthroughs, others retain no documentation. Additionally, while some walkthroughs are scheduled in advance, the majority is more spontaneous in nature. In interviews, management expressed their preference to be available in the field as much as possible. The administrative aspects of many management positions can inhibit such field presence.

The resounding message from management and workers is that top management is very accessible regarding safety and health concerns. All of those interviewed felt they could comfortably engage their management if and when they have safety and health concerns. In addition, site wide initiatives such as the Employee Roundtables, Safety Work Groups and All-hands meetings provide a venue for information sharing between top management, line management, and workers. Top management also participates with the workforce in site safety committee meetings. Employees are encouraged to provide written and verbal feedback during roundtables, time-outs for safety, and all-hands meetings. Safety walkthroughs and daily pre-job briefings are other tools used by management to get feedback from field workers.

Interviews with both management and craft personnel reflected that upper management is in the field, but not always focused on safety. A frequent comment was that they asked how things were going, talked about production, but didn't speak to worker safety or if safety improvements were needed. Many could not remember the last time a member of management spoke to them specifically about worker safety in the field.

It is understood that management does a number of field walk downs on a random basis, however the scheduled walk downs appear to have a lack of involvement or support from management. Primarily craft and safety personnel are involved in these weekly tours. Some of the field management team members have not participated in a weekly walk down for several months or longer.
Conclusion

There is evidence that adequate, visible management in the worker safety and health program exists at the FCP. This is apparent in the number of interfaces between line management/workers and their upper management (pre-job briefings, all-hands meetings, roundtable discussions, etc). Interviews with the cross-section of the FCP workforce reinforce the conclusion that upper management is accessible for safety and health concerns. The concern that management is not involved in scheduled walk down is something that needs attention. Management needs to more aggressively focus on worker safety and safe work planning. This assessment concludes that the area of "Management Visibility" is a strong effective element of the Safety Program (green color rating), with a slightly downward arrow.

Strengths:

- Management involvement in planning, worker-management meetings, and training enhances the flow of communication of safe work practices.

Weaknesses:

- Safety walkthroughs are not being regularly scheduled or consistently documented.
- Need to improve involvement with scheduled walk down teams.

Recommendations

1. Increased emphasis should be placed on management completing and documenting safety walkthroughs. Emphasis should be placed participating in weekly scheduled walk downs with craft personnel.

Action: Senior management will communicate expectations for the frequency, conduct, and documentation of safety walkthroughs for all levels of management, including participating is scheduled project walk downs.

Responsible Person: Con Murphy
II. G. Element: Management Leadership
Sub-element: Subcontractor Programs

Results

Several types of subcontractor operations have been in place during the CY2004/CY2005 at the FCP:

- The Waste Pits Project managed a privatized subcontract with Shaw Group.
- The Silos Project and Soil Disposal Facility Project (SDFP) acts as a contractor for the various subcontractors who provided specialized services.
- Moody's Well Drilling supporting site well servicing, installation and removal.
- A general-services labor hour subcontract is in place with Wise Services.

Fluor Fernald made the decision to de-scope the remaining portion of the D&D subcontract and proceed with a self-perform approach. Since this has been implemented, Health and Safety compliance issues have decreased and OSHA Injury incident rates have improved.

It is apparent that the self-performance of construction work has improved the planning and execution of work activities. Construction projects are now using a Traveler Package approach similar to that which has been successfully used on the SDFP in past years.

Waste Pits Project (WPP), SDFP and Wise Services have continued the good safety performance through CY2004 and CY2005. Subcontractors accounted for seven (1.50 incident rate) of the OSHA Recordable cases on CY2004 and only two (1.35 incident rate) OSHA Recordable injuries in CY2005. This is a very positive trend.

All new subcontractor employees are required to attend General Employee Training (GET). A member of Fluor Fernald senior management (Closure Project Director or his designee, and the Project Operations Safety Manager) attends each GET class to discuss Fluor Fernald safety expectations with employees. Interviewed employees stated that the training was beneficial and provided them with pertinent information. Subcontractor employees were well aware of their stop work authority and indicated that they would use this authority if necessary. Subcontractor employees also were aware of the importance of following safety rules and requirements and spoke positively of the emphasis placed on safety. S&H requirements are included in all subcontracts and all have a provision for Fluor Fernald to take action if safety performance is unsatisfactory.

Visitors to the FCP are required to take a Visitor Orientation prior to entering the site. This visitor orientation is available on the Fernald web page and can be taken prior to arriving on-site as the participant is required to input their name and a partial social security number to document their review. However, this information is not verified when the visitor arrives on site. Persons who do not take the orientation prior to arriving at the FCP are offered to review a hard copy of the information. The visitor orientation covers various alarms used at the FCP and the computer version of this orientation allows personnel an opportunity to hear these alarms. If the orientation is only reviewed in the hard copy format; however, visitors are unable to hear the alarms. Online access form could not be submitted. In addition, the visitor orientation does not contain up-to-date in the following subject areas:
- Security badging requirements when accessing site and incorrect phone number
- Environmental recycling program information
- Site Communication Center and reference to the site Emergency Response Team
- Emergency phone numbers
- Emergency Message System (EMS) site messaging system
- Site alert signals
- Safety Manager contacts – Jackson or Kohler are contacts.

Conclusion

This assessment concludes that the site subcontractor programs remains at a yellow rating with a slightly upward arrow showing improvement.

The decision to take on a self-perform approach for the remaining work activities during the past reporting period was a significant factor in the upward arrow assigned to this element. This element remains “yellow” due to the FCP’s inability to demonstrate reliable subcontractor and vendor access control.

Strengths:  Weaknesses:

- The decrease is OSHA Recordable injury events are a very positive trend.
- The mentoring programs being used in the SDFP and Silos Projects have had a positive impact in passing the site safety culture on to new employees.
- Silos improved communications by using a daily safety news memo called the “Operations Ten”. This document is used to communicate the same message to all workers.
- Security does not confirm whether or not a visitor has taken the computer version of the orientation training.
- Orientation briefing program is incorrect for some subject areas and out of date for the current operating conditions at the FCP.
- The orientation training covers various alarms at the FCP. If a person does not review the orientation on the computer they are unable to hear the alarm sounds.

Recommendations

None

Finding:

Requirement: DOE 5480.20A, I-11.e(2), Visitors, contracted personnel, and temporary personnel shall be under continuous escort while at facility unless they have been trained in appropriate areas from the above list to the extent necessary to ensure safe execution of their duties. For example, short-term visitors should be given instruction in items (a) General description of facilities, (c) Radiological safety and health program, and (g) security program.
Nonconformance: When a new visitor arrives on site, Security does not confirm whether or not the visitor took the computer version of the orientation training prior to arriving on site. The orientation training covers various alarms at the FCP; if a person reviews the hard-copy version of the orientation they are unable to hear the alarm sounds. Select sections of the briefing are out of date or incorrect.

Responsible Person: Don Paine
II. H. Element: Management Leadership
Sub-element: Annual Self-Evaluation

Results

A comprehensive evaluation of the Safety and Health Program is conducted annually. Last year's evaluation was conducted in January 2005 and previous evaluations were conducted in November 2000, January 2002, January 2003, and January 2004. In addition to the annual evaluation summarized in this report, Quality Assurance audits, assessments, and surveillances are performed that also evaluate many elements of the Safety and Health program.

The January 2005 report satisfies the annual requirement to conduct a comprehensive evaluation of the five VPP elements: management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training. A team of Fluor Fernald workers representing a variety of site disciplines conducted the January 2005 evaluation. The report generated by the team assessed the effectiveness of the Fluor Fernald S&H program in accordance with the VPP description and ISM core functions and guiding principles.

Two (2) Findings and fifteen (15) recommendations addressing program deficiencies and weaknesses were identified in the 2005 report. The 2005 review focused on management communication with the workforce, employee discipline, and training program compliance. Both Findings were completed before their target completion date. All of the other recommendations were completed, although six (6) were completed after their target due date. This is an improvement over the 2004 review, where commitment completion was identified as a weakness in the program.

Conclusion

An adequate annual evaluation of the Safety and Health program and culture at the Fernald Closure Project was conducted within the past twelve months. The January 2005 assessment was the fifth annual comprehensive program review and it provided management with a candid representation of employee feedback on the site safety culture and also several recommendations to improve the effectiveness of the safety program. This assessment indicates that strong, continually effective performance exists in the area of "Annual Self Evaluation" (Green color rating), with trend arrow to the right.

Strengths:
- The annual self-evaluation continues to be a good feedback tool for workers and management.

Weaknesses:
- None

Recommendations

None
III. Element: Employee Involvement

Results

The Employee Involvement sub-team focused their attention on informal interviews of a random cross section of the workforce. A total of 70 interviews were conducted with Fluor Fernald salaried, hourly, security and subcontractor workers. Interview results for salaried personnel are reported in Part 1; FAT&LC and IGUA interview results are reported in Part 2; and Part 3 summarizes results from interviews with GCBCTC craft labor that support construction activities at the Fernald Closure Project (FCP).

The interviewees were asked a series of questions to gauge their thoughts on the safety culture at the FCP. These questions are listed below:

1.  Do you feel that Fernald is a safe place to work? (Do you think that Fernald Management is sincerely committed to safety?)
2.  How does the Fernald safety culture compare to other sites/places you have worked?
3.  What are some examples of ways to report accidents/safety concerns, and have you ever used them?
4.  Are you a part of a safety work group?
5.  Do you know ways to get information on accidents/incidents and Lessons Learned at the FCP?
6.  What is your refuse/stop work authority?
7.  What are the safety goals and objectives for the site?
8.  What is your role in safety?
9.  Who is responsible for safety?
10. Do you feel comfortable stopping work based on safety issues?
11. How do you resolve safety issues?
12. Are safety issues resolved in a timely manner?

Part I - Salaried Workforce Interview Responses:

There were 20 salaried personnel interviewed. Overall, the salaried interviews were positive with regard to the safety culture in the work place. Those interviewed felt that the FCP was a safe place to work and management is committed to safety. Additionally, all but one interviewee felt that the Fernald safety culture is better than most places they have worked. One interviewee stated he could not compare since he’s never worked for any other company. The majority of those interviewed feel that the Lessons Learned Program is weak and needs to be revitalized. The following bullets are common answers from the majority of the interviewees:

- Felt that the importance of safety was still high.
- The personnel interviewed were familiar with the 2006 general safety goals.
The Employees were very much involved in safe work planning and execution in order to achieve the best safety performance ever in 2005. Our safety culture has matured in order to achieve such a record performance when all the time employees know they will soon be laid off.

Employees interviewed stated everyone is responsible for his/her own safety and contributing to their co-workers safety.

The personnel interviewed believed that safety issues are nearly always addressed in a timely manner.

Most are members of safety work groups, or attend all hands safety meetings, shift turnover meetings, etc.

Would feel comfortable using the stop work authority without fear of reprisal.

Know their roles and responsibilities regarding safety at the FCP.

Part II – FAT&LC and IGUA Workforce Interview Results:

There were 30 FAT&LC and 2 IGUA employees interviewed. The majority of the interviewees held the opinion that management is more concerned about the current closure schedule than the safety of workers; however, Safety and Health in the Collective Bargaining Agreement quotes, “It shall be the ultimate responsibility of the company to ensure the safety and health of the workforce.” Some workers also feel fear of reprisal from supervisors if they voice a safety concern and that the safety culture seems to have diminished over the past year. Employees stated that they look out for each other in the field and take their safety culture home at the end of day. Additionally, individuals stated that on the occasions that they have raised safety issues, those concerns were addressed, but not as quickly as in the past. There also appears to be a diminished level of trust between the supervisors and employees. Specific comments included:

- This place allows us to have a voice, by going through advocates, being on teams, attending safety meetings.
- Concern that some employees are not receiving their annual physicals.
- Slow response to employee concerns (Not happy with taking a month to respond).
- Responses to employee concerns are inconsistent.
- There is a perception that injuries are the employee’s fault.
- Fall Protection Program is not what it used to be. Fall protection, ladders, and rigging slings are no longer being inspected.
- Ladder issue- Carrying larger ladders is more time consuming, and work is more difficult using the bigger ladders.
• Overall attendance at the 25-Member Safety Meeting is very poor.

• Company does not notify FAT&LC EDO members of occurrences.

• The company has consolidated safety meetings and discontinued the President’s Safety Meetings.

• The majority of interviewed employees felt they are well informed and have access to all relevant safety and health data.

• One person felt they did not have access to all safety and health data and were not so informed because they didn’t know when things were scheduled like a change to traffic patterns or when something would ship offsite. This same person had a concern because DOE doesn’t attend safety meetings.

• The majority of interviewed employees felt they have adequate training in hazard recognition. It was suggested that training is tied to crisis management like the vehicle safety. They felt the company “yells” at the wrong group of people.

• Some employees interviewed indicated they currently are part of a safety work group or attend regular safety meetings, with the ability to express safety issues and concerns for resolve.

• The majority of interviewed personnel agreed that the S&H professionals are quite visible.

The response to the question about work group issues being documented came with a unanimous yes. All those interviewed gave many different avenues in which they can and have used to get issues resolved. Methods to get issues resolved included bringing them directly to union management, safety concern program, 25-member safety committee and the supervisor taking care of it at field level.

Those interviewed are involved in pre-job briefings, go over work with supervisors, walk down the work areas, are given the opportunity for input and discuss it among themselves.

The question for Tri-Partite members being involved in walk-throughs brought a mix of answers. Some indicated they participate jointly with supervisors and clients while others indicated they are not aware of walk-throughs being conducted.

• When they meet, Tri-Partite Meeting members either participate or get feedback on corrective actions from accident investigations. However, these meetings have been non-existent over the past year. Currently, the Tri-Partite Meetings are once again being held monthly, with the first of this year being held on January 16, 2006. An interview with the Safety and Health Director confirmed that these meetings would continue monthly until closure.

• Most of those interviewed said they do not believe the joint labor-management committee has been operating effectively over the last year. They don’t feel they have communication or the same participation. It seems after some safety
professionals left the company it’s more on the back burner now. One person would like it to be more interactive with more immediate resolution.

The 25-member safety committee meeting was held on January 24, 2006. In attendance were eight members of FAT&LC/IGUA and five members of management (salaried). The meeting allowed everyone to share their concerns, was run efficiently and management addressed each item identified.

