**U.S. Department of Energy
Environment, Safety and Health
Progress Assessment**

**of the
Nevada Test Site**

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Executive Summary

EXECUTIVE SUMMARY

This report documents the result of the U.S. Department of Energy (DOE) Environment, Safety, and Health (ES&H) Progress Assessment of the Nevada Test Site (NTS), Nye County, Nevada. The assessment, which was conducted from July 20 through August 4, 1992, included a selective review of the ES&H management systems and progress of the responsible DOE Headquarters Program Offices; the DOE Nevada Field Office (NV); and the site contractors, which include Reynolds Electrical & Engineering Company, Inc. (REECo), EG&G Energy Measurements, Inc. (EG&G/EM), Raytheon Services Nevada (RSN), and Wackenhut Services, Inc. (WSI).

The ES&H Progress Assessments are part of the Secretary of Energy's continuing effort to institutionalize line management accountability and the self-assessment process throughout DOE and its contractor organizations. The purpose of the NTS Progress Assessment is to provide the Secretary of Energy, Admiral James D. Watkins, U.S. Navy (Retired), with an independent assessment of the adequacy and effectiveness of the DOE and contractor management structures, resources, and systems to address ES&H problems and requirements. It is not intended to be a comprehensive compliance assessment of ES&H activities. The point of reference for assessing programs at NTS was the 1990 NTS Tiger Team Assessment report, the NTS Corrective Action Plan, and recent appraisals and self-assessments of NTS. The NTS Progress Assessment was conducted by a team of 10 professionals from various DOE offices and their support contractors, with expertise in the areas of environment, safety, health, and management.

NTS is currently used to conduct all United States nuclear weapons tests. These tests are conducted underground, either in deep vertical shafts or horizontal tunnels, for containment of the detonation products. NTS was chosen in 1950 to provide a continental proving ground for nuclear weapons testing to reduce the expense and logistical problems of testing in the Pacific. The site was initially operated for a few months each year by the Test Division of the Albuquerque Operations Office. With the establishment of the steady-state (continuous) testing program, the need for full-time management and support prompted the establishment of a full-time operations office in Nevada. In 1962, the Nevada Operations Office (NV) was created and assumed responsibility for operations and programs at NTS. Nuclear weapons testing at NTS then became a year-round effort.

NTS is the only active nuclear testing facility in the United States. While nuclear weapons testing has been a prime mission for NTS since 1950, environmental restoration and waste management is assuming an increased role. The nuclear weapons testing program is conducted as a responsibility of the Assistant Secretary for Defense Programs, while the environmental restoration and waste management programs are the responsibility of the Assistant Secretary for Environmental Restoration and Waste Management.

NV provides support for services for the three "user" laboratories and directs all testing through a Senior Manager appointed as Test Controller. The "user" laboratories are Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), and Sandia National Laboratories (SNL). NV also provides support services for the Defense Nuclear Agency (DNA) in its weapons effects testing program in the tunnels. The technical adequacy and readiness for the tests are the responsibility of the national laboratories and DNA, but NV is responsible for the safe conduct of all tests.

NV manages Environmental Restoration and Waste Management (EM) activities at NTS, as well as environmental restoration at eight offsite locations throughout the United States. These activities include comprehensive planning and centralized management of environmental cleanup and management of hazardous waste, low-level radioactive and mixed waste, as well as administration of applied research and technology development programs for environmental restoration and waste management.

A summary of issues and progress in the areas of environment, safety and health, and management follows. The reader is referred to Section 2.0 and Appendix B for a full description.

Progress in ES&H Performance

After reviewing the NTS ES&H programs, the Progress Assessment Team concluded that NV has significantly improved the ES&H programs and advanced the new ES&H culture at NTS. NV and its contractors are on the path of a sound, institutionalized ES&H program founded on individual and organizational excellence. The concerns and improvement items identified in this assessment, while important to NV's quest for excellence, do not detract from the progress achieved since the 1990 Tiger Team Assessment of NTS. Substantial progress is evident in the self-assessment, Industrial Hygiene (IH), Occupational Safety and Health Act (OSHA) and worker safety, groundwater, environmental restoration, and planning areas. Since Aviation Safety has been reviewed by other assessments and investigations in the recent past, this area was not reviewed as a part of this assessment.

Particularly noteworthy are the management commitment and the proactive approach exhibited by NV and its contractors towards specific ES&H initiatives such as the DOE/NV Contractor Training Council, Total Quality Management, self-assessment, Compliance Assessment Program, groundwater characterization, environmental restoration, OSHA Voluntary Protection Program, and reorganizations designed to accord ES&H activities greater senior management attention. Management's commitment to the new ES&H culture is also manifested in effective communications and program execution between NV and the NTS contractors, particularly in the environmental program area. However, in its enthusiasm to embrace and prosecute the Secretary's ES&H initiative and his call for excellence, NV has tried to improve its ES&H activities across a broad front, without guidance related to planning and prioritization.

Defense Programs (DP) has made significant progress by taking an active role in implementing the Secretary's self-assessment policy. Recent achievements include developing a Memorandum of Agreement that includes self-assessment provisions, conducting a DOE Order compliance assessment, participating in the DOE Headquarters self-assessment task force, transmitting DP-specific self-assessment guidance to its field offices for comment, and conducting technical safety assessments of DP facilities. The DP Office of Self-Assessment and Emergency Management (DP-9) has been assigned the responsibility for serving as the focal point for the DP self-assessment activities, including focused assessments and trending deficiencies identified by DP, and external appraisals and audits. However, weaknesses persist. The DP self-assessment program is not yet well documented, communicated, and fully understood by all DP participants. DP does not have a complex-wide corrective action management system that captures all deficiencies, and prioritizes and tracks them to closure. The DP self-assessment program lacks full integration of its many

elements to provide a complete, real-time picture of the compliance status of the DP complex. Full integration of the performance and compliance status occurs periodically during meetings of DP senior officials. Achievement of a fully effective self-assessment program is inhibited by the lack of a comprehensive and detailed program implementation plan, one that contains the protocols, schedules, and milestones DP expects to see in its field offices and contractor implementation plan.

Self-assessment is one of the areas where NV responded quickly to the Secretary's initiative. NV initiated a self-assessment program in early 1991 and has since been modifying and enhancing its program to comply with Departmental guidance. NV and its contractors maintain active ES&H appraisal, audit, and surveillance programs that form the foundation of NTS self-assessment activities. However, the lack of definitive guidance from DOE Headquarters and NV to its contractors has resulted in self-assessment programs that are in varying degrees of development and compliance with current DOE guidance.

NV Management continues to seek ways to more effectively utilize its scarce ES&H resources in direct support of line organizations and preserve independent ES&H resources to perform objective oversight. Reorganization of ES&H activities to assure the independence and objectivity of the ES&H programs, made in the past couple of years, are now being re-evaluated. The NV proposed reorganization designed to more effectively utilize ES&H resources and preserve independence is awaiting DP's approval. The NV approach would reassign most of the NV Office of the Assistant Manager for Environment, Safety and Health (AMESH) independent ES&H resources to provide direct support to line program activities. Independent oversight, self-assessment, Quality Improvement, Quality Assurance, and Performance Evaluation would be the domain of a new organization, reporting directly to the Manager, NV. The challenge associated with this reorganization will be to distribute the ES&H resources so that both missions can be accomplished without conflicts of interest.

NV has made significant progress in ES&H strategic planning and is now beginning to extend the planning process throughout the organization. While subordinate implementation planning has not been fully implemented or integrated into a comprehensive NTS planning process, islands of subordinate implementation planning excellence exist within NV and its contractors.

Although ES&H functional programs in industrial hygiene, OSHA-worker safety, environmental restoration, groundwater characterization, the safety aspects of maintenance management, and the assessment and review of the ES&H programs and activities of the NTS are all making significant progress, some improvement items and concerns have been identified by the Progress Assessment Team. In particular, the corrective action program has not kept pace with the progress in these other areas. Deficiencies exist in tracking, trending, closure, and root cause analysis. As a result, it does not provide the processed ES&H data necessary for management to incorporate priorities into its decisionmaking process.

DOE has several vehicles for conveying its expectations and priorities to its contractors including the budget, directive, and Cost Plus Award Fee (CPAF) processes. DP has made significant progress in enhancing the budget process as an effective management tool over the past year. While the guidance is complex-wide rather than site-specific, there is clear communication of DP

ES&H expectations and priorities. This is not the case for the directive and CPAF processes which have not been enhanced to effectively convey ES&H expectations, assure a common understanding between DOE and its contractor, and guide the contractors towards, and reward them for, achieving excellence.

Key Concerns, Root Causes, and Strengths

From an analysis of the individual concerns and improvement items and their identified causal factors (see Appendix H for definitions of causal factors), the Progress Assessment Team identified three key concerns and a probable root cause. Key concerns and the root cause are further discussed in Sections 2.1.1 and 2.1.2, respectively.

The three key concerns cut across many of the more specific deficiencies identified. The key concerns are:

- The corrective action programs developed by NV and its contractors lack definition, lack integration of management systems into a comprehensive program, lack coordination between NV and each contractor, and do not provide management with the information needed to make informed ES&H priority decisions.
- Deficiencies in the NV directive system inhibit the achievement of sitewide implementation and uniformity of the NTS ES&H programs.
- NV has conducted strategic planning activities and established specific ES&H and programmatic goals and objectives for the NV Offices. However, disciplined, prioritized, planning and program integration has not been implemented throughout NV and its NTS contractor organizations.

The Progress Assessment Team identified the following root cause:

- DOE has not established a planning, budgeting, and resource allocation process, based on ES&H risk, to set priorities for, and to satisfy in a graded fashion, the numerous DOE and external ES&H requirements.

The Progress Assessment Team identified the following strength:

- The establishment of a DOE/NV Contractor Training Council to consolidate, standardize, and more efficiently use the training resources of all NTS contractors.

1.0

Introduction

1.0

INTRODUCTION

1.1

ENVIRONMENT, SAFETY, AND HEALTH PROGRESS ASSESSMENT PROGRAM

In June 1989, Secretary of Energy, Admiral James D. Watkins, U.S. Navy (Retired), announced a 10-point initiative to strengthen Environment, Safety and Health (ES&H) programs and waste management operations at the U.S. Department of Energy (DOE). One of the initiatives involved conducting independent Tiger Team Assessments of DOE operating facilities. To date, 35 Tiger Team Assessments have been conducted. These large, comprehensive assessments established baselines for ES&H compliance levels, evaluated ES&H management programs, identified root causes of noncompliance, and provided for corrective action plans. As part of the continuing effort to institutionalize line management accountability and the self-assessment process, and to evaluate the actions taken in response to Tiger Team findings, the Secretary directed that small, focused, ES&H Progress Assessments be performed. The ES&H Progress Assessment at the Nevada Test Site (NTS), conducted from July 20 through August 4, 1992, is the fourth assessment of this new program. The point of reference for assessing programs at NTS was the 1990 Tiger Team Assessment.

The objectives of the NTS Progress Assessment were to develop an updated picture of (1) progress at NTS since the 1990 Tiger Team Assessment; (2) the effectiveness of actions to correct specific deficiencies identified by the Tiger Team and the root causes of those deficiencies; and (3) whether the current structure, resources, and systems are in place and functioning to identify weaknesses, correct them in a timely manner, and effectively manage ES&H issues.

Accomplishing these objectives involved evaluation of the following:

- Effectiveness of DOE and contractor management structures, resources, and systems to address ES&H problems and new ES&H initiatives resulting from the 1990 Tiger Team Assessment.
- Adequacy and effectiveness of the ES&H self-assessment programs of the DOE line organization and the site management and operating contractors.
- Progress and effectiveness of the ES&H corrective actions resulting from the 1990 Tiger Team Assessment.

The NTS Progress Assessment was conducted by a team of specialists from various DOE offices and support contractors, with expertise in the areas of the environment, safety, health, and management. The Progress Assessment Team Leader was a senior manager from the Office of the Assistant Secretary for Environment, Safety and Health. Progress Assessment Team members, with their areas of responsibility and work related experience, are identified in Appendix C.

The assessment process consisted of a preassessment visit, offsite review of documents, DOE Headquarters interviews, and onsite interviews, observations, inspections, and document review. The preassessment visit was conducted June 15 through June 19, 1992. This activity included presentations by DP, the U.S. DOE Nevada Field Office (NV), Reynolds Electrical & Engineering

Company, Inc. (REECo), Raytheon Services Nevada (RSN), Wackenhut Services, Inc. (WSI), and EG&G Energy Measurements, Inc. (EG&G/EM); a site/facility tour; the collection of documents for later review; and planning of the assessment strategy. Progress Assessment Team members reviewed documents and developed more formal assessment plans between June 22 and July 18, 1992. Several Progress Assessment Team members conducted interviews with DOE Headquarters personnel during this period. The assessment plans include Progress Assessment Scopes (included as Appendix D) and Schedule of Onsite Activities (included as Appendix E). The Progress Assessment scopes were transmitted to NV prior to beginning the onsite activities.

The onsite assessment was conducted from July 20 through August 4, 1992. During this period, the Progress Assessment Team conducted interviews with DOE, REECo, RSN, WSI, and EG&G/EM personnel; inspected facilities; observed activities; developed the results of the assessment; drafted the assessment report; and held a formal closeout with DOE and contractor management. Daily team meetings were held to discuss issues and assessment progress. To facilitate the full understanding of the issues and encourage involvement in the assessment process, DOE and contractor personnel were requested to attend and participate in these meetings.

The approach used by the Progress Assessment Team to perform the evaluations and achieve the objectives detailed above involved both horizontal and vertical reviews of ES&H program elements and activities. The horizontal reviews evaluated the existence and adequacy of management structures and systems for identifying and addressing ES&H problems and requirements. The management elements evaluated included planning, budgeting, and resource allocation; human resources and training; oversight; and directives, policy, and procedures. Horizontal and vertical reviews were also performed on the self-assessment and corrective action programs. These two programs are integral parts of ES&H management systems and are addressed as separate management disciplines in this report. Both programs received special attention as indicators of progress since the 1990 Tiger Team Assessment, and more importantly, because they are key elements of a sustainable ES&H program.

The vertical cuts are used as validation points for the horizontal reviews. The programs selected for vertical evaluations were environmental quality assurance, conduct of maintenance, occupational safety, environmental restoration and spill reporting, and groundwater protection. The selection of these areas for vertical cuts was based on the results of the 1990 Tiger Team Assessment, other assessments, occurrence reports, and information obtained during the preassessment visit. The vertical reviews determine whether the existing management systems are adequate and effective at all levels throughout specific programs. Since Aviation Safety has been reviewed by other assessments and investigations in the recent years, this area was not reviewed as a part of this assessment.

The Progress Assessment Team conducted a review of all of the concerns, improvement items, and strengths to identify key concerns and root causes. The key concerns represent the essence of the weaknesses and deficiencies identified by the Progress Assessment Team, and the probable root cause is the most fundamental reason why the deficiencies occurred.

The correction of the 1990 Tiger Team findings and their root causes and self-assessment activities were subjects reviewed by all Progress Assessment

Team members in both the horizontal and vertical reviews. The observations of Progress Assessment Team members related to Tiger Team corrective actions, other corrective actions, and the self-assessment were consolidated and evaluated from a sitewide perspective. Details of the specific subjects covered by these reviews are provided in Section 2.0 and Appendix B of this report. The results of the Progress Assessment Team members' evaluations were categorized into one of three groups:

- **Concern.** A concern identifies an adverse condition discovered during an assessment that has potential significance to worker or public health and safety, environmental protection, nuclear safety, facility operations, or management performance.
- **Improvement Item.** An improvement item is a condition identified through an assessment that indicates a recommendation for improvement to reach excellence, but does not represent a deviation from DOE Orders or notices, rules, regulations, or technical safety requirements (TSRs), or a potential challenge to environment, safety, facility operations, or management performance.
- **Strength.** A strength is an example of exceptional performance or achievement of excellence. A strength may be a noteworthy practice, activity, or program that clearly exceeds the acceptable level of performance and that warrants documentation supported by findings of fact. Strengths may have general application to other DOE programs or operations. The purpose for documenting the strength is for communicating the strength within DOE. General application of a strength, either by its design or its execution, results in more effective and improved management or operation performance.

1.2 NEVADA TEST SITE DESCRIPTION

NTS occupies 1,350 square miles (3,500 square kilometers) of restricted access, federally-owned land located in southern Nevada. NTS is bordered on its west, north, and east sides by 4,127 square miles of land comprising the Nellis Air Force Range, another federally-owned, restricted-access area. The area surrounding NTS and the Nellis Air Force Range is a relatively sparsely populated area. The southernmost point of the NTS is situated approximately 65 miles northwest of Las Vegas, Nevada.

NTS is currently used to conduct all United States nuclear weapons tests. These tests are conducted underground, either in vertical holes or horizontal tunnels, for containment of the detonation products. NTS was chosen in 1950 to provide a continental proving ground for nuclear weapons testing to reduce the expense and logistical problems of testing in the Pacific. The site was initially operated for a few months each year by the Test Division of the Albuquerque Operations Office. In 1962, the Nevada Operations Office was created and assumed responsibility for operations and programs at the NTS. Nuclear weapons testing at the NTS then became a year-round effort.

To date, more than 700 tests have been announced at the NTS, including Plowshare tests to develop peaceful uses of nuclear explosives. Atmospheric testing was discontinued in 1958. NTS is also used for the storage and

disposal of low-level and "in-transit" storage of transuranic wastes from DOE's nuclear weapons laboratories and production facilities. This mission began in the 1960's, and expansion plans include defense waste management, testing of liquified gaseous fuel spills, national emergency response organizations, Pacific operations, and administrative and technical support to Yucca Mountain.

NV provides support for services for the three user laboratories and manages and directs all testing through a Senior Manager appointed as Test Controller. The user laboratories are Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), and Sandia National Laboratories (SNL). NV also provided support services for the Defense Nuclear Agency (DNA) for its weapons effects testing in the tunnels. The technical adequacy and readiness for the tests are the responsibility of the national laboratories and DNA, but NV is responsible for the safe conduct of all tests.

Four principal support contractors are utilized by NV at the NTS. The contractors and their responsibilities are:

- REECo. Prime support contractor at NTS. REECo provides construction at the NTS, large diameter drilling and tunneling, food services, housing, occupational safety and industrial hygiene services, medical services, purchasing, fire protection, warehousing, transportation, radiation monitoring, engineering services, and low-level radioactive waste management.
- EG&G/EM. Electronics and instrumentation support to the Nuclear Weapons Development Program.
- RSN. Architect Engineer at NTS provides project, field construction, drilling and mining engineering.
- WSI. Security services at the NTS and other Las Vegas facilities.

1.3 REPORT STRUCTURE

The results of the assessment are addressed in two main sections of this report: Section 2.0, "Performance and Progress of Nevada Test Site ES&H Programs"; and Appendix B, "Assessment Details." Section 2.0 presents the overall evaluation of the results of the Progress Assessment. This includes an identification of key concerns, root cause of the assessment results, a discussion of strengths, and overview sections for each discipline. Each overview section provides a summary of the assessment conclusions for each area. Appendix B includes the individual concerns, improvement items, and strengths presented by discipline. A summary table of the individual concerns, improvement items, and strengths is presented in Appendix A.

Each evaluation item is given a letter that identifies the discipline and the category. The disciplines are identified by the following designations: M = ES&H Management Systems, E = Environmental Programs, and S = Safety and Health Programs. The categories are represented by: C = Concern, II = Improvement Item, and S = Strength. These letters are followed by a sequential number assigned to each evaluation item within a given category and discipline. As an example, the first environment concern is written as E/C-1. These identifiers are used in both the body of the report and in Appendix B.

Where appropriate, discussions are supported by references to specific documents and interviews. These references correspond to the reference numbers on the documents and interview lists in the appendices (see Appendix G and Appendix F, respectively). In the report, the references are shown by placing the reference number in parentheses. The first letter in the reference number is either I or D, indicating whether the reference is an interview or document. The second letter is a Progress Assessment Team member identifier used for internal document control. The alphabetic designation is followed by a sequential number. As an example, the sixth interview reference by Progress Assessment Team member "A" would be I-A-6.

2.0

***Performance and Progress of
Nevada Test Site ES&H Programs***

2.0 PERFORMANCE AND PROGRESS OF NEVADA TEST SITE ES&H PROGRAMS

2.1 OVERVIEW

After reviewing the Nevada Test Site (NTS) Environment, Safety, and Health (ES&H) programs, the Progress Assessment Team concluded that the U.S. DOE Nevada Field Office (NV) has significantly improved the ES&H programs and advanced the new ES&H culture at NTS. NV and its contractors appear to be on the path to a sound, institutionalized ES&H program founded on individual and organizational excellence. Substantial progress is evident in the areas of self-assessment, industrial hygiene (IH), Occupational Safety and Health Act (OSHA) and worker safety, groundwater and environmental restoration, training, and planning. Particularly noteworthy are the management commitment and the proactive approach exhibited by NV and its contractors towards specific ES&H initiatives.

Although ES&H functional programs and oversight of the ES&H programs and activities at NTS have been significantly improved, several concerns and improvement items have been identified in this assessment. The corrective action program has not kept pace with the progress in other areas. An effective sitewide corrective action program has not been implemented, and there is no NV guidance that specifies the requirements of such a program. NV and its contractors maintain active ES&H appraisal, audit, and surveillance programs that form the foundation of NTS self-assessment activities. However, the lack of definitive guidance from DOE Headquarters to NV, and from NV to its contractors, has resulted in self-assessment programs that are in varying degrees of development and compliance with current DOE guidance, and are not uniform in structure and practice throughout NTS. DP has made significant progress by taking an active role in implementing the Secretary's self-assessment policy. However, achievement of a fully effective self-assessment program is inhibited by the lack of a comprehensive and detailed program implementation plan, one that contains the protocols, schedules, and milestones DP expects to see in its field offices and contractor implementation plan. DP and NV have made significant progress in ES&H strategic planning but has not yet extended the planning process down through the organization. The concerns and improvement items identified in this assessment, while important to NV's quest for excellence, do not detract from the progress achieved since the 1990 Tiger Team Assessment.

The Progress Assessment Team identified one strength, the establishment of a DOE/NV Contractor Training Council to consolidate, standardize, and more efficiently use the training resources of all the NTS contractors.

2.1.1 Key Concerns

From an analysis of the individual concerns and improvement items and their identified causal factors, the Progress Assessment Team identified three key concerns and one probable root cause. The three key concerns cut across many of the more specific deficiencies identified. The key concerns are:

- The corrective action programs developed by NV and its contractors lack definition, lack integration of management systems into a comprehensive program, lack coordination between NV and each contractor, and do not provide management with the information needed to make informed ES&H priority decisions.

NV does not have a sitewide corrective action management system that addresses action plans, tracking, trending, lessons-learned, root cause analysis, and closure criteria in a comprehensive, uniform manner. As a result, management is not provided with a comprehensive overview of ES&H deficiencies. With multiple contractors onsite, a coordinated program is essential to provide DOE management with a complete overview of the ES&H deficiencies among all contractors. Since the programs lack sitewide integration and coordination, NV is not provided with information that allows for sitewide prioritization of efforts to correct the most important deficiencies first. A comprehensive corrective action program is a vital management tool. It is an essential part of an effective self-assessment program and related activities such as, independent assessments of NV and its contractors, and occurrence investigations and resolutions.

Deficiencies in the NV directive system inhibit the achievement of sitewide implementation and uniformity of the NTS ES&H programs.

The directive process conveys to the contractors not only ES&H requirements and how they are to be interpreted, but also DOE's expectations and priorities. The failure to include procedures in the directive process that require NV/contractor interaction regarding new or revised ES&H requirements results in differing understandings of the requirements, their applicability, and how and when they will be implemented. These deficiencies have been manifested in the past by differing interpretations of how and what needs to be reported to NV under DOE 5000.3A and currently is evidenced in the implementation of DOE 5700.6C regarding quality assurance programs; the differing approaches to the corrective action program (tracking, trending, root cause analysis, and lessons-learned); the lack of consistency in the planning process (strategic and operational); and the slow progress towards uniform implementation of the NTS contractor's self-assessment programs.

NV has conducted strategic planning activities and established specific ES&H and programmatic goals and objectives for the NV Offices. However, disciplined, prioritized, planning and program integration has not been implemented throughout NV and its NTS contractor organizations.

The lack of a comprehensive, integrated NV implementation planning process is evident at NTS; there is a general lack of uniform, consistent, prioritized sitewide ES&H guidance; and NV and the NTS contractors are managing their ES&H programs in an unplanned and uncoordinated manner, and without priority. NV implementation plans, which would set priorities for, guide, and provide formality to its own ES&H activities and the activities of its contractors, are generally incomplete. In addition, integrated ES&H programs, which would provide for a uniform and coordinated approach to program implementation and allow for an efficient use of resources, have not been developed. Vital ES&H implementation plans that remain to be developed or refined include: NV and its contractors' self-assessment program implementation plans; corrective action program plans that would set priorities for

corrective actions and provide a sitewide process for the uniform administration, verification, and closure of action items; ES&H human resource management plans; and detailed working-level implementation plans. These plans would define, set priorities for, guide, and control the programmatic and ES&H activities of NV and the NTS contractor line management organizations. Areas that have not been integrated include the environmental restoration (ER) program with other NV Environmental Restoration and Waste Management Division (ERWM) and NV activities, and various site groundwater programs.

2.1.2 Root Cause

The Progress Assessment Team identified the following root cause:

- **DOE has not established a planning, budgeting, and resource allocation process, based on ES&H risk, to set priorities for, and to satisfy in a graded fashion, the numerous DOE and external ES&H requirements.**

NV management fully embraces the Secretary's ES&H initiative and is pursuing excellence for all NTS activities. NV management has enthusiastically accepted and is vigorously pursuing the accomplishment of the Secretary's goals in the face of ever increasing ES&H requirements from within DOE and external regulators, constrained resources, and a failure by DOE to set priorities for satisfying these requirements. Because historically, DOE has not provided NV with graded ES&H policy guidance, NV has pursued ES&H excellence on a broad front, according all ES&H activities a similar priority, in an attempt to satisfy all requirements. As a result, NV is not controlling its own activities and destiny in a planned and prioritized manner and has not set its own priorities. Consequently, important ES&H initiatives that transcend all levels of the organization, such as self-assessment and human resource management, have only recently evidenced substantial progress.

2.1.3 Strength

The Progress Assessment Team identified the following strength:

- **The establishment of a DOE/NV Contractor Training Council to consolidate, standardize, and more efficiently use the training resources of all the NTS contractors.**

The DOE/NV Contractors Training Council has the following objectives: to identify common training needs; to develop short-, intermediate-, and long-term goals of mutual benefit; and to provide coordinated training by using shared resources to eliminate the duplication of effort. The council's charter specifies that the council will be composed of the General Managers of the four NTS contractors and supported by a working group of the contractor's training managers. This council is providing NTS with important benefits by consolidating NTS training assets and providing a basis for uniform, high quality

training programs. The formation of the council has already paid dividends; they have reviewed and identified individual contractor training assets, identified common training requirements, and assembled a training manual that summarizes the training courses available to NV and NTS contractors.

2.2 OVERVIEW OF ES&H MANAGEMENT ASSESSMENT

The Progress Assessment Team evaluated the overall effectiveness of NTS ES&H management systems. The assessment was conducted through a combination of interviews; review of key documents; and, where appropriate, field inspection of activities and processes. Specific management disciplines were selected for review based on the 1990 Tiger Team Assessment areas of concern, or because those disciplines were believed to be highly characteristic of ES&H program performance. The management disciplines assessed at the Nevada Test Site were the self-assessment program, human resources, planning, corrective action program, directive system, assessment and review, and organization.

Based on the review of these areas, the Progress Assessment Team concluded that NTS has made progress in improving the management systems subsequent to the 1990 Tiger Team Assessment. In particular:

- While NV has corrected the specific directive-related deficiencies identified in the 1990 Tiger Team Assessment, the systemic procedural problem of reaching a common understanding between the parties on how new or revised requirements will be implemented, has not been addressed.
- NV and its contractors have each developed components of a corrective action program. However, these programs lack consistency, are fragmented, and are making slow progress towards an integrated and fully implemented program (tracking systems, trending, root cause analysis, and lessons-learned programs).
- With minor exceptions, which are already in the process of correction, no ES&H organizational problems were detected for NTS organizations. However, the dispersion of ES&H responsibilities within DP is not well defined or understood.
- Line and independent ES&H oversight activities of NTS contractors and DOE have shown considerable improvement in formality, quality, and number. Improvement in the Cost Plus Award Fee (CPAF) process appears warranted in the pursuit of ES&H excellence, and corrections in the safety committee charters are needed to comply with DOE requirements.
- The self-assessment programs of DP, NV, and NTS contractors are in varying degrees of development. The DP program is not yet well defined and understood throughout the DP organization and is designed to react to problems rather than to proactively pursue excellence. The development of the NV self-assessment program evidences substantial recent progress; an implementation plan has been developed, draft self-assessment guidance has been issued the NTS contractors, and self-assessment workshops for NTS managers are being conducted. NTS contractor self-assessment program

development also shows progress, but is not yet fully implemented. While neither NV nor its NTS contractors have fully functioning self-assessment programs, many elements of their programs such as appraisals, audits, and surveillance are functioning effectively.

- Development of strategic and subordinate implementation planning processes of DP, NV, and the NTS contractors have made substantial progress since the 1990 Tiger Team Assessment. DP has a strategic plan in place and has provided NV with detailed ES&H planning guidance. The NV Manager has initiated a strategic planning process that defines his vision of the NTS mission and provides NV senior managers with detailed planning guidance. NV and NTS contractor subordinate implementation plans, that would translate the NV managers vision into detailed working plans, generally do not exist.
- The human resource management program of NV is in the early definition phase, training has been centralized within NV, and an early draft implementation plan to define and accomplish required ES&H training exists. The NTS contractor ES&H training programs are in varying stages of development and implementation. One strength was observed in the human resource assessment area; the establishment of an DOE/NV Contractor Training Council to consolidate, standardize, and more efficiently use training resources of all NTS contractors.

2.2.1 Corrective Action Program

The Progress Assessment Team evaluated NV and its contractor's corrective action management programs and how effectively these management programs have been applied to the 1990 Tiger Team Assessment findings/concerns, as well as other ES&H deficiencies identified in other assessments and appraisals. In conducting the assessment, the Progress Assessment Team looked specifically at the corrective action management systems and programs for tracking, trending, root cause analysis, lessons-learned, and the closure process. These areas were selected because the 1990 Tiger Team Assessment identified as a key finding and probable root cause the following: "A current weakness in the management of ES&H Programs is an incomplete and inefficient set of internal management controls and systems that would ensure that management commitments are fully implemented." Specific Tiger Team Assessment findings/concerns identified: "... accountability for ES&H operations and ES&H oversight is lacking," and the lack of tracking and trending of occurrences and events. This assessment looked for both the documentation of formal programs and the implementation of the component parts of a complete program.

The approach taken by the Progress Assessment Team included interviews with NV and contractor management and staff, reviews of relevant documents, and reviews of closure packages of selected Tiger Team Assessment findings/concerns.

The key standards against which the site was assessed included ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) 2.4, "Oversight (NV)", 4.4, "Oversight (Contractors)", and specifically 2.4.3 and 4.4.3 as they pertain to ES&H management information systems. The NV Action Plan in Response to the December 1989 Compliance Assessment was used

as a measure for tracking, trending, root cause development, lessons-learned, and closure of action items.

NV and its contractor corrective action management programs are in varying stages of development, and have not been applied as composite programs to the 1990 Tiger Team Assessment findings/concerns. While some guidance has been provided by DP and NV, neither DP nor NV has issued specific criteria regarding tracking, trending, root cause analysis, lessons-learned, or criteria for objective evidence for closures. NV has issued a detailed closure process document with specific assignments of responsibility within NV (D-C-1). The contractor closure processes are less formal than the NV process and in at least one case (I C-7) has not yet issued a closure process document. Therefore, action items are being closed without formal criteria or standards for objective evidence.

NV and its contractors have each developed their own system to track the closure of findings and concerns. All of these systems have been developed since the 1990 Tiger Team Assessment. It was reported that each system is different, and there is no provision for systems to interface and share data (I-C-5 and I-C-6). Systems communication is, therefore, via hard copy reports. This is cumbersome, but has caused no real problems. However, with the increase in the number of assessments, this could present a problem in the future.

Although root causes were listed in the Action Plan in response to 1990 Tiger Team Assessment, there was no formalized root cause analysis. It was reported that the root causes stated in the Action Plan was judgement call by one or more individuals with no formal analysis (I-C-6 and I-C-12). In the judgement of the Progress Assessment Team, the stated root cause appears to be an outgrowth of the proposed corrective action rather than the action plan being based on a formal root cause determination process.

Root cause analysis, trending, and lessons-learned systems are in varying stages of formality. As a part of the Compliance Assessment Program, various procedures have been developed by NV and its contractors, requiring that root cause analysis, trending, and lesson-learned be applied to deficiencies and corrective actions. Although some root cause analyses, trending, and lessons-learned processes are currently being applied to some recent assessments and occurrence reporting, a formal root cause analysis has not been applied to the 1990 Tiger Team Assessment corrective actions. Neither NV nor any of its contractors have formalized a program that brings tracking, trending, root cause analysis, lessons-learned, and closure process and criteria together in an acceptable corrective action program.

There is a lack of criteria that sets standards for objective evidence regarding when a corrective action can be closed. Currently, when to close a finding/concern is dependent upon the individual responsible for closure. In one case, two concerns were closed when a contractor performed one appraisal, while the concerns clearly required two different types of appraisals. Another corrective action was closed on the basis of an intent to perform by the contractor; and some corrective actions are closed by NV without a request from the contractor. In at least one case, a corrective action was closed even when the contractor believes that further action was required by the action plan (I-C-5).

NV concluded in April 1992 that its Corrective Action Program could not ensure that corrective actions were being closed in a timely manner and implemented to the satisfaction of the NV Management. NV assembled a Quality Improvement Team composed of NV Assistant Managers and key principal staff to look at the corrective action and closure process. The Quality Improvement Team provided the Progress Assessment Team with the Tiger Team Accelerated Action Team Summary Report (D-C-17). This report identified problems with the corrective action system and made recommendations to resolve them. It was reported to the Progress Assessment Team that the NV Manager tasked the Quality Improvement Team with the development of an implementation plan for the recommendations. This plan is currently under development and is scheduled for completion in a draft form by August 5, 1992. The concerns identified by the Quality Improvement Team were similar to many of the deficiencies noted in this report.

The Progress Assessment Team identified one concern related to the Corrective Actions Program, which is identified in Appendix B-1 (see Concern M/C-1, Corrective Actions Plan Program).

2.2.2 Self-Assessment Program

In the self-assessment area, the Progress Assessment Team evaluated the status of development and implementation of the DP, NV, and NTS contractor self-assessment programs. In conducting the review, the Progress Assessment Team evaluated each program's compliance with Secretarial guidance, status, and effectiveness. Self-assessment elements that were examined included program plans, assessment processes, related management systems, and assessment products to determine if the programs regularly evaluate and report the status and quality of all aspects of the ES&H performance, determine root causes for deficiencies, and ensure that corrective actions are taken. This assessment area was selected because the 1990 Tiger Team Assessment was conducted before the Secretary's January 1990 mandate that self-assessment should be adopted as a management tool to identify deficiencies and improve performance Department-wide. Thus, while the NTS Tiger Team Assessment addressed aspects of self-assessment such as oversight, it did not focus specifically on the evaluation of self-assessment programs. This Progress Assessment was the first examination of the NV and NTS contractors self-assessment programs. The key standards used to assess the progress were the Secretary's January 26, 1990, Self-Assessment mandate; the July 31, 1990, ES&H Self-Assessment Guidance; SEN-6-89 and subsequent revisions; and the following specific performance objectives in the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992); 1.5, "Program-Wide Self-Assessment Program (DP)," 2.5, "Field Office-Wide Self-Assessment Program" (NV), and 4.5, "Sitewide Self-Assessment Program" (NTS contractors).

The approach of this Progress Assessment was to examine the self-assessment programs of DP, NV, and the four NTS contractors by taking vertical cuts down through these organizations. Primary emphasis was on the effectiveness of DP's self-assessment program and NV's ability to provide guidance to and hold its contractors accountable for implementing their own self-assessment programs. The self-assessment programs of the NTS contractors were examined to evaluate the status of their programs. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations was taken to examine the degree to which various self-assessment programs are coordinated and integrated by NV to provide a sitewide picture of ES&H

performance at NTS. Specifically, a vertical cut through NV and REECofocused on the Operations and Maintenance Division. Vertical cuts were also taken through the other NTS contractors. The evaluation of NTS self-assessment programs was accomplished by reviewing related documents and interviewing DP, NV, and NTS contractor staff involved in their respective self-assessment programs.

Substantial recent progress is evident in the evolution of the DP, NV, and NTS contractor self-assessment programs. However, the state of development of these programs vary greatly between organizations. In general, the NTS contractors' self-assessment programs are most mature in terms of formal architecture, protocols and procedures, and management systems. The NV self-assessment program has recently begun to approach the state of development of its contractors and the DP self-assessment program appears to lag behind in terms of formal implementation plans. The flow down of detailed, contractor and site-specific self-assessment guidance has generally been lacking.

DP has taken an active role in implementing the Secretary's self-assessment policy. DP participated in the development of an Memorandum of Agreement (MOA) between EM, NV, and itself that includes self-assessment provisions, conducted a DOE Order compliance assessment, participated in the DOE Headquarters self-assessment task force to develop DOE-wide self-assessment guidance, and recently sent DP-specific self-assessment guidance to its field offices for comment. DP has initiated a number of self-assessment activities within DP to satisfy its self-assessment obligations, including DP-67 Technical Safety Appraisal (TSA)-like ES&H assessments. DP-9 has been assigned the responsibility for serving as the focal point for the DP self-assessment activities.

However, weaknesses in the DP self-assessment program persist. DP-9 does not carry out systematic assessments, but rather carries out assessments on a selected and/or as needed basis, and reports assessment results to DP line management. There is no requirement or formal process for DP-9 to track, verify, and ensure the proper and timely closure of corrective actions for deficiencies that DP-9 reports to line organizations, such as DP-60. The DP self-assessment program lacks full integration of its many elements to provide the complete, real time picture of the compliance status of the DP complex that the Secretary expects. Full integration of the performance and compliance status occurs periodically during meetings of DP senior officials. Also, there is no DP-wide corrective action management system that captures all deficiencies, and prioritizes and tracks them to closure. The DP self-assessment program is not yet well documented, communicated, and fully understood. While the DP self-assessment program is evolving, it is not fully functioning or effective. Achievement of a fully effective program is inhibited by the lack of a comprehensive and detailed self-assessment program implementation plan - one that contains the protocols, schedules, and milestones expected in a field office or contractor implementation plan.

Recent NV progress in developing a self-assessment program that is responsive to Secretarial guidance has been significant. NV responded promptly to the Secretary's mandate to establish comprehensive self-assessment programs in the field and at contractor sites. In November 1990, after informal discussions with NTS contractor management, NV formally transmitted the Secretary's July 1990 Self-assessment guidance to its contractors and requested that they

provide NV with a detailed summary and status for implementation of their ES&H Self-Assessment Programs, including specific milestones for development and full implementation of a self-assessment program. In May 1991, NV assembled a Safety and Health Self-Assessment Program Criteria and Guidance Document to formalize, guide, and control its initial self-assessment program. Most recently, NV issued its Self-Assessment Program Implementation Plan, which describes the architecture of the NV self-assessment program, defines NV and NTS contractor responsibilities, and describes the enabling self-assessment management systems that must be developed to fully implement the program. The NV plan satisfies Secretarial guidance to build on existing programs, embraces self-assessment as a management philosophy, and is designed to encompass not only ES&H, but all NV activities including safeguards and security and administrative functions. NV is requiring its contractors to adopt the same comprehensive self-assessment approach.

Currently, self-assessment programs at NV and in its contractor organizations are not yet fully developed and implemented. NV and the NTS contractors have not yet fully developed and implemented comprehensive ES&H self-assessment programs. In general, detailed implementation plans have not been developed, corrective action tracking systems are incomplete and lack site-wide uniformity, detailed self-assessment protocols are in draft form, and NV does not have a protocol for approving contractor self-assessment program. However, in the case of all organizations, vital components of self-assessment programs such as ES&H assessments, appraisals, and audits are in place and functioning.

The Progress Assessment Team identified three concerns related to the self-assessment program, which are presented in Appendix B-1 (see Concerns M/C-2, DP Self-Assessment Program; M/C-3, NV Self-Assessment Program; and M/C-4, NTS Contractor's Self-Assessment Programs).

2.2.3 Organization

In the area of organization, the Progress Assessment Team evaluated the adequacy and effectiveness of the assigned ES&H roles, responsibilities, and authorities of the various organizations within DOE (DP, EM, and NV) and site contractors (REECo and EG&G/EM). The Progress Assessment Team determined the adequacy of documentation; if appropriate checks and balances exist; independence and objectivity of the independent ES&H organizations; and how well these roles, responsibilities, and authorities are understood. In conducting the assessment, the Progress Assessment Team looked at organizational charts, Mission and Function statements, manuals, ES&H program plans, ES&H committee charters, Memorandum of Agreements (MOAs) between NV and other organizations, and other relevant documents and interviewed line and ES&H program managers in all the cited organizations. The 1990 Tiger Team and the Inspector General (IG) reports indicate that a lack of defined roles, responsibilities, and authority; a lack of required independence; and an inappropriate match of authority and responsibility were the cause of several deficiencies cited. The key standards against which the site was assessed include the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 1.2, 2.2, and 4.2.

Line and independent ES&H oversight functions within DP are divided among several organizations (DP-9, DP-252, DP-62, DP-67, and DP 651). For example, ISA ES&H inspection activity is performed in DP 67; DP guidance on directives,

standards development, the order compliance study, safety document reviews, and prioritization methodology development are being performed by DP-62; self-assessment plan development, special ES&H studies, analysis of ES&H occurrence reports, emergency management, performance indicator, and trending of ES&H data are being performed by DP-9; DP-651 provides line program management and reviews of Cost Plus Award Fee (CPAF) activities; and DP-252 involved in safety review of weapons tests and review of CPAF activities. EM independent oversight is provided through the EM-20 organization with EM-30 and EM-40 providing line oversight. NV independent oversight of ES&H is the responsibility of the Assistant Manager for Environment, Safety, and Health, which also currently includes QA and self-assessment activities. Line oversight is through the Assistant Manager for Operations who established an onsite Nevada Test Site Organization with an ES&H Branch and a Radiological Operations Group to provide assistance to and oversight of NTS operations. Various documents, with varying degrees of detail, define the roles, responsibilities, and authorities of the involved organizations. The contractors (REECo and EG&G/EM) have similar line and independent organizations as well as ES&H committees to perform ES&H oversight. These also define roles, responsibilities, and authorities to differing degrees of detail.

