



Department of Energy
Washington, DC 20585

November 25, 2008

MEMORANDUM FOR GEORGE J. MALOSH
DEPUTY DIRECTOR FOR FIELD OPERATIONS
OFFICE OF SCIENCE

JAMES A. TURI
MANAGER
THOMAS JEFFERSON SITE OFFICE

FROM: GLENN S. PODONSKY
CHIEF HEALTH, SAFETY AND SECURITY OFFICER
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Response to the Corrective Action Plan – “Independent Oversight Inspection of the Environment, Safety and Health Programs at the Thomas Jefferson National Accelerator Facility”

The Office of Health, Safety and Security’s Office of Independent Oversight has reviewed the corrective action plan (CAP) developed in response to the Independent Oversight report on the Inspection of Environment, Safety, and Health (ES&H) Programs at the Thomas Jefferson National Accelerator Facility, August 2008.

Our review indicates that the CAP includes actions that are directed towards resolution of the findings identified in the inspection report. The extent of condition review for finding C-1 and resultant actions to address the identification and communication of ES&H standards and requirements are noteworthy. However, while actions are appropriately directed at the findings, the details provided in the plan are limited. Determining the effectiveness of the actions will be critical in preventing recurrence and the plan does not adequately address effectiveness reviews in accordance with Department of Energy Order 414.1C, *Quality Assurance*, Attachment 4 Section 2.b. (1) (d), which requires in part that “for each finding the CAP must address - a general outline for the conduct of the proposed independent corrective action effectiveness review.” These comments have been discussed with site office representatives.

If you have any questions, please contact me at (301) 903-3777, or your staff may contact Thomas Staker, Director, Office of Environment, Safety and Health Evaluations, at (301) 903-5392.

cc w/attachment: Michael Kilpatrick, HS-1



E-Mail cc w/attachment: Marc Jones, SC-31
Scott Mallette, SC-TJSO
William Eckroade, HS-60
Thomas Staker, HS-64

Subject: FW: Podonsky to Malosh & Turi memo re HSS Resposne to TJNAF CAP (11/25/08)

From: "Jim Turi" <turi@jlab.org>

Date: Mon, 1 Dec 2008 11:29:28 -0500

To: "Scott Mallette" <mallette@jlab.org>, "Mont" <mont@jlab.org>, "Mike Dallas" <mdallas@jlab.org>, "Mary Logue" <logue@jlab.org>, "David Luke" <luke@jlab.org>, "Henry Brown" <hdbrown@jlab.org>, "Patty Hunt" <phunt@jlab.org>, "Steve Neilson" <sneilson@jlab.org>

FYI---no response back to HSS required

We just need to keep in mind as we move forward

Thanks,

Jim

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HS64-0075 signed memo to Malosh.pdf

Corrective Action Plan

For

Independent Oversight Inspection of Environment, Safety, and Health Programs at Thomas Jefferson National Accelerator Facility



**U.S. Department of Energy
Office of Science**

October 2008

**Corrective Action Plan
For the Independent Oversight Inspection of
Environment, Safety, and Health Programs
At Thomas Jefferson National Accelerator Facility**

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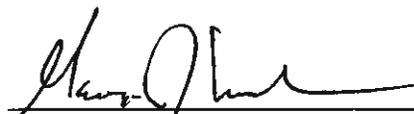
Recommended for Approval:



**James A. Turi, Manager
Thomas Jefferson Site Office
Office of Science**

Date: 10/23/08

Approved:



**George J. Malosh, Deputy Director
for Field Operations
Office of Science**

Date: 10/23/08

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ACRONYMS AND DEFINITIONS

BMP	Best Management Practice
CAP	Corrective Action Plan
CATS	Corrective Action Tracking System
DOE	United States Department of Energy
ES&H	Environment, Safety, and Health
HSS	Office of Health, Safety, and Security
ITP	Individual Training Plan
JSA	Jefferson Science Associates, LLC
Jefferson Lab	Thomas Jefferson National Accelerator Facility
OFI	Opportunities for Improvement
QA	Quality Assurance
SC	Office of Science
TJNAF	Thomas Jefferson National Accelerator Facility (Jefferson Lab or JLab)
TJSO	Thomas Jefferson Site Office

EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE) Office of Independent Oversight, within the Office of Health, Safety, and Security (HSS), conducted an inspection in June 2008 of the environment, safety, and health (ES&H) programs at the Thomas Jefferson National Accelerator Facility (TJNAF).