- It’s January, and winter gear has not yet been provided.
- Why aren’t the floors in the maintenance and break room being surveyed? Several people are experiencing breathing and congestion problems.
- Everyone needs to watch out for traffic in general, especially in the tie down area.
- Pay close attention when walking to and from parking lots, and when backing out of the parking area.

Employees interviewed were aware of several methods that could be used for the resolution of safety concerns. These methods included resolving the concern “on the spot”, going to the Supervisor, or going to the Safety representative. The interaction between the Supervisor, the Safety Representative, and the worker appears to be effective. It was stated that safety issues were frequently discussed with these individuals. There are regular safety briefings and other interaction with safety personnel as needed. Workers were asked if they serve on, or know someone who serves on a safety committee. Several of those interviewed had leadership roles in these committees. Many confirmed the Safety & Health training they have received is adequate to perform the job safely.

Part III – GCBCTC Workforce Interview Results:
There were 18 GCBCTC workforce interviews. The majority of personnel interviewed expressed their confidence in the safety culture and the safety requirements in place at the FCP. However, several individuals mentioned the safety culture has weakened within the past year, which may be due to the schedule leading to closure. The following bullets are common answers from the majority of the GCBCTC interviewees:

- The FCP is safer than most other places they have worked, and that management is committed to safety.
- Most (15 of 18) feel they could bring a safety issue to their supervisor without fear of reprisal.
- Personnel know their stop work authority.
- Most indicated various ways (Supervisor, AEDO, Employee Concern Program, 911, etc.) to report accidents/incidents at the FCP.
- Safety Man, safety meetings, employee newsletters, and their supervisor were avenues available to gain information regarding accidents/incidents at the FEMP. However, the Lessons Learned Program was not mentioned.
Conclusion

Overall, the salaried interviews were positive with regard to the safety culture in the work place. Those interviewed felt that the FCP was a safe place to work and management is committed to safety.

The majority of those interviewed feel that the Lessons Learned Program is weak and needs to be revitalized.

This review concludes that most employees are involved in the safety programs at the FCP and this area is rated as green. Employees understand their responsibility for safety and everyone interviewed wants to work safely and go home in good health.

The interviews were informative; however, approximately half of the interviewees feel that safety is being compromised by the accelerated closure schedule. Additionally, an unusually high number of represented employees feel that the trust between them and their supervisors has diminished lately, and they fear reprisal should they bring up a safety concern.

These concerns are not as positive as to those expressed in previous years, and therefore, performance in this area is being rated green with a slightly downward trending arrow.

Strengths:

- The FCP workforce is made up of experienced, seasoned, well-trained personnel.
- Overall safety performance has been stellar over the past two years.
- The Fernald workforce has opportunity to be involved in the safety process and has demonstrated that value.
- Interviews conducted across all types of workers confirmed that the ISM core functions and guiding principles are being implemented through work planning activities.

Weaknesses:

- Workers interviewed expressed uneasiness with changes in safety, staffing and site conditions as a result of the accelerated cleanup schedule.

With the elimination of the monthly President's Safety Meeting, there is a concern, expressed by several interviewees, that lessons learned and the result of accident investigations and causal analysis for significant injuries are not being effectively communicated to all projects in a timely manner. The monthly all hands safety meeting has been inserted to fill the gap with the elimination of the President’s Safety Meeting.

Recommendations

Senior Management should reinforce to the workforce that the project completion schedule does not, and will not, take precedence over personnel safety. In addition, Management should take steps to ensure that personnel at all levels are provided the opportunity to share feedback, and feedback received should be given the appropriate level of attention. Status updates should be provided to employees regarding actions taken as a result of suggestions.

Responsible Person: Con Murphy
IV. A. Element: Worksite Analysis
Sub-element: Pre-use/Pre-startup Analysis

Results

The purpose of the pre-startup assessment process is to confirm and document that an activity or facility is ready to initiate operations, and that no inherent hazards exist which may prevent safe operations. During CY2005, one Standard Startup Review (SSR) was performed to determine Silos 1&2 Project readiness to initiate hot operations. In addition, several Management Assessments were performed to confirm the readiness of Silo 3 personnel to breach the Silo 3 wall and mechanically extract material, and to gauge readiness to operate the Consolidated Advanced Waste Water Treatment (CAWWT) system. In all cases, a graded approach was used to plan and execute the pre-operational assessments. In general, assessments examined some or all of the following categories:

- Hardware and System Readiness
- Personnel and Organization Readiness
- Management Programs Readiness
- Work Instructions/Procedures Readiness

Documents associated with the aforementioned pre-operational assessments were reviewed and found to provide adequate evidence of a thorough analysis of applicable review criteria by experienced and qualified personnel in accordance with established procedures. Pre- and Post-Start Findings cited as a result of these assessments were documented and resolved. In the case of the Management Assessment to authorize Silo 3 wall cutting and mechanical extraction of material, however, it was determined the Final Assessment Report had not been issued in a timely manner, in spite of the fact that work had been initiated. This would have normally been cited as a Finding in this report, but the Management Assessment Lead completed and issued the Final Report prior to completion of this assessment.

Conclusion

The evaluation indicates that adequate performance exists in the area of “Pre-use/Pre-startup Analysis”. This area is rated Green with a horizontal trend arrow, indicating no change from the previous years status.

Strengths:

- None

Weaknesses:

- None

Recommendation

None
IV. B. Element: Worksite Analysis  
Sub-element: Comprehensive Surveys

Results

The Fernald Closure Project has a thorough and comprehensive system in place for baseline surveys prior to the start of work activities. Project personnel and Safety and Health Program personnel interface during the course of the project initiation and work authorization processes to ensure comprehensive surveys are performed. The higher tier processes examined included Nuclear and System Safety, Radiological Control, Medical Services, and Emergency Preparedness. The site work authorization processes included controlled procedures, Construction Traveler Packages, Waste Management Work Authorization Packages, and site permits.

Integrated Health and Safety Plans (I-HASPs) and Nuclear Health and Safety Plans (N-HASPs) were noted to be useful tools for ensuring that hazards are identified and controls are in place. The updated N-HASP developed for Silos 1 & 2, the Remediation Nuclear Health and Safety Plan, 40710-PL-0015 Rev 2; PCN 9 was examined in this assessment and noted to be extremely thorough in summarizing project hazards and keeping the focus on safety. The N-HASP developed for Silo 3 "Silo 3 Nuclear Health & Safety Plan (NHASP), 40430-PL-0010, Rev. 1, PCN 8 also thoroughly addresses Silo 3 hazards.

The procedures that outline requirements for the comprehensive surveys were noted to be current and effectively implemented. Safety & Health professionals interviewed were noted to be conscientious and qualified.

Interviews and document reviews were performed with program and project personnel to determine how hazard analyses and Job Safety Analyses are achieved. The personnel interviewed were all positive and clearly focused on implementing the safety requirements. The documents reviewed were clear, concise, and easy to understand.

The Construction Traveler packages are used by several projects. The process effectively addresses the site permitting requirements. The process was indicated to effectively involve all personnel in the job planning process.

Waste Management Project Work Packages are used for waste activities. The packages effectively address the site permitting requirements.

Conclusion

The assessment concludes there is a continuing effective performance in the area of "Comprehensive Surveys" (Green color rating), with no change from the previous years status (arrow to right). Incorporation of ISM guiding principles and core functions into applicable activities are evident in the areas of analyzing hazards, developing and implementing hazard controls tailored to the work being performed, establishing clear roles and responsibilities, and competence commensurate with responsibilities. Documents and interviews demonstrated that surveys involved experts in safety, industrial hygiene, radiation protection, and occupational health.
Strengths:
- Effective performance in place to effectively address permits requirements and to involve program and project personnel.

Weaknesses:
- None

Recommendations
None
IV. C. Element: Worksite Analysis
   Sub-element: Routine Hazard Assessments

Results

Many programs are in place to ensure hazard assessments are conducted on a routine basis. Hazard analyses, inspections, monitoring, assessments, and surveys at the FCP are conducted for Radiological Hazards, Nuclear Criticality issues, Chemical Hazards, Physical Hazards, Biological Hazards, Fire Hazards, Ergonomics, Confined Spaces, and Standard Industrial Hazards (SIHs).

Programs reviewed include:

- RPR 1-2 (Rev. 3), *Hazard Surveillance and Evaluation*
- 602-5018 (Rev. 2), *Noise Level Exposure Evaluations*
- 602-5009 (Rev. 1), *Conducting Illumination Surveys*
- CT-4.2.1 (Rev. 7), *Asbestos Abatement*
- SPR 12-10 (Rev. 6), *Working in Hot Temperatures*

In addition to the identified programs, other programs such as Travelers, JSAs, Work Plans, and Health and Safety Plans analyze the hazards for the tasks and identify the requirements for safe work. The pre-planning before the work begins along with auditing and surveying during the evolution of the work ensures the ongoing activities are conducted in a safe manner, and mechanisms have been established to deal with potential contingencies. QA-0017 (Rev. 6), Administration and Conduct of Self-Assessment Activities, provides guidance for self-assessments and correcting potential deficiencies. Deficiencies are reported in writing and tracked to completion via a Nonconformance Report (NCR).

Projects at the FCP conduct hazard assessments specific to the expected hazards of the work area and job tasks. Inspections are specific to the project or facility and are conducted based on Work Permits specific to that project or facility. Work Permits further identify hazard assessment considerations (requiring that additional permits be generated) for penetrations, open flame and welding, service interruptions, radiological work, and other related activities or conditions.

Job Safety Analysis (JSA) documentation is maintained within the Safety & Health organization. In accordance with SPR 2-7, Job Safety Analysis, current copies of JSAs are available to the workforce electronically. New work scopes are in the Silos Project. The Silos Project has developed a series of Standing Orders, Long Term Orders, Daily Orders and Operations Work Instructions (OWIs) to guide and control work in a short-term "production/operations" facility.

In addition to the formalized monitoring programs conducted by IH and Rad Con personnel, hazard identification and remediation processes exist that involve FCP personnel at all levels. The process include field observation activities and safety walk-throughs using the
Project Safety Observation Checklist (PSOC) associated with the "Walk Your Space" philosophy (which emphasizes individual responsibility to identify safety hazards/concerns in their work area).

The Radiological Control Program’s difficulties with attention to detail in the areas of radiological compliance, access control and control of radioactive material was documented in Assessment # 2027574 from July 20th through August 8th 2005. Corrective actions have been implemented.

Conclusion

The Fernald Closure Project has developed comprehensive programs designed to control, prevent, and eliminate hazards. Through pre-job planning and the development of JSAs, Work Plans, and Travelers before work begins and safety walk-throughs and surveys during the evolution of work, hazards are identified and controls are implemented. The influence of ISM’s seven guiding principles and five core functions is evident throughout the process. From defining the scope of work to continuous feedback, clear roles and responsibilities are defined while ensuring competence for the assigned task.

The area of “Routine Hazard Assessments” continues at Green as for last year. The arrow is to the right. Available JSAs are posted on eDESK.

Strengths:  
- Hazard analyses/inspections/monitoring are comprehensive and are designed to be incorporated into the planning and execution of all activities.
- IH surveys are used to verify proper PPE selection

Weaknesses:  
- Radiological Control Program assessments were behind schedule early in 2005. The program had to bring in outside assistance to regain required levels of assessment performance.

Recommendations

None
IV. D. Element: Worksite Analysis  
Sub-element: Routine Hazard Analyses

Results

Specific procedures such as 602-5009 (Rev. 1), Conducting Illumination Surveys, and 602-5018 (Rev. 2), Noise Level Exposure Evaluations, are written for Industrial Hygienists conducting routine IH monitoring, including surveys for illumination, noise, lower explosive limit (LEL), etc. Guidance is also provided for self-assessments and surveillance activities.

Procedure 602-5024, Industrial Hygiene Air Sampling Program, provides instructions for collecting and reporting air samples and making direct reading measurements of chemical air contaminants. The “Silos 1 & 2 Remediation Nuclear Health and Safety Plan” (over 600 pages) documents the collective knowledge of expected industrial hygiene and other hazards. The plan details the safety and health hazards, and prescribes engineering and administrative controls. The “Silo 3 Nuclear Health & Safety Plan (NHASP), 40430-PL-0010, Rev 1, PCN 8 also thoroughly addresses Silo 3 hazards.

Written guidance is provided to individuals (primarily RCTs) responsible for workplace monitoring/sampling of area radiation levels, airborne radioactivity concentrations, contamination levels, etc., primarily through the Radiological Control Requirements Manual (RM-0020) and Radiological Control implementing procedures. No evidence was found to indicate specific patterns of recurring hazards or noncompliances associated with safety issues. Reviewed assessments were closed out satisfactorily.

Interviewed employees involved in project safety oversight, self-assessments, industrial hygiene monitoring indicate that they believe them to be effective in correcting ineffective or missing controls and identifying introduced hazards or areas of noncompliance.

Training requirements for Radiological Control Technicians and Industrial Hygienists are addressed in the TQPs (Training and Qualification Programs). These programs define the qualifications to perform the work along with initial and continued training.

Conclusion

The assessment concludes that the area of “Routine Hazard Analyses” has specific guidelines that are clearly defined and strongly supported. Responsibilities, roles, knowledge, and training are established for those performing sampling, inspections, and assessments. The analysis of hazards, the development and implementation of hazard controls tailored to the work being performed (combined with the follow-up surveys and analysis to verify the effectiveness of the controls), and feedback is evident in the current limited scope of routine hazard analysis processes. This assessment concludes that there is continued strong and effective performance of the reduced safety and health staff in the area of "Routine Hazard Analysis" (Green color rating), with no change from last year’s status (arrow to the right).
Strengths:

- Routine hazard analyses have specific guidelines that are clearly defined and strongly supported.

- A strong and effective performance in the area of routine hazard analysis.

Weaknesses:

- Reduction in the safety and health staff has stretched it to the limit.

Recommendations

None
IV. E. Element: Worksite Analysis
Sub-element: Employee Reports of Hazards

Results
Through its "Employees' Bill of Rights" (Safety and Health Guarantees) in PL-3081, "Safety Management System Description, "Fluor Fernald empowers all employees with 1) the authority/right to report unsafe conditions/practices and 2) a refuse/stop work authority without fear of reprisal, harassment, or retaliation. Persons interviewed by the Worksite Analysis Subteam for this subsection stated they recognized Fluor Fernald emphasis on safety and had no fear of reprisal for reporting hazards.