As a result of the dispersion of ES&H activities in the DP organization, it is not clear that all parties have a common understanding of their roles, responsibilities, and authorities. The effectiveness of the DP assessment and review program is vital to the success of the NV program in that it should provide NV with detailed guidance related to satisfying DOE policy and it should provide NV with independent external oversight. This is discussed further in M/C-2, DP Self-Assessment Program. EM, while experiencing the normal startup problems of a new organization, appears to be aggressively pursuing an effective ES&H program with considerable direct involvement.

Draft and final MOAs between NV and the various DOE Headquarters' PSOs, and NV and the various user organizations (AL, SAN, and DNA), clearly place primary responsibility for implementing the ES&H program on NV. NV has direct, clear, and unequivocal responsibility including Stop Work, appraisal, and corrective action authority. No evidence could be found for the IG contention that this was undefined or that NV lacked adequate authority to effectively prosecute the ES&H program at user sites under the control of other field offices or sponsors. The defined roles, responsibilities, and authorities for NV organizations contained in Mission and Function statements and various ES&H implementation plans was found to adequately define roles, responsibilities, and authorities. Some documents such as the NV Health Protection Division Management Plan were found to be exemplary and are the standard that others should seek to emulate. Contractor definition of ES&H roles, responsibilities, and authorities were also found to be adequate, with a similar wide range of documentation. REECo, for example has a disconnect in the assignment of ES&H roles, responsibilities, and authorities in the line oversight area although it is well defined for the independent ES&H program. EG&G/EM's documentation is better with the addition of an excellent ES&H Division Management Plan. Problems with documentation, and in the case of EG&G/EM, regarding ES&H committees were found and are more fully discussed in M/II-1. An organizational conflict of interest situation was found in the REECo Environment, Safety, and Health Division (ESHD) regarding their line responsibilities for environmental and waste management programs. These are in the process of correction by REECo and are to be transferred shortly to a

new organization. In general, no significant problems of the various participants in the NTS ES&H program could be traced to undefined or lack of understanding of roles, responsibilities, and authorities.

The Progress Assessment Team identified one improvement item related to organizational matters, which is presented in Appendix B-1 (see Improvement Item M/II-1, DP ES&H Organization).

2.2.4 Directive System

In the area of directive systems, the Progress Assessment Team evaluated the adequacy and effectiveness of the guidance provided by DOE (DP and NV) in assuring a common understanding of requirements and expectations and the ability of the contractors (REECO and EG&G/EM) to convert these requirements into policy, practice, and procedures. In conducting the assessment, the Progress Assessment Team looked specifically at the processes, procedures, and documentation detailing the development, control, distribution, and tracking of DOE directives (Orders, Secretary of Energy Notices, page changes, etc.) and any required responses or actions and guidance provided through the budget process. These areas were selected for assessment because the Tiger Team identified a lack of understanding of DOE requirements as a key finding and the Inspector General (IG) Report cited similar deficiencies in several functional areas. The assessment approach taken by the Progress Assessment Team was to review policies and procedures, and to interview responsible personnel to test their knowledge of and actual implementation of the directives, policies, and procedures' systems. In addition, the corrective actions taken to address Tiger Team Findings OA.2-1, OA.5-2, and OA.7-1 were reviewed for adequacy. Directives, policy, and procedures' systems were evaluated against standards as delineated in the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) 1.4, 2.4.1, and 4.4.1.

The NV Directives System (NV 1321.1B) is linked and formatted after the DOE directives system detailed in DOE 1321.1B, "Departmental Directives System." The NV procedure assures internal consistency and includes formal field office-wide description of NV's policy on processing directives. Directives (Orders and SENs) are transmitted to NTS contractors by the Property and Information Branch, not the NV Contracting Officers. The NV procedure requires the contractor to acknowledge receipt of the directives forwarded to them. Although DP and EM have provided interpretations for some DOE Orders and SENs, this has not been timely nor site-specific. DP has provided ample and specific budgetary guidance to clearly indicate what DP expects and the emphasis they place on ES&H activities.

EG&G/EM's directive process is well developed and contains the necessary checks and balances in conversion to company policy, practice, and procedure. REECO's process is not as well developed but there are activities and a procedure currently being developed that should result in an effective directive process.

The previous Tiger Team and the IG appraisal identified problems associated with lack of compliance with or misunderstanding of DOE requirements. These are traceable to deficiencies in the directive system and in particular the failure to come to a common understanding as to what the requirements are and how they will be implemented. While NV has taken actions to correct the

specific findings contained in these appraisals they have not corrected the systemic problem by including, in the directive procedures, requirements that would assure a common understanding and require the contractor to indicate impact, degree of current compliance, and the development of an implementation plan. DP has recently directed, and NV is currently implementing, provisions for contractor review of Draft DOE Orders. In addition, NV indicated its intention to consider methodologies for incorporating contractor impact and implementation plans into the Directives Management procedures. While DP has not provided timely directive guidance, they have provided effective and ample budgetary guidance on ES&H expectations. Review of Budget Call documents indicates that DP provided adequate guidance on what DP's expectations in the ES&H area are with specific guidance covering the facility representative program, Cost Plus Award Fee (CPAF). Tiger Team corrective actions, maintenance, emergency operations, conduct of operations, training, order compliance, quality assurance, and waste minimization.

The Progress Assessment Team identified two improvement items related to directives procedures, which are presented in Appendix B-1 and B-2, respectively (see Improvement Items M/II-2, Directive System, and E/II-1, QA Order Implementation Guidance).

2.2.5 Assessment and Review

In the area of assessment and review, the Progress Assessment Team evaluated the adequacy of the DOE (NV, DP, and EM) and contractor programs for assessment and review of ES&H activities. Additional key elements of ES&H oversight are detailed in other sections of this report addressing the site's self-assessment and corrective action programs and the directives systems. In conducting the assessment, the Progress Assessment Team looked specifically at the plans, procedures, and documentation detailing how assessment and review activities are performed by selected line and independent oversight organizations of the DOE and site contractors (REECo and EG&G/EM). Effective assessment and review oversight is a vital management system element in ensuring that ES&H programs are performed in accordance with requirements and that performance is directed at achieving ES&H excellence. Inadequate internal review, including independent oversight, was one of the key Management Subteam findings in the 1990 Tiger Team Assessment. The assessment approach taken by the Progress Assessment Team was to interview DOE (EM, DP, and NV) and contractor (REECo and EG&G/EM) management personnel responsible for line and independent oversight and to review pertinent policies, procedures, surveillance and audit reports, and other documents to measure the adequacy of performance. The key standards used in this assessment include the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) 1.4.2, 2.4.2, and 4.4.2; DOE Orders; and individual organization policies and procedures.

ES&H oversight responsibilities flow down through line management and independent oversight organizations of DOE Headquarters (DP as the Lead PSO and EM), NV, and NTS site contractors. Draft Memorandums of Agreement among DP, NV, and other Program Secretarial Officers with program activities at NTS; between NV and AL; and between NV and SAN for their respective laboratory contractor users of NTS facilities delegates primary ES&H oversight of all programs to NV. Other Program Secretarial Officer Office ES&H responsibilities include providing guidance and review of ESH/quality assurance (QA) programs, reviewing of ES&H documentation (SARs, NEPA),

performing Operational Readiness Reviews, and performing independent assessments of NV ESH/QA programs. Within NV, line oversight is currently performed through the Assistant Manager for Operations (AMO) and the Assistant Manager for Technical Support (AMTS), while independent oversight of the ES&H programs of both the contractors and NV is provided by the Assistant Manager for Environment, Safety, and Health (AMESH). The four AMESH divisions perform formal appraisals, surveillances, and review of safety documents of contractor ES&H programs and activities. Line managers also perform formal and informal oversight activities such as document reviews, DOE 5000.3A evaluations, award fee evaluations, ES&H program guidance and direction, self-assessment, deficiency tracking and trending, etc. Since the Tiger Team Assessment, NV AMO has expanded the Nevada Test Site Office (NTSO) ES&H staff to eight full time employees and created a Radiological Operations Group consisting of three full time employees to provide increased onsite presence of DOE staff. NTS contractor organizations also have line and independent oversight organizations with similar functions.

Oversight activities (line, independent, PSO, and NV) have shown considerable improvement in number, quality, documentation, and formality subsequent to the previous Tiger Team. NV's decision to baseline the S&H status of the NTS through the Compliance Assessment Program (CAP) at the risk of not completing certain scheduled functional appraisals is justified by the management support, quality, and thoroughness of the CAP effort and the responsiveness to corrective actions resulting from this effort. Due to higher priority workload, line management oversight is more limited than would appear desirable. Continued improvement in the ES&H program has been made through the Cost Plus Award Fee (CPAF) process, however, this process has evolved to the point where the pursuit of ES&H excellence may be better served by broader criteria rather than the continued use of the large number of specific (mostly contractually required) performance criteria. The large number of criteria, without any relative weightings, deprives the contractor of the ability to make value judgements and resource allocations on a risk/reward basis. Therefore, the CPAF process becomes a way of controlling the work rather than a process to guide and achieve ES&H excellence.

DP's oversight, through the DP-67 TSA process, has been effective. However, in the CPAF process they are too passive and reactionary. Except for some deficiencies in safety committee charters the contractor line and independent review and assessment activities were found to be satisfactory and improving.

The Progress Assessment Team identified one concern and one improvement item related to ES&H assessment and review oversight activities, which are presented in Appendix B-1 (see Concern M/C-5, Safety Committee Charters, and Improvement Item M/I1-3, Cost Plus Award Fee).

2.2.6 Planning, Budgeting, and Resource Allocation

In the planning, budgeting, and resource allocation area, the Progress Assessment Team evaluated the DP and the NTS management systems used to define and set priorities for sitewide resource requirements, allocate resources appropriately, and monitor the accomplishment of ES&H objectives. This assessment area was selected because the 1990 Tiger Team Assessment was conducted before the Secretary's emphasis on Department-wide strategic and subordinate implementation planning was fully defined, communicated, and implemented. As a result, the 1990 Tiger Team Assessment did not place the

emphasis on the planning process throughout DOE and its contractors that it now receives. Even though planning did not receive a thorough examination, the 1990 Tiger Team Assessment report is replete with deficiencies that can be related directly to the lack of a comprehensive sitewide planning, budgeting, and resource allocation process. The key standards used to assess the progress in addressing these deficiencies were Secretary of Energy Notice (SEN)-25-A and the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 1.1, "Planning" (DOE-HQ), 2.1, "Planning" (NV), and 4.1, "Planning" (NTS Contractors).

The approach of this assessment was to examine the planning, budgeting, and resource allocation process of DOE-HQ, NV, and the four NTS contractors. Vertical cuts were taken down through these organizations; from DOE-HQ through NV to the first several contractor management levels. The assessment process involved interviews, document reviews, and site tours. Primary emphasis was on the ability of DOE to formulate its vision of the NTS mission, plan and set priorities for its own activities, communicate its expectations to its contractors, and hold its contractors accountable for defining and executing their missions in a disciplined, planned fashion. The strategic and subordinate implementation planning processes of the contractors were examined to evaluate their planning, budgeting, and resource allocation processes and to evaluate the effectiveness of DOE's planning, budgeting, and resource allocation process. Specifically, a vertical cut taken through NV and REECO focused on the Operations and Maintenance Division. Less detailed vertical cuts were also taken through EG&G/EM program organizations, including RSN and WSI. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations was taken to examine the degree to which various interrelated subordinate planning processes are coordinated and integrated. The evaluation of DP and NTS planning processes were accomplished by reviewing related documents and interviewing DP, NV, and NTS contractor staff involved in their respective planning activities.

The DP and NV strategic and subordinate implementation planning process evidences progress. DP has issued a strategic plan and associated specific ES&H and programmatic planning guidance to NV. The NV manager has conducted strategic planning exercises and established specific ES&H and programmatic goals and objectives for the NV Offices. While the NV planning process is maturing at the senior management levels, disciplined, prioritized, planning has not yet been implemented throughout the organization.

NV implementation plans that would set priorities, guide, and provide formality to its own ES&H activities, and the activities of its contractors, are in many cases incomplete, in draft form, or do not exist. The NV Health Protection Division (HPD) has a comprehensive, priority-based, implementation planning process that has evolved over the past several years. However, HPD is an exception within NV. In general, NV Offices, and their subordinate organizational units, do not have detailed implementation plans to prioritize and guide the conduct of their ES&H activities. Vital ES&H implementation plans that are incomplete, in early draft forms, or non-existent include those for the Office of the Manager of ES&H, ES&H Human Resource Management, and Performance Assurance and Quality. The lack of a comprehensive NV implementation planning process is evident throughout NTS. There is a general lack of uniform and consistent sitewide ES&H guidance, and, as a result, NV and the NTS contractors are managing their ES&H activities in a reactive rather than a priority-based manner. For example, the Action Plan closure

process is not uniform across the NTS. There is no sitewide procedure to ensure uniform verification and closure of Action Plan activities. While NV management recognizes the need to improve its planning processes, and some units have taken the initiative to create working level implementation plans, NV has not yet implemented a priority-based ES&H planning process through NV. However, NV management indicated that the new DOE 5-year ES&H planning initiative will require NV to prioritize its ES&H activities.

In general, the NTS contractors' implementation plans that define, prioritize, guide, and ensure the formality of their ES&H activities are also incomplete. Many of the implementation plans are in draft form, under development, or do not exist. While detailed ES&H implementation planning is in the early stages of evolution, there was much evidence during this assessment that NV senior management is committed to conducting future NTS activities in a formal, planned manner. Furthermore, the NTS contractors evidenced substantial planning skills that will enable them to carry out the NTS mission in a disciplined, cost-effective manner. The emerging EG&G/EM planning process was particularly encouraging in that it took a long range, strategic view of ES&H considerations and have begun to developing detailed implementation plans in their program support organizations.

The Progress Assessment Team identified one concern related to the planning, budgeting, and resource allocation area, which is presented in Appendix B-1 (see Concern M/C-6, Planning, Budgeting, and Resource Allocation).

2.2.7 Human Resource Management

In the human resource management area, the Progress Assessment Team evaluated the NV and its NTS contractor's human resource management systems to assess their effectiveness in ensuring the availability of sufficient qualified human resources for full implementation of NTS ES&H requirements. Specific issues included human resource management plans that define and set priorities for addressing the requirements for full implementation of ES&H programs; programs for staff development, training, and certification; and staff recruitment programs that ensure the availability of sufficient qualified ES&H staff. This assessment area was selected because the 1990 Tiger Team Assessment identified a number of findings and concerns that were directly related to deficiencies in the NTS human resource management systems. The key standards used to assess the progress in addressing these deficiencies were the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 1.3, "Human Resource Management" (DOE-HQ), 2.3, "Human Resource Management" (NV), and 4.3, "Human Resource Management" (NTS Contractors).

The approach of this assessment was to examine the human resource management programs of NV and the four NTS contractors by taking vertical cuts down through these organizations. Primary emphasis was on NV and its contractor's effectiveness in defining their ES&H staffing needs, focusing primarily on ES&H training needs, and ensuring that these needs are satisfied. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations was taken to examine the degree to which the various interrelated human resource requirements are coordinated and integrated across each organization and in the case of NV on a sitewide basis. Specifically, a vertical cut through NV/NTSO and REECO focused on the Operations and Maintenance Division. The ES&H training systems of the other NTS contractors

was also examined, but in less detail. The evaluation of NTS human resource management programs was accomplished by reviewing related documents and interviewing DP, NV, and NTS contractor staff involved in their respective human resource management programs.

Historically, NV ES&H training has been fragmented, decentralized, and often informal. In December 1991, NV developed a plan to centralize its training functions into a single organization, the Training and Development Branch (TDB) within the Human Resources Division. The NV plan was approved by DP in February 1992. Progress in establishing an effective ES&H training program is evident since the formal approval of the TDB.

The NV TDB has developed a rough draft work plan that will serve as a framework for its activities. For example, the work plan addresses nine activities including: Establishing Work Priorities, Course Development, Contractor Training Oversight, Individual Development Plans, Development and Implementation of NV Training Orders, Professional Development Programs, Coordination of HQ Directed Training Actions, and Determination of Training Effectiveness. While the TDB work plan appears to address all aspects of a comprehensive training program, it currently lacks sufficient detail to be a useful implementation plan. For example, it lacks an implementation schedule including the phasing of activities and important milestones leading to full implementation.

NV does not yet have a formal, comprehensive process to identify the ES&H training requirements for each employee. An NV-wide personnel training, retraining, and certification tracking system that identifies the training requirements for each employee and the employee's training status does not exist at NV. However, organizational units within NV have begun developing and implementing unit-wide needs based ES&H training programs. The Health Protection Division within the Office of the Assistant Manager for ES&H is progressing towards such a training system. The utility of this system for other OAMESH divisions will be evaluated when the system is more fully developed.

Despite the lack of a comprehensive ES&H training program, NV management appears to understand and embrace the need for such a program, has recently given priority to the development of a program, and has taken initial steps to implement one. Training resources exist throughout the NTS that should benefit NV's efforts including the ES&H training offered by the NTS contractors and the DOE/NV Contractors Training Council.

The ES&H training aspects of the NTS contractors' human resource management programs, while more mature than that of NV, also lack the characteristics of fully effective programs. However, in the case of all NTS contractors, enhancements in their programs are underway or recognized as a need by their management, but not under a uniform NV NTS-wide policy or management plan.

REECo does not have a centralized, company-wide ES&H training program to set priorities for ES&H training requirements in a uniform manner. However, REECo training is being consolidated into a single organization; there is no implementation plan that describes how this new organization will function. REECo ES&H training priorities are set at various management levels and training requirement priorities are expressed as compliance requirements that

are left to the line organizations discretion to reprioritize relative to other demands.

RSN training is centralized under the Commitment to Excellence Office (CTE) of the RSN Total Quality Management Program, but this is primarily an administrative function. The RSN CTE training staff tracks the status of staff training and notifies the line management organization when retraining is required. However, the line management organization is solely responsible for ensuring that the training requirement is satisfied. While the CTE training staff issues monthly training status reports to line managers, there is no RSN formal process for follow up and closure. RSN does not have a company wide system to set priorities for ES&H training needs. However, while performance based ES&H training needs identification is not yet fully integrated and formalized, it is occurring on a limited basis. For example, RSN the safety and health procedures manual sets priorities for training such as radiation worker training.

The EG&G/EM ES&H training program was not examined in the same detail as other NTS contractors. However, several positive observation can be reported. ES&H training needs are determined primarily by the ES&H organization on the basis of a DOE ES&H Order compliance analysis and job task analyses. EG&G/EM program management organizations have given priority to ES&H training for their employees.

WSI appears to have the most mature ES&H human resource management program in terms of ES&H training at NTS. WSI enhances its core ES&H training program, as required by NV, to include new ES&H training requirements. WSI employees appear to have the ES&H training necessary to carry out their assigned duties.

Despite the lack of a comprehensive ES&H human resource management program, NV management appears to understand and embrace the need for a comprehensive ES&H training program, has recently given priority to the development of such a program, and has taken initial steps to implement one. Training resources exist throughout the NTS that should benefit NV's efforts including the ES&H training offered by the NTS contractors and the DOE/NV Contractors Training Council.

The Progress Assessment Team identified one concern and one strength related to the ES&H human resource management and related training program, which are presented in Appendix B-1 (see Concern M/C-7, Human Resource Management, and Strength M/S-1, DOE/NV Contractors Training Council).

2.3 OVERVIEW OF ENVIRONMENTAL PROGRAM ASSESSMENT

The Progress Assessment Team evaluated the overall effectiveness of NTS Environmental Program. The assessment was conducted through a combination of interviews with key personnel and a review of documents. Specific environmental disciplines were selected for review based on previous Tiger Team areas of concern, or because those disciplines were believed to be highly characteristic of ES&H program performance. The environmental disciplines assessed at NTS were quality assurance, environmental restoration, groundwater protection, and release reporting.

Based on the review conducted by the Progress Assessment Team, NTS has made adequate progress in further developing their environmental programs since the

1990 Tiger Team Assessment. However, deficiencies remain. In many instances, NV is implementing projects in environmental programs without formally applying program integration and operational planning, including preparation of program plans and procedures.

With respect to the specific environmental programs reviewed, the Progress Assessment Team reached the following conclusions:

- NV has made progress in their Quality Assurance (QA) Program since the 1990 Tiger Team Assessment. However, there have been delays in timely completion of a DOE 5700.6C-based QA program and its implementation plan; also, the clear definition of QA roles and responsibilities in the ES&H program is incomplete.
- The Environmental Restoration Program has made significant improvement since the 1990 Tiger Team Assessment. However, environmental restoration activities are being conducted by both NV and its contractors without formal program integration and without formal plans and procedures.
- The Groundwater Management Protection Program has made progress in planning initiatives with respect to the Groundwater Characterization Project, but the lack of a Groundwater Protection Management Program Plan has hindered coordination of numerous program elements.
- Progress has been made with regard to release reporting since the 1990 Tiger Team Assessment, but inconsistencies exist especially regarding the manner in which contractors are following through on their release reporting procedures.

2.3.1 Environmental Quality Assurance Program

In the quality assurance (QA) area, the Progress Assessment Team evaluated the adequacy of the NV and its contractors to develop and implement QA programs for environmental activities. In conducting the assessment, the Progress Assessment Team looked specifically at: (1) the management, organization, and implementation of QA programs; (2) the guidance on establishing a QA document hierarchy sufficient to control environmental programs; and (3) the status of QA program and implementation plans in compliance with DOE 5700.6C, "Quality Assurance," requirements. These areas were selected because the NTS Tiger Team did not conduct a programmatic assessment on the implementation of quality assurance, and as a result, there has been no specific examination of the effect of QA programs on the management and control of environmental programs at NTS. In addition, DOE 5700.6C was greatly revised, and reissued in August 1991, subsequent to the Tiger Team Assessment. The implementation of the requirement for submittal of QA programs and implementation plans for contractors was due within 180 days from August 21, 1991 (February 17, 1992) with approval by the Program Secretarial Officer within 180 days of QA plan receipt (i.e., no later than August 16, 1992). The approach taken by the Progress Assessment Team was to interview QA managers and selected line managers and staff QA personnel regarding support activities, audits, and assessments; review QA program documents; conduct a vertical slice review of QA implementation for the Groundwater Characterization Project (GCP); and identify progress on QA program integration with environmental activities and

Total Quality Management initiatives. The key standards against which the site was assessed include: DOE 5700.6C: Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229); and, Draft Protocols for Conducting Line Program Environmental Management Audits (February 1992).

The NTS QA program is composed of the NV program and those of its major site contractors (REECO, RSN, EG&G/EM, WSI, and IT Corporation (IT)). The NV Quality Council (comprised of the NV Manager, Deputy Manager, Assistant Managers, and Director, Office of External Affairs) is responsible for developing NV QA program policies and direction. The Performance Assessment and Quality (PAQ) Division, which is presently part of the Office of the Assistant Manager for ES&H (AMESH), is responsible for implementing quality programs by: developing, administering, and conducting multidisciplinary assessments of the systems needed to assure the quality of items, processes, programs, and operations; providing overall management and guidance on NV's self-assessment program; and providing programs and tools to facilitate the total quality management philosophy within NV operations. Although the location of PAQ, within the AMESH, represents an organizational conflict of interest with regard to its independence from cost and schedule, NV has recognized this and has addressed this in the reorganization plan submitted to DP.

The current status of the NV QA program is that it meets the requirements of ANSI/ASME NQA-1 in accordance with DP directives, Deputy Assistant Secretary for Military Application (DASMA) Quality Management (QM) policy, and DOE 5700.6B. DOE 5700.6C superseded DOE 5700.6B, on August 21, 1991, and significantly changed the direction of QA program implementation and the supporting management systems. The NV QA program is in the formative stages of a reorganization and is completing the redefinition of organizational and staff roles and responsibilities in an effort to implement the concepts of total quality management and guidance in DOE 5700.6C, while actively trying to strengthen the emphasis of QA as a line responsibility. The approach to accomplishing the redefinition of QA responsibilities has just recently been resolved and the structural aspect of the reorganization effort is awaiting approval by the DP Program Secretarial Officer (PSO). As a result, NV has a Draft NV 5700.6C but has not completed its sitewide QA program plan or implementation plan to meet the requirements for DOE 5700.6C with the incorporation of DASMA QM policy.

NV implementation of QA within environmental programs is accomplished through the tiering down of sitewide QA requirements from NV 5700.6B, which is used to produce divisional quality implementation plans. Within the environmental QA arena, NV has two PSOs (DP and EM) to whom it must report. Both PSOs have given guidance to NV on the implementation of QA programs. The Environmental Restoration and Waste Management Division (ERWM), as part of NV, reports through NV to EM, and all other NV environment-related organizations report to DP. As a result, ERWM activities are guided by a QA plan that not only satisfies DP requirements but must also comply with the EM guidance manual Quality Assurance Requirements and Description (October, 31, 1991). With regard to complying with DOE 5700.6C, ERWM has completed its QA program and implementation plans and will send them to EM-1 for approval to meet the required due date of July, 30 1992. The Environmental Protection Division (EPD), within the Office of AMESH, is responsible for conducting environmental audits, surveillances, and appraisals of facilities with regard to environmental protection. EPD is also tasked with developing and implementing

procedures to assure compliance with QA policies as delineated in NV 5700.6B as they apply to their assigned activities.

Implementation of QA in contractor organizations is characterized by a similar flowdown of requirements. Four contractors, REECo, RSN, EG&G/EM, and IT play the predominant roles in implementing QA within NV environmental programs. Within REECo, line QA programs are developed within the division and departments through QA implementation procedures that delineate the roles, responsibilities, accountabilities, and organizational components for QA. The backbone for the daily implementation of ES&H QA resides in the division, department, and section Quality Coordinators who are tasked with oversight, training, and analysis of QA related issues. Independent oversight and QA implementation, for REECo, reside in the Quality Systems Division. At EG&G/EM, the Quality Services Division is responsible for the implementation of quality programs and independent assessment of ES&H programs. The EG&G line organizations responsible for protection of endangered species and remote sensing functions conduct the ES&H QA surveillance activities at NTS. At RSN, the support to the NTS ES&H program is in performing the engineering design functions for NTS projects. RSN QA implementation and independent assessments are the responsibility of the RSN QA Department at NTS, and the daily implementation of QA within the line is carried out by quality engineers within the departments. IT is contracted solely to provide support to ERWM and mainly to ERB, which includes the GCP. They began operations at NTS, in February 1992, and have not fully established their QA program. They have produced a draft QA Program Plan to apply to all ERB projects and have assigned a QA Officer to develop and implement the QA program for IT.

The NV QA program has noticeably improved as evidenced by program changes made since the Tiger Team Assessment. NV and the four site M&O contractors (REECo, EG&G/EM, RSN, and WSI) have QA programs that meet the basic requirements of NQA-1, and each of the M&O contractors have developed QA program and implementation plans to conform to the requirements of the new DOE 5700.6C. The implementation of total quality management processes have been initiated within NV and each of the NTS M&O contractors. The use of Quality Improvement Teams, under the mantle of the total quality management philosophy, to analyze work processes and develop solutions to site operations have begun the process of bettering the understanding of QA program elements and their involvement in improving the workplace.

These positive changes, however, are slowed by the NV delays in the timely completion and implementation of their own DOE 5700.6C-based QA program and implementation plan. This action is required to ensure that NV and its contractors are coordinated in their efforts to meet DOE 5700.6C and fully implement their quality improvement initiatives.

The Progress Assessment Team identified two improvement items related to the NTS Quality Assurance Program, which are presented in Appendix B-3 (see Improvement Items E/II-1, QA Order Implementation Guidance, and E/II-2, QA Program Implementation).

2.3.2 Environmental Restoration Programs

In the environmental restoration (ER) area, the Progress Assessment Team evaluated the adequacy of the NTS programs with regard to program planning for site cleanup activities. In conducting the assessment, the Progress

Assessment Team looked specifically at the manner in which the ER program was being planned, managed, and integrated within the NV Environmental Restoration and Waste Management Division (ERWM), including the Environmental Restoration Branch (ERB). The ER area was selected because program planning and coordination was identified as an issue during the 1990 Tiger Team Assessment. In addition, since the Tiger Team Assessment, site restoration has become a larger and more prominent program because listing on the National Priorities List (NPL) is more imminent and ER activities are now under the purview of the DOE-HQ Office of Environmental Restoration and Waste Management (EM). Continued growth is expected for this program, especially if NTS is placed on the NPL. The approach taken by the Progress Assessment Team was to conduct interviews with NV and contractor management and staff in the ER program areas. In addition, associated program planning and implementation documents and procedures were reviewed. The key standards against which the site was assessed included Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229), IWS.1, "Inactive Site Program Planning," and ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 2.1, "Planning."

The overall purpose of the NTS ER program is to assess and characterize sites and facilities contaminated by past activities and to clean up such areas to meet prescribed standards. This program is managed by the ERB within ERWM and is under the auspices of the NV Assistant Manager for Operations and the EM program office (specifically EM-452). Several site contractors support the ER program, including REECO, RSN, DRI, PAI, EG&G/EM, and most recently IT as the Environmental Support Services Contractor; USGS also provides technical support. ERB is also dependent upon the other two branches within ERWM as well as NTSO. The Technology Development Branch (TDB) is overseeing the development and demonstration of technologies to remediate plutonium-contaminated soils. The Waste Operations Branch (WOB) will be managing remediation-generated wastes. NTSO provides site support and coordination of field operations, such as well drilling.

More than 1,000 abandoned waste sites, which have been organized into eight waste area groupings, have been identified on the NTS. Cleanup of these waste area groupings are planned to be conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial response process. NTS has been scored for listing on the NPL, using the revised Hazard Ranking System. The results indicate that the site exceeds the score necessary for listing. Until the scoring has been reviewed by regulatory agencies, NPL status of the site remains uncertain. Other major aspects of the ER program include the Groundwater Characterization Project (GCP) (see Section 2.3.3), which will provide hydrogeologic and groundwater contaminant characterization information to the remedial investigation/feasibility study (RI/FS) process; Resource Conservation and Recovery Act (RCRA) closures; decontamination and decommissioning (D&D); and restoration of eight offsite locations. The offsite locations are not in the scope of this assessment.

The NV ER program has made significant progress since the 1990 Tiger Team Assessment. It has been put under the auspices of the EM program office and, through the EM Five-Year planning process, program plans and budgets have been developed for that time period. An activity data sheet and funding have been established specifically for planning and managing the ER program, and various efforts have been made to coordinate the GCP with the RI/FS process (see

Section 2.3.3). A comprehensive inventory was undertaken to identify and document abandoned and inactive facilities, structures, and disposal sites on NTS that might contain hazardous chemicals controlled by environmental regulations. Plans have been made to incorporate sites discovered during the inventory process, as well as Atmospheric Testing Debris Disposal Program sites and the inactive post-event sumps and cellars, into the ER program. ERB exercises strong oversight and management of its program, is committed to assuring that its staff receives appropriate training, and has strong communications with EM, NTSO, contractors, and other branches within ERWM.

The NV ER program has identified program and quality assurance plans, strategies, and procedures that are needed for the conduct of its mission. However, ER activities are being carried out by both NV and contractors without many of these documents having either been developed or approved. In addition, the ER program is dependent on numerous interactions with other programs, organizations, and technical efforts as well as on the resolution of a variety of regulatory, institutional, and technical uncertainties. However, a formalized long-term planning and management system is not in place to integrate these aspects and allow for contingency planning. The Performance Measurement System, which should address some of these concerns, is being developed by ERWM. If, as anticipated, NTS is placed on the NPL, these systems will be essential to plan for, track, manage, and meet milestones that will be a part of a resulting interagency agreement.

The Progress Assessment Team identified one improvement item related to the ER program, which is presented in Appendix B-2 (see Improvement Item E/II-3, Integrated Long-Range Planning for the NTS Environmental Restoration Program).

2.3.3 Groundwater Protection Program

In the groundwater protection area, the Progress Assessment Team evaluated the adequacy of NV to develop and integrate programs to protect, monitor, and characterize groundwater resources. In conducting the assessment, the Progress Assessment Team looked specifically at Groundwater Characterization Project (GCP), Draft Groundwater Protection Management Program Plan (GPMPP), and the Hydrology/Radionuclide Migration Program (HRMP). The groundwater protection program was assessed to determine how effectively it integrated a variety of groundwater programs onsite including the GCP and the HRMP, as well as groundwater initiatives at the Yucca Mountain Project (YMP). The GCP was selected because the lack of a GCP comprised a key finding in the 1990 Tiger Team Assessment with regard to integrating it with the anticipated CERCLA RI/FS to be performed for environmental restoration of the site. The approach taken by the Progress Assessment Team was a programmatic review related to these groundwater protection activities and included interviews of NV, NTSO, REECo, DRI, Yucca Mountain Project Office (YMPO), DP, and EM management; and review of documents relating to the management of the above programs. The key standards used to assess the site include Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229) relating to Groundwater Programs; Draft Protocols for Conducting Line Program Environmental Audits (February 1992); and ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992).

Currently, eight separate organizations (LANL, LLNL, DNA, USGS, DRI, EPA, REECo, and IT) are involved in hydrologic investigation of varying scope depending upon particular program needs. The information gathered for one

program is not necessarily relevant to any other program. Programs and projects that provide necessary information for groundwater protection reside with various NV organizations. ERB is responsible for the development of the GCP; the ERWM Hydrology Program Manager is responsible for the management and direction of the Hydrology/Radionuclide Migration Program (HRMP); and the Groundwater Protection Management Programs Plan (GPMPP), and NTSO is responsible for potable/nonpotable water quality and the Test Technology Branch (TTB) administers programs for geology and NTS-SOP Groundwater Protection Procedures for to the test program. The management, oversight, and funding of these programs and activities is a DP responsibility with the exception of the GCP which is an EM responsibility.

Progress has been made by NV with respect to initiation of closure of finding IWS/CF-3 from the 1990 Tiger Team Assessment through program planning to integrate the GCP with RI/FS. The GCP provides for the design and implementation of a groundwater characterization program at the NTS. The program will ultimately assist in characterizing the groundwater regime for use during the anticipated CERCLA RI/FS process and will also provide a basis for establishment of a NTS-wide groundwater monitoring network. Only recently have the first of an anticipated 98 wells been drilled as part of the GCP.

NTS has been scored for potential listing on the National Priorities List (NPL), using the revised Hazard Ranking System. Until the scoring has been reviewed by the regulatory agencies, the NPL status of the site remains uncertain. As a result, at this time there are no Federal regulatory directives requiring groundwater characterization to determine the extent of contamination for cleanup purposes. Before the site is placed on the NPL as anticipated, NV is using this opportunity to plan and organize a groundwater characterization project that will allow them to meet aggressive milestones anticipated in an Interagency Agreement (IAG) and investigate the problems associated with application of oil field drilling technologies to drilling groundwater monitoring wells.

Initial GCP efforts, to date, have been implemented without approved plans and procedures. Even without formally approved documents management involved in the GCP, both at NV and EM have exhibited a thorough understanding of the scope and approach and the roles and responsibilities for project implementation. The primary reason that NV and EM have this understanding is that NV management has succeeded in developing formal and informal working groups and technical committees that have been able to communicate and disseminate information effectively to all organizations involved in the GCP. Additionally, EM 452 has taken an active role in the oversight of the GCP by providing timely guidance and direction to ERWM staff. Given the effort that must be expended to adequately characterize the groundwater regime beneath and attendant to NTS and the myriad of programs, projects, and organizations that need to be coordinated for the GCP, the time spent planning the implementation of the GCP was beneficial. It appears that all organizations associated with this effort have a clear understanding of the organizational and implementation elements of the GCP. However, the project lacks formal plans and procedures.

Coordination of groundwater protection activities is inadequate with respect to the intent of special program planning requirements contained in DOE 5400.1, although some pre-planning activities have been initiated by NV management to understand groundwater protection activities and organizations and their

interrelationships. Integration and coordination of groundwater protection activities is essential because of the numerous organizations and relationships involved in groundwater protection management activities on, and attendant to, NTS. NV has not been able to dedicate staff to fully develop an understanding of these complex organizational relationships. Nonetheless, NV has developed a draft GPMPP, which is currently undergoing management review. It addresses coordination of NV groundwater protection activities, but lacks a strategy for integration of YMP groundwater protection activities into the NTS programs. NV management realizes this situation.

The Progress Assessment Team identified one concern related to the Groundwater Protection Program, which is presented in Appendix B-2 (see Concern E/C-1, NTS Groundwater Protection Program).

2.3.4 Release Reporting

In the release reporting area, the Progress Assessment Team evaluated the adequacy of the NTS systems with regard to directives and procedures to assure compliant reporting of spills and accidental releases. In conducting the assessment, the Progress Assessment Team looked specifically at the adequacy and consistency of systems at NV, its contractors, and site user organizations for release reporting and for interaction between release reporting and occurrence reporting (DOE 5000.3A). Release reporting was selected because numerous spills, mainly of petroleum products, occur on the NTS, and the Tiger Team noted that, among the various site contractors and user organizations as well as DOE, release reporting procedures were either non-existent, incomplete, or were not known by site personnel. The approach taken by the Progress Assessment Team was to conduct interviews with NV, its contractor, and site user organization management and staff in the release reporting areas. In addition, associated procedures were reviewed. The key standards against which the site was assessed included Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229), IWS.2, "Release Reporting."

NV, its contractors, and site user organizations each have their own procedures for release reporting. Ultimately, each is responsible for reporting releases that have occurred within its facilities or operations to NV. NV, through the Environmental Protection Division (EPD), is then responsible for providing initial notifications to the appropriate regulatory authorities. The individual organization is also responsible for performing followup characterization, cleanup, and reporting, and EPD is responsible for all followup contact with the regulators. Nearly 40 releases have been reported at the NTS in 1992 through July 21 (D-F-45). Nearly half were accidental spills while the remainder were discoveries of past releases (reportable under Nevada law). In all cases, these have been petroleum products or waste oil.

Progress has been made with regard to release reporting since the 1990 Tiger Team Assessment. Inconsistencies and inadequacies still exist, especially regarding the manner in which contractors are following through on their release reporting procedures. However, the site has developed a tracking system and standardized spill notification report form and actions are being taken to implement a consolidated sitewide release reporting and response process. In addition, the site is developing and implementing a spill prevention, control, and countermeasures plan (D-F-34), and REECo has formed a

working group to develop long-term solutions to minimize spill incidents. Also, there is generally close coordination between release reporting and occurrence reporting systems.

The Progress Assessment Team identified one Concern related to the release reporting program, which is presented in Appendix B-2 (see Concern E/C-2, Release Reporting Procedures).

2.4 OVERVIEW OF SAFETY AND HEALTH PROGRAM ASSESSMENT

The Progress Assessment Team evaluated the overall effectiveness of the NTS safety and health program. The assessment was conducted through a combination of interviews; review of key documents; and where appropriate, field inspection of activities and processes. Specific safety and health disciplines were selected for review based on previous Tiger Team areas of concern, or because those disciplines were believed to be highly characteristic of safety and health program performance. The safety and health disciplines assessed at NTS were maintenance, worker safety, and industrial hygiene.

Based on the review of these areas, the Progress Assessment Team concluded that the NTS safety and health program has made progress in resolution and correction of many 1990 Tiger Team Assessment findings and concerns. This statement is based upon direct observations of corrective actions that effectively abated many worker safety and health issues as well as the DOE executive management commitment to achieving excellence in the development and execution of sitewide safety and health programs. Full implementation of management safety and health plans are underway by both NV and their site contractors that should result in continuing progress toward total compliance with mandated DOE Orders and adopted regulations.

Based on the safety and health review, the Progress Assessment Team reached the following conclusions:

- The NTS maintenance program is making the transition from DOE 4330.4 to DOE 4330.4A. The latter expands the maintenance program to include non real property such as personal property and non-permanently installed infrastructure equipment. The Order provides for a graded approach for implementation to be commensurate with the element's importance to safe and reliable operations, environmental compliance, safeguards and security, programmatic mission, facility prerequisites, and/or the facility-specific requirements.

NV and the NV contractors, specifically Reynolds Electrical & Engineering Co., Inc. (REECo), have established an implementation committee that formulated a schedule for implementation. The impact of the Order is also being addressed with a graded approach. Although some elements of the new ES&H requirement are not in place in all portions of maintenance, none were significant enough to warrant a concern or improvement item.

- NV management's commitment to hazard identification and abatement has been evidenced over the last 18 months by focusing resources in support of the Compliance Assessment Program. Contractor

commitment to excellence is projected in REEC's Voluntary Protection Program effort (D-I-12 and D-I-13). NV management of occupational safety and health has shown strong commitment to achieve excellence. However, both NV and contractor management systems to measure employee occupational safety and health performance and accountability have not been fully developed and implemented.

- Significant progress has been made by NV and its contractors in addressing the industrial hygiene related concerns of the 1990 Tiger Team Assessment. Three concerns remain open but are not past their scheduled completion dates. Despite this progress, issues concerning NTSO oversight through field reviews and the slow rate at which REEC has conducted "asbestos in building" surveys were noted. However, none of these issues were significant enough to be a concern or an improvement item. The limited scope of this assessment to Tiger Team Assessment closure items does not suggest that problems within NV and contractor industrial hygiene programs do not exist.

2.4.1 Conduct of Maintenance

In the conduct of maintenance area, the Progress Assessment Team evaluated the adequacy of NV to develop and implement a formal and disciplined approach to the maintenance program that ensures a safe and healthy working environment for the employees. This area was selected by the Progress Assessment Team for review because, while the 1990 Tiger Team Assessment did not find serious deficiencies in this program, its importance to NV-wide ES&H performance merits periodic evaluation, particularly as NV ES&H requirements increase and resources remain constant. In addition, the 1990 Tiger Team Assessment evaluated performance against DOE 4330.4, "Real Property Maintenance," which has been superseded by DOE 4330.4A, "Maintenance Management Program." Thus, the Progress Assessment Team examined the conduct of maintenance program to evaluate if the quality of the program has been preserved and if management is poised to ensure the future quality of this program by preparing to meet the new requirements of DOE 4330.4A. Also, the Progress Assessment Team recognized that the implementation of a new order, which required guidance and oversight by NV, would provide a vehicle to assess the progress made in improving the mechanism for the issuance of guidance and conduct of oversight. At the same time, progress toward conformance to the new Order could be evaluated. The Progress Assessment Team focused on the progress made by NV to oversee the primary NTS site contractor, REEC, in its development and enhancement of its maintenance management system. REEC's goal is to upgrade the program to comply with the pertinent changes in DOE Orders from DOE 4330.4 to DOE 4330.4A.