Within DOE, the Office of Science (SC) has line management responsibility for TJNAF. SC provides programmatic direction and funding for research and development, facility infrastructure activities, and ES&H implementation at TJNAF. At the site level, the TJSO Manager has line management responsibility for TJNAF operations. Under contract to DOE, TJNAF is managed and operated by Jefferson Science Associates, L.L.C. (JSA), which is a partnership involving the Southeastern Universities Research Associates and Computer Sciences Corporation.

The HSS final report was issued to the Office of Science (SC) on August 22, 2008. As a result of the report not being physically received by the Site Office until September 2, 2008, HSS and SC agreed to extend the deadline for the Corrective Action submittal until November 3, 2008. The inspection resulted in five findings: one for the TJSO and four for JSA. The five findings are listed below:

- **TJSO Finding D-1** – TJSO oversight of site office and contractor corrective action management does not provide assurance that problem resolution is fully effective at TJNAF, as required by DOE Order 226.1A, *Implementation of DOE Oversight Policy*.
- **JSA Finding C-1** - Site forklift operations and training do not meet several Worker Safety and Health Program Rule (10 CFR 851) and ES&H Manual Requirements.
- **JSA Finding D-2** - The TJNAF assessment program is not fully effective to provide sufficient frequency, scope, and rigor and assurance of the adequacy of safety programs as required by DOE Orders 226.1A, *Implementation of DOE Oversight Policy*, and 414.1C, *Quality Assurance*; the TJNAF Contractor Assurance System; the ISM System Descriptions; and associated plans, policies, and procedures.
- **JSA Finding D-3** – The TJNAF issues management program is not fully effective in ensuring that ES&H-related events, injuries, conditions, and program and performance deficiencies are rigorously categorized, analyzed, and corrected, and recurrence controls are established as required by DOE Orders 226.1, *Implementation of DOE Oversight Policy*, and 414.1C, *Quality Assurance*.
- **JSA Finding D-4** – TJNAF has not established sufficient processes nor implemented a fully effective event investigation and reporting program that rigorously identifies, investigates, reports, and prevents the recurrence of ES&H related events and injuries as required by DOE Order 226.1A, *Implementation of DOE Oversight Policy*.

This Corrective Action Plan (CAP) presents TJSO's and JSA's strategy for addressing the findings and their root causes to remedy the existing vulnerability and prevent recurrence. The TJSO Corrective Action Plan is located in Attachment 1, and the JSA Corrective Action Plan is located in Attachment 2. Of particular note, Finding C-1 required compensatory measures which have been implemented to address the immediate issue. The corrective actions delineated in CAP C-1 in Attachment 2, have been developed to address the causal factors for the purpose of establishing a long-term solution to the specific finding.

The overall Corrective Action Plan, including both TJSO and JSA portions, is approved by the SC Deputy Director for Field Operations. The CAP implementation meets Corrective Action Management Program expectations of DOE Order 414.1C, *Quality Assurance*, and DOE O 470.2B, *Independent Oversight and Assurance Program*. Causal analyses, extent of condition reviews, and evaluation for recurrence were performed by both TJSO and JSA prior to the development of the CAP. Corrective actions will be entered in the DOE Corrective Action Tracking System (CATS) for action tracking and reporting.

Closure of corrective actions will be independently verified. A formal report, meeting the requirements specified in DOE Order 414.1C, will be prepared and approved by the TJSO Manager within six (6) months after all CAP actions are complete.

1.0 CORRECTIVE ACTION PLAN SUMMARY

The TJSO CAP is located within Attachment 1, and contains both a summary description of Finding D-1, and an itemized table of the corrective actions (Attachment 1, CAP D-1). A responsible person is assigned to each corrective action commitment, as well as completion date. Completion of all TJSO actions, including effectiveness reviews, are to be completed by April 2010.

