

The Department of Energy Tiger Team Analysis:
Analysis of Findings and Plans for the Future

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ABSTRACT

Since mid-1989, the Department of Energy (DOE) has used "Tiger Teams" to provide independent oversight and assessments of the compliance and management of environment, safety, and health programs in DOE facilities. These assessments have provided the Secretary of Energy with not only the current compliance status of each facility together with the associated vulnerabilities, but also have identified root causes for noncompliance. By mid-1992, Tiger Team assessments will be completed for all major DOE facilities (production, research, and testing facilities) as well as a number of smaller or less complex sites.

INTRODUCTION

Through Tiger Team assessments implemented by the Office of Environment, Safety and Health, the Department of Energy (DOE) has provided oversight of DOE's facilities and assurance of facility compliance with environment, safety, and health (ES&H) requirements throughout the DOE complex. Tiger Teams are typically composed of at least 30 well-trained, highly qualified professionals who spend approximately three to four weeks in preparation and followup activities, and approximately four to six weeks on site during an assessment. Tiger Team assessments have worked to determine the causes as well as the symptoms of compliance issues in order to help facilities initiate appropriate changes and interact sooner with regulators.

A trend analysis of the findings from the first sixteen assessments was published in May 1991¹. This paper provides a synopsis of the key findings found during those first sixteen assessments, including root causes and trends common to the facilities. The role of on-site self assessment is addressed in this paper, and the future role of the Tiger Team assessment program is also discussed.

By June 1992, thirty-five DOE facilities will have been assessed. A final synopsis covering these thirty-five Tiger Team assessments will be completed in late 1992.

ROOT CAUSES

The common underlying causes identified by the Tiger Teams

vary in degree, ranging from probable causal factors to root causes (i.e., the cause that, when removed or corrected, will eliminate the potential for recurrence of a similar problem or incident). An analysis of all root causes revealed the following three general root causes common to a majority of the assessments:

- o ES&H compliance is not emphasized as a primary goal. Complacency or lack of attention to safety and health issues exist because workers do not perceive this to be important. Other workers feel that ES&H compliance is incompatible with research or line position duties.
- o Monitoring programs, assessment controls, and corrective action implementation programs are insufficient. A number of the reports show that the facilities have not been able to develop and implement self-assessment plans/programs. Furthermore, facilities fail to identify existing ES&H problems.
- o Management is ineffective in assessing or enforcing compliance at the facilities. Management systems and controls should be reviewed and revised to include accountability, monitoring, feedback/reporting, and oversight performance to ensure implementation of required ES&H objectives. Lack of effective management at the facilities impedes ES&H programs.

Other common root causes identified by the Tiger Teams included failure to implement Federal, state, local and DOE policy; insufficient training (especially within the Safety and Health discipline); inadequate budgetary controls; and a need for technical staff.

TREND ANALYSIS

The trend analysis revealed weaknesses and deficiencies clustered in the following six key areas:

Management and Oversight of ES&H Activities. ES&H authority and responsibilities are not clearly defined or understood. Facilities tend to operate in a reactive mode. Comprehensive management systems have not been implemented (or have been implemented slowly). Adequate self-assessment programs are lacking. Operations and Area Offices provide insufficient direct oversight of day-to-day contractor activities. Conclusion: Review/revise management systems and controls to include accountability, monitoring, feedback/reporting, and performance oversight.

Conduct of Operations/Formality and Discipline. Lack of sufficient formality and discipline exists in ES&H management systems. Conditions and practices that clearly do not satisfy ES&H requirements are accepted at DOE facilities. Conclusion: The discipline and formality of DOE's management systems must be improved.

Communication and Implementation of ES&H Policy. Although improvement is evident, ES&H policy is not being communicated to all levels of DOE and contractor staff. Policies, goals, and objectives have not reflected a strong commitment to ES&H excellence. Conclusion: A consistent set of performance expectations and technical requirements must be communicated throughout the entire system. The DOE compliance policy must be effectively implemented through orders, guidance, and employee and contractor performance objectives.