- Examples (individual contacts and/or mechanisms) cited by employees to report accidents/incidents (and thus get the hazard corrective action process initiated) included:
  - Dial 911, 648-6511, 484-2295, or use radio for emergency
  - Safety Committees
  - Supervisor / Management
  - Safety Advocate and/or Safety Representative
  - Contacting the AEDO at 648-6511 or 484-2295
  - Industrial Hygiene and/or Rad Control Technicians
  - Division Safety & Health representatives
  - Employee Advocates
  - The Employee Concern Program (ECP). In addition to the Fluor Fernald ECP, which incorporates both the "Employee Concern/Suggestion Form" and Safety Hotline, DOE maintains a DOE-ECP, which Fluor Fernald employees and subcontractors can utilize as an alternative method of reporting concerns.

The primary responses for methods of reporting accidents/incidents were to 1) contact a Safety Advocate and 2) contact an immediate Supervisor. Written mechanisms for the reporting of hazards/safety concerns cited most often were 1) the Employee Concern Program (ECP) Concern/Suggestion Form and 2) the Bartlett [Subcontractor] Safety Suggestion/Concern Form.

Management encouragement of line employees to report apparent hazards is evidenced (orally and in writing) during staff meetings, safety meetings, via e-mail, and through "Where To Go With Safety Concerns" posters located throughout the site and off site. Persons interviewed acknowledged Fluor Fernald emphasis on safety in general and on reporting apparent hazards/safety concerns. Of 32 employees surveyed, 21 stated they had reported a safety concern (all 32 stated that they felt they could bring up a safety issue to supervision without fear of reprisal).

Individuals surveyed stated that they felt Fernald was "a safe place to work. While the current workforce recognizes the importance of cost and schedule, the perception is that management is sincerely committed to safety as its first priority.
Conclusion

This assessment concludes that strong and effective performance continues in the area of "Employee Reports of Hazards" (Green color rating). The slightly upward arrow (indicating, "Overall, safety programs in this area show sign of modest improvement") for this sub-element is attributed to the increasingly high degree of employee awareness of different means to report a safety hazard/concern, encouragement by management to have employees report safety hazards/concerns, and employee willingness to report a safety hazard/concern. There appears to be consistent employee opinions and perceptions concerning site safety in general and the perceived level of sincere commitment to safety on the parts of various levels of management (e.g., Fluor Fernald Leadership, Subcontractor Management, and Project Management).

The actual hazard/safety concern reporting mechanisms, programs, implementing procedures, communications, and their utilization at the FCP continue to demonstrate excellence in meeting the requirements established for this sub-element.

Incorporation of ISM guiding principles and core functions into applicable activities is evident in the areas of line management responsibility for safety, establishing clear roles and responsibilities, competence commensurate with responsibilities, and feedback and continuous improvement.

Strengths:  
- Management commitment to safety continues to be evidenced by the number of employee hazard/safety reporting mechanisms available, employee knowledge of these mechanisms, and employee willingness to use them without fear of reprisal.

Weaknesses:  
- None.

Recommendations

None
IV. F. Element: Worksite Analysis  
Sub-element: Accident Investigations

Results

An employee who sustains an occupational injury (or illness) at the FCP normally reports to Medical Services for an examination and/or treatment. Initial narrative reports of the injury are made from information gleaned from patient examination, the “Employee Report of Occupational Illness/Injury” Form (FS-F-2154), and the “Supervisor’s Report Of Injury” Form (FS-F-0170). The Medical Services Injury Investigator (an Occupational Health R.N.) prepares a written account of the injury based on the information from the patient examination, and Forms FS-F-2154, and FS-F-0170, and Project Safety personnel. The Injury Investigator enters this information into an Access database for tracking and trending purposes and then updates the OSHA 300 Log per 29 CFR 1904, Recording and Reporting Occupational Injuries and Illnesses. This information is also entered into the Computerized Accident/Incident Reporting System (CAIRS) database (in accordance with DOE O 231.1) for OSHA reportable injuries/illnesses. Trends identified are evaluated for corrective and preventative actions.

Reports of accidents/incidents at the FCP are provided to the Assistant Emergency Duty Officer (AEDO). The AEDO, in concert with the Emergency Duty Officer (EDO), categorizes and classifies (for DOE reporting purposes) the event in accordance with SH-1006, Event Investigation and Reporting. This information is recorded in the AEDO Daily Event Log. DOE-reportable accidents/incidents are investigated and documented by an Investigation Team in accordance with SH-1006, Event Investigation and Reporting. The Investigation Team conducts an event debriefing, conducts a root cause analysis, develops corrective actions, and prepares an investigation report in accordance with established procedures. The narrative accident/incident investigation report is then placed into the site Occurrence Reporting and Processing System (ORPS) database. A separate database (Noncompliance Tracking System [NTS]) contains accident/incident investigation reports that involve noncompliance with DOE nuclear safety requirements associated with the Price-Anderson Amendments Act (PAAA).

ORPS and NTS Reports contain root cause analyses conducted for applicable accidents/incidents, with most reflecting multiple causes (and thus requiring multiple corrective actions), in accordance with procedure SH-0027, Root Cause Analysis Using System Improvements Root Cause Tree. Both the ORPS and PAAA Programs track (externally) the completion of corrective actions (developed from the root cause analyses) for DOE-reportable accidents and/or incidents, as applicable.

Radiological incidents are tracked internally via the Radiological Deficiency Report (RDR) Program. The Fluor Fernald Employee Concern Program also tracks the status of actions taken to completion. Site processes described in QA-0001, Fluor Fernald Nonconformance Identification and Tracking System, allow for internal tracking of the status of corrective actions and/or other commitments contained in the Sitewide Commitment Tracking System (CTS). Overall, the recording, tracking, and trending of accident/incident/injury investigations are comprehensive and well documented.
Information regarding accident/incident reports and lessons learned are routinely disseminated to employees via:

- Safety Meetings
- Sitewide announcements (e.g., “Employee Updates”)
- “Let’s Talk” Newsletter (eDESK and hard copy)
- Sitewide Training Programs (GET, HAZWOPER, etc.)
- FCP Intranet (ORPS, NTS, and Sitewide Lessons Learned Program Databases)

Managers of personnel without direct access to the FCP Intranet further disseminate applicable safety information to their employees (in the absence of hard-copy dissemination) via daily safety briefings, routine safety meetings, etc.

All personnel involved in formal injury/accident/incident investigations (Medical Injury Investigator, Project Safety Leads, and ORT Accident/Incident investigators) are trained in accordance with TQP 11 Safety and Health, which includes Managers, Safety Engineers, Health Physicists/Radiological Engineers, and Industrial Hygienists. Both ORT accident/incident investigators are TapRooT® Certified Incident Investigation Team Leads and are members of the TapRooT® Technical Advisory Board. The FCP Injury Investigator is a Safety Engineer and an Occupational Health Registered Nurse.

**Conclusion**

The assessment concludes there is continued strong and effective performance in the area of “Accident Investigations” (Green color rating) with slight improvement from the previous year status (slightly upward arrow). This performance is attributed to comprehensive and well-documented recording, tracking, and trending of accident/incident/injury investigations, the continued increased availability of information regarding accident/incident reports and lessons learned to employees, and apparent positive trends associated with employee opinions and perceptions concerning site safety in general and the perceived level of sincere commitment to safety on the parts of various levels of management (e.g., Fluor Fernald Leadership, Subcontractor Management, and Project Management) observed over the past two years. The actual hazard/safety concern reporting mechanisms, programs, implementing procedures, communications, and their utilization at the FCP continue to demonstrate excellence in meeting the requirements established for this sub-element.

Incorporation of ISM Guiding Principles and Core Functions into applicable activities is evident in the areas of line management responsibility for safety, establishing clear roles and responsibilities, competence commensurate with responsibilities, and providing feedback and continuous improvement.
Strengths:

- Personnel involved in formal injury/accident/incident investigations (e.g., the Medical Services staff, Medical Injury Investigator, Project Safety Leads, and ORT Accident/Incident investigators) are very well trained (in general, substantially exceeding the established requirements) with many holding degrees and/or certifications in areas of expertise utilized in their investigations.

- The availability of ORPS Reports, NTS Reports, and Sitewide Lessons Learned to eDESK continues to provide great flexibility for those managing/administering the programs and easier access to those seeking information on accidents/incidents and/or Lessons Learned.

Weaknesses:

- None

Recommendations

None
IV. G. Element: Worksite Analysis
Sub-element: Trend Analysis

Results

Fluor Fernald Safety & Health personnel are presently performing trending of personnel injury and illness data, including OSHA Recordable and First Aid cases, as a means to aid in the identification of potential problem areas in order to reduce and/or prevent the recurrence of these events. (The injury and illness reporting and trending processes are addressed in detail in Report Section IV. F. - Worksite Analysis, Sub-element: Accident Investigations.) The tracking and trending information is provided on an ongoing basis as part of the bi-weekly “Let’s Talk” communiqué.

Trending is also performed on Radiological Deficiency Reports (RDRs) and Occurrence Reports (ORPS) at a minimum annually to further aid in the prevention of injuries, illness, and the uptake of/exposure to radiological or hazardous substances. The Price-Anderson Amendments Act (PAAA) organization on site also extensively tracks and trends noncompliances with nuclear safety requirements. The Radiological Compliance organization has conducted and documented assessments of Field Observations and generated Site wide Lessons Learned articles addressing the results of these routine field observations with a focus on examples of successful operations, in addition to failures, radiological events, etc. The Lessons learned information is generated on a quarterly basis by the Radiological Compliance Staff and is distributed through the Radiological control Required Reading Program. Quality Assurance began a monthly report in September 2005 covering Assessment activities, Nonconformances, and Event Reporting.

Results obtained from trend analysis of health and safety data contribute directly to the development of health and safety goals and objectives, especially in the area of Rad Control Performance Indicators, which include tracking and trending of such things as collective dose/exposures, personnel and clothing contamination incidents, bioassay results, and numbers of Radiological Deficiency Reports (RDRs) generated per month. The 2005 Safety & Health Program Goals distributed to the site reflect these statistics.

Trending results may be indicative of potential program weaknesses. For example, routine results of Rad Con Performance Indicators may identify an upward trend in contamination incidents and PAAA screening reports may indicate repetitive noncompliances with nuclear safety requirements, etc, all potentially identifying programmatic weaknesses. In 2004, an increase in the numbers of PAAA noncompliances associated with radiological postings was identified and resulted in several corrective actions including the use of an outside audit team. In 2005, the decreased numbers of noncompliances in radiological postings validated the effectiveness of the corrective actions resulting from the 2004 adverse trend. The early identification of potential problem areas through trending allows for the remediation of the negative conditions/behaviors and thus the reduction of the incidence of accidents, injuries, and regulatory noncompliances.
Conclusion

This assessment concludes that continued effective performance exists in the area of "Trend Analysis" (Green color rating) with a downward trend. This is based on a continuing level of performance in the areas of recording, tracking, and trending well-documented safety issues and the maintenance of databases that are comprehensive. Quality Assurance reports are available beginning only in September 2005.

The incorporation of ISM Guiding Principles and Core Functions into applicable activities is evidenced in the areas of line management responsibility for safety, establishing clear roles and responsibilities, competence commensurate with responsibilities, and feedback and continuous improvement, particularly in the identification of potential problem areas in order to reduce and/or prevent recurrence of these events. There is evidence from documentation that the results obtained from the trend analysis of health and safety data document the deterioration of safety and health performance in 2005 (summarized below).

Strengths:

- Availability of safety statistics to the general site population
- Records/databases maintained for reporting, tracking and trending accidents, injuries, safety concerns, and regulatory noncompliances associated with safety are detailed and well maintained.
- In 2005 the number of radiological posting noncompliances decreased significantly from 2004 as a result of the corrective actions initiated as a result of poor performance in this area in 2004.

Weaknesses:

- The performance issues cited in trend analysis correlate to management performance. A significant percentage of occurrences were related to procedural noncompliance.
- A significant number of the occurrences were related to ISM functions of hazard identification, hazard control and procedural compliance.
- Fifty one percent (51%) of the occurrences were caused by Management Systems failures related to enforcement of requirements, work planning, and supervision.
- The seventy-nine (79) GSA/DOE vehicle incidents for 2005 increased from only 20 incidents in 2004.
- Heavy Equipment Incidents show an increasing trend in frequency and severity.

Recommendations

Increase and improve effective management and safety and health oversight to compensate for the realities of a decreasing footprint in which to carry on operations and D&D activities.

Responsible Person: Con Murphy

Assessment #2029267
Results

Based on discussions with Safety & Health Management personnel, it appears that the existing baseline of Certified Safety and Health Professionals continues to be sufficient to support the safe and successful execution of the FCP’s remaining scope. Five Certified Professionals were identified through the interview process. This population is comprised of two (2) Certified Health Physicists (CHP), one (1) Certified Industrial Hygienist (CIH), one (1) Certified Safety Professional (CSP), and one (1) individual who holds dual certification as both a CIH and a CSP.

No concerns were expressed during personnel interviews regarding access to certified professionals. It was reported that certified professionals are utilized during project planning and performance.

Conclusion

Based on the interviews conducted with project personnel and other evidence reviewed for this subcategory, it appears that adequate Certified Safety and Health Professional resources exist to support the FCP’s various project and programmatic requirements. Safety personnel responsible for analyzing the hazards and developing controls to protect the workforce have the knowledge, skills, and abilities to effectively perform their respective jobs. No evidence was discovered during this portion of the assessment that would lead to the conclusion that any events during the preceding 12 months may be attributable to insufficient numbers of certified professionals at Fernald. This area is rated as Green with a neutral trend, indicating effective overall performance with no significant improvement or degradation since the last reporting period.

Strengths:  Weaknesses:

- Continued retention of safety personnel who possess discipline-specific professional certifications.  - None

Recommendations

None
V. B. Element: Hazard Prevention and Control  
Sub Element: Methods of Hazard Control

Results

Fernald’s policy of hazard control continues to be an integral part of the overall Safety & Health Program, and the hazard analysis process is well documented and flowed down through implementing procedures. Physical hazards are taken into account in the planning of work and are eliminated to the extent possible through the use of engineered controls such as facility ventilation. Administrative controls (such as PPE, real-time monitoring and stay-time limits) have been put in place for those hazards that cannot be otherwise mitigated.

Personnel interviewed for this portion of the assessment generally felt they were involved to an adequate degree in the hazard control process and that their input was solicited and considered in the decision making process.