The JSA CAP is located in Attachment 2, including summary descriptions of each of the (4) findings, and a table of specific actions to be taken for each finding (Attachment 2, CAPs C-1, D-2, D-3, and D-4). A responsible person is assigned to each corrective action commitment, as well as a completion date. Completion of all JSA actions are to be completed by October 29, 2010.

The corrective actions were assembled to address the causal components identified through formal causal analysis and extent of condition reviews, as summarized for each finding in Attachment 1 and 2. The CAP development for TJSO and JSA included subject matter experts in the relevant topical area and line management responsible for the resolution of the finding. The members of the corrective action plan development teams reviewed findings and opportunities for improvement identified in the inspection report. These were mapped against already-existing corrective action plans and activities, reviewed for possible recurrence, and trended to determine the existence of any systemic issues. As needed, extent of condition reviews were also performed, and any compensatory measures taken during, and immediately following the HSS inspection, were considered for inclusion into the appropriate local instructions.

2.0 CAP TRACKING AND REPORTING

Corrective Actions will be entered in the DOE Corrective Action Tracking System (CATS) for action tracking and reporting, in accordance with DOE Order 470.2B. These actions are also to be entered in TJSO and JSA issue management databases, in accordance with their respective local issues management instructions. TJSO will monitor progress on the actions to ensure the actions are appropriately closed. TJSO will verify completion of both TJSO and JSA actions in this CAP prior to final closure in DOE's CATS.

3.0 CORRECTIVE ACTION EFFECTIVENESS REVIEW

Upon completion of the corrective actions, effectiveness reviews will be conducted to verify that the actions effectively addressed the causal factors, and in turn adequately prevent recurrence of the findings. The review will evaluate a sufficient number of corrective actions to allow an objective, accurate assessment of effectiveness in resolving the finding. If the corrective actions are found to be ineffective, additional actions will be developed.

ATTACHMENT 1

TJJO Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

FINDING D-1

TJJO oversight of site office and contractor corrective action management does not provide assurance that problem resolution is fully effective at TJNAF, as required by DOE 226.1A, Implementation of DOE Oversight Policy.

CAUSAL ANALYSIS SUMMARY D-1

The apparent causes were evaluated and mapped to the cause codes contained in DOE Guide 231.1-2. As a result of this analysis, the two underlying causes associated with this finding included a determination that the written instructions were insufficient, and that TJJO management had not implemented a fully effective issues management process.

An extent of condition analysis was conducted after full review of the finding statement, supporting information contained in the HSS report, and the causal factors identified above. It was determined that the finding represents a programmatic weakness, and the vulnerabilities extended beyond the ES&H program, and exist in other functional areas of Site Office oversight.

CAP SUMMARY D-1

The objective of this CAP is to improve the corrective action management process used by the Site Office, to ensure adequate closure of issues identified by both self assessment activities and contractor oversight. To achieve this objective, TJJO's local instructions will be revised to contain sufficient description of when and where causal analysis and effectiveness reviews are warranted. Upon completion of the initial actions, training of TJJO staff and management will be performed to ensure roles and responsibilities associated with the revised instruction are clearly understood.

It is expected that the corrective actions identified in this CAP will adequately cover the scope of oversight areas and issues management that have been determined to extend beyond the subject area of ES&H, thereby addressing this programmatic vulnerability.

ATTACHMENT 1

TJSO Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
D-1: TJSO oversight of site office and contractor corrective action management does not provide assurance that problem resolution is fully effective at TJNAF, as required by DOE 226.1A, Implementation of DOE Oversight Policy.	1.0 IMPROVEMENT PLANNING			
	D1.1. Conduct a gap analysis on TJSO local instructions to ensure that corrective action management meet the requirements of DOE Order 226.1, including an evaluation of the provisions for Causal Analyses, Effectiveness Reviews, and TJSO management roles, responsibilities and initiatives.	D1.1 Gap Analysis	D1.1 David Luke	D1.1 April 6, 2009
	2.0 DOCUMENTATION AND TECHNOLOGY IMPROVEMENTS			
	D1.2. Revise TJSO's local instructions to address the gaps identified by D1.1.	D1.2 Revised Instructions	D1.2 David Luke	D1.2 August 14, 2009
	3.0 TRAINING & COMMUNICATION			
	D1.3. Conduct training on revised or modified TJSO local instructions, as identified by D1.2.	D1.3 Training Records	D1.3 David Luke	D1.3 October 9, 2009
	4.0 EFFECTIVENESS MEASUREMENT			
D1.4. Conduct an Effectiveness Review on Actions D1.1, D1.2, and D1.3 to assess if casual analysis determinations have been adequately mitigated.	D1.4 Effectiveness Review Report	D1.4 Steve Neilson	D1.4 April 5, 2010	

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

FINDING C-1

Site Forklift operations and training do not meet several Worker Safety and Health Program Rule (10 CFR 851) and ES&H Manual Requirements.