In conducting the assessment, the Progress Assessment Team looked specifically at the systems that guide the implementation of conduct of maintenance and evaluated the effectiveness of program implementation. The emphasis of the assessment was on the maintenance management of items other than real property, such as personal property and equipment not permanently affixed to a structure, and the specific inclusion of safety systems and safety practices in the maintenance management program. Other topics assessed included the graded approach for implementation of DOE 4330.4A, maintenance/safety interface ensuring incorporation of safety practices into procedures,

prioritizing work control systems, and identifying ES&H safety systems particularly in PM programs. In addition, the progress in closing related Tiger Team concerns was also evaluated.

The approach by the Progress Assessment Team was to examine the downward flow of requirements to include guidance via DOE Orders, directives, and management policy that results in establishing procedures and/or systems at the operating level. Interviews were held at all levels of management within the REECO maintenance organization, as well as with crafts personnel. The standards against which the NV and the site were assessed included the TSA Performance Objectives and Criteria (Maintenance), the Tiger Team Action Plan, and DOE 4330.4A.

NV implementation of DOE Orders starts with the assignment of an Office of Primary Interest (OPI). The OPI for DOE 4330.4A is Engineering and Energy Management Division (EEM), a division of the Assistant Manager for Technical Support (AMTS). EEM is responsible for the DOE line management of maintenance by offsite contractors. NTSO is the DOE line management organization responsible for oversight of REECO and other contractors located at NTS. The primary M&O contractor at NTS is REECO. REECO performs the majority of maintenance activities at NTS. The real property maintenance program at NTS is responsible for one of DOE's largest sites. REECO maintains real property consisting of approximately 1,000 buildings and facilities, hundreds of miles of electrical utilities and roadways, and water and sewage lines. Non-real property/personal property maintained includes a fleet of approximately 3,400 vehicles; some 4,000 items of heavy equipment; tunneling, mining, and drilling equipment; and associated non-permanently installed laboratory and infrastructure equipment.

NV has established a procedure to review DOE Orders every 2 years and NTS SOPs annually, at a minimum. This procedure also addresses the implementation of new DOE Orders, such as DOE 4330.4A. NV's evaluation of the impact of the new Order with the NV contractors resulted in the establishment of an implementation committee to draw up an order implementation plan. A draft implementation guidance document was distributed in April 1992 for comment with the final implementation guidance not anticipated until June 1992. Using the recommended graded approach, the schedule estimates compliance with the Order in 4 to 5 years after implementation. The guidance provided by NV was acted upon by REECO as evidenced by a separate line item to implement DOE 4330.4A in its Site Maintenance Department "FY 1992 Workplan." NV's draft implementation guidance is currently under review by NV contractors and the appropriate NV staffs. HQ concurred with NV's original opinion that personal property was not covered by DOE 4330.4A. In April 1992, DP reversed this opinion and advised NV that personal property and not-permanently-installed infrastructure equipment is addressed by the new Order. This also increases the scope of documentation, scheduling, and tracking of preventive maintenance and the use of predictive maintenance to reduce the need for corrective maintenance.

Progress is being made in meeting the new requirements of DOE 4330.4A. The corrective or repair portion of maintenance is consistent with Order requirements. Working from the DOE Order and NV guidance, REECO has developed a prototype predictive maintenance program and is currently evaluating its use for the approximately 1,000 buildings at NTS. The preventive maintenance and

predictive maintenance programs are elements that require the most emphasis for improvement.

REECo procedures to perform maintenance safely are in place, however, compliance with new requirements in DOE 4330.4A has not occurred. The preventive maintenance program does not always identify those systems that are important to safe operations, such as backup generators, uninterruptable power supplies, and alarm systems. REECo has a mechanism in place, the maintenance tracking system, which identifies safety-related corrective maintenance items, but not for preventive maintenance. The preventive maintenance scheduling system has the capability of being adapted for this purpose. This will ensure that safety related preventive maintenance is not deferred or backlogged without appropriate management review as required by Paragraph 3.4.4.b of the Order. The Site Maintenance Department Instruction OP-1 contains no references for prioritization for safety systems. The program does not clearly define interfaces between maintenance and other organizations (i.e., operations, engineering, quality, and safety) as required in the Order, Introduction 11.a.7).

No mechanism was evident that ensured an effective assessment of the ES&H aspect of the maintenance programs as assigned in the draft NV Order either by line or independent ES&H organizations.

The Progress Assessment Team did not identify any concerns or improvement items related to the conduct of maintenance within the limited scope of the Progress Assessment, but did identify weaknesses that should be addressed.

2.4.2 Worker Safety and OSHA Program

In the worker safety and OSHA program area, the Progress Assessment Team evaluated the adequacy of NV and its NTS contractors' management system(s) to ensuring worker safety. In conducting the assessment, the Progress Assessment Team looked specifically at management systems and programs that support and ensure effective implementation and oversight of occupational safety and health programs. These areas were selected because they were identified by the Tiger Team Assessment as "Key Findings." The approach taken by the Progress Assessment Team was to conduct interviews of DOE and contractor managers and employees assigned responsibilities relating to occupational safety and health activities and review selected safety and health documents. This was coupled with limited site visits to Area 12 with the intent to ascertain the effectiveness of implementing REECo's safety and health program and NTSO's oversight program. Site visits and interviews were used to determine the effectiveness of management systems in the adoption, implementation, and enforcement of mandated OSHA standards and regulations. The key standards against which the site was assessed included 29 CFR 1910, "Occupational Safety and Health Standards" and 29 CFR 1926, "Safety and Health Regulations for Construction" standards; "Safety and Health Program Management Guidelines" (voluntary guidelines) as published in Federal Register (January 26, 1989); DOE Orders and directives relating to occupational safety and health programs; TSA Performance Objectives relating to Occupational Safety (OS) and Personnel Protection (PP); and the Tiger Team Assessment corrective action plan.

The basic organizational structure of NV is established in NV 11XA.1-14, "Organization and Function." Responsibility is assigned to each major

organization component for carrying out the mission and function assigned to NV. NTS contractors have similar organizational structures.

NTSO is the NV line organization responsible for overseeing contractor occupational safety and health performance on the test site. The Environmental, Safety, and Health Branch of NTSO provides line management day-to-day assistance relating to occupational safety and health matters, as well as conducting surveillance of activities relating to contractor safety and health programs.

An effective occupational safety and health management program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards, and potential hazards which may arise from foreseeable conditions. An effective program addresses not only specific regulations but goes beyond specific requirements of law to consider all hazards. It will seek to prevent injuries and illnesses, whether or not compliance is at issue. As the size of a worksite or the complexity of a hazardous operation increases, the need for written guidance increases to ensure clear communication of policies and priorities and consistent and fair application of rules. All areas of NV and their contractors' worker safety and OSHA program appear to be effective except for management systems which measure employee occupational safety and health accountability and performance. These systems have not been fully developed and implemented.

Individual Development Plans, which establish development goals for safety and health professionals, have not been implemented by REECo, WSI, RSN or EG&G/EM. Some job performance elements for DOE managers consider professional development of subordinates, monitoring their field performance, and holding field staff accountable for satisfactory job execution as noncritical to achieving successful performance. Verification of job performance to ensure accountability is not emphasized. On-the-job evaluations of safety and health professionals, by their immediate supervisors, are not included as part of written performance objectives or formally required to be conducted on a routine basis by either the DOE or their NTS contractors. Performance objectives for some site contractor management personnel are too general and establish reduction of injuries rates as the only safety and health performance goal. Management's strong commitment to the occupational safety and health effort has been diluted due to their inability to visit and "inspect" work locations across the site on a regular schedule.

Success of the overall site occupational safety and health programs hinges on active employee involvement in the total safety process, such as participation in walkaround inspections of their work areas. This concept of active employee involvement in occupational safety and health inspections of their work areas has been ensured by the EG&G/EM employee proactive Area Safety Representative Program.

NTS has made significant progress in resolving and correcting Tiger Team findings and concerns. This is evident by NV management's strong commitment to excellence in hazard identification and abatement as demonstrated over the last 18 months by focusing resources in support of the Compliance Assessment Program. Contractor commitment to excellence is projected in REECo's Voluntary Protection Program effort (D-I-12 and D-I-13).

The Progress Assessment Team identified one improvement item to the worker safety/OSHA program, which is presented in Appendix B-3 (see Improvement Item S/II-1, Implementation of the Worker Safety/OSHA program).

2.4.3 Industrial Hygiene Program

In the industrial hygiene area, the Progress Assessment Team evaluated the adequacy of the management of health hazards at NTS. In conducting the assessment, the Progress Assessment Team looked specifically at issues identified in the 1990 Tiger Team Assessment which were directed against NV, REECo, and RSN to determine the progress towards closure. RSN replaced the contractor services of Holmes & Narver and Fenix & Scisson. The area of industrial hygiene was selected because of the increased emphasis and major initiative DOE has placed on ensuring employee health & safety.

The approach taken by the Progress Assessment Team was to conduct interviews of NV, and REECo ES&H managers and staff responsible for industrial hygiene, and to review their program documents and corrective action files. The RSN industrial hygiene procedure documents were also reviewed. The key standards against which the site was assessed included DOE 5480.10, 5480.4, 29 CFR 1910, and the 1990 Tiger Team Assessment corrective action plan.

As a result of the 1990 Tiger Team Assessment, NV was reorganized to ensure a clear delineation between implementation and oversight activities. The Health Protection Division (formerly the Health Physics and Defense Waste Division) in AMESH provides compliance oversight of NV activities affecting the health of employees. The ES&H Operations Branch office, assigned to AMO, was created at the NTS to provide site support concerning daily operational industrial hygiene matters, such as ensuring that NTS contractor/user's work activities are implemented to accomplish compliance with DOE policy guidelines for ES&H activities and reviewing planning directives, operational plans, safety and health plans, and health hazard analysis for consistency with ES&H requirements.

NV implements the industrial hygiene program through contractual requirements with REECo for compliance with DOE Orders and applicable Federal regulations and standards. A part of this implementation includes NV issued procedural guidance and both formal and informal NV staff/contractor interactions.

The REECo Industrial Hygiene (IH) Field Operations Section is one of five major units within REECo's Health Protection Department. The Industrial Hygiene Field Operations Section performs inspections and surveys of work places, provides sampling and/or other monitoring of the work place, provides exposure information to the Occupational Medicine Department prior to the accomplishment of employee health examinations and upon specific request, and provides technical support for line management programs and projects. In addition, REECo IH responds to field concerns and provides support to other site contractors and NV as requested. REECo's industrial hygiene program is defined through several policy and procedural documents.

RSN provides architectural and engineering services for drilling and mining activities for NTS. The RSN industrial hygiene program is defined through the RSN Safety and Health Manual.

NV and its contractors have made progress since the 1990 Tiger Team Assessment. The Tiger Team noted 11 findings related to industrial hygiene. One concern was directed at NV, 8 were directed at REECo, and 2 were directed at RSN. Eight of these findings have been closed. Among the closed findings are the NV establishment of an industrial hygiene office at NTS responsible for contractor operational management oversight, a mechanism to assure that occupational exposure measurements are used to document the exposure of non-REECo employees, the determination and documentation of worker noise and silica exposure, the documentation of long-term exposures to air contaminants and noise, and hazard communication.

Of the 11 Tiger Team findings, 3 remain open. One finding related to NV's assurance that the sitewide use of respirators is in compliance with ANSI Z88.2 has been submitted for closure (i.e., draft surveillance report dated July 13, 1992). The closure of another finding is related to the use of personnel protection in place of engineering controls, which is being reviewed by NTSO. The third finding, related to worker exposure files to support data retrieval and trend analysis, is currently being addressed as REECo develops a computerized system for this finding. None of the above findings have past scheduled closure dates.

Despite this progress, issues were noted. Limited progress has been made regarding identifying asbestos in buildings at NTS. Although this finding has been closed, only approximately 80 of the 1,347 buildings have been surveyed. At the current rate, it will take almost 30 years to complete this task. REECo has not been given a definitive date by NV as to when building surveys are to be completed. In addition, due to workload and work prioritization the recommended frequency at which weekly field reviews are performed by ES&HO Branch industrial hygienists do not meet internally recommended goals to identify potential problems.

Although the Progress Assessment Team did not identify any concerns or improvement items related to industrial hygiene within the limited scope of this Progress Assessment, this does not suggest that there are not any problems within the NV and contractor industrial hygiene programs.

Appendix A

Summary Table of Concerns, Improvement Items, and Strengths

**SUMMARY TABLE OF CONCERNS,
IMPROVEMENT ITEMS, AND STRENGTHS**

Number	Title	Page
Management		
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M/C-4	NTS Contractors' Self-Assessment Programs	B-1-9
M/C-5	Safety Committee Charters	B-1-15
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M/C-7	Human Resource Management	B-1-20
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M/S-1	DOE/NV Contractors Training Council	B-1-30
Environment		
E/C-1	NTS Groundwater Protection Program	B-2-1
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Safety and Health		
S/II-1	Implementation of the Worker Safety/OSHA Program	B-3-1

Appendix B

Concerns, Improvement Items, and Strengths by Discipline

Appendix B-1

Assessment Details - ES&H Management Systems/Concerns, Improvements Items, and Strengths

Assessment Concern Number:

M/C-1

Assessment Concern Title:

Corrective Action Plan Program

Performance Objective

The Performance Objectives for the ES&H Management Information Systems, 2.4.3 "NV" and 4.4.3, "Contractors," states "A formal sitewide ES&H management information system provides management at all levels with the current status of ES&H compliance and the necessary information for day-to-day decision-making." The accompanying criteria for these two performance objectives states "A formal process captures, on a sitewide basis, ES&H deficiencies identified in assessments, reviews and occurrence reports, and tracks corrective actions through verified closure"; "formal processes identify key ES&H performance indicators, perform trend analysis, root cause analysis, and risk and vulnerability based prioritization"; and "A formal lessons-learned program collects, incorporates, and disseminates information on ES&H experiences at the site and at other sites."

Concern

The corrective action management programs at NV and its contractors are not formally defined and functioning so as to provide management with the information needed to prioritize ES&H decisions (also see Concerns M/C-2, M/C-3, and M/C-4).

Discussion

NV concluded in April 1992 that neither it nor its contractors had developed a corrective action management program that includes tracking, trending, root cause analysis, lessons-learned, and formal closure criteria. As a result, NV assembled a Quality Improvement Team composed of NV Assistant Managers and key principal staff to look at the corrective action and closure process. The Chairman of the Quality Improvement Team provided a copy of a report to the Progress Assessment Team, and reported that the NV Manager had tasked the team with developing an implementation plan to correct the report recommendations (D-C-17).

NV and its M&O contractors have each developed their own systems to track the status of corrective actions. At least one contractor has developed more than one system to handle corrective actions from different sources (I-C-7). Since formal DOE Headquarters direction and criteria related to corrective action systems is lacking, each organization has developed a different system. Consequently, the systems lack the ability to interface and share data, and system communication has to be done by hard copy (I-C-5 and I-C-6). This has not caused undue problems to date, but could be cumbersome as the number of corrective actions grow with the increased frequency of assessment, inspections, and appraisals.

These tracking systems are in varying stages of development, vary widely in terms of degree of sophistication, and are not applied uniformly throughout the site. NV initiated a manual tracking system in April 1990 and an automated system in mid-1991. Information about the NV systems was provided to the contractors, but each chose to develop their own system. REECO indicated that its automated tracking system was started prior to NV's

automated system in early 1991 (I-C-5). EG&G/EM stated that its automated tracking program was implemented in October 1991 (I-C-6). RSN reported that it implemented a tracking system some time after taking over the contract in November 1990 (I-C-7). However, RSN currently has two tracking systems - one maintained for safety and environmental corrective actions and deficiencies and a separate data system for environmental issues. The plan is to merge these two systems into one in the near future. WSI reported that its tracking system procedures were issued in September 1991 (I-C-10).

A root cause for each Tiger Team finding/concern was included in the Action Plan (D-C-4). However, it was reported (I-C-6 and I-C-12) that the stated root causes were the judgement of one or more individuals, with no formal root cause analysis process. In the Progress Assessment Team's judgement, the stated root causes were based on the corrective action to correct the specific finding/concern; not a corrective action based on a formal root cause analysis that would prevent similar problems from reoccurring in the future.

NV and its M&O contractors are now using, to varying degrees, DOE Guidelines: Root Cause Analysis Guidelines Document (DOE-NE-STD-1004, February 1992) as a basis for their own root cause analysis system. However, these root cause analysis systems are not being uniformly applied to all important ES&H deficiencies. For example, these root cause analyses systems have all been developed since the 1990 Tiger Team Assessment. Neither NV nor its contractors have applied their formal root cause analysis systems to the 1990 Tiger Team Assessment findings and concerns to determine the underlying cause of the weakness and deficiencies by that assessment. In the case of some organizations, the root cause analysis systems have only been used as a part of the DOE Compliance Assessment Program (CAP) and the occurrence reporting system. Root cause analysis is required by NV's draft Self-Assessment Program Guidance Manual (July 27, 1992) and by each contractors procedures (REECo: D-C-7, D-C-16, and D-C-37; EG&G/EM: D-C-8, D-C-35, and D-C-36; and RSN: D-C-19 and D-C-28; WSI: D-C-38 and D-C-39). However, no formal documented programs exist for determining root causes.

Trending and lessons-learned systems are also in varying degrees of implementation. For most contractors and NV, trending and lessons-learned are required by procedures. However, the present application of these systems is generally only being applied to some recent assessment and to the occurrence reporting program.

Neither DP nor NV have developed documented formal criteria, and provided clarification regarding what stage of the corrective action is required before closure. NV issued procedures for closure of corrective actions on July 13, 1990 (D-C-1). These procedures are specific with regard to NV responsibilities, but do not provide specific, measurable criteria that can be used as a decision tool for the closure of a corrective action. Even fundamental corrective action closure such as whether or not a corrective action can be closed when a plan is developed, even though the corrective action has not yet been completed are lacking. Senior NV management acknowledged this weakness exists in the corrective action management system (I-C-9).

The following anomalies substantiate the need for some clarifying criteria:

Of the findings/concerns for which REECO had some action, REECO reports indicate that 18 were closed out by NV with no formal transmittal of request for closure by REECO to NV.

One concern, FR.2-1, was addressed to all NV prime contractors and assigned lead responsibility to RSN. The corrective action was closed by NV even though REECO, who had a major role in the corrective action, continues to keep this corrective action open because it has not completed the action to REECO management's satisfaction.

The average length of time from REECO request for closure, to closure by NV, has been 7 months with some taking 15 - 17 months. The average length of time for NV to close a concern after RSN requested closure has been 5 months, but one was 22 months. (DP Operating Procedures (D-C-42) stated that NV verification shall be performed within 6 weeks of receipt of the verification package from the contractor.) Some of this long closure time can be attributed to multiple application and other external circumstances. However, some can be traced to a lack of closure criteria.

The Tiger Team concerns, FR.2-1 and FR.5-1, were addressed to all NV prime contractors. The findings to support concern FR.2-1 specifically lists a deficiency with respect to EG&G/EM. However, NV did not direct EG&G/EM to address this deficiency and did not have criteria to support this decision.

WSI performed one appraisal on December 11-14, 1990, and NV closed out both FR.2-1 and FR.5-1. FR.2-1 required functional appraisals while FR.5-1 required a triennial review of the internal safety review system, which are clearly different types of appraisals.

IS.2-1 was closed by NV on April 10, 1992, but neither the Safety Analysis Report (SAR) for the Waste Management Department Operations (dated February 5, 1992) nor the SAR for the Liquified Gaseous Fuel Spill Test Facility (dated August 1992) has been reviewed and approved by DOE.

The Tiger Team concern OA.2-1 addressed an outdated FSN Health and Safety Manual. Subsequent to updating the manual, RSN assumed the RSN contract. NV then directed RSN to assume responsibility for the FSN concerns and then adopted an administrative solution to the action item closure. The NV Safety and Health Division recommended that concern OA.2-1 be closed "On the premise that a meaningful implementation plan is received from RSN and we have review and approval authority for the forthcoming safety and health manual" The closure of concern OA.2-1 prior to the development of a safety manual can be traced to the lack of formal, uniformly applied closure criteria.

The causal factors for this concern appear to be the lack of comprehensive policies and procedures by both DP and NV regarding corrective action, tracking, trending, root cause analysis, lessons-learned, and closure based upon an institutionalized program.

Assessment Concern Number:

M/C-2

Assessment Concern Title:

DP Self-Assessment Program

Performance Objective

Secretary of Energy Notice (SEN)-6-89, dated May 19, 1989, through SEN-6E-92, dated February 21, 1992, require that independent self-assessment organizations be established and operational by September 30, 1991.

The Secretary's January 26, 1990, directive requires all line organizations to implement comprehensive self-assessment programs.

The Secretary's July 31, 1990, memorandum, concerning ES&H self-assessment, provides further direction to DOE field offices to institute self-assessment programs and attaches guidance for improving and/or implementing such programs.

Concern

DP has not yet formally documented and fully implemented a comprehensive, integrated ES&H self-assessment program that identifies performance deficiencies, ensures that appropriate corrective actions are taken and tracked to completion with appropriate closure verification, and communicates lessons-learned throughout the weapons complex.

Discussion

DP has primary responsibility and accountability for implementing the Secretary's self-assessment policy across the DOE weapons complex. The Secretary's requirements for self-assessment apply to the entire line management chain of command within DP, down through its field offices, and down through its contractors. Thus, DP bears primary responsibility for ensuring that it has a self-assessment program, incorporating DP's internal self-assessment program and the programs of its field offices and their contractors, which satisfies the Secretary's mandate for effective ES&H self-assessment programs. The effectiveness of the DP self-assessment program is vital to the success of the NV self-assessment program in that it should provide NV with detailed guidance related to satisfying DOE policy and it should provide NV with independent external oversight.

DP has taken an active role in implementing the Secretary's self-assessment policy. For example, DP participated in the development of a Memorandum of Agreement (MOA) between EM, NV, and itself that includes self-assessment provisions (D-A-106). Also, DP has conducted a DOE Order compliance assessment, participated in the DOE Headquarters self-assessment task force to develop DOE-wide self-assessment guidance, and recently sent DP-specific self-assessment guidance to its field offices for comment (D-A-9). DP has initiated a number of self-assessment activities within DP to satisfy its self-assessment obligations. The steps DP has taken are vital to achieving an effective self-assessment program. However, a fully effective program, one capable of providing the basis for the continual pursuit of excellence and a real-time report of the ES&H compliance status of the weapons complex that the Secretary expects, has not yet been formally documented and fully implemented.

The DP Office of Self-Assessment and Emergency Management (DP-9) has been assigned the responsibility for serving as the focal point for the DP self-assessment activities (D-A-9). DP-9 responsibilities include "... monitors and samples overall performance of DP activities and facilities;" and "reports assessment results to DP line management" (D-A-9). On July 28, 1992, DP-60 initiated a policy requiring formal action plans for deficiencies identified by DP-67 Technical Safety Appraisal -like appraisals (D-A-119). However, there is no similar requirement or formal process for DP-9 to track, verify, and ensure the proper and timely closure of corrective actions for deficiencies DP-9 reports to line organizations like DP-60.

DP-9 does not carry out systematic assessments (I-A-17). Management indicated (I-A-17 and I-A-37) and related documents (D-A-127) confirmed that DP-9 performs assessments "on a selected and/or as needed basis." The selection process DP-9 uses to select assessment topics or sites is based on identified weaknesses or problems. DP-9 assesses problem areas by tracking, trending, and analyzing Occurrence Reporting and Processing System (ORPS) reports and other sources of information related to the condition of the DP complex such as DP-67 assessments (I-A-17). Management acknowledged that root cause analysis of deficiencies is not sophisticated (I-A-17). It identifies common deficiencies such as potential complex-wide equipment problems (e.g., diesel generators) rather than systemic deficiencies in ES&H management systems (I-A-17).

The DP self-assessment program has several other weaknesses. The program lacks full integration of its many elements to provide the complete, real-time picture of the compliance status of the DP complex that the Secretary expects. Also, there is no DP-wide corrective action management system that captures all deficiencies, and prioritizes and tracks them to closure (I-A-15, I-A-17, and I-A-37). Management indicated that full integration of the performance and compliance status periodically occurs during meetings of DP senior officials (I-A-37). Also, the DP self-assessment program is not yet well documented, communicated, and fully understood. For example, DP participants in the program do not understand the relationship of their role to other elements of the DP self-assessment program (I-A-15, 17, 36, and 37). This deficiency was also recently noted during a DP-9 diagnostic evaluation of self-assessment programs at Los Alamos National Laboratory (D-A-120). One of the three findings and conclusions of that assessment was that "An institutionalized and formal self-assessment program is needed for DP HQ."

Taken collectively, the weaknesses identified in this assessment and other recent assessments indicates that while the DP self-assessment program is evolving it is not fully functioning or effective. Achievement of a fully effective program is inhibited by the lack of a comprehensive and detailed self-assessment program implementation plan, one that contains the protocols, schedules, and milestones expected in a field office or contractor implementation plan.

The causal factor for this concern appears to be policy implementation, in that DP has not yet fully implemented Secretarial self-assessment guidance.

Assessment Concern Number:

M/C-3

Assessment Concern Title:

NV Self-Assessment Program

Performance Objective

Secretary of Energy Notice (SEN)-6-89, dated May 19, 1989, through SEN-6E-92, dated February 21, 1992, require that independent self-assessment organizations be established and operational in the field, at both DOE and contractor sites, by September 30, 1991.

A January 26, 1990, directive from the Secretary requires all line organizations to implement comprehensive self-assessment programs.

The Secretary's July 31, 1990, memorandum concerning ES&H self-assessment provides further direction to DOE field offices to institute self-assessment programs, attaches guidance for improving and/or implementing such programs, and requires development of a formal system for carrying out and auditing corrective actions.

Concern

NV has not yet fully developed and implemented a comprehensive ES&H self-assessment program; detailed implementation plans have not been developed; corrective action tracking and performance indicator systems are incomplete; there is a general lack of NTS-wide uniformity in self-assessment programs; detailed self-assessment protocols are lacking; and NV does not have a protocol for approving contractor self-assessment programs.

Discussion

Even though NV responded promptly to the Secretary's mandate for a comprehensive ES&H self-assessment program, such a program has not yet been achieved at NTS. The NV self-assessment program is in the developmental stages. An NV self-assessment policy and a high-level implementation plan exists, and important elements of a self-assessment program, such as ES&H audits and appraisals by NV and the NTS contractors (see M/C-4), appear to be functioning effectively. NV is progressing towards the full integration of its existing self-assessment activities. Also, NV is defining, developing, or enhancing existing management systems that are vital to an effective self-assessment program. For example, NV recently conducted a self-assessment of its corrective action process (D-A-99; I-A-34). The progress to date attests to NV management's commitment to, and understanding of, the requirements of an effective ES&H self-assessment program. Nevertheless, the NV self-assessment program may not be fully functioning and effective for some time. NV management recognizes that self-assessment is both an important ES&H management tool and a management culture that must be developed, communicated, and adopted throughout NTS at all levels (I-A-21). The NV plan satisfies Secretarial guidance to build on existing programs, embraces self-assessment as a management philosophy, and is designed to encompass not only ES&H, but all NV activities including safeguards and security and administrative functions. NV is requiring its contractors to adopt the same comprehensive self-assessment approach.

NV's response to the Secretary's mandate to establish comprehensive self-assessment programs in the field and at contractor sites took several forms. In November 1990, after informal discussions with the NTS contractors, NV transmitted the Secretary's July 1990 self-assessment guidance to its contractors and requested (D-A-124) that they provide NV with a detailed summary and status for implementation of their ES&H self-assessment programs, including specific milestones for accomplishment and full implementation of a self-assessment program. In May 1991, NV complied with Secretarial guidance to build a self-assessment program upon existing assessment by assembling the Safety and Health Self-Assessment Program Criteria and Guidance Document (dated May 1991) to formalize, guide, and control its initial self-assessment program. Most recently, NV issued its Self-Assessment Program Implementation Plan (D-A-129) that describes the architecture of the NV self-assessment program, defines the NV and the NTS contractors' responsibilities, and describes the enabling self-assessment management systems that must be developed to fully implement the program. NV has also begun implementing self-assessment training. Self-assessment workshops have been held for the NTS contractor's senior managers and NV principal staff (I-A-34).

The NV Self-Assessment Program Implementation Plan (SAPIP), as approved June 15, 1992, describes an architecture and approach for self-assessment, assigns responsibility for the program, and describes the management systems that require further definition and/or development. The SAPIP itself represents an important self-assessment activity in that it provides a critical appraisal of the status of NV management systems, both those that exist and those that will require further definition and development. The SAPIP is not a detailed implementation plan that describes the activities, schedules, and key milestones for the full implementation of a self-assessment program. Rather, the SAPIP ". . . is a governing document containing policies that enable further development of detailed written plans and procedures" (D-A-129).

In some respects, the SAPIP is a statement of intent to develop a self-assessment program rather than an implementation plan. For example, the discussion in Section 8.0 on Root Cause Analysis, Tracking and Reporting Systems, Trend Analyses, Lessons-Learned Program, and Performance Measures is a brief description of each topic in the context of the NV self-assessment program. The SAPIP does not consider or acknowledge the important interrelationships of these activities in the NV and those in its contractors' self-assessment programs. Unless these performance elements are captured and integrated on an NTS-wide basis, the NV self-assessment program will not provide maximum benefit.

NV has simultaneously pursued the development of its own self-assessment program and directed its contractors to implement their own programs. However, NV has provided little formal guidance to its contractors to ensure NTS self-assessment programs are standardized so that they can be efficiently integrated into the NV self-assessment program. Formal NV self-assessment guidance has been limited to transmitting the Secretary's self-assessment guidance to its contractors (D-A-124) and responding to its contractors' request for clarifying guidance on the relationship of DOE 5482.1B to ES&H appraisal programs (D-A-12). A draft self-assessment guidance manual, dated July 27, 1992, was issued by NV to its contractors for comment (D-A-122). This draft guidance document contains the high-level architecture and specific details necessary to begin standardizing the NTS contractor self-assessment

programs. However, this document does not detail the specific requirements of the NTS contractors self-assessment management systems. NV management recognizes that the draft guidance document requires further definition (I-A-34 and I-A-35). Specific NV guidance and requirements related to contractor tracking, trending, and corrective action management systems are lacking.

NV does not have a requirement that NTS contractor self-assessment programs must be approved by NV. Without this approval authority, NV will be faced with NTS contractor self-assessment programs that will not be fully compatible and thus not easily integrated into the NV self-assessment program. For example, the corrective action tracking systems that exist or are under development throughout NTS are not compatible between NTS contractor organizations and, in some cases, are not compatible within a contractor organization (I-A-22). NV management recognizes this shortcoming and expects that as the NV SAPIP is fully developed and implemented protocols will be established to ensure that management systems throughout NTS are fully compatible (I-A-9). NV plans to convene a NV/NTS contractor self-assessment working group to share their expertise as the individual programs evolve. The goal of this working group is to guide the development of individual self-assessment programs until NV can standardize the self-assessment programs NTS-wide (I-A-34).

There is no formal NV-wide protocol or priority system for the management of corrective actions other than the system applied to 1990 Tiger Team Assessment corrective actions. Since the NV Tiger Team Assessment corrective action system does not contain all the elements of a comprehensive program, the NTS self-assessment programs cannot be effectively implemented until such a system is developed. Currently, corrective actions that are submitted by NTS contractors to NTSO for verification are forwarded by NTSO to the NV compliance officer with a closure recommendation. There is not protocol that defines the type of corrective actions that require verification by NV, verification is conducted on a random basis (I-A-19).

The causal factor for this concern appears to be policy implementation, in that NV has not yet fully implemented Secretarial self-assessment guidance.

Assessment Concern Number:

M/C-4

Assessment Concern Title:

NTS Contractors' Self-Assessment Programs

Performance Objective

Secretary of Energy Notice (SEN)-6-89, dated May 19, 1989, through SEN-6E-92, dated February 21, 1992, require that independent self-assessment organizations were to be established and operational in the field, at both DOE and contractor sites by September 30, 1991.

A January 26, 1990, directive from the Secretary requires all line organizations to implement comprehensive self-assessment programs.

A July 31, 1990, memorandum from the Secretary concerning ES&H self-assessment provides further direction to DOE field offices to institute self-assessment programs, attaches guidance for improving and/or implementing such programs, and requires the development of formal systems for carrying out and auditing corrective actions.

Concern

NTS contractors have not yet fully developed and implemented comprehensive ES&H self-assessment programs. In general, detailed implementation plans have not been developed, and corrective action tracking systems and detailed self-assessment protocols are incomplete.

Discussion

NV responded to the Secretary's mandate to establish comprehensive self-assessment programs in the field and at contractor sites in November 1990. NV transmitted the Secretary's July 1990 self-assessment guidance (D-A-124) to its contractors and requested that they provide NV with a detailed summary and status for implementation of an ES&H self-assessment program, including specific milestones for accomplishment and full implementation of a self-assessment program. At that time, the NV Manager targeted June 30, 1991, for completion of comprehensive self-assessment program plans. Currently, self-assessment programs at NV and in its contractor organizations are not yet fully developed and implemented. Also, the state of development and the degree of comprehensiveness of the various self-assessment programs is varied across NV and its contractors. However, in the case of all organizations, components of self-assessment programs are in place and functioning.

REECo

REECo responded to the NV request with an ES&H Self-Assessment Summary and Status report (D-A-16) that described REECo's strategy to build on existing self-assessment activities. REECo subsequently developed an ES&H Self-Assessment Plan (D-A-17) and a Self-Assessment Program Plan (SAPP) (D-A-18), dated July 17, 1992, that supersedes previous documents. The SAPP describes the broad framework of the ES&H self-assessment program that REECo is developing; it is REECo's plan for "establishing, executing, and documenting an effective self-assessment program (SAP)." The focal point for

implementing the SAPP will be the Performance Assurance organization reporting to the General Manager.

While this plan may be useful in developing a comprehensive self-assessment program, it is not a working-level implementation plan. For example, the SAPP lacks vital details that describe how the many elements of the program will be integrated, specific schedules and related work plans, and specific training requirements and training schedules. Furthermore, performance objectives and criteria (POCs) for the SAPP are drawn primarily from DOE Orders. There is a general lack of POCs to establish standards against which the performance of management and ES&H management systems can be measured.

While the SAPP is not fully developed, REECO recognizes the importance of ensuring that it is fully integrated into its ES&H program. The REECO ES&H Program Management Plan (ESHPMP) (D-A-82) contains a provision for the future development of an ES&H self-assessment program as a management system and describes the goals and characteristics of the ES&H Self-Assessment Program in general terms. The ESHPMP also provides for other activities related to a comprehensive self-assessment program, such as reporting systems for corrective actions, root cause analyses, and performance indicators. While the ESHPMP provides for many elements of a self-assessment program, it is a high-level document that defines organizational roles, responsibilities, and authorities; management systems; and reporting requirements of the REECO ES&H Program. It is not an implementation plan that provides the necessary detail on the interrelationship of these self-assessment elements or the protocols for the conduct of the SAP (also see Concern M/C-3).

Although REECO does not have a fully functioning, comprehensive self-assessment program, many of the elements and systems of such a program are in place and functioning effectively. Examples of REECO self-assessment components that are in place and functioning include the following:

The REECO Environmental Compliance Office (ECO) conducts surveillance, inspections, and appraisals of REECO facilities. Examination of a recent ECO surveillance schedule (D-A-86) indicates REECO is conducting an active internal independent environmental oversight program, an important component of a self-assessment program. Other REECO organizations are also conducting ES&H related audits and assessments.

REECO has a formal system to capture and track the closure of deficiencies identified during surveillance, inspections, and appraisals, the Automated Deficiency Tracking System.

An extensive system of procedures exist to guide and control REECO activities related to a self-assessment program including Error Removal (D-A-91), Process Improvement (D-A-92), Corrective Action Tracking and Closure (D-A-88 and D-A-89), and Root Cause Analysis (D-A-90).

REECO has commissioned external independent ES&H appraisals to satisfy DOE 5482.1B. Examples include appraisals of REECO's Industrial Hygiene and Health Physics programs (D-A-95).

REECO has many of the elements of a comprehensive self-assessment program in place and functioning, and the SAPP is in place. However, the REECO ES&H self-assessment initiative has not yet been effectively communicated throughout REECO, particularly throughout the field operations organizations (I-A-23 and I-A-24). Field operation supervisors have not been involved in the self-assessment development process and, as a result, do not evidence a full understanding of their vital role in the process. Despite this deficiency, they appear to take their line ES&H responsibilities seriously. For example, all Field Operations Managers have an ES&H coordinator to provide them with ES&H self-assessment expertise, some managers have environmental professionals to assist in their line management ES&H assessments, and safety professional are assigned to line managers (I-A-23 and I-A-24).

RSN

When RSN received the NV request for the status of its self-assessment program and detailed plan of action for full implementation, RSN had been the incumbent contractor for less than 60 days. Understandably, RSN's response to the NV request primarily involved surveys and assessment of self-assessment -related organizations and activities RSN inherited from the previous contractors. However, after nearly 2 years as the incumbent contractor, RSN self-assessment activities remain fragmented.

The RSN self-assessment program is still in the formative stages; a draft self-assessment program implementation plan has not yet been formulated. The RSN self-assessment program plan is being constructed by an ad hoc committee (I-A-22 and I-A-29). However, an architecture for that plan has not been established. Among the approaches under consideration is the consolidation of the RSN ES&H compliance organization and the quality assurance (QA) organization into a single self-assessment or performance assessment office (I-A-29). Surveillance procedures in the RSN QA manual would be adapted to line self-assessment activities. RSN procedures for root cause analysis do not exist.

While RSN has neither a comprehensive institutionalized self-assessment program nor a formal approved plan for such a program, many elements of such a program exist in the form of draft program plans and schedules, partially or fully functioning assessment activities, and an evolving corrective action program. The assessment activities that could become important parts of a self-assessment program include internal independent audits; triennial external audits; environmental, safety and health surveillance; design reviews; QA audits; management self-assessments; compliance assessment programs; a DOE Order compliance program; and a corrective action program. The status of important self-assessment elements and activities include:

An internal independent appraisal of environmental activities and a triennial review of the RSN safety internal appraisal system have recently been conducted for RSN by an external consulting firm.

RSN compliance assessments and audits have been conducted at RSN facilities located at the NTS and at other sites, such as facilities at the Tonopah Test Range, Honolulu, Hawaii, Johnston Atoll, and Oakland, CA. These compliance assessments, conducted

by the ES&H Compliance Department, have focused primarily on compliance with safety and health requirements.

QA audits of ES&H activities by the Quality Assurance Division appear to be among the more mature RSN assessment activities in terms of formality, documentation, and followup of corrective actions. Recent QA audits included an audit of the implementation of RSN ES&H procedures.

A draft procedure for the conduct of management assessments under the RSN Management Quality Assurance Program exists.

The RSN Compliance Assessment Program and the Corrective Action Program appear to consist of data bases of open ES&H findings and Departmental Compliance Assessment Reports. While RSN has begun developing a formal ES&H Compliance Implementation Plan, no formal program plan to integrate and uniformly guide the activities of these programs exists.

The RSN corrective action tracking system is not a fully automated, computer-based system for all ES&H activities and operations. The information is not readily accessible to all RSN management, and is not fully integrated for all ES&H activities. The RSN Compliance Department has a fully automated tracking system. However, the Safety and Health data base is not integrated with the ES&H Compliance data base (I-A-22). Hard copy reports are available to management. Tracking and trending of deficiencies by the ES&H Compliance group is conducted primarily to determine training needs (I-A-22). Management indicated it plans to centralize corrective action tracking and trending but does not yet have a formal plan (I-A-22).

Even if the many elements of a self-assessment program that exist were fully functioning, RSN would not have a comprehensive self-assessment program since vital elements are missing. For example, RSN lacks a self-assessment program plan that provides an architecture for the integration of these interrelated elements, identifies the vital missing pieces of an effective program, and has detailed subordinate plans to develop and implement the missing elements.

EG&G/EM

EG&G/EM responded to the NV request for a detailed summary and status of implementation of the EG&G/EM self-assessment program with a document entitled Self-Assessment Program (SAP) (D-A-25). This document focused on the active internal ES&H functional appraisal system of EG&G/EM, the buildings and facilities under their responsibility, the automated ES&H Hazard/Discrepancy Tracking System, and the Standard Operating Procedures (SOP) and Organizational Operating Procedure (OOP) that guide and control EG&G assessment activities. The SAP has the potential to serve as a firm foundation for a comprehensive ES&H self-assessment program consistent with Secretarial guidance to build on existing appraisal activities. However, while a sound beginning, the EG&G/EM SAP does not describe a self-assessment program that is consistent with current DOE guidance. For example, it does not contain provisions and protocols for line-management assessments or for the assessment of the management of ES&H activities and ES&H management

systems. EG&G/EM has not yet developed a plan for a comprehensive self-assessment program. This is a systemic deficiency common to all NTS contractor self-assessment program plans.

While EG&G/EM does not have a fully functioning comprehensive self-assessment program, many of the elements and systems of such a program are in place and functioning effectively. The status of important EG&G/EM self-assessment elements are:

EG&G/EM has an active, comprehensive, and effective appraisal program for ES&H activities including occupational safety, health physics, industrial hygiene, and environmental protection. These formal appraisals include scheduled and no notice inspections (D-A-32, D-A-33, and D-A-34).

EG&G/EM has an extensive system of formal OOPs and SOPs (D-A-26 through D-A-31) to define and control the conduct of self-assessment related activities.

The EG&G/EM corrective action tracking system, entitled ES&H Hazard/Discrepancy Tracking System, is designed to monitor and track identified hazards, codes, standards, regulations, and discrepancies through closure. Currently, the system is used to set priorities for corrective actions for deficiencies identified by ES&H audits and tracks them to completion. The system does not yet capture deficiencies arising from line management assessments (I-A-22). The system is controlled by an EG&G/EM Standard Operating Procedure (D-A-101).

EG&G/EM has procedures in place to conduct root cause analyses and lessons-learned. However, this information, as well as the corrective action tracking system data base, are not yet fully automated (I-A-22). As a result, EG&G/EM managers and supervisors do not have ready access to information that is vital to their decision process. EG&G/EM management recognizes the importance of fully implementing these management systems and is working towards that end. Management estimates the tracking system, with its attendant capability to conduct root cause analysis and lessons-learned, will be fully operational in 12 to 18 months (I-A-31).