Conclusions

Based on the results of interviews and document reviews, it has been determined that the overall site hazard identification and control program is mature and continues to function appropriately. As a result, this area is rated as Green with a neutral trend, indicating effective overall performance with no significant improvement or degradation since the last reporting period.

Strengths:  
- Continued involvement of workers in the hazard review process during work planning.  
- Timely feedback from Safety regarding the hazard identification and control process.

Weaknesses:  
- None

Recommendations

None
V. C. Element: Hazard Prevention and Control
Sub-element: Work Rules, Procedures, and Personal Protective Equipment

Results

Document changes are performed in accordance with site procedure MS-2001, and personnel are notified of changes or revisions to procedures and forms through the use of daily Document Release Notifications sent electronically to managers and supervisors. Operating procedures are in place and personnel responsible for the work are knowledgeable of applicable requirements.

In most cases, procedures are updated by Subject Experts as necessary throughout the year to address changes in processes, to correct errors, to document corrective actions for events, and other reasons as deemed appropriate by management. In some instances, however, it was determined that revisions to procedures and work guidance documents lag behind the work being performed.

During the course of this assessment, various groups of employees were observed performing work on various projects to assess their adherence to procedural and PPE requirements. Activities observed included control room operations, soil excavation, heavy equipment operations, waste packaging, and waste shipping operations. All observed personnel conducted themselves in a safe, compliant manner and were wearing the appropriate PPE for their respective tasks (as required by work plans). There have been instances in the last few months, however, that indicate a slight lessening of focus on procedural compliance by some individuals, particularly with regard to PPE requirements associated with Radiologically Controlled Areas. In these instances, appropriate actions were taken by Management to address the situation, but additional attention and reinforcement of expectations is warranted to ensure the last months of the Fernald Project proceed safely and in compliance with requirements.

The FCP Respiratory Protection Program is well documented and continues to be fully implemented. The process is governed by technical procedures that address topics such as: issuance, selection, medical certification, training and fit testing, and the procedures are fully implemented.

Conclusion

Based on interviews with employees, field observation of work evolutions and review of documentation, it was determined that employees are aware of procedural and task-specific work requirements, including the selection and use of PPE, although in some cases violations (both inadvertent and willful) have occurred. In addition, it was noted that some procedures are not being maintained in an up-to-date manner due to rapid changes in project status. This area is rated as Yellow with a slight downward trending arrow, indicating that additional attention is necessary to regain previously satisfactory performance.
Strengths:

- Electronic management of procedures and daily notification of new or revised procedures provides employees with accessibility to needed documentation and informs personnel when procedures are issued, modified, or cancelled or when procedures should be reviewed.
- Continued implementation of enhancements made to the Respiratory Protection Program over the last year, including additional checks to ensure personnel are qualified to wear respiratory protection equipment.

Weaknesses:

- Procedures are not being maintained in an up-to-date manner in some cases.
- Isolated instances of personnel violating written requirements (both inadvertently and willfully)

Recommendation

Senior Management should communicate their expectations regarding procedural compliance and should ensure that all personnel (Fluor Fernald and subcontractors) understand the ramifications of noncompliance.

Responsible Person: Con Murphy
V. D. Element: Hazard Prevention and Control
Sub-element: Positive Reinforcement

Results

Based on interviews conducted, it was determined that virtually all FCP employees were aware of positive reinforcement efforts at the site. The most commonly cited example of positive reinforcement is the All Hands Safety Challenge program, which provides the opportunity for eligible employees to participate in a monthly drawing for cash awards. In addition, most of those interviewed also reported being aware of other examples of individual recognition/rewards taking place, including gift certificates, group luncheons, and positive verbal feedback from management during safety walkthroughs and safety meetings. Individual recognition is also provided through outside organizations for awards such as the Heimlich Award, and through Fluor Corporate recognition programs such as project or site-level safety awards, and corporate logo merchandise (sweatshirts, mugs, ball caps, etc.).

Conclusion

Fluor Fernald continues to develop and implement programs (formally and informally) to recognize individuals, groups, projects, and the entire FCP workforce for outstanding performance in the areas of safety and work execution. As a result, this area is rated as Green with a neutral trend, indicating effective overall performance with no significant improvement or degradation since the last reporting period.

Strengths:

- Fluor Fernald continues to recognize individuals, groups, projects, and the entire FCP work force for jobs done safely and done well as a demonstration of its positive reinforcement policy.

Weaknesses:

- None

Recommendations

None
V. E. Element: Hazard Prevention and Control  
Sub-element: Disciplinary System

Results

Employee interviews indicated an overall awareness and understanding of the disciplinary system. HR-145, Employee Discipline Policy, clearly states the Fluor Fernald disciplinary action program mandates that discipline shall be applied fairly and consistently. Most of the employees interviewed displayed an adequate understanding of the basic tenets of the FCP Employee Discipline Policy, all interviewees reported knowing that safe work was a condition of employment, and those who had specific knowledge of it felt that disciplinary actions were consistent in their application. In a few isolated cases during the interviews, however, there was an indication that certain employees held the perception that disciplinary actions are not fairly and consistently applied, and that job classification (Fluor Fernald vs. subcontractor) are factors in the severity of disciplinary actions. The majority of personnel interviewed by no means held these opinions, but it is significant that even a small segment of the workforce would perceive some inconsistency in this process.

Conclusion

Document review and employee interviews provide evidence that the disciplinary system is in place and is generally perceived as being applied fairly and consistently to the employee population. As a result, this area is rated as Green with a neutral trend, indicating effective overall performance with no significant improvement or degradation since the last reporting period.

Strengths:  
- Employees are aware of Fluor Fernald's HR disciplinary action policy and the majority believes it to be fair and consistently applied.

Weaknesses:  
- None

Recommendations

None
V. F. Element: Hazard Prevention and Control  
Sub-element: Preventive/Predictive Maintenance

Results

An effective preventive maintenance program is in place at the FCP and is being maintained and administered adequately. Equipment-specific preventive maintenance (PM) is either scheduled and performed in accordance with manufacturers' recommendations or, lacking manufacturer recommendations, is performed based upon process knowledge of the equipment. New equipment is inspected upon arrival, is assigned a tracking number and entered into TABWARE. Existing and/or installed equipment is maintained in the same manner, and inspections and/or maintenance is performed by craft personnel as required.

The FCP Maintenance Program requirements are documented in PL-3080, “Maintenance Implementation Plan”, and the work order process is documented in MT-0003, “FEMP Work Request Order Procedure”. Both documents are adequate in their description of the maintenance program. Based on an examination of Maintenance assessments performed during calendar year 2005, the PM program (including TABWARE) has been reviewed and found to provide an effective PM tracking system.

Conclusion

Based upon interviews and document reviews, it was concluded that maintenance programs continue to be effectively managed and implemented, ensuring systems and equipment are maintained, and that the work is performed by those with the necessary experience, knowledge and skills. This area is rated as Green with a horizontal trending arrow, indicating that the area has remained consistent with the rating given to it during last year’s assessment.

Strengths:  
- None

Weaknesses:  
- None

Recommendations

None
Results

Numerous methods are utilized at FCP to track hazards, accidents, injuries, illnesses (from identification to resolution), and overall performance in the workplace. Tracking and trending of personnel injury and illness data, including OSHA Recordable and First Aid cases, is performed by Fluor Fernald Safety & Health personnel as a means to aid in the identification of potential problem areas in order to reduce and/or prevent the recurrence of these events. This information is provided weekly to all employees as a part of the “Let’s Talk” newsletter, and weekly updates (with monthly trend reports) are provided to the Senior Management Team.

Additional sources of safety performance data are provided by Radiological Deficiency Reports (RDRs) and Occurrence Reports (ORPS), and this information is trended at least annually to aid in the prevention of injuries, illness, and the uptake of/exposure to radiological or hazardous substances. The Price-Anderson Amendments Act (PAAA) organization on site also tracks and trends noncompliances with nuclear safety and quality requirements via its internal PAAA Database and the DOE Noncompliance Tracking System (NTS). Both the ORPS and NTS tracking information (e.g., event description, root cause analyses, corrective actions, and completion status) are maintained in the FCP Intranet available to anyone with computer access.

The company’s internal assessment procedures and processes, along with the mandatory interface with the Nonconformance Reporting (NCR) and Commitment Tracking (CTS) systems, results in a well established and effective method for assuring tracking of work control issues from identification through corrective actions and closure.

Conclusion

Based upon interview results and review of documents and data, it was concluded that continued strong and effective performance exists in the area of "Tracking System". There is evidence from documentation and employee interviews that the results obtained from the tracking and trend analysis of health and safety data contribute directly to the development of health and safety goals and objectives. This area is rated Green with a horizontal trending arrow, indicating no change from last year’s status.
Strengths:

- Safety/hazard statistics are readily available to the general site population
- Bi-weekly status of First Aid Cases and OSHA Recordables in the “Let’s Talk” makes safety performance more “real” to the workforce
- Tracking and trending of Occurrence Reports and NTS Reports are very comprehensive

Weaknesses:

- None

Recommendations

None
V. H. Element: Hazard Prevention and Control
Sub-element: Emergency Procedures

Results

Fluor Fernald’s only involvement in emergency response at the present time is onsite event management and situation stabilization until offsite response forces arrive. This posture was assumed in calendar year 2004, when the responsibility for response to onsite emergency events (fire, explosion, chemical event, transport of injured personnel, etc.) was transferred to the Crosby Township Fire Department. Emergency response procedures (listed under the Fire Protection Functional Area) remain in place and have been modified to reflect the current posture.

During calendar year 2005, the FCP Emergency Operations Center (EOC) was moved offsite and now resides in the Delta Conference Room. This is in keeping with the FCP’s current Emergency Planning posture, which states that no credible risk of an onsite event exists which would necessitate the activation of the EOC; Current hazard analyses indicate the only credible event which would require EOC activation would be an offsite transportation event involving a shipment of Fernald waste in route to a disposal facility. The EOC’s current function is to serve as a clearinghouse for information related to an offsite transportation event and to provide site-specific direction to local emergency response organizations if requested. Applicable EOC Staff Members were provided training/familiarization with the new EOC location and their role(s) in the event of an activation of the EOC, although not all Emergency Preparedness procedures (PL-3020 in particular) were updated to reflect this new posture.

Interviewed employees generally knew where emergency procedures were located, and all knew what their actions should be in the event of an operational emergency, including building evacuation and rally point accountability. Some confusion existed, however, with regard to actions to be taken in the event of severe weather (particularly where to go from a temporary structure).

Formal site-wide evacuation drills no longer take place due to the current status of the FCP project, although local (building/facility-specific) evacuations are performed periodically. These drills are documented with comments and corrective actions noted as necessary.

Given the current status of the project (i.e., virtually all permanent structures are gone), formal evacuation route maps are not applicable for most locations. In the few remaining permanent structures (CAWWT, Silos facilities, Records Center, UNO/DOS, Delta, etc.), evacuation routes are established and marked on maps.

Conclusion

The Emergency Preparedness/Response program has become more dynamic, and continues to change to reflect the needs of the FCP. Personnel are generally aware of facility evacuation routines and their expected response to events. Based on interviews with personnel and document reviews, this area is rated Green with a horizontal trending arrow, indicating no change from last year’s status.
Strengths:

- The FCP Emergency Preparedness and Response function has aligned itself for the end years of the FCP project, and has remained focused on the dual goals of safe closure and program efficiency.

Weaknesses:

- Confusion among some personnel regarding evacuation routes/where to go in the event of severe weather
- Programmatic Emergency Preparedness procedures (specifically PL-3020) do not reflect current emergency planning/response posture.

Recommendations

1) A reminder/clarification should be provided to personnel regarding actions to be taken in the event of severe weather.

2) Programmatic Emergency Preparedness procedures should be reviewed and updated as necessary to reflect current activities and planning/response posture.

Responsible Person: Don Paine
V. I. Element: Hazard Prevention and Control
Sub-element: Medical Programs

Results

On January 12, 2005, Mercy Health Solutions was awarded the contract to provide medical services to the FCP until site closure. Services provided by Mercy Health Solutions include routine physical examinations, medical surveillance monitoring (asbestos worker, lead worker, etc.), x-ray services, and other non-emergency medical care. The Fernald Medical Director remains on staff to continue to ensure programmatic Occupational Medical requirements are met. In addition, the Site Medical Coordinator (an EMT and Certified Medical Technologist) and 1 Occupational Nurse remain onsite to assist with medical exam scheduling, to provide first aid services, manage the Medical Records process and to support the Worker’s Compensation program. The onsite first aid station is located in T-718, and is staffed during daytime business hours to treat minor injuries and to perform follow-up treatments and assessments. During the evening shift, the Assistant Emergency Duty Officer (AEDO) serves as the First Responder in the event of an injury.

Of minor note, the FCP Medical Quality Management Plan (PL-3079) was found to be out of date with regard to the current alignment of the FCP Medical organization. The information contained therein is valid, but additional responsibilities that no longer fall under the purview of the FCP Medical staff (X-rays, routine physicals, etc.) are also listed. Given the current status of the FCP, this is considered a minor issue and is mentioned here only in the interest of completeness.

Conclusion

As a result of this assessment, it was determined that the manner in which the FCP Medical Program is currently structured is adequate to meet the needs of the FCP Project, and is appropriate given the limited time remaining on the project. Onsite Medical resources are available to treat minor injuries and to stabilize patients until offsite response forces arrive to transport more serious cases to a full-service facility. In addition, personnel interviewed indicated they had experienced no problems in utilizing the services of Mercy Health Solutions for routine monitoring and non-emergency care. This area is rated Green with a horizontal trending arrow, indicating an improvement from last year’s status of Yellow with a slightly upward trending arrow.

Strengths: None
Weaknesses: None

Recommendations

Management should review PL-3079 to determine if revision or cancellation is warranted at this point in the project’s lifecycle.

Responsible Person: Don Paine
VI. Element: Safety & Health Training

Results

Supervisors, managers, and employees interviewed understood their safety and health responsibilities and could describe them. Overall, the responses received in this year’s interviews aligned well with the 2006 Fernald Closure Project Site Safety Vision and Goals disseminated in a December 22, 2005 Employee Update and with the Site Safety and Health procedures. Interviewees indicated a decrease in formal training, as the site gets closer to closure but that Safety briefings/meetings, “Lets Talk”, and various work permits are some tools used to ensure hazards are communicated and mitigated when they are identified. Supervisors use these tools as two-way communication with the employees, both receiving information from and disseminating information to the workforce. Employees feel that management and they are doing an adequate job in mitigating hazards. Overall, individuals interviewed thought that safety information is being effectively communicated. Some recommendations were indicated in interviews and are reflected below.

