Tetra Tech FW, Inc.

QUALITY INCIDENT REPORT

PART I

DATES & LOCATION

Date of Incident: July 1, 2004 Date of Investigation Report: September 8, 2004

Office/Project Location: Fort McClellan Organization Or Department: Remediation/Construction – UXO

TYPE OF INCIDENT/DEVIATION

X Corporate Procedure Deviation X Project Plan/Procedure Deviation Project Plan/Procedure Not In Place
Quality System Failure X Performance Failure
X Other, please describe - Work Performed Inconsistent with Contract Requirements

INCIDENT DESCRIPTION & INVESTIGATION

Means Of Identification:

Client Concern	Nonconformance Report	Audit Report	Corrective Action Request
Supervisory Review	Peer Review	Project Review	X Other, please describe - ADEM Emergency Administrative Order issued on July 30, 2004

Incident Cost (e.g., Cost of Rework) Estimated: $ 500,000 Actual: $ Unknown

Client Impact: Impacts not yet fully known. Client has been ordered to stop all UXO work until the Order is resolved. TtFW's relationship with Client has suffered and impacts to ongoing and future procurements are yet to be determined. The Client has already issued to TtFW an unfavorable Performance Assessment Report and a Cure Notice, both dated August 12, 2004, to which TtFW has responded.

Issue Summary: Summarize the concern, problem, or situation that needs to be addressed. Identify who was involved and their role (e.g., performer, inspector, auditor).

On July 1, 2004, a team of UXO technicians was clearing Segment 56 of the Roads, Firebreaks and High Use Areas (Task Order 20). Fuzed mortars were excavated and moved into areas not included in the Contract, but that were slated for clearance at a later date (even though the area north of the road adjacent to Segment 56 was technically a No Further Action area, all employees knew that it was to be cleared at a later date). On July 21, ADEM conducted an inspection of the area in question. On July 30, ADEM issued Emergency Administrative Order 04-086-EHW to U.S. Army Garrison, U.S. Army Corps of Engineers, Tetra Tech FW, Inc., and U.S. Fish and Wildlife Service. In response to the Order, on August 11-12, a total of 24 items moved from Segment 56 to the areas to be cleared at a later date were recovered by TtFW. Interviews of employees revealed an additional item may have been moved from Segment 62 or 63. ADEM indicated it also had non-specific information concerning inappropriate activities in Segment 55. From August 30 through September 2, the allegations in these three segments were investigated. One fuzed item was recovered near Segment 63 and an unfuzed item that appeared to have been moved was located near Segment 55, both in areas to be cleared later. As of September 3, all fuzed items known or alleged to have been moved have been recovered and will be disposed properly upon receipt of classification instructions. An appropriate remedy related to other aspects of the Order is being negotiated (both the Army and TtFW have appealed various sections of the Order and are awaiting a hearing should an agreement on an appropriate remedy not be reached).

Personnel Involved/Role: Charles (Mic) Doak, SUXOS and Site Manager - responsible for supervision of field activities and site UXO personnel. Joseph (Dave) Leshko, Team Leader - responsible for direction and supervision of the intrusive team. Brian Todd Steelman, Phil Whitley, Ron Ellington, and Jathan Futral, Intrusive Team - UXO Technicians responsible for field execution of anomaly excavation and identification. Interview summaries for these individuals are attached.

PART II

CAUSE ANALYSIS

Immediate Cause(s): What immediate actions and/or conditions contributed to this incident (see guidance, below)?

1. **Improper Execution of Specified Procedures:** By moving the fuzed items into areas outside the scope of the Contract, the Team failed to follow the work plan, as well as project and company procedures for the handling of fuzed UXO.

2. **Failure to Communicate**: With respect to Segment 56, the field personnel were not aware of the proper application of the 1 in 600 rule and, as a result, exercised poor judgment and made an incorrect decision. Additionally, the SUXOS/Site Manager failed to communicate with the Project Manager or Program Manager.

3. **Failure to Comply with Contract Requirements:** Moving fuzed items violated the Basic Safety Concepts for handling UXO that were incorporated into the basic Contract, as well as the work plan and company procedures.

Basic Cause(s): What personnel, job and/or management system factors contributed to the deficiency (see guidance, below)?