CAUSAL ANALYSIS SUMMARY C-1

A causal analysis was performed and found that the relevant safety standards and requirements were not always identified, and when identified were not always effectively communicated through JSA procedures and training. The results of a previous causal analysis, conducted in response to a specific forklift operating event observed by the HSS inspection team, was also reviewed during the CAP C-1 development.

An extent of condition analysis was completed as part of the CAP C-1 planning process. Weaknesses were not identified elsewhere in the material handling program; however, it was determined that the inconsistency related to the identification and communication of ES&H standards and requirements does likely impact other programs. Consequently, CAP C-1 includes corrective actions developed to address the entire ES&H program.

CAP SUMMARY C-1

The objectives of CAP C-1 are two fold. First, to immediately and permanently eliminate any weaknesses within the forklift program. During and immediately after the HSS inspection, several compensatory actions were taken to mitigate the potential hazards within the forklift program. These compensatory actions included:

- Administrative control of all forklift attachments until proper applications were documented
- Immediate revisions and presentation of forklift attachment specific training materials
- Upgrades to all forklift and attachment markings
- Upgrades to forklift and attachment inspection processes

These and other relevant changes will be translated into permanent program improvements through the revision of ES&H Manual chapters and training content.

In parallel, improvements will also be made to the process JSA staff uses to identify relevant program standards and requirements. The document production and review process will be changed to ensure that the proper standards and requirements appear within existing and future JSA documents and training materials.

Implementation of CAP C-1 will result in several permanent program enhancements. Procedures will be revised that will provide improved guidance to ES&H Manual chapter authors regarding the extent of the research required during the standards/requirements identification phase of procedure development. The procedure and training material review process will be improved to have a focus area on verification that relevant standards/requirements have been properly identified and communicated. Due to the immediate

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

nature of the risk, forklift procedures and training materials will be revised immediately to eliminate any weaknesses to that program.

During the causal/extent of condition analysis, CAP Team C-1, along with other CAP Teams, also identified the need for improvement of the methods in which ES&H standards/requirements are being communicated to the workers outside of training. Implementation of CAP C-1 will identify best practices for efficiently communicating this type of information to a workforce with a variety of needs regarding breadth and depth of information. Improved communication methods resulting from CAP C-1 will be applied to relevant activities in CAPs D-2, D-3, and D-4.

ATTACHMENT 2

**JSA Corrective Action Plan
for the Independent Oversight Inspection of
Environment, Safety, and Health Programs at TJNAF**

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
C-1: Site forklift operations and training do not meet several Worker Safety and Health Program Rule (10 CFR 851) and ES&H Manual Requirements.	1.0 IMPROVEMENT PLANNING			
	C1.1.1 Develop corrective actions based on causal/extent of condition analysis of findings, Validation Appendices, and other information related to the JSA material handling program	C1.1.1 TJNAF Corrective Action Plan	C1.1.1 Mary Logue	C1.1.1 November 3, 2008
	C1.1.2 Benchmark best practices for communicating ESH&Q information to all audiences	C1.1.2 Findings and Recommendations Report	C1.1.2 Mary Logue	C1.1.2 February 20, 2009
	2.0 DOCUMENTATION AND TECHNOLOGY IMPROVEMENTS			
	C1.2.1 Revise ES&H Manual development and revision process to ensure that standards and requirements are identified and included	C1.2.1 Revised procedure	C1.2.1 Mary Logue	C1.2.1 May 22, 2009
	C1.2.2 Revise ES&H Manual chapters related to forklifts to reflect current standards and requirements	C1.2.2 Revised procedures	C1.2.2 Rusty Sprouse	C1.2.2 April 25, 2009
	C1.2.3 Revise ES&H training development and revision process to ensure that standards and requirements which are identified in ES&H Manual chapters are translated to relevant training	C1.2.3 Revised procedure	C1.2.3 Rhonda Barbosa	C1.2.3 May 22, 2009
	C1.2.4 Revise forklift training to incorporate all relevant standards and requirements	C1.2.4 Revised training content	C1.2.4 Rusty Sprouse	C1.2.4 April 25, 2009