Project and administrative personnel seem to be clear on emergency responses but expressed some confusion on their rally point and nearest severe weather options. This issue is addressed in a recommendation in the Hazard Prevention & Control Section.

Some supervisors and managers indicated inconsistency in new supervisor and continuing manager/supervisor training given. Managers/supervisors indicated occasional ongoing training from outside sources such as Fluor or DuPont but indicated something more constant might benefit. The current TQP-029 training does not require continuing training for managers/supervisors. The Supervisor/Manager training requirements of DOE Order 5480.20A are met.

Support personnel interviewed were not clear on their safety work group. Other Support personnel interviewed who knew safety work group indicated a decline in participation. This issue is addressed in the Employee Involvement Section.

Other issues from this evaluation were as a result of document reviews. Two findings and one recommendation were noted.

TQP-029, “Managers and Supervisors Initial Training Program Description”, was reviewed as part of the evaluation. During the 2004 Review a finding was issued since managers/supervisors were identified who were not on the matrices and were missing TQP-029 indicated training. (Finding) Since the last review some new managers/supervisors have been added to the matrices but the TQP-029 classes of Safety Leadership Part 1 and 2 (LP #’s 036029 and 036030) are no longer offered. Fluor Corporate provides our Safety Leadership Training and has recently revised their training program, and we have already provided a number of the new classes to supervisors and managers and have a number of classes scheduled for February to meet our site’s needs. New lesson plan numbers have been identified and will be entered as the Training Evaluation is completed.

A systematic and thorough approach to training is implemented through the use of TQPs, training matrices (used as a tool to supplement the TQPs), computer access to training
records and training matrices available via the e-DESK. During the 2004 Review a finding was issued since some matrices had inconsistencies and overdue training indicated. Interviews indicated a decline in support personnel to effectively track training needs during 2005. (Finding) In the 2005 review the majority of matrices examined had inconsistencies and overdue training indicated. The inconsistencies included: personnel performing function who were not on the matrices; training indicated as not required that is per the TQP; and several matrices for the same TQP. The overdue training included continuing fundamental and task specific training.

The Lessons Learned Handout utilized in the MOD 1 HAZWOPER Refresher (LP # 002873) was dated February 2005. (Recommendation) The handout should be more current.

**Conclusion**

This assessment concludes that an effective Safety & Health Training Program is implemented at the FCP but that the follow through as noted in document reviews indicates a need for improvement and significant increased attention (Yellow color rating). The slightly downward arrow (indicating, "Overall, safety training programs show signs of modest decline") for this element is attributed to the inconsistencies noted in document reviews. Personnel interviewed indicated the Safety & Health training they received is good. Interviewees indicated increase in the use of tools such as daily work briefings and publications such as "Lets Talk" for receiving Safety & Health information versus classroom training. The inconsistencies noted in the training matrices has increased to the majority of matrices reviewed rather then a few inconsistent matrices noted the previous year. These inconsistencies include training indicated as overdue. The manager and supervisor training indicated in TQP-0029 has been changed but has not been formally documented.
Strengths:

- Overall, individuals interviewed thought that safety information is being effectively communicated through Safety briefings/meetings, “Lets Talk”, and various work permits.
- Overall, the responses received in this year’s interviews aligned well with the 2006 Fernald Closure Project Site Safety Vision and Goals disseminated in a December 22, 2005 Employee Update and with the Site Safety and Health procedures.

Weaknesses:

- Project and administrative personnel seem to be clear on emergency responses but expressed some confusion on their rally point and nearest severe weather options.
- Some supervisors and managers indicated inconsistency in new supervisor and continuing manager/supervisor training given.
- Some support personnel interviewed were not clear on their safety work group. Other support personnel interviewed who knew safety work group indicated a decline in participation.
- Since the last review some new managers/supervisors have been added to the matrices but the TQP-029 classes of Safety Leadership Part 1 and 2 (LP #’s 036029 and 036030) are no longer offered.
- Each Project is responsible for ensuring TOP training requirements are updated, applicable training is identified for each person, and their employees attend scheduled training. In the 2005 review the majority of matrices examined had inconsistencies and overdue training indicated. The inconsistencies included: personnel performing function who were not on the matrices; training indicated as not required that is per the TQP; and several matrices for the same TQP. The overdue training included continuing fundamental and task specific training.

Recommendations:

1. The Lessons Learned Handout utilized in the MOD 1 HAZWOPER Refresher (LP # 002873) was dated February 2005. The handout should be more current.

Responsible Person: Phil Grayson
Findings:

Finding Corrected During the Assessment:

1. Requirement: TQP-029, Section I. D., This training program is applicable to the following personnel: Project/Program Directors, Senior Managers, Managers, and Supervisors.

Nonconformance: Since the last review some new managers/supervisors have been added to the matrices but the TQP-029 classes of Safety Leadership Part 1 and 2 (LP #'s 036029 and 036030) are no longer offered.

Correction: TQP-029 was cancelled on 2/23/06. Fluor Corporate provides Safety Leadership Training. A number of the Fluor Safety Leadership classes have been provided to supervisors and managers at Fernald. Some additional classes have been scheduled. Future manager/supervisor assignees qualifications will be evaluated and given the Fluor Safety Leadership training if needed.

Finding:

1. Requirement: TR-0013, Identifies responsibilities of the Project Director/Program Manager or Designee and includes:

   7.1.2.1 Assign a representative to monitor training accomplishments and ensure assigned personnel receive initial required training as identified by:
   7.1.2.1 RM-0055, FCP (Fernald Closure Project) Access
   7.1.2.2 Approved project/Program Training and Qualification Programs as applicable

Further

7.1.4 If a matrix is used to report training and qualification status, THEN:

7.1.4.1 Ensure the Training Coordinator lists the appropriate personnel on the Matrix Report.

7.1.4.2 Communicate what tasks an individual does not perform and which training events are not required for the individual training plan.

7.1.4.3 Ensure the Matrix Report identifies the current training plan for each individual based on his or her work responsibilities.

7.1.4.4 Ensure qualification and task-specific training events that are NOT required for an individual’s qualification are identified, in the appropriate cell, by the terms “As Needed,” “NPT,” “NR,” or the cell is colored blue, indicating the event is not required.
Nonconformance: In the 2005 review the majority of matrices examined had inconsistencies and overdue training indicated. The inconsistencies included: personnel performing function who were not on the matrices; training indicated as not required that is per the TQP; and several matrices for the same TQP. The overdue training included continuing fundamental and task specific training.

Responsible Person: Con Murphy
VII. Review of Previous Corrective Actions

A. Assessment 2025631, Fluor Fernald Comprehensive Safety & Health Program Review

Two findings and 15 recommendations were identified in audit 2025631. The findings were documented and tracked in accordance with QA-0001 as Nonconformance Reports (NCR) and the recommendation were documented and tracked in accordance with MS-1005 as commitments in the Commitment Tracking System (CTS).

All corrective actions are completed and closed. The one remaining open corrective action from Assessment 2025631 Fluor Fernald Comprehensive Safety & Health Program Review CY2004 has also been completed and closed.

1. Finding #1 (NCR 886) - A comparison of the December 2004 Organization Charts against the matrices maintained by the Training Department for TQP-029 did not show all current managers/supervisors on matrices.

**Corrective Action** - Training has contacted human resources and requested and received a current listing of all managers and supervisors. Training will use the list provided by human resources to create a current matrix per human resources list as of that date. The training coordinator will get a current list of managers and supervisors from human resources on a one time per year, to check for changes in the managers and supervisor’s classification and update the matrix to current list. (Note) managers and supervisors titles may change on any given day based on the projects needs, this may cause the matrix to be different that the human resources list.

**Completed** - Completed with a comparison of December 2004 organization against 3/1/2005 list and noted agreement. Verified that TQP-029 matrices had managers listed.

2. Finding #2 (NCR 887) - A few training matrices such as the matrices for TQPs 012, 020, 025, 033 had inconsistencies and overdue training

**Corrective Action** - TQPs 012 and 025 have been reviewed for errors and verified by training to correct any discrepancies; new matrices have been printed out to verify that all inconsistencies and overdue training has been completed. TQP 020 and 033 had been cancelled prior to the audit, but the paper work had not gone through the document control system to show they had been cancelled. They are now showing cancelled. The program manager has been made aware that all personnel must keep their training up to date. If any person is out of compliance, they may not perform any work activities for which they are out of compliance on until they attend the training.

**Completed** - Completed with the cancellation of TQP-20 and TQP-033. Verified revisions to TQP-012 and TQP-025 and matrices.
3. **Recommendation #1 (CTS 2510)** - The communication of the 2005 Safety & Health Goals to the workforce needs to be improved.

   **Corrective Action** - Ensure that the 2005 Safety Goals, Vision, and Challenges are discussed at the exemplary Safety First Meetings being conducted throughout the project. Confirm that posters have been prominently displayed in break rooms and conference rooms, especially in project areas.

   **Complete** - Completed with 1) Overheads used in January Safety 1st Meetings (Safety Goals, Safety Challenge, & Safety Vision. 2) Schedule of Safety 1st Meetings & Agenda for January 2005. 3) Note: Rosters for safety meetings are kept by the Projects.

4. **Recommendation #2 (CTS 2511)** – Key documents that describe roles and responsibilities of project directors and managers should be updated to reflect the most current organization.

   (from 2004 Report).

   Complete – Organizational Charts were updated and reissued to the site on eDesk 6/1/05. Functional Area Managers Lists were updated and distributed on 6/22/05. The MP and the PEPs will not be updated in recognition that personnel change, but roles and responsibilities of Project Management, senior management and FAM remains the same. See email dated 8/9/2005 from Dave Jackson.

5. **Recommendation #3 (CTS 2512)** – The communication of the 2005 Safety & Health Goals to the workplace needs to be improved.

   **Corrective Action** – Ensure that the 2005 Safety Goals, Vision, and Challenges are discussed at the exemplary Safety First Meetings being conducted throughout the project. Work with project and program managers to document ongoing actions that will help to ensure the project meets the site goals.

   **Complete** – Completed in weekly CORE Operations meetings and bimonthly Sr. Management meetings. See 2005 Safety Plan that are reviewed and updated in the meetings.

6. **Recommendation #4 (CTS 2513)** – Increased emphasis should be placed on management completing and documenting safety walkthroughs.

   **Corrective Action** – Senior management will communicate expectations for the frequency, conduct, and documentation of safety walkthroughs for all levels of management.

   **Complete** – Completed with email (dated 2/23/2005) from Carol Dvorak for Con Murphy, sent to Level 01 Management, Subject: Safety Walkthrough Program and attachment "Lets Reinvigorate Our Safety Walkthrough Program".

7. **Recommendation #5 (CTS 2514)** – Increased attention should be focused on integrating Silos and SDFP subcontractor personnel into the site safety culture.
7. **Recommendation #5 (CTS 2514)** – Increased attention should be focused on integrating Silos and SDFP subcontractor personnel into the site safety culture.

**Corrective Action** – Ensure that all Silos and SDFP subcontract personnel are part of a safety work group and regularly attend pre-job briefings.

**Complete** – Completed per email from Dave Jackson, dated 3/14/2005. “DSDP has all it’s subcontractors at every Safety First meeting, the meeting is during their morning or afternoon plan of the day. Silos have installed a Work Group for Wise Construction at the Silo’s Project. Evident by the Schedule for March Safety 1st meetings (Mar 9th). Safeguard/Security and Workforce Services have also been added to the Safety 1st presentations

8. **Recommendation #6 (CTS 2515)** – Senior management needs to continue to communicate timely messages to the workforce about ongoing staffing reductions and changes to site conditions.

**Corrective Action** – Senior management will continue to communicate timely messages through safety meetings, briefings, and publications to the workforce regarding ongoing staffing reductions and changes to site conditions.

**Complete** – Completed with 1) Safety First Schedules since Dec. that show Agenda that includes Project/Site updates 2) Workforce Restructuring Announcement from January 05.

9. **Recommendation #7 (CTS 2516)** – Senior management needs to continue to communicate timely messages to the workforce about ongoing staffing reductions and changes to site conditions.

**Corrective Action** – Include a briefing of the previous months investigations and analysis of injuries at the 25-Member Safety Committee Meeting or other appropriate forum on a monthly basis.

**Complete** – Completed with 1) Safety First Schedules in 2515, Showing Agenda items discussed are always safety performance and injuries for the month and to date. 2) Example of Overheads used at Feb. Safety First that cover injury safety performance.

10. **Recommendation #8 (CTS 2517)** – Senior Management should investigate the issue of proper sized anti-c clothing and the availability of proper tools, and should make the results of their review available to the workforce.

**Corrective Action** – Conduct an assessment of both tool availability and properly sized anti-C and communicate the results of that assessment to the 25-Member Safety Committee and in Let’s Talk, if appropriate. Ensure that any deficiencies discovered in this assessment are corrected in a timely manner.

**Complete** – Completed with item being turned into Employee Concern 2005-005 on 3/9/2005. The 3rd quarter ECP report shows the item was closed on 9/30/2005
11. **Recommendation #9 (CTS 2518)** – Managers and Supervisor should be re-briefed on the requirements of HR-0145 to ensure that are aware of the importance of consistently implementing the disciplinary policy. Based upon the severity of the infraction, the sequential process for disciplinary actions laid out in HR-0145 (Oral Reminder, then Written Reminder, and finally Decision-Making Leave) must be clearly understood and applied.

**Corrective Action** – Use Let's Talk to notify employees about the requirements of HR-0145 as it relates to safety responsibilities and to inform managers and supervisors that a required reading will be issued in response to this year's ISM/VPP review. Issue a required reading for HR-0145 to managers and supervisors.

**Complete** – Completed with Supervisor Accountability & Compliance Briefing during the week of September 26, 2006, in conjunction with response and communication of PAAA assessment and PNOV. (See briefing rosters, agenda and training materials.) No required reading or Let's Talk was issued; rather a direct and verbal briefing was used to communicate the requirements.

12. **Recommendation #10 (CTS 2519)** – Management should continue to monitor the transition of responsibilities from the FCP Medical Department to Mercy Health Solutions to ensure that no problems are encountered.

**Corrective Action** – Report the status of this transition in Let's Talk and discuss at the Safety First Meetings being conducted on the site.