EG&G/EM management indicated that its corporate parent is considering a corporate ES&H oversight program to be conducted by subject matter experts (I-A-5). This program, if implemented, will be an element of the EG&G/EM self-assessment program.

WSI

The WSI mission, to provide NTS physical security, is relatively well defined and lends itself to a straight forward self-assessment process. Furthermore, the WSI culture is founded on line management and individual employee assessments; inspection techniques are a vital tool of the protective force business. As a result, self-assessment has always been an important WSI management tool. The recent challenge for WSI has been to enhance its existing self-assessment system to comply with DOE ES&H self-assessment

policies that are broader than those that have been traditionally applied to protective force support contractors.

The WSI self-assessment program consists primarily as a set of formal procedures. The WSI self-assessment program implementation plan is an internally approved "Standard Practice" (I-A-27). Other WSI components of the WSI self-assessment program include Standard Practice procedures related to QA functions (D-A-111) and ES&H inspections and appraisals (D-A-110). There is a corrective action tracking system in place that captures and tracks deficiencies revealed in audits, appraisals, and inspections down to the section level of the organization. WSI has a plan in place to train personnel in self-assessment techniques, conducts a conduct of operations training course as part of its self-assessment program, trains supervisors on the principals of self-assessment, and has an automated training tracking system (I-A-27).

The WSI self-assessment program has several deficiencies. There is no single document that ties the many elements of the WSI self-assessment program into a coherent plan and describes the program's architecture. Also, the standard practice procedures that form the WSI self-assessment program's foundation lack sufficient detail. For example, the standard practice that defines the WSI self-assessment program (I-A-112) states that corrective action plans are required "When deficiencies are identified during assessments and cannot be corrected within 30 days," It is not clear if only deficiencies that require a corrective action plan will be entered into the corrective action tracking system and become a part of the WSI deficiency tracking, trending and root cause analysis. Many deficiencies that can be corrected quickly provide potentially important information related to root causes.

The causal factor for this concern appears to be policy implementation, in that NV and its NTS contractors have not yet fully implemented Secretarial self-assessment guidance.

Assessment Concern Number:

M/C-5

Assessment Concern title:

Safety Committee Charters

Performance Objective

Performance Objective 2.4.2.5 of ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) specifies that a formal process defines the purpose, scope, frequency, schedule, participants, and roles and responsibilities for independent assessment of ES&H activities throughout the field office and the site.

Concern

EG&G/EM and REECO safety committee charters do not define all the requirements for such committees, and in the EG&G/EM case, do not provide for sufficient independence and objectivity.

Discussion

Review of the charters of the various ES&H safety committees for REECO (D-B-37) and EG&G/EM (D-B-58) indicates that they do not meet the requirements for such committees as contained in DOE 5482.1B and DOE 5480.5.

EG&G/EMs process for safety analysis and review calls for the line organization to prepare a risk assessment to classify the degree of risk from "nil to extreme" and a safety analysis report to define all aspects of the proposed activity. The risk analysis is forwarded to the independent ES&H organization for concurrence and is the only aspect of this process that is independently reviewed. The line organization also appoints an ad hoc committee composed of personnel independent of the operation, but possibly part of the line organization, to review the safety analysis and risk assessment prepared by the line and report their results to the line organization. This arrangement constitutes an organizational conflict of interest in that the review is performed by a committee appointed by and reporting to the organization that has a vested interest in performing the work. Subsequent to this being brought to the attention of EG&G/EM, the Progress Assessment Team was informed that changes would be made to this process that would assure independence and objectivity using an expedited management process (Bulletin) until the standard operating procedure (SOP) could be changed by the more time consuming process.

REECO's ES&H committees oversight process was satisfactory. However, the charters generally lacked definition of administrative items such as quorum requirements, documentation requirements, and more importantly what must come to the committee for review and recommendation. REECO is aware of these deficiencies and is in the process of correcting these committee charters to bring them into compliance with DOE requirements.

The causal factors for this concern appear to be policy implementation and appraisals/audits/reviews.

Assessment Concern Number:

M/C-6

Assessment Concern Title:

Planning, Budgeting, and Resource Allocation

Performance Objective

Secretary of Energy Notice (SEN)-25A and the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 2.1 (NV), and 4.1 (NTS Contractors), states that ES&H plans and programs are an integral part of the sitewide strategic and implementation planning, budgeting, and resource allocation process; all programmatic and ES&H activities are integrated and prioritized; procedures exist for analyzing ES&H risks and vulnerabilities of the entire site on a prioritized basis, and for making the necessary trade-off decisions between achieving programmatic objectives and ES&H objectives; and implementation plans guide the accomplishment of ES&H objectives.

Concern

The NTS strategic and subordinate implementation planning process is inadequate. Detailed ES&H implementation plans that would translate the NV Manager's strategic vision into working plans are generally lacking throughout NTS.

Discussion

Strategic and subordinate implementation or operational planning is the systematic process management uses to define, communicate, and transform its vision for accomplishing its mission into action. The planning process defines the organization's strategic goals and objectives, policies and procedures, resources, organizational relationships, management systems, and goals and objectives of subordinate organizations required to accomplish the mission. The goals and objectives from this planning process form the basis of a hierarchy of strategic and implementation planning processes by subordinate organizations that, when completed, serve to define, to set priorities for, to guide, and to coordinate the programmatic and ES&H activities of all participants. While the DP and the NV strategic planning processes have matured and are functioning, the subordinate implementation planning processes of NV and the NTS contractors are not yet fully functional. As a result, in the absence of implementation plans that would set priorities for and guide NV and the NTS contractors' ES&H activities, the NV and the NTS contractor's ES&H activities are unnecessarily reactive and may not be addressing the most important issues in a disciplined fashion.

The 1990 Tiger Team Assessment was conducted before the Secretary's emphasis on Department-wide strategic and subordinate implementation planning was fully defined, communicated and implemented. As a result, the 1990 Tiger Team Assessment did not place the emphasis on the planning process throughout DOE and its contractors that it now receives. Even though planning did not receive intense examination, the 1990 Tiger Team Assessment report is replete with deficiencies that can be related directly to the lack of a comprehensive sitewide planning, budgeting, and resource allocation process.

The DP and NV strategic and subordinate implementation planning process evidences substantial progress since the 1990 Tiger Team Assessment. DP has issued a strategic plan and associated planning guidance to NV (D-A-8). The NV manager has conducted strategic planning exercises and established specific goals and objectives for the NV offices (D-A-109). However, the NV planning process is far from mature. NV implementation plans that would set priorities for and guide the activities and work throughout NTS, and would provide formality to its own ES&H activities and the activities of its contractors, are incomplete, in draft form, or do not exist.

The NV Health Protection Division (HPD) has a comprehensive, priority-based implementation planning process that has evolved over the past several years to produce a detailed working level implementation plan (the HPD Management Plan) (D-A-98 and D-A-113). The NV Environmental Protection Implementation Plan (D-A-10), though a higher level and less detailed plan than the HPD Management Plan, is another example of an NV ES&H implementation plan. However, these plans are exceptions within NV. In general, NV offices and their subordinate organizational units do not have detailed implementation plans to guide the conduct of their ES&H activities. Vital ES&H implementation plans that are incomplete, in early draft forms, or non-existent include those for the Office of the Manager of ES&H, ES&H Training Implementation Plan (see Concern M/C-7), and a comprehensive Self-Assessment Program Plan (see Concern M/C-3).

The NV Office of the Assistant Manager for Environment, Safety and Health (AMESH) has instituted an ES&H management planning system that, when fully implemented and enhanced with a prioritization system, has the potential to provide NV with a powerful management tool. The Oversight Requirements Action Calendar (ORACAL) is designed to identify, initiate and track intermediate term (2 to 12 months) and long-term (more than 12 months) AMESH administrative and functional activities (D-A-81). The activities of the AMESH and its four divisions are included in ORACAL. To each activity, ORACAL assigns an identification number and provides a "Requirement Description and Comment," "Requirement References," "Target Dates," "Duration" in work days, "Level of Effort," "Anticipated Milestones," and "User, Line Manager, and Compliance Contacts." It is evident that ORACAL is an evolving system; few of the activities have been assigned duration and level of effort estimates and many anticipated milestones have not been established. A most important shortcoming of ORACAL is the apparent lack of a prioritization system. An examination of the numerous complex activities contained in ORACAL suggests that the expectations placed on AMESH exceeds the capacity of the organization's resources. If this proves true, as missed target dates and anticipated milestones suggest, then a priority system will greatly enhance the utility of ORACAL.

The lack of a comprehensive NV ES&H implementation planning process is evident throughout NTS. There is a general lack of uniform and consistent sitewide ES&H guidance, and NV and the NTS contractors are managing their ES&H activities in a reactive rather than a priority-based manner. For example, the Action Plan closure process is not uniform across the NTS. There is no sitewide procedure to ensure uniform verification and closure of Action Plan activities. While NV management recognizes the need to improve its planning processes, and some units have taken the initiative to create working level implementation plans, NV has not yet implemented a priority-based ES&H planning process throughout NV. NV management indicated that the new DOE 5

year ES&H planning initiative will require NV to prioritize its ES&H activities (I-A-8 and I-A-28).

The NTS Contractors' implementation plans that define, guide, and ensure the formality of their ES&H activities are also incomplete; many implementation plans are in draft form, under development, or do not exist. The following summarizes the status of NTS contractor implementation planning.

REECo

Many REECo ES&H activities are budgeted directly as part of project activities to avoid the conflict between containing overhead rates and funding the necessary ES&H activities that is encountered when ES&H is funded from overhead accounts (I-A-3). ES&H activities that are budgeted directly as NV-common activities include fire protection, industrial hygiene, environmental compliance, and occupational medicine; REECo provides NTS-wide support for these areas. ES&H-related analytical support, and assessment and applied studies conducted by the Safety and Health Department are back charged to the user-project. The REECo ES&H Program Management Plan (dated August 1991) is the most detailed ES&H implementation plan. This plan describes the structure of the program and defines responsibilities and organizational relationships but does not provide the details necessary to forecast and priorities ES&H activities. REECo management recognizes that it lacks the details of a working level implementation plan (I-A-3, 22, 23, and 26).

RSN

RSN planning has been largely reactive and prioritization is rudimentary. However, direct ES&H support is budgeted into the annual budgets of operating divisions (I-A-6). The RSN planning and budgeting process is based on budget direction from NV and the NTS user labs. Most ES&H activities are funded from overhead accounts, and Environmental Restoration and Waste Management Division (ERWM) activities are line budget items. RSN management indicated that, while their budget estimates to DOE include ES&H activities and RSN accumulates costs for ES&H activities, the current practice of supporting ES&H primarily from overhead is not desirable (I-A-6). The current approach places ES&H activities in conflict with pressures to constrain overhead and does not give DOE the opportunity to direct and monitor ES&H activities (I-A-6). RSN ES&H-related implementation plans that do exist are high level plans that do not contain the detail working level plans.

EG&G/EM

EG&G/EM implementation planning is in varying stages of development. A hierarchy of ES&H program implementation plans exist, down to detailed working level plans (I-A-31 and I-A-32) similar to the NV HPD Management Plan. The EG&G/EM ES&H Program Plan (D-A-123) contains an element that is not found elsewhere in NTS planning documents, a strategic forecast of ES&H considerations over the next 20 years. Implementation plans for the EG&G/EM program line management organizations are not as fully developed. While a few plans are complete, most are in draft form or remain to be developed. Also, quality implementation plans for programs exist, but the detailed subordinate working implementation plans are in various stages of development. While the EG&G/EM planning process is still incomplete, it demonstrates a commitment on

the part of EG&G/EM management to conduct its ES&H activities in a disciplined fashion and to prepare for the future.

WSI

WSI uses a zero base budgeting process since their NTS support mission rests on the projected activities of other NV, the other NTS contractors, and the NTS user laboratories (I-A-4). WSI uses this information and historical experience to forecast its activities. This planning process also forms the foundation of the WSI human resource management planning process, the number and skill mix of staff. WSI has formal implementation plans to guide and control the traditional aspects of its physical protection mission. These plans include the safety requirements related to a protective force. Other ES&H plans include a Waste Minimization and Pollution Prevention Awareness Plan (D-A-56). WSI management acknowledged that implementation plans related to other ES&H related activities are not as formal (I-A-4 and I-A-27).

While NV management recognizes the need to improve the NTS planning processes, and some units have taken the initiative to create working level implementation plans, NV has not yet implemented a priority-based ES&H planning process throughout NV.

The causal factor for this concern appears to be policy implementation, in that NV has not fully responded to SEN-25A.

Assessment Concern Number:

M/C-7

Assessment Concern Title:

Human Resource Management

Performance Objective

The ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) 2.3 (NV), and 4.3 (NTS Contractors), states that the human resource requirements for full implementation of ES&H programs are identified and prioritized, and plans ensure that these resource requirements are met. It also states that formal programs for staff development, training, and certification ensure that only fully qualified personnel are assigned to ES&H programs.

Concern

NV and its contractors have not yet fully implemented effective ES&H human resource management programs to ensure that personnel at all levels of their respective organizations are qualified and, where required, certified to carry out their assigned duties and responsibilities.

Discussion

An effective ES&H human resource management program ensures that personnel at all levels of the organization are qualified and, where required, certified to carry out their assigned duties and responsibilities. Such a program is founded on clearly defined goals and objectives and is conducted with the formality, documentation, attained proficiency validation, training effectiveness validation, and recordkeeping commensurate with its central role in ensuring that only qualified staff are assigned to ES&H activities. While such a program does not exist at NV, important steps have recently been taken to develop and implement an effective program.

Historically, NV ES&H training has been fragmented, decentralized, and often informal. The 1990 Tiger Team Assessment reported a number of deficiencies that could be traced to an inadequate ES&H training program (D-A-1). For example, the Tiger Team identified the following concerns that are directly related to the lack of an effective, centralized training program at NTS:

TC.1-1 addressed the lack of sitewide training standards and the resulting inconsistent implementation of training;

TC.3-1 addressed the lack of assurance that initial on-the-job training was effective;

TC.4-1 addressed the lack of assurances that all NTS radiation workers were provided required training; and

TC.6-4 addressed deficiencies in the documentation of required NTS user documented criticality retraining (D-A-1).

Taken collectively, these findings pointed to the need for centralized human resource management programs to ensure that ES&H training needs were identified and fulfilled in a uniform manner. NV did not show substantial

progress in addressing these concerns until nearly 2 years after the Tiger Team Assessment.

In December 1991, NV developed a plan to centralize its training functions into a single organization, the Training and Development Branch (TDB) within the Human Resources Division (HRD). The NV plan was approved by Defense Programs (DP) in February 1992 (D-A-35). Substantial progress in establishing an effective ES&H training program is evident since the formal approval of the TDB.

TBD has developed a rough draft work plan (D-A-37) and preliminary goals that will serve as a framework for its ES&H training program. For example, the work plan addresses nine activities including: Establishing Work Priorities, Course Development, Contractor Training Oversight, Individual Development Plans, Development and Implementation of NV Training Orders, Professional Development Programs, Coordination of HQ Directed Training Actions, and Determination of Training Effectiveness. While the TDB work plan appears to address all aspects of a comprehensive training program, it currently lacks sufficient detail to be a useful implementation plan. For example, it lacks an implementation schedule including the phasing of activities and important milestones leading to full implementation.

NV does not have a formal, comprehensive process to identify the ES&H training requirements for each employee. Historically, each line manager took full responsibility for identifying their training requirements (I-A-2 and I-A-8). Training and certification focused on activity-specific training such as Tunnel Safety and Hazardous Waste Operations, generic requirements such as Hazards Communication, and management awareness training such as Environmental Laws and Regulations. Training requirements mandated by all applicable DOE Orders and Regulations have not yet been identified. Furthermore, because training was decentralized, there was no assurance that requirements were being uniformly interpreted and addressed.

After training was centralized in the Human Resources Division (HRD), an initial NV-wide training needs assessment was conducted to confirm existing occupational or functional work positions and to identify and to set priorities for position functions based on risk (D-A-42). This survey is the initial step in a comprehensive training needs analysis that NV management expects will take a year to complete (I-A-8 and I-A-28). Also, a Job and Task Analysis (JTA) to identify the mandatory training requirements for each position is in the formative stages. A pilot JTA has been initiated for a small occupational category, Personnel Management Specialists. Another pilot-stage element of the NV JTA program, Quality Cards, will detail the training requirements and training status of each employee. Management indicated that the JTA process will be applied to other job categories as it is perfected (I-A-8).

An NV-wide personnel training, retraining, and certification tracking system that identifies the training requirements for each employee and the employee's training status does not exist at NV. Currently, NV maintains a training data base that includes each employee's training record. The data base includes the course title and the training date, but does not include training requirements or dates for retraining. Organizational units within NV have begun developing and implementing unit-wide needs based ES&H training programs. For example, the Health Protection Division within the Office of

the Assistant Manager for ES&H (AMESH) is progressing towards such a training system (I-A-38) and has prepared a draft ES&H training needs and position qualification manual (D-A-128). NV management indicated that the utility of this system for other AMESH divisions will be determined by the AMESH (I-A-38).

The training programs of the NTS contractors' ES&H human resource management programs are more mature than the NV program. However, in the case of all NTS contractors, enhancements in their programs are underway or recognized as a need by their management. The enhancement and implementation of individual NTS contractor ES&H training programs are progressing, but not under a uniform NV NTS-wide policy or management plan. The following summarizes the status of the NTS contractors' ES&H training programs:

REEC

REEC does not have a centralized, company-wide ES&H training program to set priorities for ES&H training requirements in a uniform manner. REEC training is being consolidated into a single organization from existing elements, which resided in the ES&H Division (Environmental Training) and the Human Resource Department (Training and Employee Development). There is no implementation plan that describes how this new organization will function. This reorganization will also centralize record keeping and training oversight.

REEC ES&H training priorities are set at various management levels including the General Manager, the Division level, the Department level, and by the ES&H organization (I-A-23, 24, 25, and 26). Line management organizations respond to the highest management level priority (I-A-24 and I-A-25). ES&H management organization training requirement priorities are expressed as compliance requirements that are left to the line organizations discretion to reprioritize relative to other demands. REEC management indicated (I-A-25) that the prioritization of ES&H training is reactive; it is driven by a number of factors including Cost Plus Award Fee (CPAF), the Corrective Action Plan (CAP), assessments by line management and ES&H assessment organizations, and Human Resources.

RSN

RSN training is centralized under the Commitment to Excellence Office (CEO) within the RSN Total Quality Management Program, but this is primarily an administrative function (I-A-22 and I-A-29). The RSN human resource development staff tracks the status of staff training and notifies the line management organization when retraining is required. However, the line management organization is solely responsible for ensuring that the training requirement is satisfied, there is no formal RSN process for followup and closure (I-A-29). An ES&H training data base is also maintained by the line management organizations, but independent identification of departures from training requirements would only be identified during ES&H audits and appraisals (I-A-22). RSN does not have a company-wide system to set the priorities for ES&H training needs (I-A-29). However, while performance based ES&H training needs identification is not yet fully integrated and formalized, it is occurring on a limited basis. For example, the Safety and Health data base is used by the ES&H Compliance organization to track and trend deficiencies, primarily to determine training needs (I-A-22).

EG&G/EM

The EG&G/EM ES&H training program was not examined in the same detail as other NTS contractors. However, several positive observations can be reported. ES&H training needs for EG&G/EM line management personnel are determined primarily by the ES&H organization on the basis of an ES&H DOE Order compliance analysis and job task analyses (I-A-31 and I-A-32). EG&G program management organizations have given priority to ES&H training for their employees. For example, there are training requirements for the safety coordinators of the program management organizations and, in general, it appears that management EG&G/EM has given priority to this training.

WSI

WSI appears to have the most mature ES&H training program at NTS. Historically, WSI's ES&H training program has had to comply with DOE requirements for armed protective forces. A recent independent appraisal of the WSI training program, from the perspective of meeting the training requirements for a protective force, indicated that the WSI program was effective (D-A-49). WSI enhances its core ES&H training program as required by NV to include new ES&H training requirements. WSI employees appear to have the ES&H training necessary to carry out their assigned duties.

There is much evidence that NV management is committed to the goal of ES&H excellence and recognizes that a comprehensive ES&H human resource management program is vitally important to achieving this goal. The recent steps that NV has taken, and the priority it has accorded ES&H human resource management, if continued, should result in a sound, effective program. Training resources exist throughout the NTS, including the ES&H training offered by the NTS contractors (D-A-72) and the DOE/NV Contractors Training Council (D-A-80), which should benefit NV's efforts.

The causal factors for this concern appear to be policy, in that NV did not adapt its human resource management policy to the need for a comprehensive ES&H human resource management program; and change, in that the centralization of ES&H training did not occur until recently.

Assessment Improvement Item Number: M/II-1

Assessment Improvement Item Title: DP ES&H Organization

Performance Objective

Performance Objective 1.2.2 of ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) specifies that the interface and functional relationships between the various line organizations, and between the line organizations and the ES&H oversight organization, are clearly defined, formally documented, communicated, and understood.

Improvement Item

DP's ES&H oversight and self-assessment activities are not clearly defined or understood, with many activities vested in the DP-60 line operating organization that would appear to be needed on a DP-wide basis.

Discussion

Pursuant to the Secretary of Energy's directives as contained in Secretary of Energy Notice (SEN)-6E-92, DP has implemented an ES&H program which contains all required elements. Most of these activities are described in the Defense Programs Operations Manual (D-B-60). However, most of the specific procedures to implement the assigned responsibilities are yet to be written. These activities have been vested in a number of organizations and appear to diffuse and fragment activities that would appear to be needed on a DP-wide basis, leaving some line organizations without the benefit of this oversight while at the same time potentially compromising the objectivity and independence of other line organizations. Most of these ES&H activities are vested in the DP-60 line operating organization. For example, Technical Safety Appraisal (TSA) ES&H inspection activity is performed in DP-67; DP guidance on directives, standards development, the order compliance study, safety document reviews, and prioritization methodology development is being performed by DP-62; and self-assessment plan development, special ES&H studies, analysis of ES&H occurrence reporting, emergency management, Performance Indicator, and trending of ES&H data is being performed by DP-9. All of these activities effectively support the DP-60 program division's responsibility for ES&H oversight. However, they do not provide for independent review of DP-62 or DP-67 activities since DP-9 oversight is not comprehensive or on a real-time basis, but is instead on a selected or as-needed-basis; nor does DP-62 or DP-67 perform oversight of DP-20 programs.

In addition to the above, other areas of the ES&H program that have not been defined or clearly understood include how results of the DP-67 appraisals are to be handled. They are provided to DP-60 for their use as deemed appropriate. Currently, the practice has been that the TSAs performed by DP-67 are sent to DP-60 and have been forwarded to the field for action, however this is not a defined requirement. It is noted that by memorandum dated July 28, 1992, DP-6 issued a requirement and procedure (D-B-74) to the field for all prior and future DP-67 TSAs to be evaluated, tracked, and formally closed out. Furthermore, it is not clear how DP develops its self-assessment since DP-9's role does not include integration of the self-assessment efforts of the other DP organizations, although DP-9 will begin to evaluate field self-assessment efforts in the future (see Concern

M/C-2). The effectiveness of the DP assessment and review program is vital to the success of the NV program in that it should provide NV with detailed guidance related to satisfying DOE policy and it should provide NV with independent external oversight.

The causal factors for this improvement item appear to be lack of policy and procedures.

Assessment Improvement Item Number: M/II-2

Assessment Improvement Item Title: Directive System

Performance Objective

Performance Objective 2.4.1.2 of ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) specifies that the Directive System ensure common understandings of ES&H requirements, identifies their specific impacts on contractor activities, and facilitates contractor development of policies and implementing procedures.

Improvement Item

NV implementation of the directive system does not assure that a common understanding is reached with its contractors regarding environment, safety, and health (ES&H) requirements and expectations.

Discussion

The DOE directive system is one of the primary mechanisms for communicating DOE requirements, including those for ES&H, to the contractor. It provides an opportunity for both parties to reach a common understanding of the requirements and to convey their respective expectations regarding implementation.

While NV has developed procedures (NV 1321.1B; May 22, 1992) for handling DOE Orders and Secretary of Energy Notices (SENs) that ensures internal consistency and traceability it is deficient in that it only requires the contractors to acknowledge receipt of a directive. There is nothing in the process to ensure that a common understanding will be reached between NV and its contractors, such as a requirement for the contractors to advise NV of the impact; or to prepare a proposed implementation plan for a new or revised directive. An exception is where an implementation plan is specifically required by the Order transmittal from DOE Headquarters. DP has recently directed, and NV is currently implementing, provisions for contractor review of Draft DOE Orders.

Generally, there are discussions between the ES&H staffs (NV and contractor) regarding directive implementation and interpretation. However, they are not required and do not necessarily assure common understanding. NV will only find out that there is a difference in expectations when and if an audit finding indicates a deviation (as was the case in M&O contractor implementation of DOE 5000.3A).

There is no evidence of timely or site-specific guidance from DP or EM regarding new or revised ES&H Orders. As a part of a DP-62 initiative to establish a baseline, DP's M&O contractors have been required to perform an Order compliance review. This is an exhaustive review of some 90 DOE Orders to determine applicability and degree of compliance with some 20,000 specific requirements contained in these Orders. While on the surface this would appear to be a valuable, if somewhat costly effort, it currently only represents the unilateral judgement of the four M&O contractors EG&G/EM, REECO, RSN, and WSI. NV is also reviewing these same orders to determine the extent to which they are in compliance with the requirements of these orders

as they apply to field office activities. NV's involvement in review of the contractors process to date has been essentially to ensure that the inputs to the data base are consistent with the administrative requirements. The process does not provide assurance that the contractors judgement of applicability or implementation are consistent with the intent or expectations of DOE.

The causal factors for this improvement item appear to be lack of NV policy and procedures.

Assessment Improvement Item Number:

M/11-3

Assessment Improvement Item Title:

Cost Plus Award Fee (CPAF)

Performance Objective

Performance Objective 2.4.2.8 of the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992) specifies that the CPAF process is comprehensive, realistic, and fully effective in evaluating, guiding, and motivating enhanced contractor ES&H performance.

Improvement Item

The NV CPAF process has evolved to the point where the pursuit of ES&H excellence may be better served by broader (long-term) criteria with subordinate milestones that guide and motivate the contractor in specific management or technical areas (permitting management decisions based on defined risks and rewards) rather than the large number of specific criteria.

Discussion

The CPAF process has shown steady improvement over the past several years and the essential elements of the process are in accord with current DOE policy and practice, including appropriate weighting of ES&H performance (e.g., REECO 51 percent, EG&G/EM 35 percent). NV has developed an NV Order on CPAF, provided training on how to effectively perform CPAF activities for those involved, developed a CPAF Desk Procedure Manual, improved the quality control of the CPAF process, completed a draft study on how the CPAF process is working and proposed improvements, and directed improved communication between the CPAF monitors and the contractors.

Discussions with contractors and NV staff differ on their perception of the effectiveness of the CPAF process. The contractors generally expressed the concern that the process was inhibiting the pursuit of excellence because of the large number of objectives, of perceived equal weighting, and driving their limited resources leaving them inadequate resources to pursue excellence. This contrasts with the NV perception, that only because of the high CPAF ES&H weighting have they been able to get the contractors attention to perform acceptably, and these contractors need and respond effectively to specifically identify requirements and hence the large number of specific requirements.

Recognizing that the CPAF process is the principal driver of contractor ES&H performance, it is the Progress Assessment Team's opinion that the current implementation of the CPAF program by DOE is not as effective as it could be in motivating ES&H improvements by the contractor. The primary reason for this is the incorporation of the large number of specific ES&H criteria, most of which are for the performance of activities already required by DOE Orders or Action Plans. The large number of Performance Objectives and Criteria (POCs), without any relative weightings or criteria for performing them more timely or effectively, deprives the contractor of the ability to make value judgements since they must be treated as of equal importance. Furthermore, the inclusion of these contractually required criteria has the effect of controlling the work rather than providing incentive. The NV CPAF process has reached the stage of maturity where broader criteria, such as the

implementation or improvement of ES&H management systems, should replace producing a specific ES&H document or appraisal already required. For example, development of ES&H training programs or improvements in the ES&H management information system with specific milestones for each evaluation period, such as determining the training requirements, plans development, course development, etc or in the latter case the development of common tracking systems, trending of data, root cause analysis, and lessons-learned programs. Essentially, this is the establishment of long-term goals with interim milestones, rather than directing short-term specific objectives. Performance of contractually required activities becomes part of the base program and with a smaller number of major and subordinate criteria, relative weightings can be provided in some realistic manner. This would enable the pursuit of ES&H excellence by focusing effort on higher priority issues that can be substantially improved with concentrated attention, rather than attempting to do many items across a broad front of issues that tends to dilute effort and prolong substantive improvement. This would also provide the contractor with the basis to make value judgements as to how to apply scarce resources.

In addition to the above, the review of the NV CPAF process indicated the following:

The process employed by NV does not require any interaction with the contractor during the evaluation period for midcourse correction or status reporting. Although the Performance Evaluation Plan implies that such meetings should take place, on July 24, 1992, the Manager, NV, directed quarterly meetings between contractor and monitors to assure this interchange in the future.

QA, at the request of EH, is embedded in the administrative section (total administrative section worth 11-12 percent for REEC and 8 percent for EG&G/EM) and, therefore, gets little visibility. However, NV currently doubles the weight of QA in the overall rating of this section.

There was no mention of self-assessment programs until the current REEC and RSN CPAF criteria (none currently in EG&G/EM Plan).

There appears to be minimal involvement of DOE Headquarters Program Divisions in any of this process even though NV formally solicits them by letter. They do not participate in depth in establishment of the plan criteria or regularly participate in the evaluation process. Their role has been limited to reactive (quick review) approval of the plan and the Award Fee Determination Report, usually under time duress.

The semiannual evaluation reports appear not to focus on the criteria established in the plan. They appear to be exception reports but do not state that this is the case and instead hit the hot issues only.

The causal factors for this improvement item appear to be policy implementation and change for NV, and resources for DOE Headquarters.

Assessment Strength Number:

M/S-1

Assessment Strength Title:

DOE/NV Contractors Training Council

Discussion

In June 1991, the NTS contractors formed a training council (D-A-80) with the following objectives: to identify common training needs; to develop short-, intermediate-, and long-term goals of mutual benefit; and to provide coordinated training by using shared resources to eliminate the duplication of effort. The DOE/NV Contractors Training Council charter specifies that the council will be composed of the General Managers of the four NTS contractors and supported by a working group of the contractor's training managers. This council can provide NTS with important benefits by consolidating NTS training assets and providing a basis for uniform, high quality training programs. The formation of the council has already paid dividends; they have reviewed and identified individual contractor training assets, identified common training requirements, and assembled a training manual that summarizes the training courses available to NV and NTS contractors.

Appendix B-2

Assessment Details - Environment Programs/Concerns, Improvement Items, and Strengths

Assessment Concern Number:

E/C-1

Assessment Concern Title:

NTS Groundwater Protection Program

Performance Objective

Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229), GW.1, "Groundwater Protection Management Program," and GW.2, "Groundwater Monitoring Program," cite the need to develop a Groundwater Protection Management Program that identifies all elements, explains a site-specific monitoring strategy, and defines roles and responsibilities for each element.

Concern

NV has not identified all elements of the NTS Groundwater Protection Management Program, including a site-specific monitoring strategy and defined roles and responsibilities for each element.

Discussion

Programs and projects that provide necessary information for NTS groundwater protection reside with various NV organizations. For example, NV Environmental Restoration Branch (ERB) is responsible for the Groundwater Characterization Project (GCP); NV Environmental Restoration and Waste Management Division (ERWM) Hydrology Program Manager is responsible for management and direction of the Hydrology/Radionuclide Migration Program (HRMP) and the Groundwater Protection Management Program Plan (GPMPP); NTSO is responsible for potable/nonpotable water quality programs; and the Test Technology Branch (TTB) administers programs for geology and NTS-SOP Groundwater Protection Procedures for the test program and the Nevada Test Site Office (D-D-2; I-I-23). Furthermore, seven separate organizations (LANL, LLNL, DNA, USGS, DRI, EPA, and REECO) are involved in hydrological investigations of varying scope depending upon particular programmatic needs. The information gathered for one program is not necessarily relevant to any other program. Additionally, an extensive hydrogeologic characterization program is being implemented by the Yucca Mountain Project Office (YMPO) to determine if Yucca Mountain is a suitable site for the nation's first geologic repository for nuclear waste.

However, coordination of these programs is inadequate with respect to the special requirements found in DOE 5400.1, "Special Program Planning Requirements," Chapter III, Section 4. No individual or organization has been assigned the responsibility for the coordination and/or integration of NV groundwater protection programs. NTS groundwater programs and projects have not been coordinated to allow for efficient use of data that will be used to develop and validate a groundwater model that can predict groundwater flow. This data will also support development of a monitoring well network, whose wells are located based upon a defined technical rationale. Furthermore, coordination has not been oriented to assure that DOE is using funds and contractor resources efficiently between DOE projects to prevent duplicative data gathering and model development between NV and YMPO. Consequently, the potential exists for duplicative efforts being taken across program and project lines and other efforts not being conducted.

Upper level NV management is aware of the need to coordinate and integrate NV programs and projects to promote efficient groundwater protection management and resource allocation, and is finalizing the centralization of these programs under a Hydrology Program Manager that will report to the Director, ERWM (D-D-36; I-D-1, 11, 14, 25, and 26).

Furthermore, NV and YMPO realize the need for integration of the groundwater characterization projects for NTS and the Yucca Mountain Project. They developed an agreement for information exchange between ERWM and YMPO and that has resulted in exchange of information. However, a formal agreement that provides for integration of all YMPO groundwater characterization activities into groundwater protection activities for NTS is lacking. The 1986 Memorandum of Agreement (MOA) with the Office of Civilian Radioactive Waste Management (RW) contains no provision that requires coordination of groundwater protection activities for NTS and the Yucca Mountain Project. The lack of a formal agreement that delineates responsibilities between NTS and the Yucca Mountain Project concerning groundwater protection activities will make integration and coordination of these activities difficult, especially since the draft GPMPP does not address the coordination of NTS and the Yucca Mountain Project's groundwater protection activities (D-D-13 and D-D-22).

A GPMPP that provides the structure and approach for groundwater protection at NTS was not finalized and approved by May 9, 1990, as required by DOE 5400.1. If NV had developed the GPMPP by the due date, then the integration of groundwater protection activities would be more easily implemented. This is especially true in light of the potential National Priorities List (NPL) listing. NV has developed a draft GPMPP that is currently being reviewed by NV management. Furthermore, other program and project plans are in draft form, do not reflect current conditions, or lack procedures and need to be finalized and integrated into groundwater protection activities. For example, the Geohydrology Program Plan and the GCP, which does not include a well recompletion subtask, are not approved by NV management and ERWM. ERB and the Environmental Protection Division (EPD) have not finalized procedures for their ongoing operations (D-D-5, 17, 24, and 32; I-D-15 and I-D-17).

The causal factor for this concern appears to be policy implementation in that NV has not implemented a groundwater protection program plan in accordance with the requirements of DOE 5400.1.

Assessment Concern Number:

E/C-2

Assessment Concern Title:

Release Reporting Procedures

Performance Objective

Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229) IWS.2, "Release Reporting," cites the need for a program to report, within the required time frames of applicable laws and regulations, environmental releases that are reportable to the Federal or state government. The program is to include approved plans and procedures, training, audits, and provisions for appropriate followup response and documentation.

Concern

NV, its contractor, and NTS user organization systems and procedures to assure that release reports are made and followup is carried out in accordance with applicable Federal, state, and DOE requirements are either not formally developed or are inconsistently or inadequately performed.

Discussion

NV, its contractors, and the NTS user organizations each have their own procedures for release reporting. Each is responsible for reporting releases that have occurred within its facilities or operations to NV; performing followup characterization, cleanup, and reporting; and assuring that these releases are reported through the occurrence reporting system. NV, through its EPD, is responsible for all initial notifications and followup contacts with the appropriate regulatory authorities. From January 1 through July 21, 1992, nearly 40 releases have been reported at NTS (D-F-45). Nearly half were accidental spills while the remainder were discoveries of past releases (reportable under Nevada law). In all cases, these have been petroleum products or waste oil.

This system has not been fully effective in assuring that release reporting and followup are conducted in accordance with applicable Federal, state, and DOE requirements. Manifestations of these problems include incidents of contractors having trouble coordinating required spill reports, late submittal of reports, inconsistent information in reports, use of inappropriate sampling and analytical techniques, and multiple, inconsistent tracking systems (I-F-8 and I-F-18). In certain cases, responsibilities for release or occurrence reporting have not been clear (I-F-6 and I-F-17).

Deficiencies with the system that have resulted in these problems are as follows:

- NV has not provided formal sitewide directives on release reporting, does not approve contractor or user organization procedures, nor does it audit contractor or user organization procedures for appropriate implementation (I-F-16).
- NV EPD is responsible for reporting releases to regulatory authorities; however, its procedure for performing this function, as well as some of its other functions (e.g., surveillances, field inspections, dissemination of regulatory information to line

organization, and review of regulatory documentation), is in draft (D-F-49).

- NV, its contractor, and NTS user organization procedures do not describe followup reporting requirements.
- REECo, which accounts for most of the site's releases as a result of the number of equipment items it maintains and operates, and NV do not have formalized, documented training programs on their spill reporting procedures (I-F-8 and I-F-16).
- REECo imposes disciplinary action on employees whose negligence has resulted in environmental releases. As a result, there is the potential that some employees may be reluctant to report releases (I-F-7, I-H-15, and I-H-16).

NV and REECo are aware of the issues presented in this concern. REECo has formed an internal working group for developing methods to prevent spills from occurring and procedures for reporting and following up on spills if they occur (I-F-7). In addition, NTSO is developing a uniform spill incident reporting and remediation actions procedure for NTS (D-F-40). This procedure will task REECo as the central administrative authority for release reporting and remediation, will require posting of the procedure at worksites where spills may occur, and will document briefing of employees with all NTS organizations.

The causal factors for this concern appear to be policy implementation, in that NV has not effectively set release reporting policy; and quality assurance/ quality control, in that QA precepts of procedures, training, and program auditing have not been accomplished for release reporting.

Assessment Improvement Item Number:

E/II-1

Assessment Improvement Item Title:

**Quality Assurance Order
Implementation Guidance**

Performance Objective

Performance Objective 2.4.1, "Directive Systems," of the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), specifies that the directive system ensure that DOE Orders and other requirements are translated into site-specific guidance that is formally transmitted in a timely fashion; identifies specific impacts on the development of policies; and that the information flows efficiently through both formal and informal communication channels.

Performance Criteria 2.4.2.3, "Assessment and Reviews," specifies formal mechanisms exist for the timely approval of contractor-generated documents reviewed by Field Office line and independent organizations.

Improvement Item

NV has not provided the NTS contractors with clear guidance and efficient communications resulting in delaying the full implementation of DOE 5700.6C required quality assurance (QA) programs at NTS.

Discussion

DOE 5700.6C became effective on August 21, 1991, and gave contractors 180 days to prepare a QA program and implementation plans (QAP/IP) for submission to the Program Secretarial Officer PSO(s) for review and approval. The PSO(s) were given 180 days from receipt of the plans for review and formal letter approval or the plans would be considered approved by default. NV moved quickly to task the contractors with developing the required program and plans and began to initiate its own program and plans for submission to DP (D-E-16). Guidance from DP (D-E-14) extended the due date for contractor plan submittal, suggested redirecting the submittal to NV, and instructed NV to conduct an initial review process of the plans with recommendation for approval to the PSO. However, there was no due date for NV to submit the contractor plans submittal to DP for their review and approval. The contractors all submitted their plans to NV on or before the extended due date (I-E-4).

EM is the lead PSO for the Environmental Restoration and Waste Management Division (ERWM) activities. Under the directed guidance of the EM "Quality Assurance Requirements and Descriptions," ERWM has completed their own QAP/IP (D-E-27) for submission to EM by the required July 30, 1992, deadline.

The Progress Assessment Team noted that NV did not: transmit timely formal guidance and approval of contractor-generated documents reviewed by NV divisions; and provide for the efficient flow of information through both formal and informal communication channels. The observations that support these deficiencies are:

- DOE 5700.6C does not specify a due date for the field offices to submit QAP/IPs to the PSO. NV decided to take the leadership role by keeping to the same schedule as the contractors and produce a

QA plan and manual of implementing procedures (D-E-64). The lead for this task was given to an ad hoc committee of the AM Forum, chaired by an AMO representative. However, this committee was given no guidance by upper management to ensure that the documents produced met their expectations. As a result, after months of work the final documents were rejected by management and the project was started with new direction (I-E-3 and I-E-15). There is presently a first draft of a new QA program plan for review before the NV Quality Council (D-E-31).

- The M&O contractors submitted their QAP/IPs to NV between February 17, and March 13, 1992. The Quality Assurance Branch (QAB) conducted an independent review of the plans and completed comments by April 24, 1992. During this timeframe, discussion were going on to determine the role that NV line organizations would play in the review, comment, and approval of contractor QAP/IPs (I-E-12 and I-E-15). This was not resolved until NV guidance was issued on June 12, 1992. However, the guidance process was flawed in that: guidance was initially provided only within NV so the M&Os were not aware of the process; there was no clear guidance on who was to oversee the efforts of the lead Contracting Officers Representatives (COR) to garner comments from the line organizations; written guidance unclear regarding who was tasked to send the contractor QAP/IPs to DP, with the NV Manager's recommendation for approval; and no due date for the process was assigned (D-E-17). As a result, none of the M&O contractor QA organizations are presently aware of when they will receive comments for incorporation and resubmittal (I-E-6, 9, 11, and 13).
- IT Corporation (IT) was supposed to have two plans prepared for submittal to ERB ERWM to implement their QA program for supporting ERB and the Groundwater Characterization Project (GCP) (I-E-2, I-E-14, and I-E-21). The first QA plan (QAP) was a deliverable that was intended to satisfy FAR clause 52.246-11, the second document was to be a QA Project/Program Plan (QAPP) that was in the format required to satisfy EPA QAMS 005/80. Both documents were submitted for approval by IT. The contractually required QAP does not conform with DOE 5700.6C. However, ERB has not formally appraise IT of its expectations regarding the QAP conformance to the Order (I-E-14). As the result of ERB's informality in providing guidance, IT does not presently have an acceptable QAP/IP in place.