ATTACHMENT 2

**JSA Corrective Action Plan
for the Independent Oversight Inspection of
Environment, Safety, and Health Programs at TJNAF**

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
	3.0 TRAINING & COMMUNICATION			
	C1.3.1 Insert requirement to complete revised material handling training into individual training plans (ITPs)	C1.3.1 Example ITP entry	C1.3.1 Rusty Sprouse	C1.3.1 July 24, 2009
	C1.3.2 Initiate revised material handling training	C1.3.2 Record of first training session	C1.3.2 Rhonda Barbosa	C1.3.2 August 23, 2009
	4.0 EFFECTIVENESS MEASUREMENT			
	C1.4.1 Conduct an effectiveness review	C1.4.1 Effectiveness review report	C1.4.1 Mary Logue	C1.4.1 January 30, 2010

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

FINDING D-2

The TJNAF assessment program is not fully effective to provide sufficient frequency, scope, and rigor and assurance of the adequacy of safety programs as required by DOE Orders 226.1A, *Implementation of DOE Oversight Policy*, and 414.1C, *Quality Assurance*; the TJNAF Contractor Assurance System; the ISM System Descriptions; and associated plans, policies, and procedures.

CAUSAL ANALYSIS SUMMARY D-2

The evaluation of finding D-2 has determined that the majority of weaknesses identified during the review of Jefferson Lab's Assessment Program are linked to a lack of management direction/ communication, leading to a lack of organizational focus in the integration and implementation of assessment policy and procedure. These weaknesses, in whole or in part, could affect all aspects of JSA's self assessment program.

CAP SUMMARY D-2

The overall objective of CAP D-2 is to establish the proper frequency and improve the scope and rigor of JSA's assessments such that ESH&Q performance can be consistently examined across all organizations and programs at TJNAF. The approach is to improve the planning, conduct, and reporting of assessment results through changes to procedures, training, and other communication processes.

The results of the benchmark study outlined in CAP C-1 will be incorporated into revised processes to improve the communications associated with the assessment program. In summary, corrective action D-2 will result in increased frequency, scope and rigor; and a more effective assessment program including defined authority, accountability, and schedules.

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
D-2: The TJNAF assessment program is not fully effective to provide sufficient frequency, scope, and rigor and assurance of the adequacy of safety programs as required by DOE Orders 226.1A, <i>Implementation of DOE Oversight Policy</i> , and 414.1C, <i>Quality Assurance</i> ; the TJNAF Contractor Assurance System; the ISM System Descriptions; and associated plans, policies, and procedures.	1.0 IMPROVEMENT PLANNING			
	D2.1.1 Develop corrective actions based on causal analysis of findings, Validation Appendices, and other information related to the JSA assessment program	D2.1.1 TJNAF Corrective Action Plan	D2.1.1 Mary Logue	D2.1.1 October 31, 2008
	2.0 DOCUMENTATION AND TECHNOLOGY IMPROVEMENTS			
	D2.2.1 Revise Quality Assurance (QA) procedure <i>Integrated Assessment Schedule</i> to improve communication from senior staff to line organizations regarding assessment schedule and value	D2.2.1 Revised procedure	D2.2.1 Mary Logue	D2.2.1 July 23, 2009
	D2.2.2 Revise QA assessment procedures to clarify roles and responsibilities, assessor qualifications, review process, and corrective action tracking	D2.2.2 Revised procedures	D2.2.2 Mary Logue	D2.2.2 October 9, 2009
	D2.2.3 Revise QA procedure <i>Management of Contract Requirements</i> to clarify roles, responsibilities and communication process	D2.2.3 Revised procedure	D2.2.3 Mary Logue	D2.2.3 November 27, 2009
	D2.2.4 Revise assessment training content to include new information	D2.2.4 Revised training content	D2.2.4 Rhonda Barbosa	D2.2.4 February 19, 2010
	3.0 TRAINING & COMMUNICATION			
	D2.3.1 Enter requirement to complete revised training into ITPs	D2.3.1 Example ITP entry	D2.3.1 Rhonda Barbosa	D2.3.1 May 21, 2010
	4.0 EFFECTIVENESS MEASUREMENT			
D2.4.1 Conduct an effectiveness review	D2.4.1 Effectiveness review report	D2.4.1 Mary Logue	D2.4.1 October 29, 2010	