**Complete** – Completed with email from Dave Jackson 8/9/2005, and attachments: write-up, "Let's Talk", Employee Update. [Write-up] "Transition of Onsite Medical from a full service facility to a First Aid Station was accomplished 2/1/2005. Transition of medical examinations was completed on 1/25/05 to Mercy Solutions in Harrison, Ohio. The workforce was kept aware of this change through Safety First briefings in January & February, and in an Employee Update on 1/27/05. Maps to Mercy were posted in the work area along with pull-down maps on the Employee Update. No issue has arisen due to this change in onsite medical services."

13. **Recommendation #11 (CTS 2529)** – Periodic status updates should be provided to the FCP workforce to keep them informed of the changes associated with the outsourcing of Medical. Specific information should be provided regarding the services the FCP First Aid Station will provide and what services will be provided by Mercy Health Solutions.

**Corrective Action** – Report this information in Let’s Talk and discuss at the Safety First Meetings being conducted on the site.

**Complete** – Completed with email from Dave Jackson 8/9/2005, and attachments: write-up, "Let’s Talk", Employee Update. [Write-up] "Transition of Onsite Medical from a full service facility to a First Aid Station was accomplished 2/1/2005. Transition of medical examinations was completed on 1/25/05 to Mercy Solutions in Harrison, Ohio. The workforce was kept aware of this change through Safety First briefings in January & February, and in an Employee Update on 1/27/05. Maps to Mercy were posted in the work area along with pull-down maps on the Employee Update."
14. **Recommendation #12 (CTS 2521)** – Additional information should be provided about Mercy Health Solutions' Harrison and Springdale facilities. (Perhaps an "Open House" or informal tour of the facilities)

**Corrective Action** – Conduct an open house or informal tours of the Harrison facility.

**Complete** – Completed with email from Dave Jackson 8/9/2005, and attachments: write-up, "Let's Talk", Employee Update, [Write-up] "Transition of Onsite Medical from a full service facility to a First Aid Station was accomplished 2/1/2005. Transition of medical examinations was completed on 1/25/05 to Mercy Solutions in Harrison, Ohio. The workforce was kept aware of this change through Safety First briefings in January & February, and in an Employee Update on 1/27/05. Maps to Mercy were posted in the work area along with pull-down maps on the Employee Update. No issue has arisen due to this change in onsite medical services."

15. **Recommendation #13 (CTS 2522)** – A clear communication regarding emergency response in severe weather.

**Corrective Action** – Issue updates to the new emergency response protocols in Let’s Talk and discuss at key safety meetings prior to the start of the severe weather system.

**Complete** – Completed with memo M:SHQ:2005-0027 "RESPONDING TO AN EMERGENCY EVENT" from Dave Jackson to Levels 1, 2, & 3 Managers, dated 5/28/2005 and the July 11, 2005 issue of "Let's Talk.

16. **Recommendation #14 (CTS 2523)** – Communicate to current instructors interview issues on Hazwoper Mod 1 training and expectations to cover the material outlined in the lesson plan / study guide.

**Corrective Action** – Issue a memo to current instructors regarding the site’s expectation on material outlined in the lesson plan / study guide that must be covered in Hazwoper Training and other training courses important to the safe operations at the FCP.

**Complete** – Completed with an e-mail from Phil Grayson to Instructors dated March 15, 2005, subject: Material covered in Hazwoper study guides.

17. **Recommendation #15 (CTS 2524)** – The rigor to address recommendations from the annual assessments prior to targeted completion dates should receive greater emphasis by management.

**Corrective Action** – Actions to address the recommendation in this year’s report, as well as for future reports, will be tracked in the CTS as Level 2 commitments rather than Level 4 commitments. Furthermore, these items will be reviewed and discussed at key safety meetings

**Complete** - Completed with commitments being established as Level 2 commitments. Also, closure documentation of the other commitments from the ISM Assessment 2025631.
Summary

Completion documentation for the above actions was reviewed and verified. The VPP recommendations and ISM areas for improvement were tracked through the site Commitment Tracking System (CTS) as Level 2 (L2) commitments.
### Summary of Findings, Recommendations, and Actions (from 2004 Report)

Note: + is # of days before schedule completion - is # of days past schedule

<table>
<thead>
<tr>
<th>Item</th>
<th>Findings/Nonconformance</th>
<th>Action</th>
<th>Proposed Due Date</th>
<th>Completion Date</th>
<th>On Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A comparison of the December 2004 Organization Charts against the matrices maintained by the Training Department for TQP-029 did not show all current managers/supervisors on matrices. Some managers/supervisors missing from the matrices included Dan Powell, Lester Sarntiuet, Dallas Alvis, Phil Grayson, Randy Reynolds, Mark Couch, Mike Bishop, Bill Previty, Frank Showalter, Roger Hiss, Jerry Brandenburg, Jim Barber, and Brian McDaniel.</td>
<td>NCR #886</td>
<td>3/31/2005</td>
<td>3/29/2005</td>
<td>-2 days</td>
</tr>
<tr>
<td>2</td>
<td>A few training matrices such as the matrices for TQP's 012, 020, 025, 033 had inconsistencies and overdue training</td>
<td>NCR #887</td>
<td>3/31/2005</td>
<td>3/29/2005</td>
<td>-2 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendations</th>
<th>Action</th>
<th>Schedule Completion Date</th>
<th>Completion Date</th>
<th>On Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>The communication of the 2005 Safety &amp; Health Goals to the workforce needs to be improved.</td>
<td>Ensure that the 2005 Safety Goals, Vision, and Challenges are discussed at the exemplary Safety First Meetings being conducted throughout the project. Confirm that posters have been prominently displayed in break rooms and conference rooms, especially in project areas.</td>
<td>3/31/2005</td>
<td>1/27/2005</td>
<td>+63 days</td>
</tr>
<tr>
<td>4.</td>
<td>Key documents that describe roles and responsibilities of project directors and managers should be updated to reflect the most current organization.</td>
<td>Ensure that organizational charts, functional area manager lists, the Management Plan, and Project Execution Plans are updated with the latest managers and supervisors and clearly describe their current roles and responsibilities.</td>
<td>4/29/2005</td>
<td>6/22/2005</td>
<td>-54 days</td>
</tr>
<tr>
<td>5.</td>
<td>The communication of the 2005 Safety &amp; Health Goals to the workforce needs to be improved.</td>
<td>Ensure that the 2005 Safety Goals, Vision, and Challenges are discussed at the exemplary Safety First Meetings being conducted throughout the project. Work with project and program managers to document ongoing actions that will help to ensure the project meets the site goals.</td>
<td>3/31/2005</td>
<td>3/22/2005</td>
<td>+10 days</td>
</tr>
<tr>
<td>6.</td>
<td>Increased emphasis should be placed on management completing and documenting safety walkthroughs.</td>
<td>Senior management will communicate expectations for the frequency, conduct, and documentation of safety walkthroughs for all levels of management.</td>
<td>3/31/2005</td>
<td>2/23/2005</td>
<td>+37 days</td>
</tr>
<tr>
<td>7.</td>
<td>Increased attention should be focused on integrating Silos and SDFP subcontractor personnel into the site safety culture.</td>
<td>Ensure that all Silos and SDFP subcontract personnel are part of a safety work group and regularly attend pre-job briefings.</td>
<td>3/31/2005</td>
<td>3/9/2005</td>
<td>+22 days</td>
</tr>
</tbody>
</table>
# Summary of Findings, Recommendations, and Actions (from 2004 Report)

<table>
<thead>
<tr>
<th>Commitment Number</th>
<th>Description</th>
<th>Due Date 1</th>
<th>Due Date 2</th>
<th>Days Late</th>
</tr>
</thead>
<tbody>
<tr>
<td>251 5</td>
<td>Include a briefing of the previous month's investigations and analysis of injuries at the 25-Member Safety Committee Meeting or other appropriate forum on a monthly basis.</td>
<td>3/31/2005</td>
<td>3/14/2005</td>
<td>+18 days</td>
</tr>
<tr>
<td>251 6</td>
<td>Conduct an assessment of both tool availability and properly sized anti-C and communicate the results of that assessment to the 25-Member Safety Committee and in Let's Talk, if appropriate. Ensure that any deficiencies discovered in this assessment are corrected in a timely manner.</td>
<td>4/29/2005</td>
<td>9/30/2005</td>
<td>-155 days</td>
</tr>
<tr>
<td>251 7</td>
<td>Use Let's Talk to notify employees about the requirements of HR-0145 as it relates to safety responsibilities and to inform managers and supervisors that a required reading will be issued in response to this year's ISM/VPP review. Issue a required reading for HR-0145 to managers and supervisors.</td>
<td>4/29/2005</td>
<td>10/13/2005</td>
<td>-168 days</td>
</tr>
</tbody>
</table>
## Summary of Findings, Recommendations, and Actions (from 2004 Report)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Management should continue to monitor the transition of responsibilities from the FCP Medical Department to Mercy Health Solutions to ensure that no problems are encountered.</td>
<td>Report the status of this transition in Let’s Talk and discuss at the Safety First Meetings being conducted on the site. Commitment Number 2519</td>
<td>3/31/2005</td>
<td>2/1/2005</td>
</tr>
<tr>
<td>13</td>
<td>Periodic status updates should be provided to the FCP workforce to keep them informed of the changes associated with the outsourcing of Medical. Specific information should be provided regarding the services the FCP First Aid Station will provide and what services will be provided by Mercy Health Solutions.</td>
<td>Report this information in Let’s Talk and discuss at the Safety First Meetings being conducted on the site. Commitment Number 2529</td>
<td>3/31/2005</td>
<td>2/1/2005</td>
</tr>
<tr>
<td>14</td>
<td>Additional information should be provided about Mercy Health Solutions’ Harrison and Springdale facilities. (Perhaps an “Open House” or informal tour of the facilities)</td>
<td>Conduct an open house or informal tour of the Harrison facility. Commitment Number 2521</td>
<td>3/31/2005</td>
<td>2/1/2005</td>
</tr>
<tr>
<td>15</td>
<td>A clear communication regarding emergency response in severe weather.</td>
<td>Issue updates to the new emergency response protocols in Let’s Talk and discuss at key safety meetings prior to the start of the severe weather system. Commitment Number 2522</td>
<td>4/29/2005</td>
<td>7/11/2005</td>
</tr>
<tr>
<td>16</td>
<td>Communicate to current instructors interview issues on Hazwoper Mod 1 training and expectations to cover the material outlined in the lesson plan / study guide.</td>
<td>Issue a memo to current instructors regarding the site’s expectation on material outlined in the lesson plan / study guide that must be covered in Hazwoper Training and other training courses important to the safe operations at the FCP. Commitment Number 2523</td>
<td>2/28/2005</td>
<td>3/15/2005</td>
</tr>
<tr>
<td>17</td>
<td>The rigor to address recommendations from the annual assessments prior to targeted completion dates should receive greater emphasis by management.</td>
<td>Actions to address the recommendation in this year’s report, as well as for future reports, will be tracked in the CTS as Level 2 commitments rather than Level 4 commitments. Furthermore, these items will be reviewed and discussed at key safety meetings Commitment Number 2524</td>
<td>4/29/2005</td>
<td>7/11/2005</td>
</tr>
</tbody>
</table>

* includes extension requests
VIII. Overall Safety & Health Program Assessment

As can be seen in the VPP element and sub-element summaries, the Safety & Health Program continues to effectively implement the elements of DOE-VPP and the ISM System Description. The workforce plays a key role in the identification analysis, and mitigation of hazards. The safety of the workforce and the safety culture exhibited during work execution remain strong as the site approaches closure.

The following table summarizes the evaluation results of the five DOE-VPP elements as described in Sections II through VI.

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>RATING</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Leadership</td>
<td>Green</td>
<td>↓</td>
</tr>
<tr>
<td>Employee Involvement</td>
<td>Green</td>
<td>↑</td>
</tr>
<tr>
<td>Worksite Analysis</td>
<td>Green</td>
<td>↑</td>
</tr>
<tr>
<td>Hazard Prevention and Control</td>
<td>Yellow</td>
<td>↓</td>
</tr>
<tr>
<td>Safety &amp; Health Training</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary
For the twenty-nine (29) VPP elements and sub-elements: twenty-five (25) are Green, four (4) are Yellow, and zero (0) are Red. The overall rating for this annual comprehensive safety & health assessment is Green with a directional arrow trending as ↓.

This year's review again served a dual role as the VPP Comprehensive Safety & Health program Review and a Fluor Fernald self-assessment of continued, effective implementation of Integrated Safety Management (ISM). Based on this review, it is apparent that the core functions and guiding principles of ISM continue to be effectively implemented.

The findings and recommendations documented as part of this assessment are listed in the "Summary of Findings and Actions" table and will be tracked to closure through the established site commitment system. Item number 3, in the table, is an all-encompassing action that ensures the recommendations from this report are prioritized and addressed to help support the safe closure of the FCP. The other recommendations listed in the table have been combined from the recommendations made throughout the report. Therefore, by developing and implementing corrective actions from this table, all of the recommendations listed in the report will be addressed.