The impacts of delay on the development of QA policies and their implementation, for both the M&O contractors and NV organizations, were not adequately identified by NV management. The following effects of these delays are: slowing the implementation of REECO management system changes based on the approval of their QAP/IP (I-E-6); delaying the preparation of QA training for REECO (I-E-6) employees; delaying feedback from DP on the effects of DASMA policy to the M&O contractors QA implementation plans (I-E-11); having ERWM submit its QAP/IP to EM without incorporating present NV QA program implementation guidance (I-E-2); and if the August 16, 1992, date passes before the DP review and approval, implementing M&O QAP/IPs that are approved by default, which may be significantly flawed.

The causal factors for this improvement item appear to be policy implementation, in that guidance on DOE policy in the form of the QA Order was not appropriately disseminated; and supervision, in that ineffective supervisory controls for implementing directives played a role in the deficiencies noted.

Assessment Improvement Item Number: E/II-2

Assessment Improvement Item Title: Quality Assurance Program Implementation

Performance Objective

Performance Criteria 4.2.1, "Organization," of the ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), specifies that roles, responsibilities, and authorities for ES&H implementation are clearly defined, formally documented, communicated, and understood.

Improvement Item

QA Program implementation is inadequate in that not all personnel at NV and its contractors, assigned responsibility for ES&H QA functions, have clearly defined and formally documented roles and responsibilities; are adequately trained; or are formally held accountable for their performance.

Discussion

The quality assurance (QA) programs at NTS are in transition. NV is reorganizing all its quality, assessment, and performance measurement activities under the single umbrella of the Performance Assessment and Quality (PAQ) Division. Layered on this philosophical realignment there is an organizational restructuring that will change the name of the PAQ Division and move its newly assigned functions out of the Assistant Manager for Environment, Safety and Health (AMESH) organization and place them directly under the Manager-NV, which will give them the organizational independence they require (I-E-5). To varying degrees, NV and its contractor organizations have been implementing new QA programs in accordance with DOE 5700.6C and attempting to integrate their self-assessment, conduct of operations, and QA programs within a total quality management construct.

The Progress Assessment Team identified the following areas for improvement in the implementation of QA programs: clearly defined and formally documented roles and responsibilities for QA personnel; general QA training; and QA performance accountability. The following are the observations in support of this improvement item:

Roles and Responsibilities

- The reorganization effort within NV affects both the present and future QA program. The organizations within the quality program umbrella are presently functioning under roles, responsibilities, and authorities as defined by NV 11XA.1-14, which is outdated and requires significant revision (I-E-4). The process of updating roles and responsibilities has begun as a part of the redefinition of the quality programs area (D-E-50 and D-E-54). However, these efforts are in draft and have not been fully implemented. It is recognized that the redefined quality program is not fully implemented and the change in the organizational structure is awaiting DP approval. However, there are no formal implementation

plans that clearly and formally define organizational roles and responsibilities.

- Within REECO, the Department Quality Coordinators (DQC), and sometimes Section Quality Coordinators (SQC), are line personnel with collateral QA responsibilities for training, surveillance, corrective action resolution and verification, document review, procedure development, and oversight coordination with NTSO (I-E-7 and I-E-20). The DQC and SQC positions receive 40 hours of job specific training. Officially, REECO recognizes the DQC and SQC positions as an integral part of implementing the QA program, but does not clearly define or formally document their roles and responsibilities in position descriptions (I-E-7).

Training

- There has been no formal QA program training for personnel with ES&H QA responsibilities at NV (I-E-4 and I-E-15). NV has conducted audit certification for staff involved with environmental and QA oversight responsibilities. However, no training has been available that addresses the NV QA program concepts, requirements, or line implementation. This omission has been recognized and a training module is planned that will address DOE and NV 5700.6C and its place in the quality program at NV (I-E-15 and D-E-51).
- REECO has no formal QA program training for personnel with ES&H responsibilities (I-E-6). REECO does have a 40-hour Quality Coordinator course but does not have any formal QA program training for other employees with the exception of a 15-minute presentation during employee orientation (I-E-6).
- IT has a QA program and lead auditor training program. However, they do not have surveillance training (I-E-14), which will be their main oversight activity at NTS. IT is aware of this shortcoming.

Performance Accountability

- At present, neither NV (I-E-4) nor the M&O contractors (I-E-6, I-E-9, and I-E-11) have formally implemented tangible parameters for measuring managerial performance on implementing the QA program. In performance appraisal plans, there are general statements regarding consideration and implementation of QA requirements but no measurable parameters of success are evident (D-E-62). REECO has recognized this omission and has begun to include, in appraisal documents, management performance on oversight and corrective action activities as a determinant of managerial performance (D-E-44 and D-E-45). REECO's efforts are not yet formally proceduralized.

The causal factors for this improvement item appear to be policy implementation, in that policies and practices have not been adequately implemented; and change, in that the reorganization efforts at NV and the M&Os have rendered some of the existing program inappropriate.

Assessment Improvement Item Number:

E/11-3

Assessment Improvement Item Title:

**Integrated Long-Range Planning for
the NTS Environmental Restoration
Program**

Performance Objective

Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229) IWS.1, "Inactive Site Program Planning," cites the need for a program to plan and effectively implement actions required to manage responses to past releases of hazardous substances to the environment.

ES&H Management Performance Objectives and Criteria for Progress Assessments (Draft - April 1992), 2.1, cites the need for programs and strategic plans which address planning, programming, and budgeting on an integrated basis.

Improvement Item

NV Environmental Restoration and Waste Management Division (ERWM) has not fully developed an integrated strategic planning and management process for the conduct of environmental restoration activities.

Discussion

The 30-year goal of NV's ER program is to ensure that environmental and human health risks posed by inactive and surplus facilities and sites are either eliminated or reduced to acceptable levels as determined through site conditions, risk assessments, and regulatory agreements. Environmental Restoration Branch (ERB), within ERWM, has the responsibility of achieving the site's cleanup goal. Its mission is dependent on two other branches within ERWM -- Technology Development Branch (TDB), which is to supply a demonstrated technology for the remediation of plutonium-contaminated soils, and Waste Operations Branch (WOB), which will receive remediation-generated waste for disposition. ERB's mission is also dependent on resolution of regulatory, institutional, and technical uncertainties such as National Priorities List (NPL) status, National Environmental Policy Act (NEPA) documentation, future site institutional control, cleanup standards, and development of future remedial technologies.

Since the 1990 Tiger Team Assessment, ERWM has developed or is planning to develop numerous documents to plan for and implement ER activities and funding, and to integrate the Groundwater Characterization Project (GCP) with the remedial investigation/feasibility study (RI/FS) process. These include the NV Site Specific Plan (D-F-7 and D-F-50), Environmental Restoration Project Management Plan (D-F-32), NV ERWM Manual (D-F-17), ERWM QA Program Description and Implementation Plan (D-F-10 and D-F-11), ER QA Project Plan (D-E-58), Performance Measurement Baseline and Backups (D-F-39 and D-F-57), Groundwater Characterization Project Management Plan (D-F-5), Groundwater Characterization Project Strategy Plan (in preparation), and Roadmaps (D-F-8), as well as project work plans, action plans, and procedures (e.g., D-F-9, 12, 18 to 23, 28, 31, 53, 54, 55, and 60). Many of these plans and procedures are either unapproved, in preparation, or not begun, yet environmental restoration activities are proceeding.

There is no overall strategic planning and management process that integrates the myriad of organizational and technical interactions within ERWM to accomplish the site's long-term ER goal. The following observations were made during the assessment to support this conclusion.

- ERWM is developing strategy plans for individual projects and issues; e.g., NEPA/ Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) integration, GCP, Resource Conservation and Recovery Act (RCRA) closures, plutonium in soils RI/FS, and decontamination and decommissioning (D&D) assessments. However, there is no overall strategic plan for environmental restoration of the NTS.
- Little budget and milestone planning and forecasting exist beyond the 5-year period (I-F-1, I-F-3, and I-F-10). Nearly all of NTS ER's formal program planning is done in response to EM's Five-Year Plan in the form of the Site Specific Plan (D-F-7), activity data sheets, and the Performance Measurement Baseline (D-F-39 and D-F-57). In addition, formal cost estimating procedures were not uniformly applied in developing ER budgets (D-F-36).
- The ER program is dependent upon other ERWM programs (technology development and waste operations), as well as discrete subprojects and activities within ERB, for its implementation. However, there is currently no formalized integration of these programs for strategic planning and management purposes. Tools that will be used in the future for this integration are the Performance Measurement System, which incorporates a work breakdown structure (WBS) approach, and the roadmaps (I-F-10, I-F-22, and I-F-24). However, TDB has not finalized its WBS and has not developed a roadmap (I-F-19, I-F-22, and I-F-24).
- There are no formal systems integration of baseline WBS elements between branches, and the roadmap logic diagrams completed for ERB and WOB do not show program interrelationships. In addition, individual roadmaps within ERB do not show interrelationships; for example, the link between the D&D and RI/FS activities is not shown. A new EM strategy for fiscal year 1993 roadmaps is to incorporate these interrelationships (D-F-58; I-F-24). However, roadmaps are a separate process from and are not incorporated into budget and milestone planning.
- Certain activities necessary to complete environmental restoration activities, such as natural resource damage assessments and safety analyses have not been incorporated into planning documents, yet could have an impact on budgets and milestones.

The site is aware of these issues and is undertaking or planning to undertake the development and implementation of formal systems to address them. Currently, most ERWM program integration is performed informally through close and constant communication and coordination (I-F-3, I-F-17, and I-F-19). ERWM is developing the Performance Measurement System (PMS), which will integrate WBSs ERWM-wide, to perform planning, management, measurement, and reporting functions. Initially, in the fourth quarter of 1992, PMS will provide information on cost and schedule performance by task. In the first quarter of

1993. WBS elements throughout the three branches of ERWM will be linked in the PMS to provide an integrated network schedule (D-F-13; I-F-10 and I-F-22). Additionally, development of roadmaps for fiscal year 1993 are to incorporate program interrelationships (D-F-58; I-F-24). Issues related to the ER cost estimating process are being addressed in the Cost Quality Management Assessment action plan.

The overall outcome of the ER program is highly dependent upon whether the site is placed on the NPL and the terms of the interagency agreement that would result. In preparation for this, ERB is developing a draft interagency agreement that will include an overall ER strategy and schedule (D-F-24; I-F-20).

The causal factors for this improvement item appear to be change, risk, and resources. The programs and requirements under which environmental restoration activities operated changed during the past 3 years with the formation of EM, the closer alignment of the GCP with RI/FSs, and possible site listing on the NPL. As a result of the numerous uncertainties associated with future environmental restoration issues, the site has chosen to commit its resources to shorter term planning that has low risk, then to longer term planning that has greater risk.

Appendix B-3

Assessment Details - Safety and Health Programs/Concerns, Improvement Items, and Strengths

Assessment Improvement Item Number: S/II-1

Assessment Improvement Item Title: Implementation of the Worker Safety/ OSHA Program.

Performance Objective

DOE 5483.1A, "Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned Contractor Operated Facilities," requires contractors to establish and implement safety and health programs which protect their employees from recognized occupational safety and health hazards. The DOE field office is charged with oversight responsibility of contractor safety and health programs and ensures that program accountability is maintained.

Technical Safety Appraisal (TSA) Performance Objective PP.1 states that site and facility organization and administration should ensure effective implementation of the personnel protection program. Performance Objective PP.4 requires that appropriate surveillance activities be conducted that measure safety and health performance and ensure the continued effectiveness of controls.

OSHA voluntary "Safety and Health Program Management Guidelines," published in the January 26, 1989, Federal Register provides guidelines for effective management of worker safety and health programs. These guidelines establish four major elements considered critical to these program. The elements include the following: management commitment and employee involvement; worksite analysis; hazard prevention and control; and safety and health training.

Improvement Item

NV and its NTS contractors' occupational safety and health management systems which are intended to measure employee occupational safety and health performance and provide accountability, have not been fully developed and implemented.

Discussion

The occupational safety and health management program is maturing with significant progress made at NTS in resolving and correcting Tiger Team Assessment findings and concerns. This is evident by observed effective corrective actions and DOE and contractor executive management stated commitment to occupational safety and health excellence as found in policies, planning, and procedures documents; memorandums to employees; and interviews of site personnel. Excellence in program management planning is exemplified by the NV Health Protection Division Management Plan for FY 1992, EG&G/EM's Environmental, Safety, and Health Division Management Plan, and REEC's Voluntary Protection Programs (VPPs) "Dry Run" Onsite Review and draft voluntary protection program application (D-I-12 and D-I-13).

This review of the Occupational Safety & Health (OS&H) program found evidence that there is the potential to compromise the effectiveness of the worker safety and OSHA program as well as management and employee accountability for the following reasons:

- Although a strong commitment has been expressed by management at the executive level to ensure safe and healthful working conditions for all employees, management workloads do not permit scheduling of regular walkarounds of work spaces. The Progress Assessment Team found through interviews that in some cases executive management work loads restrict their routine presence in the workplace (I-I-8).
- There was no evidence that NV or its NTS contractors have developed or implemented formal performance objectives that require their occupational safety and health supervisory staff to perform and document on-the-job evaluations of their respective subordinates to ensure satisfactory field performance. During the course of field verification of Tiger Team finding closures, the Progress Assessment Team noted a number of readily apparent safety and health noncompliances. These noncompliances were related to machine guarding, electrical safety, and hazard communication, which had not been identified by either NTSO or REECo site line management or their safety and health field personnel.
- REECo, WSI, RSN, and EG&G/EM have no policies to require or develop Individual Development Plans (IDPs) for their respective safety and health professionals.
- Performance elements for DOE field management staff relating to professional development of subordinates, monitoring of field staff performance, and accountability are considered noncritical job performance elements (D-I-31). By considering these elements noncritical to the operation of the organization, it implies that professional development and holding employees accountable is not important in achieving excellence.
- Safety performance objectives for some REECo managers show only injury rate goals. RSN has not developed performance standards for their line safety and health professionals.

The causal factors for this improvement item appear to be supervision, policy implementation, and procedures.

Appendix C

Biographical Sketches of Team Members

NAME: Charles Grua

AREA OF RESP: Team Leader

ASSOCIATION: U.S. Department of Energy

EXPERIENCE: 35 Years

- U.S. Department of Energy, Office of Special Projects
 - EH Office of Special Projects Team Leader.
 - TSA Team Leader, Office of Safety Appraisals, Office of Performance Assessment.
 - Quality Assurance Engineer, Team Leader, Lead Auditor, Office of Quality Assurance.
 - Program Manager, Environmental Control Technology Division, DOE/ERDA.
- U.S. Department of Interior
 - Program Manager, Combined Cycle Power Plant, Office of Coal Research.
 - Acting Chief, Plant Engineering and Project Management Division, Office of Saline Water.
 - Resident Manager, R&D sites for desalination technologies at Freeport, TX; Rosewell, NM; Orange County, CA; Office of Saline Water.
- Department of Health, Education, and Welfare
 - Maintenance Engineering, National Institute of Health.
- Honeywell
 - Application Engineer.
- Lykes Brothers Steamship Co.
 - Third Assistant Engineer.
- U.S. Navy

EDUCATION: B.S., Marine Engineering, U.S. Merchant Marine Academy

OTHER: Member, American Society of Mechanical Engineers
Member, American Society of Quality Control

NAME: Douglass S. Abramson
AREA OF RESP: Safety Programs
ASSOCIATION: U.S. Department of Energy
EXPERIENCE: 17 Years

- U.S. Department of Energy, Office of Safety Appraisals
 - Safety and Health Subteam Leader for Accelerators TSA at the Los Alamos National Laboratory Tiger Team; S&H Subteam Leader at Ames Laboratory and the National Institute of Petroleum and Energy Research Tiger Teams.
 - Assistant Subteam Leader for Technical Safety Appraisals (TSAs) at ETEC, METC, and SERI.
- U.S. Department of Energy, Office of the Assistant Secretary, Conservation and Renewable Energy
 - Program Manager and Mechanical Engineer for Test Procedures and Energy Conservation Standards for central air conditioners, room air conditioners, refrigerator/freezers, humidifiers and dehumidifiers, fluorescent lamp ballasts, and television sets.
- National Institutes of Health, U.S. Department of Health and Human Services
 - Team Leader for the design and construction of multimillion dollar renovation and new construction of medical facilities, research facilities, and animal facilities.
 - Project Manager for the construction of the nuclear medicine cyclotron facility.
- U.S. Army, Corps of Engineers, United States and Europe
 - Captain, Commander of Engineer Company. Responsible for all activities including training, maintenance, and safety.

EDUCATION: B.S., Mechanical Engineering, Drexel University
Engineer Officer Basic Course and Engineer Officer Advanced Course, Fort Belvoir, VA
U.S. Army Command and General Staff College, Fort Leavenworth, KS

NAME: Lorin C Brinkerhoff

AREA OF RESP: Corrective Action Program

ASSOCIATION: Private Consultant

EXPERIENCE: 39 Years

- Private Consultant
 - Associated with EG&G Idaho, Inc., Oak Ridge Associated Universities.
- U.S. Atomic Energy Commission/Energy Research and Development Administration/Department of Energy
 - Technical Safety Appraisal Team Leader, DOE Office of Safety Appraisal.
 - Acting Reactor Safety Branch Chief, DOE Headquarters.
 - Senior Nuclear Safety Specialist, Atomic Energy Commission, Energy Research and Development Administration, and DOE.
- Aerojet General Corp.
 - Senior Nuclear Engineer, Nerva Program, Nuclear Rocket Development Station, Nevada.
- Lawrence Livermore National Laboratory
 - Manager, Nuclear Critical Facility.
- Phillips Petroleum Co.
 - Reactor Foreman, Idaho Test Site.
- General Electric Co., Hanford, WA
 - Graphite Studies Group.

EDUCATION: B.S., Chemical Engineering, University of Utah

OTHER: Member, ANSI-15 Standards Committee on Research Reactor Safety (1980-1989)
Member, ANSI N-16 Standards Committee on Nuclear Criticality Safety (1978-1984)
Listed in "Who's Who in the East," "Who's Who in the World," and "Who's Who in Science and Engineering"

NAME: Carlos O. Coffman

AREA OF RESP: Industrial Hygiene

ASSOCIATION: U.S. Department of Energy

EXPERIENCE: 6 Years

- U.S. Department of Energy, Office of Health
 - Industrial Hygienist. Responsibilities include developing industrial hygiene policies, standards, and guidance; and conducting assessments of field office and Headquarters programs for ensuring contractor implementation of DOE's occupational health protection requirements.
- Biospherics Incorporated
 - Industrial Hygienist. Responsibilities included the coordination and management of indoor pollution projects for Federal and private sector clients. Specific duties included designing sampling strategies and performing industrial hygiene surveys for "Sick Building Syndrome" and "Building Related Illness" cases and providing consultation to facility owners, managers, and operating personnel.
- Environmental Management Systems, Inc.
 - Industrial Hygienist. Responsibilities included the coordination and management of indoor air quality surveys and asbestos inspections of various property management firms, public institutions, and private facilities. Additional responsibilities included monitoring asbestos abatement projects, performing environmental audits on properties addressing prior land/facility use, underground storage tanks, PCB transformers, and past or potential environmental hazards.

EDUCATION: B.S., Biology, Bowie State University

OTHER: Member, American Industrial Hygiene Association (AIHA)
Member, Metropolitan Washington Health and Safety Council

NAME: Robert A. Crowley, P.E., P.L.S.

AREA OF RESP: Hydrogeology

ASSOCIATION: U.S. Department of Energy

EXPERIENCE: 17 Years

- U.S. Department of Energy, Office of Environmental Audit
 - Environmental Engineer. Provides guidance, direction, and assistance to a multi-disciplined group of professionals performing environmental surveys, Tiger Team Assessments, and Environmental Audits of DOE facilities.
 - Deputy Environmental Subteam Leader for the Brookhaven National Laboratory, Princeton Plasma Physics Laboratory, Solar Energy Research Institute, and Morgantown Energy Technology Center Tiger Team Assessments and Bonneville and Western Power Administration Environmental Audits. Special Assistant for the Paducah Tiger Team Assessment and Audit Team Leader for the Component Development and Integration Facility Environmental Audit.
- Federal Energy Regulatory Commission, Office of Hydropower Licensing
 - Civil Engineer. Directed safety and design assessments of energy projects and ensured operational and design compliance with environmental requirements.
- Anne Arundel County Department of Public Works
 - Civil Engineer. Managed projects associated with water quality planning and surface and groundwater hydrology.

EDUCATION: Graduate Studies in Civil Engineering, University of Maryland
B.S., Agricultural Engineering, University of Maryland

NAME: Gregory T. Haugan, Jr.

AREA OF RESP: Information Management

ASSOCIATION: META, Inc.

EXPERIENCE: 8 Years

- META, Inc.
 - Information Management Specialist. Participated in 16 Tiger Team Assessments and 2 Progress Assessments managing a team responsible for onsite administrative support, report production, and technical editing.
- UDI Contractors, Inc.
 - Project Manager and Administrator. Supervised field operations and managed office administration for a construction management firm. Initiated the corporate safety program and monitored OSHA compliance.
- GLH Inc.
 - Program Analyst. Specialized in research, report writing, and project management software for an information resources management consulting firm.

EDUCATION: Graduate Studies, General Administration, University of Maryland
B.A., General Studies, University of Maryland

NAME: Jack J. Janda

AREA OF RESP: Worker Safety and Health (OSHA) Compliance

ASSOCIATION: Comprehensive Environmental Health Services, Inc.

EXPERIENCE: 19 Years

- Comprehensive Environmental Health Services, Inc.
 - Safety and Health training.
 - Phase I and II site assessments for hazardous materials.
 - Onsite OSHA-type compliance inspections.
 - Safety and industrial hygiene surveys.
 - DOE Technical Safety Appraisals and Tiger Team Assessments.
- Occupational Safety and Health Administration
 - Established regional enforcement goals, policies, and procedures.
 - Directed industrial hygiene and safety compliance activities.
 - Managed agency programs, supervised industrial hygienists and safety specialists, and team leader on major inspections.
 - Expert witness.
 - Performed field safety and industrial hygiene surveys.
- Accident Prevention Laboratory, Institute of Agricultural Medicine
 - Accident investigations involving consumer products, flammable clothing and products, etc.

EDUCATION: M.S., Preventive Medicine and Environmental Health-emphasis
on Industrial Hygiene, University of Iowa College of
Medicine
B.S., General Science, University of Iowa

OTHER: Member, American Industrial Hygiene Association
Member, American Conference of Governmental Industrial
Hygienists
Member, National Fire Protection Association
Certified Asbestos Hazard Emergency Response Act, Building
Inspector and Asbestos Management Planner
Accredited U.S. Department of Labor/OSHA Instructor for
Safety and Industrial Hygiene
Fully qualified by OSHA as a Safety and Health Compliance
Officer and an Industrial Hygienist

NAME: William Levitan

AREA OF RESP: Environmental Restoration and Release Reporting

ASSOCIATION: HALLIBURTON NUS Environmental Corporation

EXPERIENCE: 16 Years

- HALLIBURTON NUS Environmental Corporation
 - Environmental Subteam Contractor Coordinator, Inactive Waste Sites Specialist, or Special Assistant on seven DOE Tiger Team Assessments.
 - Contractor Coordinator and Inactive Waste Sites/Surface Water Specialist on six DOE Environmental Surveys.
 - Management Specialist on the Hanford Site Progress Assessment.
 - Subcontractor Manager and Principal Investigator in the development of the DOE Headquarters Environmental Audit Manual.
 - Technical Specialist on a variety of DOE environmental compliance-related tasks including CERCLA issues and facility self-assessments.
- Dames & Moore
 - Participated in several facets of the CERCLA process, including health and safety planning, preliminary assessments/site inspections, remedial investigations, and risk assessments.
 - Involved in approximately 40 environmental impact analyses, including EAs, EISs, wetlands assessments, dredge and fill permitting, and siting.

EDUCATION: M.S., Marine Studies, University of Delaware
B.A., Natural Sciences, Johns Hopkins University

OTHER: California Registered Environmental Assessor, REA-04023
ANSI/ASME NQA-1 Certified Lead Auditor

NAME: Richard B. Lynch
AREA OF RESP: Technical Editor
ASSOCIATION: META
EXPERIENCE: 5 Years

- META

- Technical Editor. Provided technical writing, editing, and graphics support on 13 Tiger Team Assessments, 2 Environmental Audits, and 2 Progress Assessments. Also, oversees the preparation of the camera-ready copy of final assessment reports and audit reports for DOE's Office of Special Projects and Office of Environmental Audit.

- Writer/Editor. Provides technical writing and editing support for DOE's Office of New Production Reactors (NPR), including writing NPR's Correspondence Manual and a variety of technical articles for publication.

- Advanced Sciences, Inc.

- Writer/Editor. Researched, wrote, and edited fact sheets and information briefs on energy conservation and renewable energy topics for a DOE-funded energy information service.

- Response Analyst/Media Liaison. Analyzed and researched inquiries on energy topics from the general public, U.S. Congress, and trade associations. Also, wrote information briefs, press releases, and assisted with media outreach activities.

EDUCATION: B.A., General Studies, Louisiana State University

NAME: Louis A. Rancitelli

AREA OF RESP: Self-Assessment; Planning, Budgeting, and Resource Allocation; and Human Resources Management

ASSOCIATION: Private Consultant

EXPERIENCE: 25 Years

- Private Consultant
 - Management Specialist on the Hanford Site Progress Assessment.
- Battelle, Columbus, OH
 - Senior Technical Advisor. Participated in the Tiger Team Assessments of the Lawrence Livermore National Laboratory, Paducah Gaseous Diffusion Plant, Lawrence Berkeley Laboratory, Energy Technology Engineering Center, Sandia National Laboratories, Idaho National Engineering Laboratory, Pittsburgh Energy Technology Center, the Stanford Linear Accelerator Center, and Naval Petroleum Reserves in California as a member of the Management Subteams.
 - Participated on DOE-HQ Task Forces to develop ES&H Management Performance Objectives and Criteria for use in Tiger Team Management and Organization assessments. Provided strategic planning support to the DOE-HQ Office of Security Evaluations.
 - Conducted a triennial appraisal (DOE 5482.1B) of the Brookhaven National Laboratory.
 - Manager of Nuclear Technology. Managed the Battelle West Jefferson, Ohio Nuclear Facility; a hot cell facility, a decommissioned reactor, a plutonium facility undergoing decontamination and decommissioning, and a radio-analytical facility. Responsible for compliance with DOE, Nuclear Regulatory Commission (NRC), and other local, state, and Federal regulations related to nuclear materials storage, handling, and transportation, waste characterization and disposal, criticality safety, health physics, worker safety, and environmental protection.
 - Associate Director, Corporate Technical Development. Managed corporate-wide IR&D programs and conducted strategic planning studies.

EDUCATION: Ph.D., Nuclear Science and Engineering, Cornell University
B.S., Chemical Engineering, Drexel Institute of Technology
Senior Executive Program, The Wharton School, University of Pennsylvania
National and International Security Program, John F. Kennedy School of Government, Harvard University

NAME: David Schweller

AREA OF RESP: Oversight and Conduct of Operations

ASSOCIATION: DBS Associates, Inc.

EXPERIENCE: 37 Years

- DBS Associates, Inc.
 - President. Private Consultants in organization, management, safety, and security.
 - Participated in 27 DOE Tiger Teams and Technical Safety Appraisals (TSAs), 15 as a member of the Management Subteam.
 - Member of the Assistant Secretary for Environment, Safety and Health's Working Group to review the TSA program.
 - Assisted EH's Office of Special Projects in the development of Progress Assessments, the follow-on process to the Tiger Team Assessment program. Participated in Fernald and Y-12 Progress Assessments.
 - Safety advisor for DOE Security Inspection and Evaluation Teams.
 - Federal Emergency Management Administration.
 - Evaluator for FEMA Nuclear Utility Emergency Drills.
- U.S. Department of Energy, Brookhaven Area Office
 - Area Office Manager and Contracting Officer.
 - Director, Safety Division.
- U.S. Atomic Energy Commission
 - Reactor Safety Specialist.
- Martin Nuclear Division
 - Chief, Experimental Physics. Designed, built, and operated three zero-powered experimental reactor facilities.
- Combustion Engineering Nuclear Division
 - Reactor Physicist. Designed, built, and operated three zero-powered experimental reactor facilities.

EDUCATION: B.S., Engineering Physics, New York University

NAME: David M. Wunsch

AREA OF RESP: Environmental Management, Quality Assurance

ASSOCIATION: HALLIBURTON NUS Environmental Corporation

EXPERIENCE: 13 Years

- HALLIBURTON NUS Environmental Corporation
 - Environmental Subteam Contractor Coordinator, Quality Assurance (QA) Specialist, Toxic and Chemical Materials Specialist, or Special Assistant on six DOE Tiger Team Assessments.
 - Contractor Coordinator and QA/Management Specialist on two DOE Environmental Audits.
 - Technical Specialist on a variety of DOE QA and Self-Assessment (SA) tasks including development of QA/SA programs, plans, and implementing procedures.
 - Plan, manage, and conduct environmental, management, and laboratory quality control assessments and audits of government and commercial facilities.
- EA Engineering, Science, and Technology, Inc.
 - Manager of Analytical Services. Responsible for the daily operations of an environmental chemistry laboratory of 41 people including budgeting, planning, scheduling, and personnel actions. Coordination of QA compliance activities for laboratory participation in: seven state certification programs; approvals from USATHAMA, Army Corps of Engineers (MRD), U.S. Navy, and U.S. Air Force environmental programs; and the USEPA Contract Laboratory Program.
- University of Maryland Medical School
 - Laboratory Supervisor. Responsible for managing a biomedical research and clinical laboratory of 10 staff and graduate students including daily operations, QA/QC, laboratory safety, and medical and radiological waste management.

EDUCATION: M.B.A., Management, Loyola College
M.S., Pharmacology, New York Medical College
M.Sc., Applied Physiology, University of Guelph
B.S., Animal Sciences, Rutgers University

OTHER: Member of ASQC and NY Academy of Sciences
Certified NQA-1 Lead Auditor

Appendix D

Progress Assessment Scopes

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Lorin Brinkerhoff	Date:	7/20/92	Rev. #:	2
Telephone #:	801/254-5695	Fax #:	n/a		
Discipline:	Management Systems				
Area of Responsibility:	Corrective Action				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

Guidance and direction from DOE/HQ/DP regarding handling of corrective actions, tracking, trending, and closure.

Adequacy of NV and contractor management systems for carrying out corrective action, root causes analysis, and tracking of issues.

Adequacy of NV and contractor management systems for verification, validation, and system for closure, trending, and lessons learned.

Management roles and responsibilities in the corrective action system.

Review selected findings/concerns for adequacy of corrective action and closure.

Status of Tiger Team Assessment corrective actions.

Corrective action change control. Priority systems.

Related Tiger Team Findings:

Summary of Key Findings and Probable Root Causes: M&O "A current weakness in the management of ES&H Programs is an incomplete and inefficient set of internal management controls and systems that would ensure that management commitments are fully implemented."

Management Finding 1: ". . . accountability for ES&H operations and ES&H oversight is lacking."

Safety Finding OA.5-3: "The results of Unusual Occurrence investigations are not trended by user organizations and contractors to yield insights into root causes of generic site problems."

Safety Finding OA.5-4: "Neither REECO, EG&G/EM, H&N, FSN nor any of the NTS user organizations have a tracking system in place to follow the status of progress in correcting deficiencies cited in UORs."

Related Tiger Team Action Plan Items:

Accountability and closeout of all findings/concerns/recommendations from all appraisals including the Tiger Team Assessment.

Other Bases:

Secretary of Energy Notices emphasizing line safety responsibility and trending of performance indicators.

Overlapping Issues:

Other team members will be following specific findings/concerns to completion and closeout. The results from these followup actions by team members will be factored into this part of the appraisal.

Adequacy of management systems will feed into other management disciplines.

Self-assessment program.

ASSESSMENT APPROACH:**Performance Objectives to be Evaluated:**

Management Performance Objectives and Criteria, Section 1.4, "Oversight," 2.4.2 and 4.4.2, "Assessment and Review," 2.4.3 and 4.4.3, "Management and Information Systems."

Description and Rationale of Approach:

Review DOE/HQ/DP guidance and direction for corrective action closure, tracking, and trending root cause analysis. Review NV, REECO, and EG&G/EM management systems for corrective action closure, trending, root cause analysis, and lessons-learned.

Select specific findings/concerns for an indepth evaluation regarding corrective action and closure.

Planned Interviews:

Robert Peterson - DOE/HQ/DP
Richard V. Nutley - NV
Fred Root - REECO
Jack Maddox - EG&G/EM
Walt Wegst - RSN
W. D. Ray - WSI

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Richard V. Nutley, DOE AMESH		
	Telephone #:	702/295-0993	Fax #:	702/295-1371
Contractor Counterpart	Name:	Fred Root, REECO		
	Telephone #:	702/295-1967	Fax #:	n/a

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Louis Rancitelli	Date:	7/20/92	Rev. #:	2
Telephone #:	614/451-8983	Fax #:	614/792-7199		
Discipline:	Management Systems				
Area of Responsibility:	Self-Assessment				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

The self-assessment programs of the DOE (DP, NV, and NTSO) and the NTS contractors will be examined to evaluate each program's compliance with Secretarial guidance, status (progress towards full implementation), and effectiveness. Self-assessment elements that will be examined include program plans (e.g., organizational structures and charters, assessment frequency and scope, training, resource requirements), assessment processes (e.g., procedures, protocols), related management systems (e.g., corrective action, tracking, trending, root cause), and assessment products (e.g., status reports, corrective actions) to determine if the programs regularly evaluate and report the status and quality of all aspects of the ES&H performance, determine root causes for deficiencies, and ensure that corrective actions are taken.

Related Tiger Team Findings:

Underlying the root causes of the NTS Tiger Team Assessment was the key finding that "Full implementation of independent responsibilities and accountabilities for ES&H operations and ES&H oversight is lacking." If this situation persists today, it would indicate that a comprehensive, NTS self-assessment program has not yet been implemented. The two management subteam findings also relate to self-assessment.

Related Tiger Team Action Plan Items:

Finding 1: 5.5.1, Organization and Management, addresses aspects of self-assessment such as "Management study of ES&H organizational responsibilities. . ." and "A staffing plan identifying needed ES&H staff. . . ." Furthermore, the NTS Action Plan identifies a major root cause of the identified program weaknesses as, "not implementing a formal management versus oversight concept on a site-wide basis." This deficiency is an important impediment to a comprehensive sitewide self-assessment program.

Finding 1: 5.5.5, Management and Organization, DOE Oversight, addresses many aspects of a comprehensive self-assessment program.

Other Bases:

DOE-DP self-assessment guidance to NV, NV self-assessment policy, NV self-assessment guidance to the NTS contractors, NTS contractors self-assessment policies, and the Inspector General report on the General Management Inspection of NV.

Overlapping Issues:

While self-assessment overlaps all area of this assessment, it has particularly close tie with Corrective Actions, Oversight, Directives, Policies and Procedures, Planning, and Training. The examination of the DOE and the NTS contractors will be coordinated with the assessment team members examining these areas. In addition, input into the self-assessment evaluation will be solicited from NTS Progress Assessment team members who have primary responsibility for evaluating the management of ES&H functional area activities.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

The Secretary's January 26, 1990, self-assessment mandate and July 31, 1990, ES&H Self-Assessment Guidance, SEN-6-89 and subsequent revisions, the Draft Self-Assessment Document (March 1992), DOE 5482.1b, and the following specific performance objectives in the August 15, 1991, ES&H Management Performance Objectives and Criteria for Tiger Team Assessments: 1.5 Program-Wide Self-Assessment Program (DOE-HQ), 2.5 Field Office-Wide Self-Assessment Program (NV and NTSO), and 4.5 Sitewide Self-Assessment Program (NTS contractors).

Description and Rationale of Approach:

The Nevada Test Site Tiger Team Assessment was conducted before the Secretary's January 1990 mandate that self-assessment should be adopted as a management tool to identify deficiencies and improve performance Department-wide. Thus, while the NTS Tiger Team Assessment addressed aspects of self-assessment such as oversight, it did not focus specifically on the evaluation of self-assessment programs. This Progress Assessment will be the first examination of the NV and NTS contractor self-assessment programs.

The Self-Assessment programs of the DOE (DP, NV, and NVSO) and the NTS contractors will be examined to evaluate each program's compliance with Secretarial guidance and Department Policy, status (progress towards full implementation), and effectiveness. Self-assessment elements that will be examined include program plans, assessment processes, related management systems, and assessment products. The evaluation of NTS self-assessment programs will be accomplished by reviewing related documents and interviewing DOE and NTS contractor staff involved in their respective self-assessment programs.

The approach of this progress assessment will be to examine the self-assessment programs of DOE-HQ, NV, and the NTS contractors by taking vertical cuts down through these organizations. Primary emphasis will be on the effectiveness of DOE's self-assessment program and NV's ability to provide guidance to and hold its contractors accountable for implementing their own self-assessment programs. The self-assessment programs of the NTS contractors will be examined to evaluate the status of their programs. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations will be taken to examine the degree to which various self-assessment programs are coordinated and integrated by NV to provide a

sitewide picture of ES&H performance at the NTS. Specifically, a vertical cut through NV and REECO will focus on the Operations and Maintenance Division.

Planned Interviews:

Interviews of DOE-DP, DOE-EM, NV, and site contractor management and staff involved in their respective self-assessment programs will be conducted with the following small groups:

J. K. Magruder, NV(AMO) and J. N. Fiore, NV(ERWM); D. T. Schueler, NV(AMTS), H.U. Brown, NV(DAMTS), J. D. Ross, NV (EEM) and S. C. Ronshaugen, NV(TOD); D. L. Fraser, and H. W. Dickson, REECO; R. C. Sanders, Jr., R. B. McKay, and W. D. Ray, WSI; P. H. Zavattaro, J. W. Trabert and J. P. Watts, EG&G/EM; W. W. Colston, T. Nilsen, and W. F. Wegst, RSN; B. W. Church, NV(AMESH), D. A. Bergman, NV(PAQ), L. P. Skousen, NV(SHD), D. R. Elle, NV(EPD), and M. A. Marelli, NV(HPD); L. M. Smith, NV(AMA), D. J. Schramm, NV(HRD), A. Clark, NV(HRD), and D. L. Marks, NV(RMD); R. E. Friedrichs, NV(PAQ); C. F. Gilbert and I. L. Williams (DP-252); D. B. LeClaire (DP-50) and K. Sprankle (DP-52); G. Gears (DP-52) and W. Roy-Harrison (DP-62); R. G. Lightner, T. Longo, and D. Shafer (EM-45); W. Black (EM-322), R. Zubajlo (BDM), and D. Simpson (BDM); C. M. Hansen and D. Miotla (DP-67); E. Faux-Burhans (DP-541); C. F. Gilbert, F. E. Witmer, and T. Neglia (DP-9); N. C. Aquilina and R. M. Nelson, NV; J. D. Stewart, D. C. Watson, R. C. Keller, and F. R. Huckabee, NTSO; G. C. Allen, A. Navaro, and R. B. Tyrrell, NV; J. N. Fiore, L. J. O'Neill, S. A. Mellington, and J. B. Hall, NV; L. M. Smith, J. R. Truax, and D. L. Marks Jr., NV; A. Bicker, B. P. Smith, A. M. van der Harten, H. S. Jones, and E. W. Kendall, REECO; E. Bingham, C. S. Soong, and O. L. Haworth, REECO; R. B. Land, E. L. Lewis, and B. S. Mulligan, REECO; W. G. Flangas, Manager, L. R. Neese, W. G. Jacobs, E. P. Davis, and W. E. Jarrett, REECO; D. L. Koss, S. M. Williams, D. A. Kuhn, R. P. Schuette, and W. G. Tadlock, REECO; W. Wegst, A. Nelson, R. Leske, and A. Hopkins, RSN; R. M. Ivy, R. Madison, R. Murphy, and N. Rohach, RSN; T. O. Edwards, J. P. Maddox, J. R. Grant, and R. F. Sievert, EG&G/EM; J. W. Trabert, L. W. Gilmore, H. A. Lamonds, and M. E. Blaylock, EG&G/EM; W. D. Ray, W. N. Ferguson, K. K. Honodel, and V. A. Callahan, WSI.

ADDITIONAL DOCUMENTS NEEDED:

1. DOE-DP self-assessment policy, self-assessment plan, and self-assessment guidance to NV.
2. NV self-assessment program implementation plans (e.g., self-assessment program plan, corrective action program, performance indicator management system, self-assessment training program plans).
3. NTS contractor self-assessment program plans (e.g., self-assessment program plan, corrective action program, performance indicator management system, and self-assessment training program plans).
4. DOE 5482.1b appraisal reports of NV and the NTS contractors for the past 3 years.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Robert E. Friedrichs, NV		
	Telephone #:	702/295-1860	Fax #:	702/295-1371
Contractor Counterpart	Name:	Arden E. Bicker, REECco		
	Telephone #:	702/295-2319	Fax #:	702/295-2059

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Louis Rancitelli	Date:	7/20/92	Rev. #:	2
Telephone #:	614/451-8983	Fax #:	614/792-7199		
Discipline:	Management Systems				
Area of Responsibility:	Planning, Budgeting, and Resource Allocation				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

The planning, budgeting, and resource allocation processes of DOE-HQ, NV, and the NTS contractors will be examined. Specific issues include each organization's strategic and subordinate implementation planning process, the process by which ES&H and programmatic activities are prioritized and integrated, and the processes for allocating resources to programmatic and ES&H activities. NV plans to manage its contractors and its own activities will also be examined.

Related Tiger Team Findings:

Underlying the Root Causes of the NTS Tiger Team Assessment was the Key Finding that "Full implementation of independent responsibilities and accountabilities for ES&H operations and ES&H oversight is lacking." This is symptomatic of an incomplete, and possibly a less than comprehensive, NTS planning process. The two management subteam findings also suggest that weaknesses existed in the NTS planning, budgeting, and resource allocation process.

Related Tiger Team Action Plan Items:

Finding 1: 5.5.1, Organization and Management, addresses aspects of ES&H planning such as "Management study of ES&H organizational responsibilities. . .", and "A staffing plan identifying needed ES&H staff. . .". Furthermore, this Action Plan Item is designed to address the Root Cause; "Management strategy has not been fully implemented." Finding 1: 5.5.5, Management and Organization, DOE Oversight, addresses aspects of ES&H oversight implementation planning such as "Appraisal schedules are being revised in safety and health to include users of NTS." and "This implementation will be integrated with existing appraisal schedules with a priority based on potential hazards involved." Concern: TC.1-1 and Concern: TC.3-1 relate to a comprehensive human resource management plan that ensures an effective training program.