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

FINDING D-3

The TJNAF issues management program is not fully effective in ensuring that ES&H-related events, injuries, conditions, and program and performance deficiencies are rigorously categorized, analyzed, and corrected, and recurrence controls are established as required by DOE Orders 226.1A, Implementation of DOE Oversight Policy, and 414.1C, Quality Assurance.

CAUSAL ANALYSIS SUMMARY D-3

The evaluation of finding D-3 has determined that the weaknesses identified during the review of Jefferson Lab's Issues Management Program result from a lack of management direction and organizational focus in the development, integration, and implementation of relevant policy and procedure documents.

CAP SUMMARY D-3

The corrective action plan developed from this review focuses on enhancing the Lab's approach to integrating the appropriate standards and requirements into our existing documentation while ensuring that this material is consistent, comprehensible, and complete. The results of the benchmark study outlined in CAP C-1 will be incorporated into revised processes to improve the communications associated with the assessment program.

Further, the plan requires that we expand the use of the JSA Corrective Actions Tracking System to encompass significance level 0 and 1 issues in order to facilitate evaluation and trending of all events and issues. The routine meeting of the JSA CATS Users Group will help ensure that our issues management processes continue to benefit from worker feedback. The changes to this process will provide a demonstrably rigorous process of categorization, record keeping, analysis, and recurrence prevention.

ATTACHMENT 2

**JSA Corrective Action Plan
for the Independent Oversight Inspection of
Environment, Safety, and Health Programs at TJNAF**

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
D-3: The TJNAF issues management program is not fully effective in ensuring that ES&H-related events, injuries, conditions, and program and performance deficiencies are rigorously categorized, analyzed, and corrected, and recurrence controls are established as required by DOE Orders 226.1A, Implementation of DOE Oversight Policy, and 414.1C, Quality Assurance.	1.0 IMPROVEMENT PLANNING			
	D3.1.1 Develop corrective actions based on causal analysis of findings, Validation Appendices, and other information related to the JSA issues management program	D3.1.1 TJNAF Corrective Action Plan	D3.1.1 Mary Logue	D3.1.1 November 3, 2008
	2.0 DOCUMENTATION AND TECHNOLOGY IMPROVEMENTS			
	D3.2.1 Revise QA procedure <i>Issues Management</i> to clarify reporting requirements and terminology	D3.2.1 Revised procedure	D3.2.1 Mary Logue	D3.2.1 October 23, 2009
	D3.2.2 Provide input into ES&H Manual development and revision process (Corrective Action C1.2.1) to clarify new and/or revised procedure review process, roles, and responsibilities	D3.2.2 Revised procedure	D3.2.2 Mary Logue	D3.2.2 May 22, 2009
	3.0 TRAINING & COMMUNICATION			
	D3.3.1 Schedule routine meetings in FY 2009 with the JSA CATS users group to discuss additional improvements and communication methods	D3.3.1 CATS users group meeting schedule	D3.3.1 Mary Logue	D3.3.1 April 17, 2009
	D3.3.2 Develop a plan to communicate changes to all affected entities	D3.3.2 Communication Plan	D3.3.2 Mary Logue	D3.3.2 October 23, 2009
	4.0 EFFECTIVENESS MEASUREMENT			
	D3.4.1 Conduct an effectiveness review	D3.4.1 Effectiveness review report	D3.4.1 Mary Logue	D3.4.1 April 1, 2010

ATTACHMENT 2

JSA Corrective Action Plan for the Independent Oversight Inspection of Environment, Safety, and Health Programs at TJNAF

FINDING D-4

TJNAF has not established sufficient processes nor implemented a fully effective event investigation and reporting program that rigorously identifies, investigates, reports, and prevents the recurrence of ES&H-related events and injuries as required by DOE Order 226.1A, Implementation of DOE Oversight Policy; and DOE Manual 231.1, Occurrence Reporting and Processing of Operations Information.