Numerous strengths of the FCP Safety and Health Program are listed throughout the report. They have not been summarized in a table but support the conclusion in the body of the report that the FCP continues to maintain a strong and effective safety and health program that is compliant with the elements of both VPP and ISM.
The Tri-Partite Safety Committee has responsibility for establishing the Safety & Health Program goals, and has adapted the following goals for CY2006:

2006 SAFETY VISION AND GOALS

1. ZERO workplace injuries and illness.
2. ZERO workplace incidents and events.
3. Project Directors will clearly communicate the 2006 Safety & Health Vision, Goals and Expectations
4. Managers and supervisors will perform safety walk-throughs focused on communicating safety and compliance expectations, and soliciting feedback from workers
5. Managers, supervisors and employees performing work will be included in pre-job walk-downs
6. Project Directors will make a documented, personal commitment to the Closure Project Director and demonstrate to workers that safety and radiological compliance are core values
7. Perform to these three safety challenges:
   - Line management ownership and accountability for safety performance
   - Eliminate motor vehicle and heavy equipment accidents and incidents by:
     - Observing posted speed limits
     - Avoiding distractions
     - Completing 360-degree vehicle walk-arounds
   - Minimize exposure to hazards and dose by emphasizing:
     - adherence to radiological, safety and health requirements during the planning and performance
     - awareness of existing working conditions
     - focus on the task at hand

2006 SAFETY CHALLENGE

1. Line management ownership and accountability for safety
2. Eliminate motor vehicle and heavy equipment accidents and incidents by:
   - observing posted speed limits
   - avoiding distractions
   - completing 360-degree vehicle walk-arounds
3. Minimize exposure to hazards and dose by emphasizing:
   - adherence to radiological, safety and health requirements during the planning and performance
   - focus on the task at hand
## Summary of Findings and Actions

<table>
<thead>
<tr>
<th>Item</th>
<th>Finding/Nonconformance</th>
<th>Action Description</th>
<th>Responsible Party</th>
<th>Target Due Date</th>
<th>Cross Ref to Report</th>
<th>NCR Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When a new visitor arrives onsite, security does not confirm whether or not the visitor took the computer version of the orientation training prior to arriving on site. The computer version covers alarm sounds. Also, select sections of the briefing are out of date or incorrect.</td>
<td>Ensure that visitors receive the computer briefing version of orientation, and update and/or correct the orientation</td>
<td>Don Paine</td>
<td>3/23/06</td>
<td>II G</td>
<td>974</td>
</tr>
<tr>
<td>2</td>
<td>The majority of training matrices reviewed had inconsistencies and indicated overdue training. This process is defined in TR-0013.</td>
<td>Ensure training requirements are met and matrices are maintained in a current status.</td>
<td>Con Murphy</td>
<td>3/23/06</td>
<td>VI</td>
<td>975</td>
</tr>
</tbody>
</table>

## Critical Actions to Closure

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendation</th>
<th>Action Description</th>
<th>Responsible Party</th>
<th>Target Due Date</th>
<th>Cross Ref to Report</th>
<th>Commitment Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Senior Management should review the issues and recommendations contained in this report and develop a prioritized list of action items</td>
<td>Develop an action plan to address the issues deemed &quot;high priority&quot; by Senior Management</td>
<td>Con Murphy</td>
<td>3/17/06</td>
<td>Exec. Summ.</td>
<td>2679</td>
</tr>
<tr>
<td>4</td>
<td>Safety communications should be improved. See input from R Bush, DuPont.</td>
<td>Ensure that Safety is the Number one management priority at the FCP</td>
<td>Con Murphy</td>
<td>3/31/06</td>
<td>Exec. Summ.</td>
<td>2680</td>
</tr>
<tr>
<td>5</td>
<td>Complete and implement integrated work planning at Silos prior to full scale D&amp;D among: Operations, Safe Shutdown and D&amp;D.</td>
<td>Three functions (Ops, SSD and D&amp;D) working in close proximity need to be fully integrated to prevent incidents</td>
<td>Dennis Carr, Mark Cherry</td>
<td>3/31/06</td>
<td>Exec. Summ.</td>
<td>2681</td>
</tr>
<tr>
<td>6</td>
<td>Lessons learned from previous concurrent operations should be communicated to the workforce on a daily basis.</td>
<td>Review experience from the CAWWT and Silos 1&amp;2 D&amp;D and incorporate into daily pre-shift and tool box meetings</td>
<td>Con Murphy</td>
<td>3/31/06</td>
<td>Exec. Summ.</td>
<td>2687</td>
</tr>
</tbody>
</table>
### Summary of Recommendations and Actions

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendation</th>
<th>Action</th>
<th>Responsible Party</th>
<th>Target Due Date</th>
<th>Cross Ref to Report</th>
<th>Commitment Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Safety walkthroughs are not performed and documented on a regular basis</td>
<td>Clarification should be provided regarding Senior Management expectations for the completion and documentation of safety walkthroughs, including frequency and manner in which results are communicated.</td>
<td>Con Murphy</td>
<td>3/31/06</td>
<td>II.A, II.F</td>
<td>2682</td>
</tr>
<tr>
<td>8</td>
<td>Programmatic documents (procedures, lesson plans, program plans, etc.) are not being maintained current and do not reflect the present status of the FCP.</td>
<td>Safety-related programmatic documents should be reviewed for accuracy and to ensure they reflect current FCP project status.</td>
<td>Don Paine</td>
<td>3/31/06</td>
<td>II.B, VI, V.C, V.H, V.I</td>
<td>2683</td>
</tr>
<tr>
<td>9</td>
<td>The Site Staffing Plan and Manpower Plan should be reviewed by Project Management to ensure adequate and effective S&amp;H resources are available.</td>
<td>Ensure adequate S&amp;H resources are available to provide worker support to closure.</td>
<td>Don Paine</td>
<td>4/30/06</td>
<td>II.D</td>
<td>2684</td>
</tr>
<tr>
<td>10</td>
<td>Multiple examples of less than acceptable performance, e.g. LO/TO violations, PAAA NOV, decreased safety communications, decreased safety walkthroughs, less safety meetings, increased on-site vehicle accidents point to a reduction of Line Accountability.</td>
<td>A renewed, rigorous commitment from mid-level managers and supervisors should be exacted by site management regarding safety and the repercussions of not holding personnel accountable for lapses in safety.</td>
<td>Con Murphy</td>
<td>3/31/06</td>
<td>II.E, IV.G</td>
<td>2685</td>
</tr>
<tr>
<td>11</td>
<td>Senior Management should reinforce to the workforce that the project completion schedule does not, and will not, take precedence over personnel safety.</td>
<td>Reinforce that Safety is the Number 1 priority.</td>
<td>Con Murphy</td>
<td>3/31/06</td>
<td>III</td>
<td>2686</td>
</tr>
</tbody>
</table>
APPENDIX A
ASSESSMENT PERSONNEL

ASSESSMENT CO-TEAM LEADERS

Brinley D. Varchol, Team Leader is the Fluor Fernald Quality Assurance Program Manager, Price-Anderson Coordinator, and Readiness Review Manager for the Fernald Closure Contract, a Department of Energy site in southwest Ohio. He has thirty-six (36) years of experience in construction management, project engineering, waste management, quality assurance, training and environmental restoration. For the past twenty-four (24) years he has held positions at both commercial and government nuclear facilities. In addition to his current responsibilities, he has managed environmental monitoring efforts, waste management activities and RCRA compliance programs. He has extensive experience working with government regulators, including the Nuclear Regulatory Commission, and agencies such as the US EPA and the Ohio EPA. Mr. Varchol is an adjunct professor of Mathematics and Physics for The Union Institute & University and a long-standing member of the Miami University Research and Advisory Council. He is a member of the American Society for Quality and currently serves on the Oxford Board of Zoning Appeals. Mr. Varchol has a Bachelor’s Degree in Mathematics & Physics and a Master’s Degree in Environmental Management.

Don Nordquist, Team Leader, is a consultant with Management & Technical Resources. Mr. Nordquist has 27 years of experience in the nuclear utility/DOE industry. He has a strong background in quality management, pre-operational planning and assessments, and senior level safety committee and management reviews. He has managed and acted as team leader for numerous pre-operational assessments for new environmental restoration and waste management projects including: Enriched Nuclear Material Movement, Waste Pits Operations, On-Site Disposal Cell, and Nuclear Material Repackaging and Shipments. He has performed technical and management reviews at Rocky Flats, Los Alamos National Lab, Oak Ridge, INEEL, and Barnwell. Mr. Nordquist has a Bachelor of Science in Engineering.

Ralph Bush is a consultant for DuPont Safety Resources. With 32 years of diverse project management and safety experience in the United States, Canada, and China, Ralph Bush became a senior consultant for DuPont Safety Resources in 2000. Ralph has had extraordinary success in improving contractor safety performance around the world. As a consultant for DuPont Safety Resources, Ralph has done contractor safety work for Technip, BP CAPCO – Taiwan, BP Air and BP SECCO – China, Ford Motor Company, Amazone Project – Brazil and COMALCO – Australia, Exelon Nuclear.

MANAGEMENT LEADERSHIP SUB-TEAM

Perry Dempsey, Team Leader
Perry Dempsey has performed audits, assessments, and operational readiness reviews for more than 10 years at various Department of Energy and commercial nuclear power facilities. He has been a Conduct of Operations mentor and assessor at Rocky Flats, a readiness assessor and mentor at Hanford, at Idaho National Environmental and Ecological Laboratory (INEEL), and at Oak Ridge (Y-12 & ETTP). Additionally, Mr. Dempsey has served...
as an operations and licensing assessor and mentor at Susquehanna Steam Electric Station in Pennsylvania. Mr. Dempsey began his career in the U.S. Navy Nuclear Power Program. He has a Bachelor of Science degree from the U.S. Naval Academy, a Professional Engineer License (Mechanical) from the State of Idaho, and a Senior Reactor Operator (SRO) license from Leibstadt, Switzerland.

Gregg Johnson, Team Member Safety and Health
Gregg Johnson is currently the Health & Safety Manager for the Soil Disposal Facility Project at the Fernald Closure Project. Gregg is currently responsible for Health & Safety oversight at a million-hour a year project. This involves both technical personnel performing environmental sampling and large volume earthwork. He has over 25 years of experience within the DOE complex providing H&S support to projects. He has completed numerous Federal OSHA accredited health & safety training programs on various 29CFR1926 and 29CFR1910 subjects. Additionally he has over 20 years of fire and EMS service experience that includes fire investigation and fire/life safety inspection. He has also been a shift supervisor at a DOE (Fernald) UF6 to UF4 reduction production facility.

Ron Joseph, Team Member Safety and Health
Ron Joseph is the Fluor Fernald Radiological Control and Safety Compliance Manager in the Safety, Health, and Radiological Control Division. His primary duties include Incident Reporting, Investigation, Analysis, Tracking, and Trending. In his sixteen years at Fernald, he has served as a Radiological Control Technician, Radiological Engineer, and Radiological Compliance Supervisor. Previous experience includes eight years in the U.S. Navy Nuclear Power Program as a Leading Engineering Laboratory Technician. Ron is a certified Radiation Protection Technologist (NRRPT), Accident Investigation Team Leader, and Root Cause Analysis expert. He currently serves on the TapRooT® Root Cause Analysis Technical Advisory Board.

EMPLOYEE INVOLVEMENT SUB-TEAM

Larry Waters, Team Leader/QA Assessments & Quality Systems
Larry Waters currently serves as the Fluor Fernald PAAA Facilitator for Quality Assessment issues. Larry began his career at Fernald in 1993 as a Technical Writer/Editor with the CRU4/OU4 Department where he assisted in the issuance of the RI/FS/ROD for approximately 1 year. After CRU4, Larry worked for 2 years in the same capacity with the RSO Department. Larry then joined the Training Department as a Training Instructor; he also assisted with issuance, revisions, and cancellations of various Training Procedures. In May 1998, Larry joined the Quality Assurance Department as an Independent Verifier and backup PAAA/QA Facilitator. In 1999, Larry became the primary PAAA Facilitator for QA and still holds that position today. Prior to joining Fluor Fernald, Larry was employed with General Electric Aircraft Engines as a Technical Writer and Field Test Specialist. He also worked at Ethicon Endo-Surgery, a Division of Johnson & Johnson, as a Laboratory Technician for the FDA certification of Ethicon’s endoscopic surgical instruments.

Pete Branham, Team Member/Fernald Atomic Trade & Labor Council (FAT&LC)
Pete has been employed at Fernald for a total of 15 years, and has worked as a Motor Vehicle Operator (MVO). Pete is currently a CPI Safety Representative and is an Officer in the FAT&LC Council. He is also a Commercial Driver License (CDL) State Certified Instructor, which resulted in approximately 200 Fernald salaried and hourly employees receiving their Class A CDL.
Tony Lack, Team Member/Greater Cincinnati Building & Construction Trades Council (GCBCTC)
Tony is a 17-year member of the International Brotherhood of Electrical Workers (I.B.E.W.), Local 212, in Cincinnati, Ohio. He has been a journeyman wireman at the FCP for ten years and is currently working for Wise Services as a site representative for the Greater Cincinnati Building & Construction Trades council (GCBCTC). Tony is involved in the following site safety committees; DOE Tri-Partite Committee, Safety First Team, VPP Steering Team, Sitewide Electrical Safety Committee, and the Subcontractor Safety Committee.

Keith Lanning, Team Member Safety and Health
Keith Lanning has been the Health and Safety Lead for Aquifer Restoration Projects for the past four years and has recently assumed additional safety oversight responsibilities at the Silo’s project. Mr. Lanning’s prior experience includes 19 years in operations, training and safety at the Fernald Closure Project and 12 years in various positions within the Petro Chemical Industry. Keith has more than 25 years experience in safety and fire protection. Mr. Lanning has a Bachelor of Arts Degree in education and over 2000 hours of Safety related training.

Richard Tinsley, Team Member/Fernald Atomic Trade & Labor Council (FAT&LC)
Richard has been a journeyman carpenter for 39 years, the last 22 of which have been at the FCP. Two years of service in the U.S. Army, one year of which was spent in Vietnam. Richard has been the FAT&LC Safety Director since January 2002. In this capacity, Richard is the representative to numerous Safety Committees in addition to Chairman of Joint Executive Safety & Health and Chairman of 25-Member Safety Committee.

WORKSITE ANALYSIS SUB-TEAM

Bill Kelley, Team Leader/Quality Assurance
Six years on site (1956-62) in Analytical Process Control. About 30 years in Nuclear Safety, Occupational and Environmental Radiological Health, and Industrial Hygiene. About ten years of that time was spent in providing training to workers and occupational/environmental safety and health professionals. Returned to FCP about 10 years ago and has been involved in analytical quality activities and site quality assurance. Bill has an A.B. in Chemistry from Thomas Moore College and a M.S. in Chemistry from the University of Cincinnati.

Nelson Weichold, Team Member/Safety & Health
Thirteen years in workplace/engineering audits and engineering programs, twenty-two years involved in QC and QA audits, systems engineering, and development of document programs, currently in Safety & Health providing support of site safety & Health requirements, and coordinator of the Fluor Fernald Employee Concern Program. Nelson has a B.S. degree in Industrial Technology from Ohio University.

HAZARD PREVENTION & CONTROL SUB-TEAM

Paul M. (Mike) Bishop, Team Leader/Quality Control
Mike is the Fluor Fernald Quality Systems and Compliance Department Manager. He has fourteen (14) years of experience in the development, implementation and management of Environmental, Safety and Quality projects, programs and functions. Mr. Bishop is experienced in the performance and leadership of Audits, Pre-Operational Start-Up Reviews, and event investigations at Department of Energy facilities. In addition to his current
Fernald responsibilities, he also serves as a consultant to a local environmental engineering and management firm, where his responsibilities include (but are not limited to) review of submittals (revisions to hazardous waste facility permits, certification applications, programmatic documents, etc.), regulatory research, development of technical guidance documents and reference materials, and physical inspection of client-owned, operated, and/or regulated facilities. Primarily assigned to monitor waste disposal operations at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico on behalf of the USEPA and the State of New Mexico.