1. **Knowledge:** The Team mistakenly assumed that finding a fuzed practice mortar would result in a requirement for use of "Bud Lites" and removal of the 1 in 600 rule provisions. The SUXOS provided direction to the Team Leader that the segment had to be completed that day. This direction was allegedly misinterpreted to mean there could be no justification for an extension of the schedule.

2. **Motivation:** Segment 56 was the final segment on the Task Order and the Team apparently felt it necessary to complete work on the segment that day in order to start the next task the following week. The Team Leader believed there was precedent for this practice, as the Team Leader had observed the SUXOS moving a fuzed item in Segment 63 in mid-June. The clearance of Segment 56 was on the final day prior to a long holiday weekend and if the demolition operations could not be accomplished within the 10-hour workday rules mandated by Corps' procedures, the items would have to be guarded or approval for overtime to conduct demolition would have to be obtained.

3. **Leadership:** Poor judgment and poor communications were major factors in the incident. The SUXOS exercised poor judgment in not providing clear direction to the Team Leader and in not informing the Project Manager or the Program Manager of finding fuzed items in the segment. The SUXOS failed to identify a need for additional field time to deal with the potential for fuzed practice mortars. The SUXOS set a poor example by moving a fuzed item in segment 63. The Team Leader also exercised poor judgment in not informing the Project Manager or Program Manager.

4. **Supervision:** Poor supervision in the field by SUXOS and Team Leader. Corps requirements prevent proper supervision by the Project Manager and Program Manager during clearance activities. Prior to visiting a work site, the Project Manager and Program Manger are required to request permission to visit the work site (within the exclusion zone) and must be escorted at all times. This precludes unannounced site inspections by management.

ACTION PLAN

Remedial Actions – What has been and/or should be done to control each of the causes listed above?

Action	Person Responsible	Target Date	Completion Date
Interview all Team Members	David Keller and Blank Rome LLP, with support from Art Holcomb (or some combination thereof)	9/1/2004	9/3/2004 (includes follow up interviews with several Team Members)
Interview additional employees and former employees	David Keller, Bart Devine, and Blank Rome LLP, with support from Art Holcomb (or some combination thereof)	9/1/2004	9/8/2004
Determination of appropriate action for involved personnel	David Keller	8/3/2004	8/3/2004 and ongoing
Revise procedures to address Job Site Conduct	Frank Jones	9/30/2004	Ongoing
Provide guidance for Job Site Training in SOP	David Keller	9/1/2004	Ongoing
Respond to Cure Notice	Art Holcomb	8/18/2004	8/18/2004
Respond to Performance Assessment Report	Art Holcomb	8/23/2004	8/23/2004
Additional Ethics and Compliance Training Company-wide. All staff required to sign ethics and compliance commitment.	Marie Fattel	8/27/2004	Ongoing

Deleted: ¶

UXO group reorganized. National UXO QA/QC Leads transferred from UXO Organization to ESQ Organization (outside of operations) reporting to President to provide additional checks and balances.	David Keller	9/1/2004	9/1/2004

PERSONS PERFORMING THE REVIEW			
Investigator's Name: (Print)	David Keller	Sign:	Date:
Investigator's Name: (Print)	Bart Devine	Sign:	Date:
Investigator's Name: (Print)		Sign:	Date:
MANAGEMENT REVIEW			
Project/Office Manager (Print)	Art Holcomb	Sign:	Date:
Comments:			
Quality Manager (Print)	Don Welch	Sign:	Date:
Comments:			

PERSONNEL INTERVIEWS

Employees Involved in the Segment 56 Incident

Charles (Mic) Doak	Site Manager/SUXOS during incident (former employee)
Joseph (Dave) Leshko	Team Leader during incident (former employee)
Ron Ellington	UXO Tech III during incident (former employee)
Phil Whitley	UXO Tech II during incident (former employee)
Brian Todd Steelman	UXO Tech II during incident (current employee)
Jathan Futral	UXO Tech I during incident (former employee)

Current Fort McClellan Employees

Art Holcomb	Program Manager
Todd Biggs	Project Manager
Grady Bendel	Site Manager/SUXOS (UXO Quality Control during incident)
Jason Soth	UXO Tech II/Tech III