Other Bases:

The DOE-DP and NV Strategic Plans, Annual and 5 year Program Plans, and self-assessment program plans. The NTS Tiger Team Assessment report and the NTS Tiger Team Assessment Corrective Action Plan. NV subordinate ES&H implementation plans such as ES&H program plans, ES&H oversight plans, and human resource management plans. NTS contractor strategic plans and

subordinate ES&H implementation plans such as those noted above. The Inspector General report on the General Management Inspection of NV.

Overlapping Issues:

The review of subordinate implementation planning, budgeting, and resource allocation for activities such as corrective actions management, human resource management, self-assessment, ES&H programs, and oversight of ES&H functional area activities will be coordinated with NTS Progress Assessment team members who have primary responsibility for evaluating these areas.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Secretary of Energy Notice (SEN)-25A-91 and the Secretary's November 27, 1991, Strategic Planning guidance. Specific performance objectives in the August 15, 1991, Management Performance Objectives and Criteria which will be evaluated include; 1.1 Planning (DOE-HQ), 1.3.1 Human Resource Planning (DOE-HQ), 1.5.1 Program-Wide Self-Assessment Program plans (PSO), 2.1 Planning (NV), 2.3.1 Human Resource Planning (NV), 2.5 Field Office-wide Self-Assessment Program Planning (NV), 3.0 Corporate Parent (Corporate-wide strategic planning), 4.1 Planning (NTS Contractors), 4.3.1 Human Resource Planning (NTS Contractors), and 4.5 Site-wide Self-Assessment Program Plans (NTS Contractors).

Description and Rationale of Approach:

The Nevada Test Site Tiger Team Assessment was conducted before the Secretary's emphasis on Department-wide Strategic and subordinate implementation planning was fully defined, communicated and implemented. As a result, the NTS Tiger Team assessment did not place the emphasis on the planning process throughout DOE and its contractors that it now receives. For example, little attention was accorded to the role of DOE-HQ in the Strategic Planning process. Even though planning did not receive intense examination, the Nevada Test Site Tiger Team report is replete with deficiencies that can be related directly to the lack of a comprehensive sitewide planning, budgeting and resource allocation process.

The approach of this assessment will be to examine the planning, budgeting, and resource allocation process of DOE-HQ, NV, and the NTS contractors by taking vertical cuts down through these organizations. Primary emphasis will be on DOE's effectiveness in formally articulating its vision of the NTS mission, communicating its vision to its contractors, and NV's ability to hold its contractors accountable for defining and executing their missions in a planned and disciplined fashion. The strategic and subordinate implementation planning process of the contractors will be examined to evaluate their planning processes and to evaluate the effectiveness of DOE's planning, budgeting, and resource allocation process. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations will be taken to examine the degree to which various interrelated subordinate implementation planning processes are coordinated and integrated. Specifically, a vertical cut through NV and REECO will focus on the Operations and Maintenance Division.

Planned Interviews:

Interviews of DOE-DP, NV, and site contractor senior management will be conducted with the following, in small groups:

J. K. Magruder, NV(AMO) and J. N. Fiore, NV(ERWM); D. T. Schueler, NV(AMTS), H.U. Brown, NV(DAMTS), J. D. Ross, NV(EEM) and S. C. Ronshaugen, NV(TOD); D. L. Fraser, and H. W. Dickson, REEC; R. C. Sanders, Jr., R. B. McKay and W. D. Ray, WSI; P. H. Zavattaro, J. W. Trabert and J. P. Watts, EG&G/EM; W. W. Colston, T. Nilsen, and W. F. Wegst, RSN; B. W. Church, NV(AMESH), D. A. Bergman, NV(PAQ), L. P. Skousen, NV(SHD), D. R. Elle, NV(EPD), and M. A. Marelli, NV(HPD); L. M. Smith, NV(AMA), D. J. Schramm, NV(HRD), A. Clark, NV(HRD), and D. L. Marks, NV(RMD); R. E. Friedrichs, NV(PAQ); C. F. Gilbert and J. L. Williams (DP-252); D. B. LeClaire (DP-50) and K. Sprankle (DP-52); G. Gears (DP-52) and W. Roy-Harrison (DP-62); R. G. Lightner, T. Longo, and D. Shafer (EM-45); W. Black (EM-322), R. Zubajlo (BDM), and D. Simpson (BDM); C. M. Hansen and D. Miotla (DP-67); E. Faux-Burhans (DP-541); C. F. Gilbert, F. E. Witmer, and T. Neglia (DP-9); N. C. Aquilina and R. M. Nelson, NV; J. D. Stewart, D. C. Watson, R. C. Keller, and F. R. Huckabee, NTSO; G. C. Allen, A. Navaro, and R. B. Tyrrell, NV; J. N. Fiore, L. J. O'Neill, S. A. Mellington, and J. B. Hall, NV; L. M. Smith, J. R. Truax, and D. L. Marks Jr., NV; A. Bicker, B. P. Smith, A. M. van der Harten, H. S. Jones, and E. W. Kendall, REEC; E. Bingham, C. S. Soong, and O. L. Haworth, REEC; R. B. Land, E. L. Lewis, and B. S. Mulligan, REEC; W. G. Flangas, Manager, L. R. Neese, W. G. Jacobs, E. P. Davis, and W. E. Jarrett, REEC; D. L. Koss, S. M. Williams, D. A. Kuhn, R. P. Schuette, and W. G. Tadlock, REEC; W. Wegst, A. Nelson, R. Leske, and A. Hopkins, RSN; R. M. Ivy, R. Madison, R. Murphy, and N. Rohach, RSN; T. O. Edwards, J. P. Maddox, J. R. Grant, and R. F. Sievert, EG&G/EM; J. W. Trabert, L. W. Gilmore, H. A. Lamonds, and M. E. Blaylock, EG&G/EM; W. D. Ray, W. N. Ferguson, K. K. Honodel, and V. A. Callahan, WSI.

ADDITIONAL DOCUMENTS NEEDED:

1. DOE-DP Strategic Plan, Five year plan, Self-assessment plan, and budget calls to NV (budget guidance to NV).
2. NV implementation plans (e.g., ES&H program plans including ES&H oversight plan, ES&H human resource management plans including training, certification, and accreditation plans, and corrective action management plans).
3. NTS contractor strategic and subordinate implementation plans (e.g., ES&H program plans; ES&H human resource management plans, including training; certification and accreditation plans; and corrective action management plans).
4. Memoranda of Understanding between or among DOE-DP, DOE-EM, DOE-ER, NV, AL, SF, and DNA vis-a-vis NTS user laboratories.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR			
DOE Counterpart	Name:	Robert E. Friedrichs, NV	
	Telephone #:	702/295-1860	Fax #: 702/295-1371
Contractor Counterpart	Name:	Arden E. Bicker, REECe	
	Telephone #:	702/295-2319	Fax #: 702/295-2059

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Louis Rancitelli	Date:	7/20/92	Rev. #:	2
Telephone #:	614/451-8983	Fax #:	614/792-7199		
Discipline:	Management Systems				
Area of Responsibility:	Human Resource Management				

IDENTIFICATION OF ISSUES:

DOE's and its NTS contractor's human resource management systems will be examined to assess their effectiveness in ensuring the availability of sufficient qualified human resources for full implementation of NTS ES&H requirements. Specific issues include human resource management plans that define and prioritize the requirements for full implementation of ES&H programs; programs for staff development, training, and certification; and staff recruitment programs that ensure the availability of sufficient qualified ES&H staff.

Identification of Issues to Be Addressed:

Underlying the root causes of the NTS Tiger Team Assessment was the key finding that "Full implementation of independent responsibilities and accountabilities for ES&H operations and ES&H oversight is lacking." NV acknowledged that this was partly due to the lack of sufficient qualified ES&H staff. The two management subteam findings also suggest that weaknesses existed at NTS in the area of ES&H human resource management. The NTS Tiger Team Assessment Action Plan confirmed this deficiency by tempering the planned corrective actions by offering an apparent root cause for many of the deficiencies was the "lack of personnel to provide effective NV oversight. . . ."

Related Tiger Team Findings:

Underlying the Root Causes of the NTS Tiger Team Assessment was the key finding that "Full implementation of independent responsibilities and accountabilities for ES&H operations and ES&H oversight is lacking." NV acknowledged that this was partly due to the lack of sufficient qualified ES&H staff. The two management subteam findings also suggest that weaknesses existed at NTS in the area of ES&H human resource management. The NTS Tiger Team Assessment Action Plan confirmed this deficiency by tempering the planned corrective actions by offering an apparent root cause for many of the deficiencies was the "lack of personnel to provide effective NV oversight. . . ." Concerns TC.1-1, TC.3-1, TC.4-1, and TC.6-1 relate to the lack of a comprehensive sitewide human resource management program and attendant ES&H training program.

Related Tiger Team Action Plan Items:

Finding 1: 5.5.1, Organization and Management, addresses aspects of ES&H human resource planning such as "Management study of ES&H organizational responsibilities. . . ," and "A staffing plan identifying needed ES&H

staff. . . ." Furthermore, the Action Plan offered an apparent root cause for many of the deficiencies was the "lack of personnel to provide effective NV oversight. . . ." Finding 1 : 5.5.5, Management and Organization, DOE Oversight, addresses aspects of ES&H human resource management such as "This (Action Plan Item) assumes the currently approved staffing level for AMESH can be maintained." and "Employee performance standards and resulting appraisals . . . will be reviewed and appropriately modified . . . to include ES&H responsibilities." Concern: TC.1-1 addresses the lack of sitewide training standards and the resulting inconsistent implementation and implementation of training. Concern: TC.3-1 addresses the lack of assurance that initial on-the-job training is effective. Concern TC.4-1 address the lack of assurance that all NTS radiation workers are provided required training. Concern TC.6-4 addresses deficiencies in the documentation of required NTS user documented criticality retraining.

Other Bases:

The NV Strategic Plans, Human Resource Management Plans, Annual and 5 year Program Plans, Self-Assessment Program Plans. The NTS Tiger Team Assessment report and the NTS Tiger Team Assessment Corrective Action Plan. NV subordinate ES&H human resource management implementation plans such as ES&H staffing plans, ES&H training needs identification and training plans, and individual ES&H performance plans. NTS contractor strategic plans and subordinate ES&H human resource management implementation plans such as those noted above. The Inspector General Report on the General Management Inspection of NV.

Overlapping Issues:

The review of human resource management as related to activities such as; corrective action management, self-assessment, ES&H programs, and oversight of ES&H functional area activities will be coordinated with NTS Progress Assessment team members who have primary responsibility for evaluating these areas. Specifically, team members should determine if sufficient qualified staff exist to carry out the duties of their assigned disciplines.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Specific performance objectives in the August 15, 1991, ES&H Management Performance Objectives and Criteria - Draft which will be evaluated include; 1.3 Human Resource Management (DOE-HQ), 2.3 Human Resource Management (NV and NTSO), 4.3 Human Resource Management (NTS contractors).

Description and Rationale of Approach:

The approach of this assessment will be to examine the human resource management programs of NV and the NTS contractors by taking vertical cuts down through these organizations. Primary emphasis will be on the DOE's and its contractor's effectiveness in defining their ES&H staffing needs and ensuring that these needs are satisfied. In addition to the vertical cuts through these organizations, a horizontal slice across these organizations will be taken to examine the degree to which the various interrelated human resource requirements are coordinated and integrated across each organization and in

the case of NV on a sitewide basis. Specifically, a vertical cut through NV and REECo will focus on the Operations and Maintenance Division.

Planned Interviews:

Interviews of DOE-DP, DOE-EM, NV, and NTS site contractor management will be conducted with the following small groups:

J. K. Magruder, NV(AMO) and J. N. Fiore, NV(ERWM); D. T. Schueler, NV(AMTS), H.U. Brown, NV(DAMTS), J. D. Ross, NV(EEM) and S. C. Ronshaugen, NV(TOD); D. L. Fraser, and H. W. Dickson, REECo; R. C. Sanders, Jr., R. B. McKay and W. D. Ray, WSI; P. H. Zavattaro, J. W. Trabert and J. P. Watts, EG&G/EM; W. W. Colston, T. Nilsen, and W. F. Wegst, RSN; B. W. Church, NV(AMESH), D. A. Bergman, NV(PAQ), L. P. Skousen, NV(SHD), D. R. Elle, NV(EPD), and M. A. Marelli, NV(HPD); L. M. Smith, NV(AMA), D. J. Schramm, NV(HRD), A. Clark, NV(HRD), and D. L. Marks, NV(RMD); R. E. Friedrichs, NV(PAQ); C. F. Gilbert and I. L. Williams (DP-252); D. B. LeClaire (DP-50) and K. Sprankle (DP-52); G. Gears (DP-52) and W. Roy-Harrison (DP-62); R. G. Lightner, T. Longo, and D. Shafer (EM-45); W. Black (EM-322), R. Zubajlo (BDM), and D. Simpson (BDM); C. M. Hansen and D. Miotla (DP-67); E. Faux-Burhans (DP-541); C. F. Gilbert, F. E. Witmer, and T. Neglia (DP-9); N. C. Aquilina and R. M. Nelson, NV; J. D. Stewart, D. C. Watson, R. C. Keller, and F. R. Huckabee, NTSO; G. C. Allen, A. Navaro, and R. B. Tyrrell, NV; J. N. Fiore, L. J. O'Neill, S. A. Mellington, and J. B. Hall, NV; L. M. Smith, J. R. Truax, and D. L. Marks Jr., NV; A. Bicker, B. P. Smith, A. M. van der Harten, H. S. Jones, and E. W. Kendall, REECo; E. Bingham, C. S. Soong, and O. L. Haworth, REECo; R. B. Land, E. L. Lewis, and B. S. Mulligan, REECo; W. G. Flangas, Manager, L. R. Neese, W. G. Jacobs, E. P. Davis, and W. E. Jarrett, REECo; D. L. Koss, S. M. Williams, D. A. Kuhn, R. P. Schuette, and W. G. Tadlock, REECo; W. Wegst, A. Nelson, R. Leske, and A. Hopkins, RSN; R. M. Ivy, R. Madison, R. Murphy, and N. Rohach, RSN; T. O. Edwards, J. P. Maddox, J. R. Grant, and R. F. Sievert, EG&G/EM; J. W. Trabert, L. W. Gilmore, H. A. Lamonds, and M. E. Blaylock, EG&G/EM; W. D. Ray, W. N. Ferguson, K. K. Honodel, and V. A. Callahan, WSI.

ADDITIONAL DOCUMENTS NEEDED:

1. NV and NTSO human resource management plans including ES&H staff plans; ES&H training, retraining and certification program plans; ES&H training tools and training materials; and documents related to individual ES&H performance measurement.
2. NTS contractor human resource management plans including ES&H staff plans; ES&H training, retraining and certification program plans; ES&H training tools and training materials; and documents related to individual ES&H performance measurement.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Robert E. Friedrichs, NV		
	Telephone #:	702/295-1860	Fax #:	702/295-1371
Contractor Counterpart	Name:	Arden E. Bicker, REECo		
	Telephone #:	702/295-2319	Fax #:	702/295-2059

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	David Schweller	Date:	7/20/92	Rev. #:	2
Telephone #:	516/243-5660	Fax #:	n/a		
Discipline:	Management Systems				
Area of Responsibility:	Organization				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

To determine if ES&H roles, responsibilities, and authorities (RRAs) are adequately documented and understood by all parties. Also to determine if the appropriate checks and balances, independence and objectivity, and match of authority with responsibility exist within the audited organizations.

Related Tiger Team Findings:

Management Finding 5.5.1, S&H Concerns EP.1-3 and RP.3-2.

Related Tiger Team Action Plan Items:

As identified above.

Other Bases:

Inspector General (IG) Report DOE/IG-0310, "General Management Inspection of DOE Nevada Field Office," May 15, 1992, Recommendations 69, 70, 72, 74, 92, and 95.

Overlapping Issues:

Employee understanding of Stop Work and Restart authority should be looked at as part of the ES&H vertical slice reviews.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Management Performance Objective Criterias 1.2, 2.2, and 4.2

Description and Rationale of Approach:

The Tiger Team and Inspector General Report indicate a lack of defined RRAs, lack of required independence, and inappropriate match of authority and responsibility. MOAs between PSOs and the Field Office as well as MOAs between NV and SAN and NV and AL will be reviewed. Organizational Mission and Function statements for all organizations as well as the charters for ES&H committees will also be reviewed. Resolution of appraisal findings for user organizations under SAN and AL contracts will be reviewed.

Planned Interviews:**PSO:**

R. J. Peterson, DP-651
I. L. Williams, DP-252
W. P. Chernock, DP-4.3
R. Greenburg, DP-50
C. F. Gilbert, DP-9
G. Gears, DP-62
C. M. Hansen, DP-67

NV/NTSO:

Field Office Manager (at the end of the interview process)
Program Manager
Independent ES&H Manager
Possibly the SAN and AL Field Office Managers (by phone)

Contractor (REECO and EG&G only):

Independent ES&H Manager
Selected Safety Committee Chairmen
Program Managers for major activities

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Peter Fitzsimmons, DOE HPD		
	Telephone #:	702/295-0953	Fax #:	702/295-1371
Contractor Counterpart	Name:	Howard Dickson, REECO		
	Telephone #:	702/295-2319	Fax #:	702/295-1371

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	David Schweller	Date:	7/20/92	Rev. #:	2
Telephone #:	516/243-5660	Fax #:	n/a		
Discipline:	Management Systems				
Area of Responsibility:	Directive System				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

Determine what kind of ES&H guidance and expectations are provided from the PSO and Field Office to the contractors regarding budgets and directives. Does the process assure a common understanding between the parties, and does the process require the contractor to advise DOE of the impact, and implementation plan to meet new or revised ES&H requirements. Does the contractor have a consistent process for converting requirements into policy, practice and procedure.

Related Tiger Team Findings:

The S&H subteam identified a key finding and OA.2-1, OA.5-2, and OA.7-1 are related to inadequacy of contractor ES&H program development.

Related Tiger Team Action Plan Items:

Action Plan items OA.2-1, OA.5-2, OA.7-1.

Other Bases:

The Inspector General (IG) report on the NV (DOE/IG-0310, May 15, 1992) identified several findings related to the directive process (e.g., Recommendations 71, 73, 84, 88, 90, 91, 92, 96, 97, 98).

Overlapping Issues:

n/a

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Management Performance Objective Criterias 1.4.1, 2.4.1, and 4.4.1.

Description and Rationale of Approach:

Review guidance supplied by the PSO and Field Office for recent budgets and guidance provide for recent ES&H directives. Review Field Office procedure and files for transmitting directives to the contractor. Review contractor procedures and records for responding to directive material and how this is

converted into company policy, practice and procedure. Look for specific directive practice for DOE 5000.3A, 5480.19, SEN-35-92.

Planned Interviews:

PSO:

R. J. Peterson DP-651
I. L. Williams DP-252
W. P. Chernock DP-4.3
R. Greenburg DP-50
C. F. Gilbert DP-9
G. Gears DP-62
C. M. Hansen DP-67

Field Office/Site Office:

Central organization responsible for implementing the directive program
Independent ES&H organization
Program organization

Contractors (REECo and EG&G only):

Contractor central organization responsible for implementing the directive system
Principal contractor organization responsible for converting ES&H requirements into policy, practice and procedure
Independent ES&H organization if not the above
Program organization

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Peter Fitzsimmons, DOE HPD		
	Telephone #:	702/295-0953	Fax #:	702/295-1371
Contractor Counterpart	Name:	Howard Dickson, REECo		
	Telephone #:	702/295-2319	Fax #:	702/295-1371

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	David Schweller	Date:	7/20/92	Rev. #:	2
Telephone #:	516/243-5660	Fax #:	n/a		
Discipline:	Management Systems				
Area of Responsibility:	Assessment and Review				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

To determine the formality, rigor, and effectiveness of the DOE and contractor assessment and review programs and the degree of compliance with DOE Orders.

Related Tiger Team Findings:

Management Finding 5.5.5, Environmental Key Finding, S&H Key Finding, and Concerns OA.5-1, MA.2-1, TC.4-1, EP.1-1, EP.1-2, EP.2-3, EP.4-2, FR.5-1, RP.1-1, RP.2-1, RP.2-3, PT.9-1, and PP.1-4 are illustrative of the problems found in this area by the NTS Tiger Team Assessment.

Related Tiger Team Action Plan Items:

As indicated above.

Other Bases:

Inspector General (IG) report DOE/IG-0310, May 15, 1992 Recommendations 3, 76, 77, 81, 83, 84, 87, 88, 93, and 94.

Overlapping Issues:

Almost all of the other reviewers will be looking at appraisal, assessment and review activities performed by the contractor and/or DOE as part of their vertical or horizontal slices. These data will provide specific support for any resultant finding on this systems review of oversight activities.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Management Performance Objective Criterias 1.4.2, 2.4.2, and 4.4.2.

Description and Rationale of Approach:

The Tiger Team and IG reports indicate significant deficiencies in NV and contractor appraisal and review processes. The policies, practices, and procedures employed by all organizations to accomplish physical inspections in the field and review of safety documents will be reviewed to determine compliance with DOE requirements (orders and SENs). This will include review

of appraisals, surveillances, and safety reviews made by the PSO, Field Office, and contractors including safety committees, CPAF process, line and independent ES&H organizations. The review will determine if these activities are carried out using procedures, if they are documented, performed by competent personnel, if they cover the required disciplines and functional areas, how conflicts are resolved, if appropriate reviews are made prior to implementation of changes to systems and procedures having ES&H consequences, and if non-DOE funded work receives appropriate review prior to proposal and implementation.

Planned Interviews:

PSO:

R. J. Paterson, DP-651
I. L. Williams, DP-252
W. P. Chernock, DP-4.3
R. Greenburg, DP-50
C. F. Gilbert, DP-9
G. Gears, DP-62
C. M. Hansen, DP-67

NV/NTSO:

Program Manager
Program ES&H personnel
Independent ES&H staff
Personnel involved in CPAF process
Reimbursable Work Coordinator

Contractors (REECo and EG&G only):

Operating Organization Manager for a major activity on site
Independent ES&H organization
QA organization
Reimbursable Work Coordinator

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Peter Fitzsimmons, DOE HPD		
	Telephone #:	702/295-0953	Fax #:	702/295-1371
Contractor Counterpart	Name:	Howard Dickson, REECo		
	Telephone #:	702/295-2319	Fax #:	702/295-1371

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	David Wunsch	Date:	07/20/92 Rev. #: 3
Telephone #:	301/258-6065	Fax #:	301/258-2568
Discipline:	Environment		
Area of Responsibility:	Environmental Quality Assurance		

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

1. Adequacy of NV, M&O Contractors, and IT Corporation quality assurance (QA) programs in relation to:
 - a. QA program organization, integration, and implementation plans;
 - b. Guidance on establishing a QA document hierarchy sufficient to control environmental programs; and
 - c. Status of QA manuals/plans and their compliance with DOE 5700.6C requirements.
2. Evaluate the adequacy of QA program implementation and integration for the multicontractor Groundwater Characterization Project.

Related Tiger Team Findings:

QA/CF-1, IWS/CF-3, IWS/CF-5, MA.1-1, 5.5.1 Finding 1, Environment/Health & Safety/Management key findings on inadequate oversight and guidance.

Related Tiger Team Action Plan Items:

Same as the Tiger Team Finding numbers noted above.

Other Bases:

DOE Office of Defense Programs TSA (May 1992)
DOE Inspector General's Report

Overlapping Issues:

Groundwater - the Groundwater Characterization Program is the focus of the QA implementation and integration.

Inactive Waste Sites - the Groundwater Characterization Program is a large portion of the environmental restoration program.

Directives/Policies/Procedures - the mechanism for providing guidance for QA program implementation.

Oversight - an integral part of QA program implementation as it relates to the requirements for audits.

Planning - an integrated NTS QA program requires planning.

Training - effective QA program implementation requires complete and appropriate training.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229)

QA.1 Quality Assurance Program

QA.4 Laboratory and Field Quality Assurance

Draft Protocols for Conducting Line Program Environmental Management Audits (February 1992)

EM.1 Organizational Structure

EM.4 Formality of Environmental Programs

EM.6 Staffing and Resources

EM.7 Staff Development and Training

Description and Rationale of Approach:

To evaluate the adequacy of environmental QA: the corporate QA programs, QA implementation plans, and internal/external guidance documents will be reviewed; QA and ES&H management will be interviewed; and implementation within environmental programs will be assessed using the Groundwater Characterization Project as a template.

Issue 1: The NTS Tiger Team Assessment was conducted before the programmatic approach to conducting environmental quality assurance assessments was initiated and before the development of management performance objectives and criteria for management systems. As a result, there has been no specific examination of the effect of corporate QA programs on the management and control of environmental programs at NTS. This Progress Assessment will examine the DOE and corporate QA programs, the guidance given to and within NTS organizations to develop tier-down QA documents, and the manner in which these facility QA programs are integrated to give a consistent implementation of QA requirements.

In addition, a greatly revised quality assurance order, DOE Order 5700.6C, was released in August 1991. Many of the requirements of this Order should have been fully implemented and others in progress as of February 21, 1992. Therefore this assessment will evaluate the status of compliance with the order to improve performance of environmental program activities and assess the management systems that establish and implement quality assurance activities in ES&H programs and projects.

Issue 2: NTS has recently revised the facility Hazard Ranking System scoring, which may place the site on the National Priorities List. One of the environmental restoration programs that will assist in remediating past contamination is the Groundwater Characterization Project (GCP). The GCP

involves NV line activities for the coordination, management, and oversight of the program and the coordinated efforts of REECO, RSN, and IT Corp. for the planning, design, and implementation phases of the program. Due to the coordination and the necessity to integrate QA programs and requirements, the GCP was chosen as the template to investigate the adequacy of QA program integration and implementation in environmental activities.

Planned Interviews:

N. Aquilina, Manager, NV
 B. Church, Asst. Manager, AMESH, NV
 J. Magruder, Asst. Manager, AMOE, NV
 D. Bergman, Director, PAQ Division, NV
 M. Kunich, Chief, QA Assessment Branch, NV
 J. Fiore, Director, ERWM Division, NV
 S. Mellington, Chief, ER Branch, NV
 L. Nguyen, Quality Assessment Branch, NV
 S. Metta, Manager, Quality Systems, REECO
 J. Devers, Division Quality Coordinator (QC), ES&H, REECO
 K. Krenzien, Branch QC, Environmental Compliance, REECO
 P. Rowe, Dept. QC, Field Operations (Drilling), REECO
 N. Rohach, QA Manager, RSN
 D. Granger, Manager, NTS QA Engineering,
 J. Eberline, GCP Project Manager, IT Corporation
 C. Printz, Quality Assurance Officer, IT Corporation
 T. Edwards, Asst. Gen. Manager, Performance Assurance, EG&G
 R. Grant, Director, Quality Services Division, EG&G (GCP)
 J. Maddox, Director, ES&H Division, EG&G
 R. Shook, Manager, Quality Assessment, WSI
 W. D. Ray, Director, Assessment and Oversight Div., WSI

ADDITIONAL DOCUMENTS NEEDED:

NV Field Office Quality Assurance Program (response to DOE 5700.6C)
 NV Field Office Quality Assurance Program Implementation Plan

TO BE COMPLETED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Tim Killen		
	Telephone #:	702/295-1363	Fax #:	702/295-1810
Contractor Counterpart	Name:	Steve Metta		
	Telephone #:	702/295-7106	Fax #:	702/295-6098

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Robert Crowley	Date:	7/20/92	Rev. #:	3
Telephone #:	202/586-5486	Fax #:	202/586-5200		
Discipline:	Environmental Programs				
Area of Responsibility:	Groundwater Protection Planning and Management				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

Adequacy of NTS groundwater protection management planning for integrating projects and plans, developing systems and procedures to assure groundwater protection as required by DOE 5400.1.

Adequacy of the planning, development, implementation, resource allocation, project coordination and oversight of the Groundwater Characterization Project to assure that complete groundwater characterization is accomplished at NTS.

Related Tiger Team Findings:

The following NTS Tiger Team Assessment findings pertain to groundwater protection issues:

RAD/BMP-1, IWS/CF-1, IWS/CF-3, and IWS/BMP-1

Related Tiger Team Action Plan Items:

Of interest in this portion of the assessment are corrective actions dealing with the following:

Development of a Characterization Well Plan in FY 1990 and the scheduled installation of 99 wells at a cost of \$176,000,000 to address Tiger Team Finding IWS/CF-3.

Elimination of discharges of liquid radioactive wastes to aquifers and soil columns that were addressed in RAD/BMP-1.

Program planning to assure that decisions about location and use of wells are made before formal initiation of RI/FS activities considering RI/FS data needs.

Other Bases:

The Inspector General (IG) report (DOE/IG-0310, "General Management Inspection of DOE Nevada Field Office") found that DOE 5400.1 had not been implemented. Two of the plans that are a part of the 5400.1 requirements are a Groundwater Protection Management Plan and a Groundwater Monitoring Plan. According to NV management, in response to the IG's report, these elements are to be in place by July 15, 1992. DOE 5400.1 requires that the Groundwater Protection

Management Plan be completed before May 9, 1990, and that the Groundwater Monitoring Plan be implemented by November 9, 1991.

At the time of the Tiger Team Assessment, NTS was not on the NPL list, however, in DOE's Report to Congress, NTS is being considered for potential listing on the Nation Priorities List during Calendar Year 1992.

Overlapping Issues:

Coordination with quality assurance (QA) and IWS specialists will be required to ensure that components of QA are incorporated into groundwater protection planning and that groundwater elements required by CERCLA are integrated into groundwater protection planning. Further, a potential exists that close coordination with the IWS specialist will be required to assure that pollution prevention and reporting requirements are in place for the Groundwater Protection Management Plan.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

A formal groundwater protection management program should be in place to ensure compliance with Federal, state, and local groundwater laws, regulations, and requirements.

Actions should be in progress for hydrogeologic characterization of solid waste management units and inactive wastes sites identified either through a RCRA facility Assessment (RFA) or a CERCLA Preliminary Assessment/Site Inspection (PA/SI).

An organizational structure should be established in such a manner that functions, responsibilities, and authorities for a groundwater protection management program are clearly defined and formally documented.

Groundwater monitoring activities should be conducted in accordance with formal programs supported by controlled documentation.

Sufficient staffing and resources should be committed to ensure compliance with groundwater regulatory requirements.

Programs should be in place to ensure that all personnel have received appropriate training for their job responsibilities.

Description and Rationale of Approach:

Many related groundwater protection activities at NTS reside with contractors, Federal agencies, national laboratories, and NV. There are not less than five programs or projects that are underway to some degree at NTS that have valuable information that should be integrated into a groundwater protection management program. This assessment will look at the incorporation of these programs and projects into a groundwater protection management program to assure effective groundwater protection.

Further, this assessment will evaluate the coordination of various contractors, Federal agencies, and national laboratories for characterization of the groundwater regime at NTS.

Information necessary to conduct this assessment will include program plans related to groundwater protection and groundwater monitoring, quality assurance plans related to groundwater activities, and strategy documents related to integration of groundwater protection activities. This assessment will focus on DOE management of groundwater protection activities for NTS determining the assignment of roles and responsibilities and the development of policies and implementation and development of procedures.

As part of this assessment, involvement of various individuals in the self-assessment process and Tiger Team closure of findings will be evaluated to determine current status.

Planned Interviews:

Chuck Russell, Assistant Research Hydrologist, DRI
Roger Jacobson, Manager of DOE Programs, DRI
Don Elle, Env. Protection Division Mgr., NV
Guy Allen, Test Operations Division, NV
Steve Leedom, Test Operations Division, NV
Jim Blodgett, Nevada Test Site Operations, NV
Freddie Huckabee, Nevada Test Site Operations, NV
Doug Duncan, Hydrology Program Manager, NV
Steve Mellington, Env. Restoration Branch Mgr., NV
Joe Fiore, ERWM Division Director, NV
Steve Lawrence, ERB, NV
John B. Hall, Technology Development Branch, NV

Joe Yeasted, IT
John Eberline, IT

Fred Ferate (may not need to interview), REECo
Frank Grossman (may not need to interview), REECo
Frank Bingham, Dir., Environmental Compliance, REECo

DOE Headquarters Interviews

John Ahlquist, EM-452
Tom Longo, EM-452
Dan Rhoades, DP-65
Robert Peterson, DP-651

ADDITIONAL DOCUMENTS NEEDED:

- MANAGEMENT AGREEMENT DATED SEPTEMBER 28, 1992 BETWEEN NV, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT AND YUCCA MOUNTAIN PROJECT OFFICE

REFERENCE PAGE 56 OF DOE/IG-0310 REPORT

- DOE NEVADA FIELD OFFICE DIRECTIVE NV 0000.2B (TELLS WHICH DOE ORDERS ARE APPLICABLE TO NTS)

REFERENCE PAGE 72 OF DOE/IG-0310 REPORT

- APPRAISAL REPORTS FROM AMES&H THAT ADDRESS GROUNDWATER ISSUES, HYDROGEOLOGIC CHARACTERIZATION ISSUES

REFERENCE PAGE 161 OF DOE/IG-0310 REPORT

- COPIES OF THE DRAFT NV ORDER IMPLEMENTING DOE 5400.1

REFERENCE PAGE 186 OF DOE/IG-0310 REPORT

- COPY OF THE NV AGREEMENT WITH THE USGS WHICH THE TEST OPERATIONS DIVISION IS THE PROJECT MANAGER.
- COPIES OF THE GROUNDWATER CHARACTERIZATION PROJECT MANAGEMENT PLANS AND DOCUMENTS RELATED TO THE GROUNDWATER CHARACTERIZATION PROJECT.

SENT 6/26/92

REFERENCE DOE'S CERCLA REPORT TO CONGRESS

- PLANS THAT ARE PART OF THE ENVIRONMENTAL RESTORATION PROGRAM THAT ADDRESS THE DRILLING OF 90 WELLS OVER THE NEXT FEW YEARS.

WELL CHARACTERIZATION PLANS

REFERENCE ACTION PLAN FOR CORRECTION OF TIGER TEAM FINDINGS PAGE 3.1-69 FINDING NO. IWS/CF-3

- GEOHYDROLOGY PROGRAM PLAN

SENT 6/26/92

- HYDROLOGY RADIONUCLIDE MIGRATION PROGRAM PLAN

REFERENCE ACTION PLAN FOR CORRECTION OF TIGER TEAM FINDING PAGE 3.1-76 FINDING NO. IWS/BMP-1

- ENVIRONMENTAL MONITORING PLAN FOR NTS AND SUPPORT FACILITIES NV/10630-28 VOLUMES I AND II.

- GROUNDWATER PROTECTION MANAGEMENT PROGRAM PLAN

- GROUNDWATER MONITORING PLAN INCLUDING SAMPLING PLANS, QUALITY ASSURANCE PLANS AND REPORTS.

- ANNUAL GROUNDWATER MONITORING REPORTS FOR RCRA UNITS AT NTS.

- SITE SPECIFIC REPORTS PERFORMED UNDER DOE ORDERS FOR ENVIRONMENTAL GROUNDWATER MONITORING AND CERCLA ASSESSMENTS

- REPORTS ON SITEWIDE GEOLOGY THAT INCLUDE THE PHYSICAL AND CHEMICAL PARAMETERS ANALYZED AND THE PROGRAM UNDER WHICH THE REPORT WAS FUNDED.

- DRAFT NV ORDER 5400.1 THAT WAS TO BE FINALIZED BY APRIL 15, 1992.

- STRATEGIC PLAN OR LONG RANGE PLAN FOR PLANNING ENVIRONMENTAL ACTIVITIES AND ALLOCATION OF RESOURCES TO CLOSE OUT FINDINGS FROM THE TIGER TEAM ASSESSMENT.
- MISSION AND FUNCTION STATEMENTS FOR REECO, RAYTHEON SERVICES NEVADA AND IT.
- LATEST OPERATIONAL AREA MONITORING PLANS.
- EPIP MENTIONS A 5 YEAR PLAN AND A LONG RANGE PLAN DEVELOPED BY AMO.
- ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT SITE SPECIFIC PLAN NV-336 (1993-97)
- MOST CURRENT ANNUAL SITE ENVIRONMENTAL REPORT
- DOCUMENTS DESCRIBING THE WELL VALIDATION PROGRAM IN THE GROUNDWATER MONITORING PLAN FOR THE NEVADA TEST SITE (SEE PAGE III-19).
- NV STANDARD OPERATING PROCEDURES FOR THE ENVIRONMENTAL PROTECTION DIVISION.
- REECO. ES&H POSITION SUMMARY STATEMENTS

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Douglas Duncan, DOE ERWM		
	Telephone #:	702/295-0952	Fax #:	702/295-1810
Contractor Counterpart	Name:	no REECO counterpart identified		
	Telephone #:	n/a	Fax #:	n/a

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	William Levitan	Date:	7/20/92	Rev. #:	2
Telephone #:	301/258-8596	Fax #:	301/258-2568		
Discipline:	Environmental Programs				
Area of Responsibility:	Environmental Restoration and Release Reporting				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

1. Adequacy of NV systems and procedures to assure reports of hazardous substance releases are made in accordance with CERCLA, State of Nevada requirements, and DOE 5000.3A requirements. In addition, assess adequacy and consistency of contractor and user subordinate procedures.
2. Adequacy of environmental restoration program planning, specifically policies, plans, and procedures to implement this growing program; definition of roles and responsibilities among NV and the various contractors; resource allocation; program coordination and oversight.

Related Tiger Team Findings:

- IWS/CF-5 Implementation of Procedures to Report Releases are Not Adequate
- IWS/BMP-1 Program Planning and Initial Funding to Address Inactive Sites is not Proactive
- IWS/BMP-2 Spill Reporting Procedures Are Not In Writing For All Site Users
- OA.5-2 The treatment afforded incidents that are likely to be designated as Unusual Occurrences is inconsistent between both NTS contractors and user organizations.

Related Tiger Team Action Plan Items:

FRPA IWS/CF-5, FRPA IWS/BMP-1, FRPA IWS/BMP-2, FRPA IWS/OA.5-2

Other Bases:

Self-Assessments, DOE Inspector General's Report

Overlapping Issues:

Groundwater, since the Groundwater Characterization Program is a large portion of the environmental restoration program.

Quality Assurance, since an effective QA program assures adequacy and validity of data and cost effectiveness for the environmental restoration program.

Directives/Policies/Procedures, since this is the major mechanism by which DOE implements its programs and assures that its contractors effectively implement subordinate programs.

Planning, since an effective environmental restoration program requires proper planning.

Training, since effective implementation of procedures and programs requires adequate training.

Corrective Action, to determine whether their Tiger Team corrective action program is effectively implemented to track and close out the findings noted above.

ASSESSMENT APPROACH:

Performance Objectives to be Evaluated:

Performance Objectives and Criteria for Conducting DOE Environmental Audits (DOE/EH-0229):

- IWS.1 Inactive Site Program Planning
- IWS.2 Release Reporting

Draft Protocols for Conducting Line Program Environmental Management Audits (February 1992):

- EM.1 Organizational Structure
- EM.4 Formality of Environmental Programs
- EM.6 Staffing and Resources
- EM.7 Staff Development and Training

Description and Rationale of Approach:

Issue 1: NTS has several contractor and user organizations that handle hazardous substances onsite, and numerous releases have been reported in the quarterly compliance reports. In addition, the site recognizes that there have been a large number of accidental oil spills. The Tiger Team noted in two findings that release reporting procedures were either non-existent, incomplete, or were not known by site personnel. Furthermore, the DOE Inspector General noted confusion in the implementation of occurrence reporting, as prescribed in DOE 5000.3A, and provided a release as an example. To assess progress in the area of release reporting, the Progress Assessment team will look at NV policies and directives and the flow down to site contractors and users with regard to release reporting procedures and performance.

To evaluate this progress, information such as NV procedures and directives as well as release procedures of REECO, LANL, and LLNL will be reviewed to determine their consistency and completeness. Reported release incidents will be correlated with occurrence reports to determine adequacy of the occurrence reporting procedures and to validate that the appropriate authorities were contacted. In addition, personnel will be interviewed to determine their knowledge of spill reporting procedures and to assess effectiveness of training programs. An evaluation will also be made as to whether NV is exercising appropriate program oversight through audits.

Issue 2: NTS has performed a revised Hazard Ranking System scoring, which indicates that the site could be placed on the National Priorities List. In an effort to remediate contaminated areas from past activities at the NTS, the site is performing characterization and remediation activities; two programs include the Groundwater Characterization Project and the integrated demonstration for cleanup of plutonium-contaminated soil. Several prime and other contractors are involved in various aspects of the environmental restoration program, and it is the responsibility of DOE line management to orchestrate, manage, and oversee these activities. The Tiger Team noted some deficiencies with regard to environmental restoration program planning and coordination. Therefore, this portion of the NTS Progress Assessment will evaluate management systems for environmental restoration program planning to determine its adequacy in light of potential listing on the NPL and activities currently being planned and conducted.

To conduct this aspect of the assessment, information such as DOE/EM and NV policies, procedures, and planning documents will be reviewed. Similar subordinate documentation from contractors, mainly REEC Co, RSN, and IT Corporation will also be reviewed. In addition, environmental restoration personnel from these organizations will be interviewed. The information gathered will be compared with the above-noted performance objectives to determine the comprehensiveness of the program and the effectiveness of the management systems, especially as they relate to coordination of various contractor activities and the ability to plan for and conduct a long-term program. Project specific verification will be conducted using the Groundwater Characterization Project as the example; this will be performed in coordination with the Progress Assessment Groundwater Specialist.

Planned Interviews:

Issue 1: P. Sanders, NV EPD (release reporting); A. Garner, NV (occurrence reporting); J. Robertson, NTSO (release reporting); T. Roy, LLNL (release reporting); C. Costa, LANL (release reporting); B. Gillen, EG&G-EM (release reporting); M. Hamilton, REEC Co (release reporting); C. Easter, REEC Co (occurrence reporting); A. Smith, RSN (release reporting).

Issue 2: J. Fiore/L. Dever, NV ERWM (overall EM program); S. Mellington, NV ER (ER planning and program implementation); S. Lawrence, NV ER (Groundwater Characterization Project planning and management); R. Smiecinski, NV ER (groundwater characterization); J. Hall, NV TD (integrated demonstration); S. Kerschner, REEC Co (integrated demonstration); J. Yeasted, IT (ER planning and implementation); T. Buquo, PAI (ER planning); R. Madison, RSN (ER planning and integration); C. Garvin, RSN; D. Elle, NV EPD (oversight of ER line program); S. Nacht, REEC Co (ER planning and integration); S. Gray, NV ER (Tiger Team finding action plan); J. Blodgett, NTSO (Groundwater Characterization Project logistical coordination); T. Longo/J. Ahlquist, DOE HQ-EM (ER program planning and implementation).