CAUSAL ANALYSIS SUMMARY D-4

The causal analysis indicated that there was not an effective mechanism currently in place that communicates event requirements or responsibilities to the appropriate levels. Currently, data is not being analyzed for trends, thus the focus is on error detection instead of prevention. Additionally, there is significant variation in the quality of both reports and corrective action proposals.

CAP SUMMARY D-4

The objective of CAP D-4 is to clarify the roles and responsibilities of all workers and improve the consistency and rigor, with which JSA identifies, investigates, reports, and prevents recurrence of events through changes to tools and processes. The results of the benchmark study outlined in CAP C-1 will be incorporated into revised processes to improve the communications associated with this program.

Major activities will include the revision of the procedures which guide employees on event investigation and ensuring that all program requirements are clearly and consistently communicated in procedures and training. There will also be a focus on increased management use of metrics, and facilitating investigations, Root Cause Analysis, and corrective actions development via a core group of trained gatekeepers.

ATTACHMENT 2

**JSA Corrective Action Plan
for the Independent Oversight Inspection of
Environment, Safety, and Health Programs at TJNAF**

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
D-4: TJNAF has not established sufficient processes nor implemented a fully effective event investigation and reporting program that rigorously identifies, investigates, reports, and prevents the recurrence of ES&H-related events and injuries as required by DOE Order 226.1A, Implementation of DOE Oversight Policy; and DOE Manual 231.1, Occurrence Reporting and Processing of Operations Information.	1.0 IMPROVEMENT PLANNING			
	D4.1.1 Develop corrective actions based on causal analysis of findings, Validation Appendices, and other information related to the JSA event investigation and reporting program	D4.1.1 TJNAF Corrective Action Plan	D4.1.1 Mary Logue	D4.1.1 November 3, 2008
	D4.1.2 Conduct Gap Analysis of JLab's current process against DOE requirements, including field element requirements	D4.1.2 Gap Analysis Report	D4.1.2 Mary Logue	D4.1.2 April 24, 2009
	D4.1.3 Benchmark similar programs at other DOE facilities	D4.1.3 Benchmark Report	D4.1.3 Mary Logue	D4.1.3 April 24, 2009
	D4.1.4 Combine D4.1.2 and D4.1.3 into implementation plan	D4.1.4 Implementation Plan	D4.1.4 Mary Logue	D4.1.4 April 24, 2009
	2.0 DOCUMENTATION AND TECHNOLOGY IMPROVEMENTS			
	D4.2.1 Revise ESH&Q Manual to comply with DOE Event Investigation and Reporting requirements	D4.2.1 Revised ESH&Q Manual	D4.2.1 Mary Logue	D4.2.1 November 6, 2009
	D4.2.2 Ensure JLab's Event Investigation and Reporting system incorporates the results of D4.2.1 above	D4.2.2 Desktop Instructions or Users Manual for system(s)	D4.2.2 Mary Logue	D4.2.2 February 7, 2010
	3.0 TRAINING			
	D4.3.1 Identify personnel to be trained	D4.3.1 Training Roster	D4.3.1 Mary Logue	D4.3.1 April 8, 2010
	D4.3.2 Track and conduct training on critical Event Investigation and Reporting elements for personnel identified in D4.3.1	D4.3.2 ITP entries	D4.3.2 Rhonda Barbosa	D4.3.2 May 24, 2010

ATTACHMENT 2

**JSA Corrective Action Plan
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Environment, Safety, and Health Programs at TJNAF**

Finding	Corrective Action	Closure Evidence	Person Responsible	Expected Completion Date
	4.0 EFFECTIVENESS MEASUREMENT			
	D4.4.1 Establish a metric to monitor the recurrence of ES&H related events	D4.4.1 Monthly Key Performance Indicator display	D4.4.1 Mary Logue	D4.4.1 May 9, 2010
	D4.4.2 Conduct an effectiveness review	D4.4.2 Effectiveness review report	D4.4.2 Mary Logue	D4.4.2 October 29, 2010