Current TtFW Employees Formerly Assigned to Fort McClellan

Jim Ennis	Former Site Manager (Project Manager in Iraq)
Steve Neill	Former Site Manager/SUXOS (Corporate UXO Safety Manager)
Cecil Taylor	Former SUXOS/UXOSO (Site Manager in Iraq)

Former Employees Previously Assigned to Fort McClellan

Eugene Mikell	Former Team Leader
Earl Jacobs	Former Team Leader
Jacob Clement	UXO Tech II
Brian Gentry	UXO Tech II

Overview of Interviews

Seventeen current and former TtFW employees were interviewed. This includes the six personnel involved in the Segment 56 incident (one of whom is still a TtFW employee), four current employees still assigned to the Fort McClellan project, three current employees previously assigned to the Fort McClellan project, and four former employees previously assigned to the Fort McClellan project. The interviews of former employees focused on Team Leaders and UXO Technicians that worked in the segments involved in the incidents, as well as other removal actions at Fort McClellan. All interviewed stated that other than the items identified as being moved in segments 56 and 63, they were not aware of, nor had they heard of, any fuzed items being moved from an area in Fort McClellan that TtFW was clearing into another area that was not part of TtFW's Contract.

Prior to work commencing in Segment 56 on July 1, the SUXOS provided direction to the Team Leader that work had to be completed that day. This direction was allegedly misinterpreted to mean there could be no justification for an extension of the schedule. Segment 56 was the final segment on the Task Order and, because of the SUXOS' direction to the Team Leader, the Team Leader believed it was necessary to complete the

segment by the end of the day July 1 in order to start the next task order the following week. The Team Leader believed there was precedent for moving fuzed practice mortars as the Team Leader had observed the SUXOS moving a fuzed item in Segment 63 in mid-June. Also, several members of the Team mistakenly assumed that once a fuzed practice mortar was found, the 1 in 600 rule would no longer apply, and all mortars thereafter would have to be dug using engineering controls such as the "Bud Lite" structure, thus requiring a much longer time to clear the segment. Engineering controls were considered by the Team to be cumbersome and time consuming. Further, most of the Team believed that there were no safety issues involved in moving the items in light of their military UXO training and based on the fact that the items were moved into an area that would be cleared later that already contained similar items. Individual summaries of the six personnel involved in the incident follow.

Interview Summaries of Individuals Involved in the Incidents

Charles (Mic) Doak – With respect to Segment 55, Doak does not recall the Team finding an unfuzed item on the wrong side of the road, but noted that Teams may have dug on the wrong side of the road a few times. With respect to Segment 63, Doak recalls moving a fuzed item into an area to be cleared at a later date as it was the only fuzed item found in Segment 63. He moved it approximately 40 feet outside the cleared area and set it down; he does not recall covering it with leaves. Doak stated that no one expressed concern about this action at the time. With respect to Segment 56, Doak received reports from Leshko that fuzed items were found, but Doak did not go out to the site. He did not explicitly order Leshko to move the items out of the area being cleared, but rather told him to "take care of it" in light of having to complete that segment that day. Doak does not know how many items were moved from Segment 56, did not direct anyone to move items a particular distance or to cover them with leaves, and does not recall anyone expressing concern to him. Doak is not aware of any other time that anything like this happened at Fort McClellan. Doak did not confer with site management about these incidents prior to the ADEM Order.

Joseph (Dave) Leshko – With respect to Segment 55, Leshko stated that two team members were mistakenly digging north of the road (which was not part of the contract) and found an unfuzed item. After conferring with Doak, Leshko informed the team members to leave the item where it was, as they were on the wrong side of the road. With respect to the fuzed item found outside of Segment 63, Leshko stated that he saw Doak move it in mid-June, noting that Doak carried the item toward the west. With respect to Segment 56, Leshko stated that he did not anticipate finding many items based on the few items found in nearby segments. After conferring with Doak after the first find, Leshko moved the item south of the road into an area to be cleared at a later time. Overall, Leshko estimates he moved 8 to 10 items, all south of the road, and all approximately 30 to 50 feet from the edge of the cleared area, and covered them with leaves. Leshko is not aware of any items having been moved north of the road. Leshko did not see Steelman or Futral move any items, and did not ask them to move any items, but did see Ellington and Whitley move items. Leshko stated that no team member expressed concern to him about this action at the time and stated that he did not report this incident to site management prior to the ADEM Order. Leshko stated that these actions, to his knowledge, in Segments 56 and 63 are isolated incidents and nothing like this had ever happened before at Fort McClellan.