ADDITIONAL DOCUMENTS NEEDED:

None

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Stephen Mellington, DOE ERWM		
	Telephone #:	702/295-7221	Fax #:	702/295-1371
Contractor Counterpart	Name:	Frank E. Bingham, REECe		
	Telephone #:	(702) 295-0844	Fax #:	n/a

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Douglass Abramson	Date:	7/20/92	Rev. #:	2
Telephone #:	301/903-7328	Fax #:	301/903-4725		
Discipline:	Safety and Health Programs				
Area of Responsibility:	Conduct of Maintenance				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

1. ES&H maintenance management systems that guide the implementation of safety issues; specifically, in the conduct of Maintenance (vertically from NV to contractors and operating facilities).
2. The uniformity and consistency of practices between divisions within a contractor and between contractors with regard to safety procedures and response to safety deficiencies.
3. Implementation of maintenance at selected facility operation level.

Related Tiger Team Findings:

Summary of Key Concerns and Probable Root Causes: S&H "The deficiencies derived largely from the lack of effective NV direction and oversight of the ES&H activities."

OA.2-1, OA.3-1, OA.5-1, OP.3-1, OP.3-2, MA.1-1, and MA.2-1.

Related Tiger Team Action Plan Items:

Action plans related to the concerns listed above. Completion and closure of other Tiger Team action items in conformance with action plans and schedules.

Progress on action plans will be reviewed.

Other Bases:

Status of implementation of DOE 4330.4A and the elements that support ES&H compliance.

Identify conflicts with 29 CFR 1910.

Status of backlog and "in-out" time to the Job Control system and the effect on correcting safety issues.

Overlapping Issues:

OSHA regulations, NFPA 101, and NEC requirements for the performance of maintenance activities.

ASSESSMENT APPROACH:

Review three/four levels of documentation (NV, contractor, laboratory conducting tests, and shop/craft) relative to safety and health concerns related to the conduct of maintenance. Discuss implementation of the related management systems at the above state levels of management. At the shop or craft level, couple the discussion with observations of implementation. As appropriate, include line supervisors and operators in the discussion.

At the craft or shop level, evaluate the effectiveness of the implementation of the Tiger Team Assessment Action plans for both training and oversight by NV.

Develop information concerning the method of oversight to assure uniformity and consistency between similar contractor activities and with the various organizations of a contractor. Interfaces between contracting laboratories and DOE.

Performance Objectives to be Evaluated:

In the course of following the approach outlined above and below, many criteria for the Performance Objectives will become visible for critique. Objectives (ref. Technical Safety Appraisal, Performance Objective Criteria, DOE/EH-0135) concerning management practices for maintenance are primarily MA.1, MA.4, and MA.8. These will be evaluated aggressively, while those related to compliance will be reported if observed practices indicate failure to achieve and objective.

Description and Rationale of Approach:

The REECO Maintenance shops/craft shops are chosen for the bottom of the vertical investigation of these issues because of the importance and cross-cutting of its mission, its application of safety into maintenance requirements, operator safety instructions, maintenance of safety systems, and the nature of the Tiger Team.

A review of the NTS activities will be made with regard to conduct of maintenance. REECO is the primary contractor for maintenance, not just for itself and DOE but also for the other contractors on the NTS. The integration of safety requirements and procedures into these activities must be provided by guidance and oversight to ensure safe operations. Since the Tiger Team was prior to the publication of DOE 4330.4A this area needs a further evaluation as well as providing insight as to the ability of management to implement new guidance.

Planned Interviews:

Review of interfaces among and between participating organizations.

James K. Magruder/Assistant Manager/OAMP, Safety Oversight Responsibilities
D. Curtis Watson/ Chief/ES&H Operations Branch, Safety Oversight
Bruce W. Church/Assistant Manager/AMESH, Safety Oversight Responsibilities
Larry P. Skousen/Director/S&HD, Safety Oversight Responsibilities
J.D. Ross/Director/EEMD, Safety integration into Maintenance
John D. Stewart/Director/NTSO, Safety Oversight Responsibilities

C. Barrow/General Engineer (Safety), Safety Oversight Responsibilities
 D. McPherson/Safety & Health Specialist, Safety Oversight Responsibilities
 Howard Dickson/Deputy General Manager REECO, Management implementation of safety
 William Flangas/Manager/Operations & maintenance Department REECO, Safety integration into Maintenance
 William G. Jacobs/Manager/Site Maintenance Department REECO, Safety integration into Maintenance
 William Beam/Safety Professional/Operations & Maintenance Division, REECO
 Peter Baszo/Project Engineer/Site Maintenance Department REECO, Safety integration into Maintenance
 William Jarrett/Manager/Fleet Operations REECO, Safety integration into Maintenance
 Larry A. Ruud/Manager Operations Equipment REECO, Safety integration into Maintenance
 Two panels of 3-4 craft personnel REECO, Safety integration into Maintenance
 Laboratory personnel

ADDITIONAL DOCUMENTS NEEDED:

Indexes for - REECO Safety manual
 - ES&H 5 Years Plans (all)
 - NTS - SOPs

Protocol Document for Compliance Assessment Program

PDs for NTSO Personnel

REECO Training Matrix

REECO Standards and Regulations:

A-2 Safety Fundamentals

A-3 Job Safety Analysis (JSA) Program

A-6 Supervisors' Safety and Fire Protection Inspections and Reports

A-7 Safety and Health Complaints and Suggestions

A-15 Safety Training for Supervisors

A-16 Compliance Inspections, Corrective Actions and Abatement Plans

C-8 Lockout/Tagout Program Requirements

C-12 Electrical Safe Work Practices

REECO SOPs for maintenance in a facility or on safety equipment

DOE NV 11XA Organization and Functions

NV 4330.4-5 Real Property Maintenance

NV 5480.1B-20 Environment, Safety, and Health program for Department of Energy Operations

NV 5484.1-4 Environmental Protection, Safety, and Health Protection Information Reporting Requirements

NV 5700.7B-8 Work Authorization System

Policy of Employee Involvement With Safety (REECO)

Joint Meeting Format (REECO)

Draft Implementation DOE NV 4330.4A

Procedure of Review Process (REECO & RSN)

NV General Policy Letter on ES&H, August 3, 1990

NV Policy Letters (one to staff, one to contractors) on ES&H and QA responsibilities, July 13, 1990

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR			
DOE Counterpart	Name:	Ronald Titus, DOD DNA	
	Telephone #:	702/295-8967	Fax #: 702/295-0838
Contractor Counterpart	Name:	Joe Wuellner, REECe	
	Telephone #:	702/295-6642	Fax #: 702/295-6366

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Jack Janda	Date:	7/20/92	Rev. #:	2
Telephone #:	319/754-8734	Fax #:	319/754-8734		
Discipline:	Safety Programs				
Area of Responsibility:	Worker Safety and OSHA Program				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

Management systems and programs that support and assure effective implementation and oversight of occupational safety and health programs.

Related Tiger Team Findings:

Section P. Personnel Protection; OA.2-1; OA.3-1; OA.3-2; OA.5-1; OA.5-4; MA.2-1; TC.3-1; TC.6-1; FP.2-1.

Section 2.2.1, "Key Findings and Noteworthy Practices," identified inconsistencies over several disciplines, contractors and facilities indicating a lack of common direction from NV management regarding DOE requirements. The absence of NV management direction in areas such as performance objectives and goals, standard guidance, tracking of corrective actions, and policy implementation and interpretation has resulted in inconsistent application of safety principles across the site and among contractors.

Section 2.3.1, "Key Findings and Noteworthy Practices," identified that, "Full implementation of independent responsibilities and accountabilities for ES&H operations and ES&H oversight is lacking."

Related Tiger Team Action Plan Items:

TC.3-1; PP.1-4; PP.2-1; PP.7-2; OA.3-2; OA.5-1.

Other Bases:

Safety and Health Program Management Guidelines; DOE Orders; OSHA regulations and standards.

Overlapping Issues:

Safety Program(s) Implementation; Industrial Hygiene; Corrective Actions.

ASSESSMENT APPROACH:

Interviews of key OS&H managers and employees and review of selected S&H documents, coupled with limited site visits will be relied upon to ascertain the effectiveness of implementing the site safety and health management program. Site visits and interviews will be used to determine the

effectiveness of management systems in the adoption, implementation and enforcement of mandated OSHA standards and regulations.

Performance Objectives to be Evaluated:

(A) Management commitment/employee involvement; (B) Worksite analysis; (C) Hazard prevention and control; and (D) Safety and health training.

Description and Rationale of Approach:

1. Identify key S&H managers to be interviewed, schedule appointments, and collect data relating to occupational safety and health programs utilizing the Program Objects stated above.
2. Visit selected work areas, make observations related to S&H program implementation, and interview line managers and employees.
3. Review key S&H planning documents, programs, etc.
4. Key Tiger Team Assessment findings and Root Causes relating to occupational safety concerns and program and managements' approach to tracking and resolving these issues will be reviewed as well as actions taken to ensure continued compliance with DOE orders and procedures.
5. Management systems relating to scheduling of ES&H field resources; budget; delegation of authority and responsibilities for ES&H oversight and operations; and maintenance of current DOE policy and directives (systems) will be evaluated.
6. ES&H management policies and objectives will be compared to the performance guidelines found in Safety and Health Program Management Guidelines.

Planned Interviews:

D. Curtis Watson, Chief, ES&H DOE/NTSO
Betty Crawford, Senior Ind. Hygienist, ES&H DOE/NTSO
Clayton Barrow, Gen. Engineer Safety, ES&H DOE/NTSO
Steve Jones, Manager OSFP, REEC
Charles White, Safety Specialist, NV
Don Schlick, Chief, NV
Wayne Crane, Safety Specialist, NV
Jack Maddox, ES&H Manager, EG&G
Walt Wegst, ES&H Manager, RSN
Bob McKay, ES&H Manager, WSI
Mike Jones, Firefighter/EMT, REEC
Gaylene Parmenter, Safety Professional, REEC
Dr. Van Der Harten, Medical Director, REEC
Abel Dela Rosa, Industrial Hygienist, REEC
Bill Beam, Line Safety Professional, REEC
Terry Morris, Safety Professional, WSI
Roger Herrod, Safety Professional, WSI
A.M. Hopkins, Mgr. ES&H Compliance, RSN
J.M. Lamb, Mgr. OSH Audits, RSN
Frank Spenia, Comp.& Monitoring, REEC

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	Charles White, DOE SHD		
	Telephone #:	702/295-7492	Fax #:	702/295-1371
Contractor Counterpart	Name:	Steve Jones, REECO		
	Telephone #:	702/295-7400	Fax #:	n/a

PROGRESS ASSESSMENT SCOPE

NEVADA TEST SITE

Name:	Carlos Coffman	Date:	7/20/92	Rev. #:	2
Telephone #:	301/903-6493	Fax #:	301/903-7773		
Discipline:	Safety & Health Programs				
Area of Responsibility:	Industrial Hygiene				

IDENTIFICATION OF ISSUES:

Identification of Issues to Be Addressed:

Contractor Programs

1. Adequacy of Health and Safety management procedures.
2. Adequacy of internal quality assurance and self-assessment programs.
3. Adequacy of staffing levels to support programmatic goals.
4. Implementation of corrective action plans for Hazard Communication Program.
5. Implementation of corrective action plans for Respiratory Protection

NV

1. Adequacy of contractor oversight and review.
2. Adequacy of internal quality assurance and self-assessment programs.
3. Adequacy of staffing levels to support programmatic goals.

Related Tiger Team Findings:

PP.1-2, PP.1-3, PP.7-1, PP.7-3, PP.3-1

NV: PP.5-1,

REEC: PP.1-2, PP.3-1,

Related Tiger Team Action Plan Items:

NV

PP.5-1 Site-wide use of respirators
PP.7-1 Hazard Communications
PP.1-2 Staffing

REEC

PP.1-2 Personnel/staffing

Other Bases:

A review will be conducted of the progress on the Tiger Team Corrective Action Plan for Nevada Test Site and other recent self-assessments performed by NV, REEC, EG&G, and Raytheon.

Overlapping Issues.

Issues identified as Industrial Hygiene-based, including self-assessment, staffing, procedures, corrective action plans, procedures and quality assurance are also covered by other team members. The objective of the industrial hygiene review will be more narrowly focused on identified deficiencies from the Nevada Test Site Tiger Team Assessment.

ASSESSMENT APPROACH:

Determine the existence of management control systems to ensure that the Industrial Hygiene Programs are being up graded in a systematic manner including technical and programmatic issues. This assessment will also attempt to determine the effectiveness of line management to implement key objectives and resolved identified deficiencies as well as to conduct evaluations of industrial hygiene programs.

Performance Objectives to be Evaluated:

Determine the level of effectiveness of the Nevada Test Site Industrial Hygiene Programs against:

1. DOE 5480.10, "DOE Nevada Test Site Standard Operating Procedures" (Chapter 5410: Industrial Hygiene), and Occupational Health and Safety Administration (OSHA) Regulation 29 CFR 1910 and 1926 as they apply to Industrial Hygiene.
2. Verifiable progress in the close out of compliance issues and actions.
3. Compliance with other applicable standards and industry practices.

Description and Rationale of Approach:

Selected common site management and programmatic findings identified by the 1989 Tiger Team for the NV, REEC, and EG&G will receive horizontal reviews. Selected technical issues will receive a vertical slice review to determine the effectiveness of the implementation of management actions.

Planned Interviews:

Betty Crawford, NTSO
Bob Barner, LOG
Bill Suitor, HPD
Alex Salazar, HPD
Donald Boyce, HPD

Al Frazier, REEC
 Elizabeth Hill, REEC
 Holly Barrow-Adams, REEC
 Ed Cox, REEC
 M.A. Mirelli, HPD
 J. Thompson, HPD

ADDITIONAL DOCUMENTS NEEDED:

None.

TO BE PROVIDED BY DOE FIELD OFFICE AND SITE CONTRACTOR				
DOE Counterpart	Name:	D. Curtis Watson, DOE NTSO		
	Telephone #:	702/295-5755	Fax #:	702/295-1371
Contractor Counterpart	Name:	Billy P. Smith, REEC		
	Telephone #:	702/295-7125	Fax #:	n/a

Appendix E

Schedule of Onsite Activities

SCHEDULE OF ONSITE ACTIVITIES

Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
<p>• Interviews</p> <p>G. Allen, NV R. Navarro, NV R. Tyrrell, NV J. Stewart, NTSO D. Watson, NTSO R. Keller, NTSO F. Huckabee, NTSO M. Marali, NV</p>	<p>• Interviews</p> <p>W. Wegst, RSN R. Leskam, RSN A. Hopkins, RSN J. Wuellner, Manager L. Nease, REECO W. Jacobs, REECO E. Davis, REECO W. Jarrett, REECO D. Koss, REECO S. Williams, REECO D. Kuhn, REECO W. Tadlock, REECO R. Land, REECO E. Lewis, REECO B. Mulligan, REECO</p>	<p>• Interviews</p> <p>W. Ray, WSI W. Ferguson, WSI K. Honodel, WSI V. Callahan, WSI L. Smith, NV J. Truax, NV D. Marks Jr., NV R. Ivy, RSN R. Madison, RSN R. Murphy, RSN N. Rohach, RSN F. Bingham, REECO T. Taylor, REECO O. Haworth, REECO</p>	<p>• Interviews</p> <p>B. Church, NV D. Bergman, NV B. Burlingame, REECO J. Fiore, L. O'Neill, S. Mellington, and J. Hall, NV</p>	<p>• Concern development</p>

Lou Rancitelli
Self-Assessment
Program/ Planning,
Budgeting & Resource
Allocations/ Human
Resources

SCHEDULE OF ONSITE ACTIVITIES

Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
<ul style="list-style-type: none"> Interviews N. Aquilina, NV R. Nelson, NV 	<ul style="list-style-type: none"> Interviews A. Bicker, REECO B. Smith, REECO A. Burlingame, REECO H. Jones, REECO E. Kendall, REECO 	<ul style="list-style-type: none"> Interviews T. Edwards, EG&G/EM J. Maddox, EG&G/EM J. Grant, EG&G/EM R. Sievert, EG&G/EM J. Trabert, EG&G/EM L. Gilmore, EG&G/EM H. Lamonds, EG&G/EM M. Bleylock, EG&G/EM 	<ul style="list-style-type: none"> Interviews B. Church, NV D. Bergman, NV R. Friedrichs, NV R. Peterson, DP-651 B. Peterson, DP-67 	<ul style="list-style-type: none"> Daily Debrief
<ul style="list-style-type: none"> Daily Debrief 	<ul style="list-style-type: none"> Daily Debrief 	<ul style="list-style-type: none"> Daily Debrief 	<ul style="list-style-type: none"> Daily Debrief 	<ul style="list-style-type: none"> Daily Debrief

SCHEDULE OF ONSITE ACTIVITIES

Dave Schweller Directives/ Policies/ Procedures/ Oversight/ Management Roles, Responsibilities	Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
	am • Interviews B. Church C. King (CPAF)	• Interviews M. Began (Budget Call) A. Roberts, NV H. Dickson, REEC J. Maddox, EG&G/EM	• Interviews J. Magruder, NV AMD	• Interviews B. Church, NV D. Bergman, NV	• Document review • Concern development
pm	• Interviews N. Aquilina, NV R. Nelson W. Crane	• Interviews D. Schuler, NV H. Brown AMESH Directors (PAQ, EPD, SHD, HPD) B. Bergman L. Skousen L. Monroe M. Maroli J. Thompson	• Document review	• Interviews R. Land, REEC R. Powell, REEC G. Martin, REEC A. Kulberg, REEC D. Beecher, REEC P. Fitzsimmons, NV J. Michael, EG&G R. Peterson, DP-651 B. Peterson, DP-67	• Daily debrief

SCHEDULE OF ONSITE ACTIVITIES

Lorin C. Brinkerhoff Corrective Action	Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
	<ul style="list-style-type: none"> Interviews G. Allen, NV D. Armstrong, NV 	<ul style="list-style-type: none"> Interviews F. Root, REEC 	<ul style="list-style-type: none"> Interviews W. Wegst, RSN M. Dix, RSN 	<ul style="list-style-type: none"> Interviews R. Nutley, NV 	<ul style="list-style-type: none"> Concern development
pm	<ul style="list-style-type: none"> Interviews L. Davis, NV A. Garner, NV A. Frazier, REEC J. Lamb, RSN 	<ul style="list-style-type: none"> Interviews J. Maddox, EG&GEM J. Watts, EG&GEM K. Smith, EG&GEM 	<ul style="list-style-type: none"> Interviews J. Fane, NV B. McKay, WSI J. Lamb, RSN 	<ul style="list-style-type: none"> Interviews Document review 	<ul style="list-style-type: none"> Daily debrief

SCHEDULE OF ONSITE ACTIVITIES

Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
<ul style="list-style-type: none"> Interviews D. Ellis, NV EPD J. Fane, NV ERWM 	<ul style="list-style-type: none"> Interviews S. Lawrence, NV ERB 	<ul style="list-style-type: none"> Interviews J. Blodgett, NTSO 	<ul style="list-style-type: none"> Interviews C. Russell, DRI S. Leaden, NV B. Peterson, DP-67 R. Engleman, DP-67 rep 	<ul style="list-style-type: none"> Interviews D. Duncan, NV D. Ellis, NV Concern development
<ul style="list-style-type: none"> Interviews S. Mellington, NV ERB F. Hucklebee, NTSO R. Jacobson, DRI 	<ul style="list-style-type: none"> Interviews 	<ul style="list-style-type: none"> Interviews F. Bingham, REECa F. Grossman, REECa F. Terata, REECa G. Allen, NV 	<ul style="list-style-type: none"> Interviews Document review and one-hour prep 	<ul style="list-style-type: none"> Daily debrief Interviews B. Church, NV L. Smith, NV

SCHEDULE OF ONSITE ACTIVITIES

David Wrench Environmental Monitoring/ Quality Assurance	Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
	<ul style="list-style-type: none"> Interviews J. Magruder, NV L. Maygan, NV B. Church, NV 	<ul style="list-style-type: none"> Travel to MTS Interviews S. Merita & Staff REECe J. Demers, REECe K. Kozmin, L. Sygimowicz, REECe 	<ul style="list-style-type: none"> Travel to EG&G Interviews T. Edwards, EG&GEM B. Grant, EG&GEM J. Madden, EG&GEM J. Watts, EG&GEM 	<ul style="list-style-type: none"> Interviews R. Shock, WSI W. Ray, WSI C. Printz, IT 	<ul style="list-style-type: none"> Interviews R. Peterson, DP-651 J. Gears, DP-62 D. Marix, NV D. Starrett, REECe
	<ul style="list-style-type: none"> Interviews M. Kunick, NV M. Aspin, NV R. Nelson, NV 	<ul style="list-style-type: none"> Interviews M. Rebeck, RSM D. Granger, RSM J. Blumens, REECe L. Mason, REECe 	<ul style="list-style-type: none"> Document review Interview B. Selts, NV 	<ul style="list-style-type: none"> Interviews D. Bergman, NV J. Elserin, IT J. Yonckel, IT 	<ul style="list-style-type: none"> Daily debrief Interviews S. Mullington, NV T. Ferriss, NV AND

SCHEDULE OF ONSITE ACTIVITIES

William Levine Environmental Restoration and Release Reporting	Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
	<ul style="list-style-type: none"> Interviews J. Finn, NV ERMW L. Davis, NV ERMW S. Mullington, NV ERMW D. Elin, NV EPD 	<ul style="list-style-type: none"> Interviews S. Necha, REECs M. Hamilton, REECs B. McCullough, ESGG 	<ul style="list-style-type: none"> Interviews J. Blodgett, NTSO S. Gray, NV ERMW C. Shabun, ESGGEM S. Mullington, NV ERMW 	<ul style="list-style-type: none"> Interviews R. Samiecinski, NV ERMW W. Biles, REECs J. Yeasted, IT 	<ul style="list-style-type: none"> Interviews L. Korman, LAM J. Wang, NV ERMW L. Ray, RSM
pm	<ul style="list-style-type: none"> Interviews C. Easter, REECs A. Garner, NV EMD 	<ul style="list-style-type: none"> Interviews T. Bupp, PM C. Garvin, RSM C. Costa, LAM R. Henderson, LAM J. Poddifon, RSM 	<ul style="list-style-type: none"> Interviews P. Sanders, NV EPD J. Robertson, NTSO S. Lawrence, NV ERMW 	<ul style="list-style-type: none"> Interviews S. Mullington, NV ERMW J. Finn, NV ERMW 	<ul style="list-style-type: none"> Consensus development

SCHEDULE OF ONSITE ACTIVITIES

Carlos Coffman Worker Health	Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
	<ul style="list-style-type: none"> Interviews M. Marell, NV J. Thompson, NV A. Salazar, NV D. Boyce, NV 	<ul style="list-style-type: none"> Interviews B. Crawford, NTSO B. Smith, REECe B. Banner, NTSO A. Frazer, REECe 	<ul style="list-style-type: none"> Interviews A. Frazer, REECe 	<ul style="list-style-type: none"> Interviews at office 	<ul style="list-style-type: none"> Concern development
	<ul style="list-style-type: none"> Interviews 	<ul style="list-style-type: none"> Interviews D. Partain, REECe P. Porter, REECe H. Bennett-Adams, REECe E. Cox, REECe 	<ul style="list-style-type: none"> Document review (NTSO) 	<ul style="list-style-type: none"> EH Workgroup meeting (EGSG) 	<ul style="list-style-type: none"> Daily debrief

SCHEDULE OF ONSITE ACTIVITIES

Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
<ul style="list-style-type: none"> Interviews R. Titus, SHD C. Watson, ESBH Operations Branch W. Schett, SHD 	<ul style="list-style-type: none"> Interviews P. Basco, REECa W. Jacobs, REECa 	<ul style="list-style-type: none"> Interviews J. Stewart, NTSO C. Barron, NTSO D. McPherson, NTSO Ann 6 Interviews J. Spence, REECa D. Garbino, REECa D. Penson, REECa 	<ul style="list-style-type: none"> Interviews H. Dickson, REECa D. Franz, REECa J. Magruder, AMO 	<ul style="list-style-type: none"> Interviews S. Mada, MW T. Santony, MW L. Kline, MW Prepare memos
<ul style="list-style-type: none"> Interviews J. Ross, EEM R. Wenzel, OPI L. Skusean, SHD 	<ul style="list-style-type: none"> Interviews W. Jarnett, REECa J. Woods, REECa W. Murfin, REECa 	<ul style="list-style-type: none"> Interviews J. Wojcik, REECa H. Koning, REECa S. Strangi, REECa R. Moore, REECa 	<ul style="list-style-type: none"> Interviews B. Church, MW 	<ul style="list-style-type: none"> Team meeting

SCHEDULE OF ONSITE ACTIVITIES

Monday 7/20/92	Tuesday 7/21/92	Wednesday 7/22/92	Thursday 7/23/92	Friday 7/24/92
<p>Jack Jacobs Occupational Safety/Worker Safety</p> <p>am</p> <ul style="list-style-type: none"> Interviews D. Schiff, NV W. Crane, NV R. McKay, WFSI W. Wright, RSN 	<p>Travel to NTS</p> <ul style="list-style-type: none"> Interviews M. Jones, NEECo C. Watson, NTSO G. Scruton, NEECo B. Palmer, NEECo A. van der Horst G. Pennington, NEECo J. Vinnyard, NEECo 	<ul style="list-style-type: none"> Interviews L. Shawson, NV J. Thompson, NV 	<ul style="list-style-type: none"> Interviews J. Thompson, NV L. Shawson, NV 	<ul style="list-style-type: none"> Concern development
<p>pm</p> <ul style="list-style-type: none"> Interviews J. Madden, EG&GEM J. Watts, EG&GEM R. Lucha, RSN J. Lamb, RSN 	<ul style="list-style-type: none"> Interviews A. De la Rosa, NEECo F. Spence, NEECo 	<ul style="list-style-type: none"> Interviews S. Jones, NEECo 	<ul style="list-style-type: none"> Document review, concerns development 	<ul style="list-style-type: none"> Daily debrief

Appendix F

List of Site Documents Reviewed

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
Louis Rancitelli				
D-A-1	DOE/EH-0115	Compliance Assessment of the Nevada Test Site	EH	1/90
D-A-2	None	ACTION PLAN in response to the DECEMBER 1989 COMPLIANCE ASSESSMENT	NV	4/20/89
D-A-3	None	UPDATE of the ACTION PLAN in response to the DECEMBER 1989 COMPLIANCE ASSESSMENT	NV	5/15/92
D-A-4	DOE/IG-0310	REPORT ON THE GENERAL MANAGEMENT OF THE DEPARTMENT OF ENERGY'S NEVADA FIELD OFFICE	DOE/IG	5/15/92
D-A-5	None	Technical Safety Appraisal of the Nevada Test Site	DP/Office of Inspections	5/92
D-A-6	None	Memorandum to N. Aquilina, Subject: Technical Safety Appraisal of the Nevada Test Site	C. Hansen/DP-67	5/13/92
D-A-7	NV 11XA.1-14	Organization and Functions	N. Aquilina/NV	9/17/90
D-A-8	None	Memorandum To: The Secretary: Subject: Action to Secure the Approval of the Secretary on the FY 1994 Strategic Plan for Defense Programs.	R. Claytor/DP	6/12/92
D-A-9	None	Defense Programs Self-Assessment Guidance Document	N/A/DP	7/92
D-A-10	DOE/INV-351	Environmental Protection Implementation Plan: November 9, 1991 to November 9, 1992	A. Latham and R. Evans/REECo	11/91
D-A-11	None	Briefing document entitled: Office of Environmental Restoration, EM-40, Self-Assessment Program	N/A/EM	5/14/92
D-A-12	None	Letter to H. W. Dickson, REECo, Subject: Request for Additional Guidance Regarding ES&H Appraisal Program	L. Skousen/NV	4/24/92
D-A-13	AMESH-QIP-001EPD	Environmental Protection Implementation Plan	R. Friedrichs/NV	6/91
D-A-14	91-10	Bulletin: Environment, Safety, and Health Self-Assessment Program Executive Committee	D. Frazer/REECo	1/30/91
D-A-15	None	Memorandum, Subject: Environment, Safety, and Health Self-Assessment Program	E. Weintraub/REECo	2/5/91

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-16	None	SUMMARY AND STATUS: Implementation of REECo, Inc. Environment, Safety, and Health Self-Assessment Program Development	NIA/REECo	12/31/91
D-A-17	None	REECo, Inc. Environment, Safety, and Health Self-Assessment Program Plan	D. Murphy, E. Weintraub, and D. Frazer/REECo	8/91
D-A-18	None	REECo, Inc. Environment, Safety, and Health Self-Assessment Program Plan	D. Murphy, A. Bicker, H. Dickson, and D. Frazer/REECo	7/92
D-A-19	None	ES&H Position Summary Statements	NIA/REECo	Various
D-A-20	None	Conduct of Operations Requirements for DOE Facilities, Subdivision: REECo, Requirements and Self-Assessment Database Statement Applicability Report	NIA/REECo	11/12/91
D-A-21	1.11.4	Company Procedure Industrial Relations Section: Conduct of Operations	D. Frazer/REECo	9/19/90
D-A-22	DOE/INV/10630-28	Environmental Monitoring Plan Nevada Test Site and Support Facilities, Volume II	NIA/REECo	11/91
D-A-23	None	EG&G Conduct of Operations Manual	NIA/EG&G/EM	Undated
D-A-24	None	Interoffice Memorandum, To: H. B. Pearman, Subject: EG&G/EM Proposed Assessment and Conduct of Operations Schedule January 1993 through December 1998	A. Ransom/EG&G/EM	6/3/92
D-A-25	None	EG&G Energy Measurements Self-Assessment Program	J. Watts and J. Maddox/EG&G/EM	12/31/91
D-A-26	Manual 30	ES&H Policies and Standard Operating Procedures: General ES&H	P. Zavattaro/EG&G/EM	Various
D-A-27	Manual 31	ES&H Policies and Standard Operating Procedures: Environment	P. Zavattaro/EG&G/EM	Various
D-A-28	Manual 32	ES&H Policies and Standard Operating Procedures: Safety	P. Zavattaro/EG&G/EM	Various
D-A-29	Manual 33	ES&H Policies and Standard Operating Procedures: Medical/Wellness	P. Zavattaro/EG&G/EM	Various

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-30	Manual 34	ES&H Policies and Standard Operating Procedures: Radiological Protection	P. Zavatano/EG&G/EM	Various
D-A-31	Manual 35	ES&H Policies and Standard Operating Procedures: Industrial Hygiene	P. Zavatano/EG&G/EM	Various
D-A-32	OSS-92-0584	Memorandum to Lonnie Hocker, Subject: Fire Protection Appraisal-Santa Barbara Operations (SBO), May 4-7, 1992	J. Maddox/EG&G/EM	6/5/92
D-A-33	OSS-92-0563	Memorandum to Louis Sasso, Subject: Aviation Safety Appraisal April 15-17, 1992 (Woods Associates)	J. Maddox/EG&G/EM	5/21/92
D-A-34	OSS-92-0602	Memorandum to Harold Gray, Subject: No-Notice Compliance Inspection of the Gaseous Fuels Spill Test Facility (LGFSTF)	J. Maddox/EG&G/EM	6/3/92
D-A-35	None	Memorandum to Director, Organization and Manpower Analysis Division, AD-13, Subject Nevada Field Office Reorganization	J. Landers/DP	1/28/92
D-A-36	None	Letter to Richard C. Claytor (DP-1), Subject: DOE Nevada Field Office (DOE/NV)-Reorganization	W. White/NV	12/26/91
D-A-37	None	Draft NV Training and Development Branch Work Plan	N/A/NV	Undated
D-A-38	None	Letter to Principal Staff, Subject: June-July Training Schedule 1992	J. Truax, Jr./NV	5/29/92
D-A-39	None	Pilot Job and Task Analysis	N/A/NV	9/3/91
D-A-40	None	Quality Card from Pilot JTA	N/A/NV	3/17/92
D-A-41	None	Training Certification Models	N/A/NV	Undated
D-A-42	None	Letter to NV Principal Staff, Subject: Training Needs Assessment	J. Truax, Jr./NV	4/9/92
D-A-43	None	NV Employee Training Data Base	N/A/NV	7/92
D-A-44	None	Hazardous Waste Site Operations Student Manual	N/A/REECo	Undated
D-A-45	None	WSI Environment, Safety & Health Procedures Manual	R. Sanders/WSI	6/2/92

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-46	None	Inter-Office Memoranda to D. G. Chiodini, Subject: OSH Compliance Inspection Reports	R. McKay/WSI	Various-1992
D-A-47	8-01	Standard Practice, General Environment, Safety and Health Policy	W. Ray/WSI	10/3/90
D-A-48	None	Memorandum to All Employees, Subject: FY92 Environment, Safety and Health Goals	R. Sanders/WSI	10/28/91
D-A-49	None	Safeguards and Security Readiness Review Report of the DOE Field Office, Nevada	G. Podonski/EH-4	9/91
D-A-50	ESH-004	RSN Safety and Health Procedures, Conduct of Operations	J. Bartlett, Jr. and W. Wegst/RSN	9/13/91
D-A-51	MOU# GM04-90AL58205	U.S. Department of Energy Management Agreement Between the Nevada Operations Office and Albuquerque Operations Office	B. Twining/AL and N. Aquilina/NV	12/14/89
D-A-52	None	U. S. Department of Energy Management Agreement Between the Nevada Operations Office and San Francisco Operations Office	D. Pearson/SF and N. Aquilina/NV	8/3/90
D-A-53	None	U. S. Department of Energy Management Agreement Between the Nevada Operations Office and San Francisco Operations Office for Technical Support to the Office of Civilian Radioactive Waste Management and the Nevada Nuclear Waste Storage Investigation Project	R. Du Vall/SF and T. Clark/NV	2/3/86
D-A-54	None	WSI Training Matrix	N/A/WSI	Undated
D-A-55	None	REECo Mandatory Training Matrix	Training Matrix Revision Task Group/REECo	4/15/92
D-A-56	None	WSI Waste Minimization and Pollution Prevention Awareness Plan	W. Ray/WSI	1/22/92
D-A-57	8-02	WSI Standard Practice: Environment, Safety and Health Inspection, Appraisal and Employee Involvement Program	R. McKay/WSI	9/1/91
D-A-58	DOE/NV/10630-28	Environmental Monitoring Plan Nevada Test Site and Support Facilities, Volume I	D. Wruble and S. Black/REECo	10/24/91
D-A-59	AAZZ.8.02.00	Environment and Health Procedure: Data Quality Objectives	A. Bicker, R. Mitchell, A. Fowkes/REECo	11/26/90

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-60	None	RSN Environment, Safety and Health Self-Assessment Plan of Action	NIA/RSN	1/91
D-A-61	None	Letter to D. Schlick, Subject: WSI Compliance Assessment Program (CAP) - Cause Factor Analysis	W. Ray/WSI	5/4/92
D-A-62	None	WSI QA Surveillance (ES&H Related) for Period January to July 1992	W. Ray/WSI	Various
D-A-63	None	NV Environment, Safety and Health (ES&H) Five Year Plan: Fiscal Years 1994-1998	J. Magruder/NV	5/14/92
D-A-64	None	WSI Defense Program Environment, Safety and Health Five Year Plan	R. Sanders, Jr./WSI	4/23/92
D-A-65	None	Memorandum to DOE/NV Principal Staff, Subject: Modifying Performance Standards	N. Aquilina/NV	10/22/91
D-A-66	None	Memorandum to DOE/NV Principal Staff, Subject: Performance Appraisal Program-Letter #92-1-Performance Standards	J. Truax, Jr./NV	12/91
D-A-67	None	Memorandum to J. C. Landers (DP-54), Subject: Defense Programs (DP) FY 1994 Manpower Budget Call	N. Aquilina/NV	3/29/92
D-A-68	None	Memorandum to D.B. LeClaire (DP-59), Subject: Response to Request for FY 1994 Internal Review Budget (IRB)	N. Aquilina/NV	6/17/92
D-A-69	None	Letter to J.E. Dieckhoner (EM-10), Subject: Fiscal Year 1994 Field Office Staffing Requirements Federal Staffing Call	J. Magruder/NV	4/14/92
D-A-70	None	Procedure for Closure of Nevada Operations Office (NV) Action Plans, Revision No.: 0	N. Aquilina/NV	7/13/92
D-A-71	None	Interoffice Memorandum to R. Friedrichs, NV, Subject: Assessment Tracking System (ATS) Ownership White Paper	S. Dokuzoguz/CSC	6/5/92
D-A-72	None	U.S. DOE/NV Contractor Training Course Catalogue	NIA/REECo, EG&G/EM, RSN, and WSI	12/91
D-A-73	None	REECo Company Policy and Organization Manual	NIA/REECo	12/91

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-74	None	Memorandum to Heads of Headquarters Elements, Managers, Field Offices, Executive Director, Federal Energy Regulatory Commission	E. Smedley/CR-1	2/5/92
D-A-75	DOE/INV-337	Report on Programs Conducted in the Nevada Test Site Tunnel Complex	Tunnel Review Executive Committee/INV	2/90
D-A-76	None	Nevada Test Site Underground Safety and Operations Review Team Report	G. Clayton/REECo	1/90
D-A-77	None	Memorandum to Distribution, Subject: MTS Underground Safety and Operations Review Team (USORT) Report - Recommendations	D. Frazer/REECo	4/20/90
D-A-78	AMD Instruction No.1	Indoctrination, Training, Qualification, and Certification of Personnel Assigned Within the Organization of the Assistant Manager for Operations (AMPO)	J. Magruder/INV	3/20/91
D-A-79	None	Letter to DOE/INV Principal Staff, Subject: Training Needs Assessment	J. Truax, Jr./INV	4/9/92
D-A-80	None	Charter: DOE/INV Contractors Training Council	D. Frazer/REECo; P. Zwarttouw/EG&G/EM; R. Sanders/WSI; and B. Colston/RSN	6/7/91
D-A-81	None	Oversight Requirements Action Calendar (ORACAL)	NIA/Professional Analysis, Inc.	5/92
D-A-82	None	Environment, Safety and Health Program Management Plan, Revised	NIA/REECo	8/91
D-A-83	None	Organization and Function Manual	W. Sanders, Jr./WSI	4/1/92
D-A-84	None	Nevada Site Development Plan	M. Aquilino/INV	12/91
D-A-85	None	Letter to J.K. Magruder, Subject: Industrial Hygiene Improvement Plan	H. Dickson/REECo	4/30/92
D-A-86	None	Memorandum to A.E. Bickel, Subject: Schedule and Examples of ECO Surveillance and SDIRs	S. Krenkling/REECo	6/23/92
D-A-87	None	Memorandum to E.P. Davis, Subject: Area 2 Surveillance	S. Krenkling/REECo	5/13/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-88	1.11.8	Company Procedure 1.11.8, Corrective Action and Closure (Three-Step Process)	D. Frazer/REECo	6/10/90
D-A-89	1.11.11	Company Procedure 1.11.11, Corrective Action and Closure (Two-Step Process)	D. Frazer/REECo	6/11/90
D-A-90	1.11.14	Company Procedure 1.11.14, Root Cause Analysis	D. Frazer/REECo	10/21/91
D-A-91	1.11.12	Company Procedure 1.11.12, Error Cause Removal	D. Frazer/REECo	10/7/91
D-A-92	1.11.13	Company Procedure 1.11.13, Process Improvement	D. Frazer/REECo	10/13/91
D-A-93	1.11.16	Company Procedure 1.11.16, System Deficiency Report	D. Frazer/REECo	2/24/92
D-A-94	Audit Report RE-92-2	Audit Report RE-92-3, Occupational Safety and Fire Protection Department Fire Protection Operations	H. Jones/REECo	3/30/92
D-A-95	None	Industrial Hygiene and Health Physics Assessment Contract Report	NIJ/IA. Kearney, Inc.	2/26/91
D-A-96	None	WSI Performance Appraisal Standards	NIJ/WSI	Undated
D-A-97	None	Letter to J.K. Magruder, Subject: Conduct of Operations	R. Sanders, Jr./WSI	12/29/89
D-A-98	None	Health Physics Branch Management Plan for FY 1992	M. A. Marrell/NV	12/1/92
D-A-99	None	Tiger Team Accelerated Action Team Report	D. Bergman et al/NV	6/18/92
D-A-100	None	Recommendation to the AIM Forum: Develop formal organizational strategies for prioritizing DOE/NV work and to streamline Work processes.	D. Bergman/NV	Undated
D-A-101	No. 30-012.A	Standard Operating Procedure: ES&H Hazard/Discrepancy Tracking System	P. Zwartkruis/EG&GEM	6/30/90
D-A-102	No. 32-4311-003.A	Organizational Tracking of Violations	J. Madden/EG&GEM	6/30/90
D-A-103	None	Interoffice Memorandum, To: Distribution, Subject: Environment, Safety, and Health (ES&H) Training Advisory Group (TAG) Meeting	J. Madden/EG&GEM	5/19/92
D-A-104	None	Interoffice Memorandum, To: Chuck Meyers, Subject: Revised Training Priority List	J. Madden/EG&GEM	5/21/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-105	None	Letter to Walter J. White, Subject: EG&G Energy Measurements, Inc. (EG&GEM), Quality Assurance Program	P. Zwartaro/EG&GEM	2/4/92
D-A-106	None	Management Agreement Among The Assistant Secretary for Defense Programs, Assistant Secretary for Environmental Restoration and Waste Management, and Manager, DOE Field Office	M. Aquilino/NV, Assistant Secretary for Defense Programs (Assigned)/DP, and Assistant Secretary for Environmental Restoration and Waste Management (Assigned)/En	5/26/92
D-A-107	None	Preliminary Trend Analysis, DOE Tiger Team Assessments	NI/NV	6/90
D-A-108	NV 11XB.1B	Attachment 1, Page 30, Committees and Panels: NTS Site Planning Board	M. Aquilino/NV	11/12/91
D-A-109	None	Memorandum, Subject: Implementation of Total Quality Management at NV; DOE/NV Mission, DOE/NV Vision, and DOE/NV Quality Charter	M. Aquilino/NV	12/18/90
D-A-110	8-02	WSI Standard Practice: Environment, Safety and Health Inspection, Appraisal and Employee Involvement Program	R. McKay/WSI	9/1/91
D-A-111	7-01	WSI Standard Practice: Quality Assurance Functions, Responsibilities and Authorities	R. Shook/WSI	11/10/91
D-A-112	7-05	WSI Standard Practice: WSI Self-Assessment Program	R. Shook/WSI	7/16/92
D-A-113	None	Health Physics Branch Management Plan for FY 1990	M. Mandel/NV	11/1/90
D-A-114	None	Letter to M.C. Aquilino, Subject: Compliance Assessment Program (CAP) Trending and Root Cause Analysis	P. Zwartaro/EG&GEM	7/2/92
D-A-115	No. 11-214.B	EG&GEM Standard Operating Procedure: Management Self-Assessment	P. Zwartaro/EG&GEM	3/31/92
D-A-116	None	EG&GEM Internal Appraisal Schedule	J. Madden/EG&GEM	7/2/92
D-A-117	No. 11-22.D	EG&GEM Policy: Assessment	P. Zwartaro/EG&GEM	3/31/92
D-A-118	No. 30-003.B	EG&GEM Standard Operating Procedure: ESSH Program Elements and Management Plan	P. Zwartaro/EG&GEM	3/31/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-A-119	None	Memorandum to Manager, DOE Nevada Field Office, Subject: Defense Programs Technical Safety Approval Action Plans	Victor Stalla, Jr./DP	7/28/92
D-A-120	None	Report on the Diagnostic Evaluation of Self-Assessment Programs at Los Alamos National Laboratory (LANL), Los Alamos Area Office (LAOR), and AL, During April 13-17, 1992 (Draft): Executive Summary	R. Singh/DP-9	N/A
D-A-121	None	Letter to Stephen Martin, REECO, Subject: Self-Assessment (SA) Guidance Manual	D. A. Bergman/NV	7/28/92
D-A-122	None	Self-Assessment Guidance Manual, Draft-Version A	NVADP	7/27/92
D-A-123	None	Environment, Safety, and Health Division Management Plan	J. P. Modder/EG&G/EM	4/91
D-A-124	None	Letter to D. L. Frazer, Subject: Self-Assessment Guidance From S-1	M. C. Aquilino/NV	11/30/90
D-A-125	None	Memorandum to M. Aquilino, Subject: Defense Programs Guidance on Self-Assessment	D. F. Knecht/DP	3/5/92
D-A-126	None	Defense Programs Self-Assessment Guidance Document	NVADP	7/92
D-A-127	None	Defense Programs Self-Assessment	Ruth Singh/DP	Undated
D-A-128	None	HPD Position Qualification Program	M. A. Marvel/NV	1/92
D-A-129	None	Self-Assessment Program Implementation Plan	M. C. Aquilino/NV	6/15/92
David Scheller				
D-B-1	None	CPAF Plans for REECs 4 Reports: 4/1/90 to 3/31/92	NV	3/90, 8/90, 2/91, 8/91
D-B-2	None	CPAF Plans for EG&G 4 Reports: 7/1/90 to 6/30/92	NV	6/90, 11/90, 5/91, 11/91
D-B-3	None	4 Incentive Contract Committee Reports for REECs covering same periods as plans above	NV	Undated
D-B-4	None	4 Incentive Contract Committee Reports for EG&G covering same periods as above	NV	Undated