Mr. Bishop has a Bachelor’s Degree in Science Education from Miami University, a Master’s Degree in Environmental Management from The University of Findlay, and is certified as a Lead Auditor in accordance with ASME NQA-1.

SAFETY & HEALTH TRAINING SUB-TEAM

Ervin O’Bryan, Team Leader/QA Assessments & Quality Systems
Ervin has two years experience as Quality Assurance support for the onsite Analytical Lab, and three years in Quality Systems performing audits. He has a B.A. Degree in Chemistry and a M.S. degree in Analytical Chemistry. He is certified as a Quality Auditor by the American Society for Quality.

John Lippitt, Team Member/Training
John M. Lippitt has served as a Senior Trainer in the Training Department for the last five years. He has been the lead Radiological Worker Training Instructor since early 2000. Mr. Lippitt has developed, reviewed and revised many of the current FCP training courses, including development of the initial HAZWOPER refresher training courses, a major revision to the Radiological Worker Training, and specialized Waste Management and Waste Characterization Training.

Mr. Lippitt started working at the site as a Contractor in August 1990 and joined the company in November 1993. Prior to joining the Training Department, John has served as a Section Manager, Project Manager, Cost Control Specialist, Field Manager of Waste Acceptance Operations, and a Cost Control Analyst for a special assignment for site Baseline Appraisal to assess long-term risks to budget and schedule.

Including his time at Fernald Mr. Lippitt has 31 years of experience in Environmental and Public/Occupational Safety and Health. Prior to coming to Fernald, John has worked for the Ohio Department of Health and the Butler County Health Department as a Public Health Environmental Scientist, conducted Health Effects research for the USEPA, served with the Ohio EPA as an Environmental Scientist, provided consulting services with 2 nationally recognized Environmental Science and Engineering Firms, and operated a Private Environmental Safety and Health Consulting business for 8 years. In each capacity, John was required to develop and present training and/or presentations. Mr. Lippitt has also served as an Adjunct Associate Professor with the University of Cincinnati since 1983. The courses he has developed and taught include, Introduction to Environmental Controls and Solid and Hazardous Waste Management.

Scott Wallace, Team Member/Training
Scott Wallace, Senior Trainer in the Fluor Fernald Training Department, has taught classes for colleges and universities for the last fourteen years for undergraduate and graduate classes. He has been a member of the training department for approximately five years,
and previously worked as the HR manager for the Career Development Center and Educational Programs. Working closely with local and state universities and community colleges, Scott brought many new educational programs to our site for assisting workers with a plan for their "Life After Fernald."

Prior to his five years experience as an HR Manager and career counselor, Scott worked as a Total Quality Management Senior Specialist, and worked with all projects and most departments at Fernald performing CPI (continuous process improvement), project and organizational alignments, conflict resolution and team building sessions. Scott was recruited to Fernald in 1993 from GE, to assess, design and develop a supervisor/manager training program for professional development.

Prior to his work at Fernald, Scott worked as an Information Systems Manager at GE Aircraft, where he also worked as a CIM Engineer and GE Quality Assurance Software Engineer. Scott has two years of Mechanical Engineering, a B.A. in Psychology, an M.Ed in Adult Education, MBA and is finishing his work on a Ph.D. in Leadership and Change. He has also taught classes in Quality Assurance and Statistics, as well as participated in a Total Quality Management Quality Assurance Certificate Program through Xavier University and has taken classes at Case Western University. Scott is OSHA certified for teaching the 40-hour COSHA, Construction OSHA Safety program.

VERIFICATION OF PREVIOUS CORRECTIVE ACTIONS SUB-TEAM

Diana Sparks, Audit Team Member/Project Technical Support
Diana Sparks has over 13 years experience at the Fernald Closure Project, serving as the Quality Assurance/Quality Control Program Administrator, which includes; managing the site wide Nonconformances Report System, External and Internal Sitewide Commitment Tracking System, Integrated Assessment and Assessment Schedule databases, Auditor Certification Records, QC Certification Files, Records Custodian and Required Reading Coordinator. She has a Bachelor in Business Administration.
APPENDIX B
PERSONNEL CONTACTED DURING THE ASSESSMENT

Management Leadership
Safety, Health & RadCon Manager
Safety & Health Projects Operations Manager
Soils Supervisors (2)
Aquifer Project Manager
Water Monitoring Managers (2)
Air Monitoring Manager
ECP Tech Support (1)
WT&P Shift Supervisor
WT&P Field Supervisor
WT&P Shift Engineer
WT&P Operators (4)
Union President, Chemical Operators
Site Security Office (1)
Shipping operators (18)
Shipping supervisors (4)
Shipping Tech Support Staff (2)
D&D Project Director
D&D Project Supervisor
D&D Project Safety Representative

Employee Involvement
Electrician (4)
Laborer (13)
Teamster (3)
HEO (8)
Pipefitter (2)
Porter
Industrial Hygienist
Engineer
Chemical Operator (4)
CAAWT Operator
CAWWT Supervisor
Rad. Tech.
Maintenance Supervisor
Utilities Engineer (2)
Supervisor @ Silos 1 & 2
Safety Engineer
Information Management Specialist (2)
Training Rep.
QA/QC Specialist (2)
Rad. Supervisor
Records Management Rep. (2)
Millwright (2)
Instrument Mechanic (4)
Painter (2)  
Carpenter (3)  
Security Guard (2)  
Hazmat  
Welder  
Warehouse Attendant (2) 

**Worksite Analysis** 
- Health Physicist (Dosimetry - External)  
- RCT Supervisor (Silos Project) / Rad Engineer  
- RCT Supervisor (DS&DP) / Rad Engineer  
- PAAA Coordinator/QA Manager  
- Health Physicist (Dosimetry - Bioassay)  
- RCT Supervisor (Operations & Support)  
- RCT Manager (Programmatic)  
- Radiological Control Manager - Projects  
- Quality Control Specialist/Inspector (Silos)  
- PAAA Facilitator (QA)  
- RCT (O&S/Respiratory Protection)  
- Support Management  
- Medical Services Supervisor  
- ORPS Incident Investigator  
- Nuclear Systems Safety Manager/Project Safety Contact  
- Industrial Hygienist (Silos (3)) 

**Hazard Prevention and Control** 
- D&D Supervisor  
- D&D Manager  
- Maintenance Manager  
- Project Support Rep. (Waste Shipping)  
- Quality Control Rep.  
- Safety Manager  
- Safety Rep.  
- Medical Supervisor  
- HAZWAT  
- Carpenter  
- Pipefitter  
- Laborer  

**Safety & Health Training** 
- Heavy Equipment Operator (3)  
- HAZWAT (3)  
- Laborer (2)  
- IVLO Operator  
- Real Time Analyst (2)  
- Scientist  
- Radiological Control Technicians (4)  
- Chemists (2)  
- Engineer, Silos
Surveyor
Team Technical Expert, Soil Pile 7
Lab Technicians (2)
Environmental Waste Specialist (2)
Training Instructors (2)
Training Administrator
Restoration Technical Programs Support
Quality Control Representatives (2)
Safety Specialist (2)
Industrial Hygienist (3)
Utilities Engineer
Records Management Specialist
Environmental Scientist (3)
Foreman, Decontamination & Demolition Project
Manager, Training
Manager, Operations (2)
Manager, Radiological Control
Manager, Maintenance
Manager, Aquifer
Manager, Restoration Project
Director, Decontamination & Demolition Project
Director, Silos Project
Director, Waste Management Project
Supervisors, Silos Project (2)
Supervisor, Demolition, Soils & Disposal Project
Supervisor, Radiological Control
Supervisor, Water Monitoring
APPENDIX C
DOCUMENTS REVIEWED

Management Leadership
Safety Performance Requirement 1-10, Safety Walkthroughs
PL-3081, Safety Management System Description
Quality Assurance Assessment #2025631, Comprehensive Safety and Health Program Review, February 7, 2005
Contract for Moody Subcontractor, F01PB09314
Safety Walkthrough Reports (October 04 to present)
D&D Project, Safety Task Assignments (6)
NTSWAV Audit Report #2029017
Conduct of Operations Assessment, SP7, #2029126
RM-0016, Management Plan
RM-0021 Safety Performance Requirements Manual
Visitor Orientation Briefing

Employee Involvement
Management Assessment #2025631, “Comprehensive Safety and Health Program Review CY 2004”
PL-3081, “Safety Management System Description (SMSD)”, Rev. 9, dated 4/25/05

Worksite Analysis
"Let’s Talk" Newsletters (eDESK and hard copies)
Fluor Fernald Annual Report - 2005 ORPS Performance and Trend Indicators
Form FS-F-0170, “Supervisor’s Report of Injury” (Rev. 0)
Form FS-F-2154, “Employee Report of Occupational Illness/Injury” (Rev. 0)
Form FS-F-2592, Fluor Fernald – “Employee Concern/Suggestion Form” (Rev. 6)
MD-MSS-020, “Medical Documenting of Occupational Injury/Illness” (Rev. 3)
NTS Report Packages (All generated in 2005)
ORPS Database (All ORPS Reports for CY 2005 were reviewed)
PL-3079, “Fluor Fernald Medical Quality Management Plan” (Rev. 2)
PL-3081, "Safety Management System Description" (Rev. 9)
QA-0001, “Fluor Fernald Nonconformance Identification and Tracking System” (Rev. 17)
QA-0007, “Administration and Conduct of Surveillance Activities” (Rev. 8)
QA-0018, “Fluor Fernald Assessments Program”(Rev. 8)
Injury Investigator Access Database (“OSH Injury/Illness Review”)
RM-0020, “Radiological Control Requirements Manual” (Rev. 20)
RP-0021, “Radiological Control Administrative Requirements” (Rev. 7)
SH-0025, “Sitewide Lessons Learned [Program]” (Rev. 0)
SH-0026, "Conducting Event Deb briefings and Critiques" (Rev. 1)
*SH-0027, “Root Cause Analysis Using System Improvements Root Cause Tree” (Rev. 1)
*SH-1006, “Event Investigation and Reporting” (Rev. 5)
*“Where To Go With Safety Concerns” Poster (Maintained by Fluor Fernald ECP Program)
DOE Order DOE O 232.1A, “Occurrence Reporting and Processing” (6/15/2001)
“Employee Concern Program Status Report for 4th Quarter 2005” (all monthly reports generated for January through December 2005 were reviewed)
*Fernald Site Intranet (eDESK): Sitewide Lessons Learned Program Database and "Let's Talk" Newsletters

The 2005 Work Site Analysis hazard assessments captured in the Quality Assurance database totaled about 170. This total included major Standard Startup Reviews (SSRs), audits, surveillances and self-assessments. In addition, routine surveys, inspections and safety walkthroughs not captured in the Quality Assurance database are documented, reviewed and have follow-up.

**Hazard Prevention and Control**

2005 AEDO Logs (10 randomly selected entries)
2005 ORPS Reports (all 43 reports)
2005 PAAA NTS Reports (all 8 reports)
EP-0012, “Chemical Management” (Rev. 1)
EW-1022, “On-Site Tracking And Manifesting Of Bulk Material” (Rev. 8)
FD-1000, “Sitelist CERCLA Quality (SCQ) Assurance Project Plan” (Rev. 3)
HR-0145, “Employee Discipline” (Rev. 6)
PL-2352, “Fernald Closure Project Hazard Survey and Hazard Assessment“ (Rev. 1)
PL-3020, “FEMP Emergency Plan” (Rev. 9)
PL-3079, “Fluor Fernald Medical Quality Management Plan” (Rev. 2)
PL-3081, “Safety Management System Description” (Rev. 9)
RM-0020, “Radiological Control Requirements (RCR) Manual” (Rev. 20)
SH-0016, “Chemical Hazard Communication and Carcinogen Control” (Rev. 4)
SH-0017, “Respirator Issuance” (Rev. 11)
SH-0021, “FEMP Work Permit” (Rev. 11)
EM-0020, “Building Emergency Procedure” (Rev. 11)
EM-0030, “Silos Area Emergency Procedure” (Rev. 11)
EM-0035, “Waste Pit Remedial Action Project Area Emergency Response Procedure” (Rev. 3)

D&D Technical Approach Document for Silos Area
Traveler Package 40900-FLR-004, “Mobilization, Housekeeping, Decontamination and Process Piping Removal Activities for the Operable Unit 4 Silos 1&2 Remediation Facility”
2025631 - “Comprehensive Safety & Health Program Evaluation – 2004” [VPP/ISM Review]
2029227 - “Surveillance of Electrical Safety Requirements in SPRs”
2027382 - “Respirator Issuance per SH-0017”
2029469 - “Assessment of Personal Protective Equipment”
2026472 - “Silo 1&2 Remediation Facility – CRAD HS-1, Project Safety Documentation”
2029316 - “Assembly/Dismantlement of Scaffolding”
2029315 - “Overhead Hazard Prevention”
2026415 - “Silo 1&2 Remediation Facility – CRAD MP-3, Line Management Safety Program Implementation”
2029414 - “Inspection of Ladders”
2029208 - “Work Permits at the Silos Project”
2026793 - “General Operations Safety Inspections – Cells 5,6, and 7”
2026131 - “Verification of Compressed Gas Cylinders per OSHA 1926.650”
2026416 - “Silos 1&2 Remediation Facility – CRAD MP-5, Maintenance Program”
2026287 - “WT&P [Waste Treatment and Packaging] PM Program Assessment”
2028838 - “Calibration of Bridge Crane Load Cell 94-B192F”
2026325 - “Maintenance Self Assessment”

Safety & Health Training
FCP Organizational Charts dated October 2005
TQP-029, Managers and Supervisors Initial Training Program Description
Training Matrices and TQPs on EDESK
HAZWOPER Module 1 and 2 (LP#’s 002873 & 002874)
RM-0002, Training Program Requirements Manual, 12/13/02
TR-0002, Training Analysis And Program Design, Rev. 6, 4/11/01
TR-0004, Fernald Sitewide Training, Rev. 7, 8/3/04
TR-0007, Evaluation of Training, Rev. 4, 4/21/04
TR-0008, Training Materials Development And Approval, Rev. 4, 9/14/00
TR-0013, Implementation, Qualification, And Certification, Rev. 6, 6/17/04