Ron Ellington – With respect to Segment 55, Ellington does not recall anyone moving items. With respect to Segment 63, Ellington did not see Doak move the item in question. With respect to Segment 56, Ellington, who worked with Whitley, said they were not expecting fuzed items based on lack of fuzed items in prior segments cleared. After finding fuzed items and conferring with Leshko, Ellington stated that he moved approximately 10 items, all south of the road, and all approximately 80 to 100 feet from the cleared area, and covered them all with leaves. Ellington is not aware of any items being moved north of the road and did not hear anyone voice objections about these actions at the time. He did not see Steelman or Futral move any items. Ellington is not aware of anything like this happening before at Fort McClellan and stated that he did not report the incident to site management prior to the ADEM Order.

Phil Whitley – With respect to Segment 55, Whitley and Clement found an unfuzed item on the north side of the road. After reporting the find to Leshko, they were informed they were on the wrong side of the road and thus left the item there. With respect to Segment 63, Whitley was not aware that an item had been moved. With respect to Segment 56, Whitley, who worked with Ellington, stated that they found a fuzed mortar on their first dig. After conferring with Leshko, they moved the item approximately 100 feet from the edge of the clearance, on the south side of the road, and placed it on the southern exposure at the base of a tree, and covered it with leaves. Whitley estimates that he personally moved 6 or 7 items in this same manner. Whitley did not hear anyone voice any objections about this action until several days later. Whitley is not aware of anything like this happening before at Fort McClellan and stated that he did not report the incident to site management prior to the ADEM Order.

Jathan Futral – With respect to Segments 55 and 63, Futral does not recall working in those areas. With respect to Segment 56, Futral worked with Steelman. After finding the fuzed items, Futral stated that he or Steelman informed Leshko, who sent Futral and Steelman back to the truck while Leshko moved the items. Futral saw Leshko move approximately 10 items south of the road and estimates the items were moved at least 100 feet from the cleared area, but does not know whether they were covered with leaves. Futral does not recall seeing anyone other than Leshko moving items. Futral did not hear anyone voice concern about this and stated that he has never seen anything like this done before at Fort McClellan. Futral did not report this incident to site management.

Brian Todd Steelman – With respect to Segment 55, Steelman was not aware that the Team dug on the wrong side of the road. With respect to Segment 63, Steelman stated that, sometime in mid-June, he saw Doak move an item into the woods about 30 to 40 feet, put it down, and kick leaves over it. Steelman stated he did not voice concern at this time, but did so to Doak the following morning. Steelman stated he did not bring this to the attention of site management or to anyone else at that time. With respect to Segment 56, Steelman worked with Futral. After finding fuzed items, Steelman called Leshko, who called Doak. Steelman stated he did not overhear the conversation between Leshko and Doak. Steelman stated that Leshko subsequently carried the item into the woods, south of the road. Steelman stated that Leshko carried the next three or four fuzed items they found into the woods as well, all south of the road. After the next items were found, Steelman stated that Leshko directed him (Steelman) to carry items into the woods. Steelman stated that he voiced objection to Leshko, but moved the items nonetheless. Steelman recalls personally moving at least four or five items, and probably more, but did not cover them with leaves. Steelman stated that he was not told how far or where to

move the items and noted that Futral did not move any items. Steelman also stated that he moved three items north of the road and placed them such that they would be very obvious and easy to find. Steelman stated that he called a friend that day (July 1) for advice, and his friend called ADEM, which then called Steelman later that day. Steelman stated that he did not report this incident to site management and did not report it to the Corps when he assisted with quality assurance on July 21. Steelman stated that he was not aware of any other times when items were moved from an area being cleared by TtFW to another area to be cleared at a later date.