Resources/Training. Difficulties exist in securing staff with appropriate qualifications and in obtaining security clearances in a timely manner. Conclusion: Identify/document staff resource requirements. Find ways to speed up recruitment process. Additionally, expand and improve Departmental training programs.

Occupational Safety and Health. The most important areas of noncompliance found during the Department of Labor's Occupational Safety and Health (OSHA) review of nine sites included construction activities, machine guarding, and electrical safety. DOE does not have programs in place that routinely identify (let alone prevent) noncompliance with OSHA requirements. Conclusion: Immediate attention needs to be focused on workplace safety and health. The lack of importance and attention assigned by management to OSHA compliance must change.

Technical Issues. Deficiencies in the following technical areas/programs were identified: Radiological Protection, Emergency Preparedness, Waste Management, Management of Inactive Waste Sites, and Environmental Monitoring.

SELF-ASSESSMENT PROGRAMS

As noted above, many of the DOE facilities lacked adequate programs to ensure that ES&H deficiencies were identified, reported, and corrected. In particular, facilities lacked adequate self-assessment programs, and had deficient systems for reporting and tracking ES&H programs and corrective actions. All line organizations were directed to implement comprehensive self-assessment programs to identify and characterize ES&H concerns relating to their operations. Ultimate responsibility was thus placed on program senior officials.

A comprehensive ES&H self-assessment program should cover all facilities, buildings, sites, and activities under the control of the line management organization. Such a program includes all applicable disciplines under environmental protection, safety and health, and management and organization. The self-assessment program is built upon existing programs and activities including those specifically required by DOE Orders. These programs/activities include functional and management appraisals of contractors by DOE line management as well as internal appraisals conducted by contractor or, in some cases, DOE operating-level staff. In addition, management performance within the DOE line organizations is assessed.

On-site activities are assessed for compliance with Federal, state, and local laws, regulations, and permit requirements; compliance with agreements, orders, and consent decrees; compliance with executive orders and DOE orders; compliance with implementation plans developed pursuant to DOE orders; compliance with internal guidance and procedures; and conformance with other best management practices. Compliance and conformance are judged on the basis of both a review of applicable documentation and physical inspection of facilities. In addition to identifying actual compliance problems, an effective self-assessment program also includes a diagnosis of the causes of compliance problems as an aid to preventing recurrence. Full compliance with applicable regulatory requirements is the minimum acceptable level of performance. The self-assessment program is intended to be an ongoing activity, not just a one-time pre-Tiger Team visit activity.

FUTURE ROLE OF TIGER TEAMS

Beginning in October 1991, the Office of Environment, Safety and Health initiated a series of followup assessments. Team sizes were reduced, length of on-site assessments was shortened, and the assessments became more focused, concentrating on ES&H management, ES&H corrective actions, self-assessment programs, and root-cause related issues. Small/focused assessments will continue to be phased in as larger/comprehensive assessments are phased out in the first half of CY 1992. Beginning in August 1992, larger assessments will be performed on an as-needed basis only (i.e., at potential problem facilities).

The smaller, focused assessments will include a review of self-assessment programs (from Headquarters down to the field level) and the current status of ES&H corrective actions, with the major focus on ES&H program management and root cause analysis. A Departmental Oversight Coordination Committee will establish a process/procedures to coordinate scheduling and to define the scope of future individual assessments.

Tiger Teams have been successful in providing independent oversight and assessment of the compliance and management of ES&H programs throughout the DOE complex. Future assessments will continue to help ensure that DOE operations are conducted in a manner that is safe and environmentally sound, and that protects the health and safety of the Department's employees as well as that of the public.

REFERENCE

1. DOE, 1991. Analysis of Findings from the First Sixteen Tiger Team Assessments, DOE/EH-0191, U.S. Department of Energy, Washington, D.C.

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