Cause Analysis

Immediate Causes: Determine the immediate causes, using the example on the following page. If one or more of the examples fits the circumstance, use those words in the cause description. This facilitates statistical analysis of the incident database for program evaluation/modification. However, do not confine your cause determination to the guide-words. Be sure that the incident description is sufficiently detailed to support the causal analysis. An assumption of cause (e.g., improper execution of a procedure) from the incident (deviation from quality spec) is not sufficient.

Basic Causes: Like the Immediate Causes, use the guide-words in the attachment whenever appropriate and explain. For example, improper motivation may be because the correct way takes more time or effort; short cutting standard procedure is tolerated or positively reinforced; or the person thinks there is no personal benefit to always doing the job correctly.

Investigators should determine if a change in the work conditions, scope, methods or personnel contributed to the incident. This may occur due to inadequate assessment of hazard potential or inadequate application of hazard controls. If "Change" was contributing, it will most likely be identified in combination with other basic causes.

Note: The investigator is encouraged to review the Practical Loss Control Leadership chapters on *Causes and Effects of Loss* and *Accident/Incident Investigation* before doing the causal analysis. The investigation team should refer to the S.C.A.T. Chart available from the PESM when analyzing causes of high loss potential incidents, especially where motivation is suspected of being a Basic Cause.

Remedial Actions: Include all actions taken or those that should be taken to prevent recurrence. Be sure that actions address the causes. For example, training (safety meetings) may be a necessary response for lack of knowledge, but may be inadequate for improper motivation. If completion dates exceed the 72 hours reporting period, a revised report must be submitted when all remedial actions are complete.

Persons Performing Investigation: The primary investigator is the TtFW Supervisor in charge of the work where the incident occurred. Others participating in the investigation, such as the Project Manager, ESS, QC, site engineer, foreman, etc. should also sign the report.

Management Review: The Project or Office Manager and the Project QA/QC Manager or office QA/QC Manager must sign the report indicating their satisfaction with thoroughness of the investigation and the report, and their concurrence that the action items address the identified causes. This constitutes the peer review, and the report, particularly the description, should be clear to readers not familiar with the project or incident.

The Project QA/QC Manager or office QA/QC Manager should add the following statement in the comment box: "The causal analysis is appropriate and is supported by the facts presented in this report, and the action plan adequately addresses the immediate and basic causes."

EXAMPLES OF IMMEDIATE CAUSES	
SUBSTANDARD ACTIONS	SUBSTANDARD CONDITIONS
1. Personnel Not Properly Qualified 2. Failure to Communicate 3. Improper Execution of Specified Procedures 4. Operating Equipment Outside of Specified Parameters 5. Making Equipment Function(s) Inoperable 6. Failure to Provide Proper Specs to Vendor 7. Failure to Check Equipment Prior to Acceptance 8. Acceptance of Defective Equipment 9. Failure to Provide Proper Equipment 10. Improper Placement of Equipment 11. Improper Servicing/Maintenance of Equipment 12. Under Influence of Alcohol/Drugs 13. Horseplay	1. Guards Or Barriers 2. Protective Equipment 3. Tools, Equipment, Or Materials 4. Congestion 5. Warning System 6. Fire And Explosion Hazards 7. Poor Housekeeping 8. Noise Exposure 9. Exposure To Hazardous Materials 10. Extreme Temperature Exposure 11. Illumination 12. Ventilation 13. Visibility

EXAMPLES OF BASIC CAUSES	
PERSONAL FACTORS	JOB FACTORS
1. Capability 2. Knowledge 3. Skill 4. Stress 5. Motivation	1. Supervision 2. Engineering 3. Purchasing 4. Maintenance 5. Tools/Equipment 6. Work Standards 7. Wear And Tear 8. Abuse Or Misuse 9. Change (Conditions, scope, work methods, personnel)

MANAGEMENT PROGRAMS/SYSTEMS FOR CONTROL OF INCIDENTS	
1. Leadership And Administration 2. Management Training 3. Planned Inspections 4. Task Analysis And Procedures 5. Task Observation 6. Emergency Preparedness 7. Organizational Rules 8. Accident/Incident Analysis 9. Personal Protective Equipment	10. Health Control 11. Program Audits 12. Engineering Controls 13. Personal Communications 14. Group Meetings 15. General Promotion 16. Hiring And Placement 17. Purchasing Controls