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-B-5	NV 11XA.1-14	NV Organization and Functions	NV	9/17/90
D-B-6	NV 11XB.1B	Committees and Panels	NV	11/12/91
D-B-7	MTS-SOPs	NV-MTS SOPs for ESBH	NV AMO	Various
D-B-8	NV Announcements. 24	Threat of Imminent Danger at DOE/NV Locations	NV	6/11/92
D-B-9	NV 5700.6B-12	Quality Assurance	NV	5/18/90
D-B-10	None	NV FY 93 Budget Call Letters	NV Resources Management Division	2/14/91, 3/5/91
D-B-11	None	NV FY 94 Budget Call Letters	NV Acting Chief Financial Officer	1/27/92, 2/20/92, 4/1/92, 5/14/92
D-B-12	None	MTS Tiger Team Report 11/89	DOE EH-5	12/89
D-B-13	None	NV Action Plan in Response to Tiger Team and update	NV	4/20/90, 5/15/92
D-B-14	DOE/MS-0310	Report on the General Management Inspection of DOE/NV	IG Office of Inspections	5/15/92
D-B-15	None	Technical Safety Approval of MTS	DP-67	5/92
D-B-16	None	Wachnecht Services, Inc. Organization and Functions Manual	WSCI	4/92
D-B-17	None	Organization Statements for ESBH Division from REECo Industrial Relations Policy Manual	REECo	12/91
D-B-18	18.1	MOAs between NV and others	NV	Various
D-B-19	8.4	ESBG Safety Approvals 91/92	ESBG/EM	Various
D-B-20	11.4	DOE/NV ESBH Professionals	NV	5/31/92
D-B-21	14.2	REECo ESBH Organization Charts	REECo	1/1/92
D-B-22	14.3	REECo ESBH Position Summary Statements	REECo	Various
D-B-23	17.3	DOE/NV Standard Operating Procedures EPO	NV Environmental Protection Division	6/91
D-B-24	None	REECo Self Evaluations for CPNF over past 2 years, 4 Reports	REECo	Various

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-B-25	8.1	REECo ESMH Internal Environmental Approvals Draft	REECo ESMH	Undated
D-B-26	21.3	REECo Company Policy - ESMH	REECo	12/91
D-B-27	21.4	REECo ESMH Policies and Procedures	REECo	Various
D-B-28	21.5	REECo ESMH SOPs	REECo	Various
D-B-29	17.4	DOE/NV Environmental Protection Implementation Plan	REECo/NV	11/91
D-B-30	17.2	REECo ESMH Self Assessment Program	REECo	12/31/90
D-B-31	22.4	REECo List of Safety & QA Manuals	REECo	Various
D-B-32	22.3	REECo QA Manual	REECo	2/10/92
D-B-33	22.1 & 22.2 NV 57KB.1-11 and Change 1	DOE/NV QA Manual	NV	4/20/90 11/6/91
D-B-34	22.5	ES&GEM Manual 30	ES&GEM	5/31/92
D-B-35	REECO Directive 88-26	Non-DOE Funded Work	REECo	9/16/88
D-B-36	REECo Procedure 1.11.16 and 17	System Deficiency Report Stop Work Order	REECo	6/5/92
D-B-37	None	REECo ESMH Committee Charters	REECo	Various
D-B-38	None	DP Mission and Functions	DP	Various
D-B-39	DOE N 4220.3	Award Fee Contracts	HD Office of Procurement & Assistance Management	7/2/90
D-B-40	Draft NV 42XC.1	Cost-Plus-Award-Fee System	NV Contracts Dir.	Undated
D-B-41	None	Reorganization DOE Nevada FO	NV Manager	7/1/92
D-B-42	NV 4300.2A-9	Non-DOE Funded Work	NV	4/28/89
D-B-43	None	User Guide For The NTS and Associated Resources	NV	9/90 and 2/14/92
D-B-44	ES&G SOR 30-0038	ES&G Program Elements and Management Plan	ES&GEM	3/31/92
D-B-45	JPM-92-254	Monthly Management Brief May 1992	ES&GEM, J. Madden	6/15/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-8-46	EG&G SOR 30-005.B1	ES&H Committee and Subcommittees	EG&GEM	7/17/92
D-8-47	None	EG&G ES&H Management Plan FY90 - FY94	EG&GEM	Undated
D-8-48	JPM 92-092	Annual Report ES&H Division - 1991	EG&GEM, J. Madden	3/19/92
D-8-49	None	ES&H Division Management Plan April 1991	EG&GEM, J. Madden	4/91
D-8-50	None	Performance Indicators Executive Summary Fourth Quarter CY91	DP-9	Undated
D-8-51	None	Performance Indicators for Fourth Quarter CY91	DP-9	Undated
D-8-52	None	Draft Program Guidance for FY 94 - FY 95 Budget Formulation	DP-532 A. Lane	11/22/91
D-8-53	None	Defense Programs Multi-Year Program Plans	DP G. Rudy	6/19/92
D-8-54	AMD Instruction No. 5	Stop Work	NV AMO	6/26/92
D-8-55	EG&G SOR 30-002.B	Employee ES&H Complaint	EG&GEM	5/31/92
D-8-56	EG&G OOR 30-C300-009.A	Job Stoppage/Equipment Tag Out	EG&GEM	1/31/92
D-8-57	EG&G SOR 30-009.B	Accident Review Program	EG&GEM	11/30/91
D-8-58	EG&G SOP 32-007.C	Safety Analysis and Review	EG&GEM	12/31/91
D-8-59	EG&G SOP 11-140.A	Risk Assessment	EG&GEM	10/31/91
D-8-60	None	Defense Programs Operations Manual	DP	Undated
D-8-61	None	Letter from AMTS re: Facility Rep. Program	D. Schuler/NV AMTS	7/20/92
D-8-62	NV 42XC.1	Cost Plus Award Fee	NV Contracts Division	Undated
D-8-63	None	Draft Program Guidance for FY 94 - FY 95 Budget Formulation	A. Lane, DP-532	11/22/91
D-8-64	AMD Inst. #5	Stop Work	J. Magruder, NV AMO	6/26/92
D-8-65	None	Defense Programs Multi-Year Program Plans	G. Rudy, DP	6/19/92
D-8-66	None	Request for Concurrence MDA ERTW	J. Magruder, NV AMO	5/28/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-B-67	None	MOA - ASFE/NV	ASFE/Mgr. NV	7/91
D-B-68	None	Primary MOA ASDP/NV	ASDP/Mgr. NV	6/25/92
D-B-69	None	HPD Management Plan	NV Director/HPD	12/91
D-B-70	None	Internal Desk Procedure for CPAF	NV Contracts Management Branch	5/92
D-B-71	JAM-91-05	New Procedures for Approval of WFO	J. Michael, EG&G	10/14/92
D-B-72	SOF 13-140.3	Reimbursable Work for Other Federal Agencies	EG&G	9/30/91
D-B-73	None	ES&H Program Management Plan	REECo	8/91
D-B-74	None	DP-TSA Action Plans	V. Stalla, DP-6	7/28/92
D-B-75	None	DP-9 Diagnostic Evaluation of Self-Assessment Program, LAMB, LAAO, AL	DP-9	Undated
Lorin Brinkerhoff				
D-C-1	None	Procedures for Closure of Nevada Operations Office (NOV) Corrective Actions	N. Aquino, NV	Rev. 0, 7/13/90
D-C-2	None	Technical Safety Appraisal of the Nevada Test Site	C. Hansen, DOE-HQ/DP	5/13/92
D-C-3	None	US DOE Compliance Assessment of the Nevada Test Site	DOE-HQ/IEH Tiger Team	1/90
D-C-4	None	Action Plan in Response to the December 1989 Compliance Assessment	NV	7/23/90
D-C-5	5.2	Update of the Action Plan in Response to the December 1989 Compliance Assessment	NV	5/15/92
D-C-6	None	Report on the General Management Inspection of the DOE Nevada Field Office	IS-HQ	5/28/92
D-C-7	6.2	REECo - ES&H Self-Assessment Plan	REECo	8/91
D-C-8	6.4	EG&G Energy Measurements Self-Assessment Program	J. Watts, EG&G/EM	12/31/90
D-C-9	None	Memo: Tiger Team Tracking System - DP Module Requirements	J. McDonald, DOE-HQ/DP	5/6/91
D-C-10	None	Memo: Changing Individuals Tiger Team Corrective Actions	V. Stalla Jr., DOE-HQ/DP	7/15/91

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-C-11	None	Memorandum: Tiger Team Assessment of Defense Programs (DP) Facilities	R. Clayton, DOE-HQDP	8/16/91
D-C-12	None	Memorandum: Semi-annual Review of Tiger Team Corrective Action Plans for Defense Program (DP) Facilities	V. Stude Jr., DOE-HQDP	10/28/91
D-C-13	1.11.8	Company Procedures - Industrial Relations Sections: Corrective Action Tracking and Closure (Three-step Process)	D. Fraser, General Manager, REECa	6/10/91
D-C-14	1.11.11	Company Procedures - Industrial Relations Sections: Corrective Action Tracking and Closure (Two-step Process)	D. Fraser, General Manager, REECa	6/11/91
D-C-15	1.11.16	Company Procedures - Industrial Relations Sections: System Deficiency Report	D. Fraser, General Manager, REECa	6/5/92
D-C-16	1.11.14	Root Cause Analysis	D. Fraser, General Manager, REECa	10/21/91
D-C-17	None	Tiger Team Accelerated Action Team, Summary Report	D. Bergman, et al., NW	6/16/92
D-C-18	5.3	WSI Closure of Tiger Team Concerns FRS-1 A, B, C, & D	NW	12/10/91
D-C-19	6.3	RSN/ESBH Self-Assessment Plan of Action	RSN	1/91
D-C-20	None	WSI Standard Practice 8-02 ESBH Inspection Approvals	R. McKay	9/1/91, Rev. 14
D-C-21	None	WSI Standard Practice 7/01 QA Functions, Responsibilities and Authorities	R. Shook	11/7/90, Rev. 2
D-C-22	None	WSI Standard Practice 7-05 WSI Self-Assessment Program	R. Shook	7/16/92, Rev. 0
D-C-23	None	Draft - US DOE-NW Compliance Assessment Program Final Report	NW	7/13/92
D-C-24	None	Triennial Review of Safety Internal Approval System	RSN	12/20/91
D-C-25	None	Safety Analysis & Review System	RSN SH-014	10/11/91, Rev. 0
D-C-26	None	Safety and Health Approvals	RSN SH-012	2/10/92, Rev. 0
D-C-27	None	Safety & Health Inspections	RSN SH-013	4/30/92, Rev. 2
D-C-28	None	RSN Compliance Assessment, Self-Assessment Evaluation	RSN	Draft

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-C-29	None	Standard Operating Procedure No. 30-012.A: ES&H Hazard/Discrepancy Tracking System	EG&G/EM	6/30/90
D-C-30	None	Organizational Operating Procedure No. 32-4311.003.A	EG&G/EM	6/30/90
D-C-31	None	Organizational Operating Procedure No. 32-6301-004A: Computer Accident/Injury Reporting System	EG&G/EM	4/30/92
D-C-32	None	Standard Operating Procedure No. 32-007.6: Safety Analysis and Review	EG&G/EM	12/31/92
D-C-33	None	Standard Operating Procedure No. 11-140.A: Risk Assessment	EG&G/EM	10/31/91
D-C-34	None	Standard Operating Procedure No. 30-003.B: ES&H Program Elements and Management Plan	EG&G/EM	3/31/92
D-C-35	None	Memo re: Compliance Assessment Program (CAP) Trending and Root Cause Analysis	P. Zavattaro, EG&G General Manager/ N. Aquilina, Manager, NV	7/2/92
D-C-36	None	Lessons Learned 92-1-DOE Compliance Assessment Program (CAP)	J. Maddox, EG&G/distribution	7/6/92
D-C-37	6.8	REEC Self-Assessment Program Plan	REEC	7/92
D-C-38	None	WSI Standard Practice 7-05: WSI Self-Assessment Program	WSI	7/16/92, Rev. 0
D-C-39	None	WSI Standard Practice 7-01: Quality Assurance Function Responsibilities and Authorities	WSI	11/1/90, Rev. 0
D-C-40	None	WSI Standard Practice 8-02: ES&H Inspections Appraisals and Employee Involvement Program	WSI	9/1/91, Rev. 14
D-C-41	None	WSI Quality Assurance Program	WSI	Draft
D-C-42	None	DP Operations Manual Part III Procedures DPOM-EH-780	DOE/DP	Undated Rev 0
Robert Crowley				
D-D-1	None	Environmental Protection Implementation Plan	REEC/NV	11/91

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-D-2	None	Organizations and Functions Mission and Function Statements for NV	NV	9/17/90
D-D-3	None	General Management Inspection of the Department of Energy's Nevada Field Office	DOE, Office of the Inspector General	5/92
D-D-4	None	Environmental Monitoring Plan, Nevada Test Site and Support Facilities	REECo/NV	11/91
D-D-5	None	Draft Groundwater Characterization Project Management Plan September 1991	NV	9/91
D-D-6	None	Draft Mission of the Nevada Hydrology/Radionuclide Program	Unknown	2/5/92
D-D-7	None	Geohydrology Program Plan	NV, Environmental Protection Division	2/27/90
D-D-8	None	FY 1992 Work Plan	Desert Research Institute	2/92
D-D-9	None	Draft Compliance Summary for the Nevada Test Site	NV, Environmental Protection Division	4/15/92
D-D-10	NV 5400.1	General Environmental Protection Program	NV	4/7/92
D-D-11	None	Scoping Plan for the Nevada Test Site Groundwater Characterization Project	Desert Research Institute	2/91
D-D-12	None	Monitoring Program for Groundwater Levels and Spring Flows in the Yucca Mountain Region of Southern Nevada and California	DOE, Yucca Mountain Project Office	2/91
D-D-13	YMP/90-50	Draft Environmental Field Activity Plan for Water Resources	DOE, Yucca Mountain Project Office	7/90
D-D-14	None	Management Agreement Between Nevada Operations Office and The Yucca Mountain Site Characterization Project Office	NV	12/90
D-D-15	None	Environment, Safety and Health Five Year Plan Fiscal Years 1994-1998	NV	5/92

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-D-16	None	Desert Research Institute FY 1992 Work Plan	Desert Research Institute, Submitted to NV	2/92
D-D-17	WSB#: 1.2.5.4.8	Groundwater Data and Springflows for the Yucca Mountain Region	United States Department of the Interior Geologic Survey	5/14/92
D-D-18	DOE/RW-0307P-4	Site Characterization Progress Report: Yucca Mountain, Nevada	Office of Civilian Radioactive Waste Management	10/91
D-D-19	DOE/RW-0198	Site characterization Plan Overview	Office of Civilian Radioactive Waste Management	12/88
D-D-20	None	Minutes of the Groundwater Characterization Project Working Group	NV Groundwater Characterization Project Working Group	4/29/92
D-D-21	EPA 600/4-91/030	Office site Environmental Monitoring Report: Radiation Monitoring Around United States Nuclear Test Sites Ares 1990	U.S. Environmental Protection Agency	1990
D-D-22	None	Groundwater Protection Management Program Plan Nevada Field Office	NV	7/92
D-D-23	DOE-EH-0115	U.S. Department of Energy Environmental Safety and Health, compliance Assessment of the Nevada Test Site	DOE, Environmental Safety and Health	1/90
D-D-24	None	Support Operations Review Team Final Report	NV	7/91
D-D-25	None	Scope of Work for Contract No. DE-AC08-92NV10972(IT Contract)	Unknown	Undated
D-D-26	None	Scope of Work for Contract No. DE-AC08-91NV10813(RSN Contract)	Unknown	Undated
D-D-27	None	Scope of Work for Contract No. DE-AC08-89NV10630(REECO Contract)	Unknown	Undated
D-D-28	DOE/NV/10630-33	Annual Site Environmental Report 1991	NV	5/92
D-D-29	None	Update to the Action Plan Response to the December 1989 Compliance Assessment	NV	5/15/92

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-D-30	None	Action Plan response to the December 1989 Compliance Assessment	NV	7/23/90
D-D-31	None	Technical Safety Appraisal of the Nevada Test Site	DP-67	5/13/92
D-D-32	None	Agreement INFORMATION EXCHANGE BETWEEN ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT (ERWM) PROGRAMS AND THE YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT OFFICE (YMSCPO)	DOE, Yucca Mountain Project Office	Undated
D-D-33	None	Memo on Corrective Actions Completed for the Office of the Inspector General	D. Elle, NV-EPD	7/17/92
D-D-34	NTS-SOP 5417	Protection of Groundwaters at Nuclear Test Locations	DOE, Nevada Test Site	1/31/92
D-D-35	Audit No. QAD-91-04	NV QAD Audit of DOE/Environmental Compliance and Monitoring	NV	9/3/92
D-D-36	None	Review of Hydrology Functions for Nevada Field Office	NV, ERWM	7/91 - 8/91
D-D-37	None	Memo from Joe Fiore, Director ERWM to Jerry Truax Director, Human Resources Division re: Hydrology Program Centralization	J. Fiore, Director, ERWM	7/2/91
D-D-38	None	Memo to Robert Belson, NV from Norman Burkhard re: Draft ESCP Charter	N. Burkhard, Lawrence Livermore National Laboratory	6/24/92
D-D-39	None	Memo to Nick Aquilina NV from Darlene Hoffman Lawrence Berkeley Laboratory	D. Hoffman Lawrence Berkeley Laboratory	Undated
D-D-40	None	Memo to Darlene Hoffman Lawrence Berkeley Laboratory from Nick Aquilina	N. Aquilina, NV	9/6/91
David Wunsch				
D-E-1	NV-351	Environmental Protection Implementation Plan	Latham, Evans & Hall/NV	11/91

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-E-2	NV/10630-28	Environmental Monitoring Plan Nevada Test Site and Support Facilities (Vols. 1&2)	REECo/NV	11/91
D-E-3	None	REECo, Inc. Self-Assessment Program Plan	REECo	Draft 7/92
D-E-4	None	Technical Safety Appraisal of the Nevada Test Site	DOE Office of Defense Programs, Office of Inspections	5/92
D-E-5	None	Update of the Action Plan in response to the December 1989 Compliance Assessment	NV	5/15/92
D-E-6	None	DOE Nevada Field Office Sixth Quarterly Compliance Action Report (1/1 to 3/31/92)	NV	Undated
D-E-7	None	Management Quality Assurance Program and Implementation Plan	RSN	2/13/92, Rev. 0
D-E-8	515-D0C-001	REECo Quality Assurance Program Manual and Quality Implementation Plan	REECo	2/10/92, Rev. 0
D-E-9	None	Draft Compliance Summary for the Nevada Test Site	NV	Undated
D-E-10	None	Action Plan in response to the December 1989 Compliance Assessment	NV	7/23/90
D-E-11	None	Review Activities - ES&H Division 6/90 through 6/92 (audit listing)	REECo, Quality Systems Div.	Undated
D-E-12	None	Procedure for Closure of Nevada Operation Office Action Plans	NV	7/13/90, Rev. 0
D-E-13	None	Memorandum re: Guidance for the Submittal Quality Assurance Programs for Review and Approval in Accordance with DOE Order 5700.6C, "Quality Assurance"	DOE EM-20/DO Distribution	6/4/92
D-E-14	None	Memorandum re: Implementation of Department of Energy (DOE) Order 5700.6C, "Quality Assurance"	DOE DP-625/DO Distribution	2/27/92
D-E-15	None	Letter re: DOE 5700.6C, Quality Assurance	N. Aquilina, Manager NV/DO Distribution	2/12/92
D-E-16	None	Letter re: DOE 5700.6C, Quality Assurance	N. Aquilina, Manager NV/DO Distribution	9/18/91

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-E-17	None	Memorandum re: DOE NV Review of Contractor Laboratory, and Other Agency Quality Assurance Plans (QAPs)	N. Aquilina, Manager NV/ho Distribution	6/12/92
D-E-18	None	Letter re: Nevada Operation Office, Quality Assurance Division, Audit of EG&G/EM Environmental Compliance & Monitoring Activities, Audit No. QAD-90-15	W. White, Assistant Manager for Administration/ho P. Zarattaro	7/24/90
D-E-19	None	Letter re: DOE/NV QAD Audit of DOE/NV Environmental Compliance and Monitoring, Audit No. QAD-91-04	N. Aquilina, Manager NV/ho Distribution	9/3/91
D-E-20	None	Letter re: Nevada Operation Office, Quality Assurance Division, Audit of REECo Environmental Compliance & Monitoring Activities, Audit No. QAD-90-16	W. White, AM for Administration/ho D. Fraser	7/30/90
D-E-21	None	Memorandum re: DOE/NV Quality Assurance Audit Number QAD-90-16 of REECo Environmental Compliance & Monitoring Activities	B. Church, AMESH/ho J. Magruder, NV	12/13/91
D-E-22	None	Letter to W. J. White, EG&G/EM, Quality Assurance Program (with attachments)	P. Zarattaro, EG&G General Manager/ho W. White	2/4/92
D-E-23	None	Letter re: Quality Assurance Program and Implementation Plan (with attachments)	W. Ray, Director Assessment and Oversight Division WSI/ho M. Kunich	3/19/92
D-E-24	AAHzz.B.01.00	ASD Quality Implementing Procedure	REECo Analytical Services Dept.	Draft
D-E-25	AACzz.B.00.00	IHD Quality Procedure	REECo IH Dept.	8/20/90
D-E-26	NV-355	Self-Assessment Program Implementation Plan	NV	6/15/92
D-E-27	None	Environmental Restoration and Waste Management Division Quality Assurance Program Description	NV ERWM	Draft 6/92
D-E-28	Instruction No. 1	ERWM Document Review/Approval/Control	NV ERWM	Undated, Rev. 0
D-E-29	Instruction No. 4	Surveillances	NV ERWM	Undated, Rev. 0
D-E-30	None	Letter re: Environmental Compliance and Monitoring, Quality Assurance Audit Number QAD-91-04	J. Magruder, NV AMD/ho B. Church, NV	4/17/92
D-E-31	None	NV Quality Assurance Program Plan	NV Quality Assurance Division	Draft - Undated

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-E-32	NV 11XA.1-14	Organization and Functions	NV	9/17/90
D-E-33	None	Memorandum re: Drilling Program Drafts for Review, GCP Well ER-6-1	D. Schwichtenberg, RSN Technical Support Drilling & GCP/ to W. Hammer	3/19/92
D-E-34	Company Procedure 1.11.16	System Deficiency Report	REECo Industrial Relation Section	6/5/92
D-E-35	None	Facsimile to P. Zawattaro: a) Letter to D.T. Schuler (attachment) b) Letter to D.A. Bergman (attachment) re: PAQ QAB comments on the EG&G/EM Quality Assurance Program Plan and Implementation Plan	D. Schuler, NV AMTS a) D. Bergman, NV PAQ b) M. Kunsch, NV QAB	6/17/92 a) 6/15/92 b) 4/20/92
D-E-36	None	Letter re: DOE/NV Review of the EG&G/EM, Quality Assurance Plan and Implementation Plan	J. Ross, Director EEM Division/ to Distribution	6/26/92
D-E-37	None	Diagrams Package: EG&G Quality Assurance Program Information	EG&G Performance Assurance Division	Undated
D-E-38	None	Training Manual: QA Awareness Training 5700.6C	EG&G/EM QA Office	1992
D-E-39	None	Self-Assessment Workshop	NV	6/29/92
D-E-40	None	Letter (with attachments) re: DOE Field Office, Nevada, Reorganization	W. White, NV Acting AMA/ to J. Nettles	10/6/91
D-E-41	Company Procedure No. 1.11.2	Procedure Preparation, Review, and Approval	REECo	6/26/92
D-E-42	QA-1.1	Company Implementing Procedure Organization: Quality Coordinators	REECo Quality Systems	1/15/92
D-E-43	None	Quality Coordinator Training Workbook and Instructional Materials	REECo Quality Systems	Rev. 2 - Undated
D-E-44	Company Implementing Procedure	Compliance Evaluation (formerly Surveillance)	REECo	Draft 5/29/92
D-E-45	None	Performance Appraisal Form	REECo	Undated
D-E-46	None	Memorandum to all Employees re: Performance Management Program	D. Fraser, REECo General Manager	8/15/91
D-E-47	None	Memorandum re: Performance Management Communication	E. Lewis, REECo/ to Distribution	12/10/91

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-E-48	None	Memorandum re: Quality Management Policy for the Nuclear Weapons Program	J. Barr, DASMA DP/ho DP Distribution	11/20/89
D-E-49	None	PAQ mission and planning information	NV	Undated
D-E-50	NV D11XA.1	Draft Reorganization - Organization and Functions, Part D, Office of Quality Performance	NV	Undated
D-E-51	Training Module	Self-Assessment/Conduct of Operations	NV PAQ	6/23/92
D-E-52	Lesson Plan	Quality Assurance Training	WSI	5/5/92
D-E-53	None	Memorandum re: Quality Criteria for Research, Design, Development, and Test	M. Dienes, AL, Weapons Quality Division/ho Distribution	3/1/90
D-E-54	NV 5700.6C	Quality Assurance (Order)	NV	Draft - Undated
D-E-55	Audit #QAB-92-06	Facilitated Self-Assessment of DOE Order 5700.6C implementation	NV PAQ/DAB	3/92
D-E-56	Standard Quality Practice ITNS0102	Conditions Adverse to Quality, Nonconformance, and Corrective Actions	IT Corporation	1/1/92
D-E-57	None	Letter re: QAD Audit No. QAD-91-04, Environmental Compliance and Monitoring: Interim Response	J. Magruder, NV AMD/ho M. Aquilina, NV	11/29/91
D-E-58	None	Quality Assurance Program Plan Environmental Support Services for U.S. Department of Energy Nevada Field Office Environmental Restoration Program	IT Corporation	Draft 4/30/92
D-E-59	Procedure OP-16.02	Deficiency Reporting	RSN	8/30/91, Rev. 0
D-E-60	Procedure OP-16.01	Corrective Action Requests	RSN	8/30/91, Rev. 0
D-E-61	Procedure OP-15.01	Nonconformances	RSN	3/1/92, Rev. 0
D-E-62	None	Package of ES&H Performance Appraisal Plans (12)	NV	Undated
D-E-63	None	Meeting Minutes - Joint DOE Field Office Nevada/Contractor Quality Committee	NTS Quality Committee	1/15/91
D-E-64	None	Meeting Minutes - Joint DOE Field Office Nevada/Contractor Quality Committee	NTS Quality Committee	10/9/91

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-E-65	QATC-1.01	Mandatory Training Course Overview for the QA Program	RSN	6/4/92, Rev. 0
William Levitan				
D-F-1	DOE/NV-351	Environmental Protection Implementation Plan, November 9, 1991, to November 9, 1992	A. Latham and R. Evans, REECa	11/91
D-F-2	None	DOE Order 5000.3A Trending and Analysis Report, Second Quarter Calendar Year 1992	NV	Undated
D-F-3	None	DOE Order 5000.3A Trending and Analysis Report, Second Quarter Calendar Year 1992	NV	Undated
D-F-4	DOE/S-0089P	Environmental Restoration and Waste Management Five-Year Plan Fiscal Years 1993-1997	DOE	8/91
D-F-5	None	Groundwater Characterization Project Management Plan	NV	9/91
D-F-6	None	Agreement in Principle Between the United States Department of Energy and the State of Nevada	None	1990
D-F-7	DOE/NV-336	Environmental Restoration and Waste Management Site Specific Plan Fiscal Years 1993-1997	NV	8/91
D-F-8	None	Environmental Restoration and Waste Management Roadmap Deliverables Fiscal Year 1992	NV	3/9/92
D-F-9	None	Community Relations Plan for the Nevada Test Site	NV	2/92
D-F-10	None	Environmental Restoration and Waste Management Division Quality Assurance Program Description	NV	4/92
D-F-11	None	Environmental Restoration and Waste Management Division Quality Assurance Program Implementation Plan	NV	4/92
D-F-12	None	ERWM Instruction No. 3 Revision 1, Conducting Cost Estimates	NV	3/92
D-F-13	None	Performance Measurement System (PMS) System Description	NV, ERWM	2/26/92
D-F-14	None	FY 1993 Application of the DOE Environmental Restoration Priority System	NV	4/12/91

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-F-15	None	DOE Order 5000.3A and NV Order 5000.3A, Occurrence Reporting and Processing of Operations Information - Declaration of an Emergency	NV	3/31/92
D-F-16	None	Transmittal of Emergency Management Division (EMD) Surveillance Report No. EPB-92-44	NV Emergency Management Division	7/2/92
D-F-17	None	Nevada Field Office Environmental Restoration and Waste Management Division Manual	NV ERWM	Undated
D-F-18	None	ERWM Instruction No. 1 ERWM Document Review/Approval/Control	NV ERWM	Undated
D-F-19	None	ERWM Instruction No. 1 Surveillances	NV ERWM	Undated
D-F-20	None	ERWM Procedure No. 7 Performance Measurement Baseline Maintenance and Change Control	NV ERWM	2/7/92
D-F-21	None	ERWM Procedure No. 8 Preparation and Control of the Project Work Breakdown Structure and Responsibility Assignment Matrix	NV ERWM	2/7/92
D-F-22	None	ERWM Procedure No. 9 Project Planning and Work Authorization	NV ERWM	2/7/92
D-F-23	None	ERWM Procedure No. 10 Performance Reporting and Variance Analysis	NV ERWM	2/7/92
D-F-24	None	Status of Planning Documents DOE/NV Environmental Restoration Program	None	7/13/92
D-F-25	None	Site-Wide Environmental Impact Statement (EIS) for the Nevada Test Site (NTS)	M. Aquilino (NV) to R. Claytor (DOE/DP)	7/13/92
D-F-26	None	Hazard Ranking System Documentation Record for the Nevada Test Site, Nevada, Volume I	NV	9/91
D-F-27	None	Criteria Letters 92-14, 15, 19, 24, and 25 requesting RSN services	J. Fane, NV ERWM to J. Stewart, DOE/NTSO	1/3/92, 1/16/92, 1/17/92, 3/10/92, 3/13/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-F-28	None	Final Draft Assessment of the April 1991 NTS Inventory of Inactive and Abandoned Waste Sites	NV	7/91
D-F-29	DOE/NV/10630-18	Nevada Test Site Inventory of Inactive and Abandoned Facilities and Waste Sites	REECo	4/91
D-F-30	None	Section L, NTS RCRA Part B Application, Potential Solid Waste Management Units, Draft	NV	Undated
D-F-31	None	ERWIM EIS Approval Request Package, Draft	L. Stepp, IT Corporation, to S. Mullington, NV ERD	5/27/92
D-F-32	None	Environmental Restoration Project Management Plan	NV	7/92
D-F-33	None	Technical Safety Appraisal of the Nevada Test Site	DOE/DP Office of Inspections	5/92
D-F-34	None	DOE Nevada Field Office Sixth Quarterly Compliance Action Report for the Period of January 1 - March 31, 1992	NV	Undated
D-F-35	None	Draft Compliance Summary for the Nevada Test Site	D. Eba, NV EPD to R. Noland, DOE/MD EH-222	4/15/92
D-F-36	None	Cost Quality Management Assessment Nevada Test Site August 15-29, 1991, Final Draft	None	3/4/92
D-F-37	DOE/NG-0310	Report on the General Management Inspection of the DOE Nevada Field Office	DOE Office of Inspector General	5/15/92
D-F-38	None	Audit/Appraisal of RSN Environmental Compliance Activities at the Nevada Test Site (NTS) & Las Vegas Offices	Alt-Haz Environmental Services	4/29/92
D-F-39	None	Performance Measurement Baseline for the Environmental Restoration Program	NV	3/2/92
D-F-40	None	Transmittal of Tracking/Implementation Directives for a Uniform Spill Incident Reporting Procedure and Spill Remediation Actions on the Nevada Test Site (NTS) (Draft)	J. Stewart, NTSO, to M. Aquino, NV	Undated
D-F-41	Company Procedure 3.2.53	Response to Spills and Leaks of Hazardous Materials	REECo	4/30/92
D-F-42	Standard Operating Procedure No. 31-005.B	Haz. Mat. Release/Spill Control & Reporting Measures	EG&GEM	12/31/90
D-F-43	None	Safety Manual for Field Test Operations, Emergency Assistance and Occurrence Reporting	Los Alamos National Laboratory	3/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-F-44	Safety and Health Procedures SH-018	Accidents/Incidents - Reporting and Investigation	RSN	1/17/82
D-F-45	None	Current Spill Registry - July 20, 1982	F. Bingham, REECs, to J. Stewart, NTSO, D. Eln, NV, S. Mullington, NV	7/21/82
D-F-46	None	Spill/Release Reporting Procedure	D. Eln, NV, to D. Miram, State of Nevada, Bureau of Federal Facilities	10/16/91
D-F-47	None	Release/Spill Reporting Procedures	D. Eln, NV to J. Stewart, NTSO	1/3/82
D-F-48	None	Spill Notification Reports Log/Checklist	NV EPD	7/9/82
D-F-49	EPD-SOP 5400.4	Hazardous Substance and Oil Release Reporting and Recordkeeping Procedures, Revision 0 (Draft)	NV EPD	11/7/91
D-F-50	None	Environmental Restoration and Waste Management Site Specific Plan Fiscal Years 1994-1998 July 2, 1992 (First Draft)	NV	7/2/82
D-F-51	None	Release Notification Handbook	NV	Undated
D-F-52	None	Reporting of Releases from Underground Nuclear Tests to the National Response Center (NRC)	M. Aquilino, NV, to R. Nelson, NV, J. Magruder, DOE/NV, J. Stewart, DOE/NTSO	10/26/82
D-F-53	None	Work Plan Closure of NTS Abandoned Underground Storage Tanks, Environmental Restoration Program	None	6/82
D-F-54	None	Draft Action Plan to Characterize and Remediate the Remaining Sites Listed in the NTS Inventory of Inactive and Abandoned Facilities and Waste Sites	REECs	6/82
D-F-55	None	Preliminary Action Plan Update Issues Identified for Presentation and Discussion in Preliminary Scoping of Interagency Agreement	None	Undated
D-F-56	None	Readmap Methodology Document (Draft)	DOE/HQ Environmental Restoration and Waste Management	3/15/91
D-F-57	None	Nevada Field Office Environmental Restoration Program Performance Measurement Baseline, Baseline Cost Detail and Backup, Forecast Beyond Target Year 1994	NV ERS	3/13/92, Changes and Additions 4/13/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-F-58	None	Draft Fiscal Year 1993 Roadmap Development Guidance Document	DOE/HD Environmental Restoration and Waste Management	Updated
D-F-59	None	Work Breakdown Chart - OTD Program	HW TDB	5/4/92
D-F-60	None	DOE Nevada Field Office Action Plan Identification of Inactive/Abandoned Facilities Nevada Test Site	HW ERB	Updated
D-F-61	None	TTP Overview Plutonium (Pu) Contaminated Soil Cleanup Demonstration	HW TDB	1/15/92
D-F-62	None	TTP Overview Physical Methods for Soil Decontamination	HW TDB	1/15/92
Carlos Coffman				
D-G-1	SH-005	Safety & Health Procedures Personal Protective Equipment	RSM	9/6/91
D-G-2	SH-006	Hazards Communications	RSM	9/6/91
D-G-3	SH-007	Industrial Hygiene	RSM	10/4/91
D-G-4	SH-009	Hearing Conservation	RSM	9/13/91
D-G-5	SH-012	Safety and Health Approvals	RSM	2/10/92
D-G-6	SH-013	Safety and Health Inspections	RSM	4/30/92
D-G-7	2.1.5	Respiratory Protection Program	REECa	6/17/98
D-G-8	AACAC.D.01.00	The Service, Maintenance and Testing of Respiratory Equipment	REECa	7/27/90
D-G-9	AACAC.D.02.00	The Inspection and Storage of Respiratory Protective Equipment	REECa	7/27/90
D-G-10	AACAC.D.04.00	Selection for Use of Personal Protective Respiratory Equipment	REECa	7/20/90
D-G-11	AACAC.D.09.00	Conducting Audits of Industrial Hygiene Respiratory Equipment	REECa	8/15/90
D-G-12	A9SGC.D.12.00	Fit-Testing and Selection Procedure for Air Purifying Respirators	REECa	5/12/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-G-13	BH-3	Industrial Hygiene Code: Asbestos	REECo	5/31/90
D-G-14	1.8.17	Functional Support of the Industrial Hygiene Program	REECo	10/4/88
D-G-15	1.8.14	Hazard Communication Program	REECo	12/17/90
D-G-16	WTS-SOP 5410	Industrial Hygiene	IN	6/7/91
D-G-17	None	Standard Procedure For Operational Oversight of Nevada Test Site Office (NTSO) Assigned ESMH Corrective Actions	NTSO	Undated
D-G-18	None	Approved Procedure for Closure of Nevada Operations Office (NO) Action Plans	IN	9/9/90
D-G-19	None	Health Protection Division Management Plan For FY 1992	IN	12/91
Douglas Abramson				
D-H-1	None	DOE ESMH P.A. NTS Index	MANV PAD	6/15/92
D-H-2	IN 0000.20	Directives Checklist	M. Aquino, IN	10/16/91
D-H-3	None	Site Maintenance Dept.	W. Jacobs, REECo	Undated
D-H-4	None	REECo FY 92 Workplan	REECo Site Maintenance Department	Undated
D-H-5	None	Safety & Health Division Part B (V-B1): personnel responsibilities	IN	Undated
D-H-6	None	Mandatory Training Matrix	REECo	4/92
D-H-7	None	DOE Order Compliance Self-Assessment	Director EEM/IN	6/2/92
D-H-8	None	Compliance Self-Assessment for DOE Order 6430.1A	Director EEM/IN	6/4/92
D-H-9	None	4700.1 Order Compliance	Director EEM/IN	6/2/92
D-H-10	None	Establishment of Monitoring and Reporting Requirements of AMTS Site Monitors	AMTS	6/19/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-H-29	None	REECO Code Index	REECo	6/92
D-H-30	None	Quality Assurance Self-Assessment	J. Ross, NV EEMD	3/30/92
D-H-31	None	Quality Assurance Program Plan	NV EEMD	12/28/87
D-H-32	None	Site Maintenance Department	REECo	Undated
D-H-33	None	Site Maintenance Department, FY 92 Work Plan	REECo	Undated
D-H-34	None	Action Plan from December 1989 Compliance Assessment	NV	4/20/92
D-H-35	None	Update to Action Plan	NV	5/15/92
D-H-36	None	Safety and Health Division Alert Notice	Director SHD, NV	5/26/92
D-H-37	1.8.21	Safety Committee Program	General Manager, REECO	3/22/91
D-H-38	None	Joint YMP/ISS/O&M/ES&H Op Executive Committee	H. Dickson, REECO	2/27/92
D-H-39	2.1.2	Safety	General Manager, REECO	6/17/88
D-H-40	A-2	Safety Fundamentals	General Manager, REECO	10/1/91
D-H-41	A-3	Job Safety Analysis (JSA) Program	General Manager, REECO	6/24/91
D-H-42	A-6	Supervisor's Safety and Fire Protection Inspections and Reports	General Manager, REECO	3/31/91
D-H-43	A-7	Safety and Health Complaints and Suggestions	General Manager, REECO	7/15/91
D-H-44	A-16	Compliance Inspections, Corrective Actions and Abatement Plans	General Manager, REECO	4/1/92
D-H-45	C-8	Lockout/Tagout Program Requirements	General Manager, REECO	7/1/91
D-H-46	A-15	Safety Training for Supervisors	General Manager, REECO	10/1/91
D-H-47	C-12	Electrical Safe Work Practices	General Manager, REECO	11/15/91
D-H-48	QA-3.1	Company Implementation Procedure Design Control	General Manager, REECO	11/15/90
D-H-49	FQP - 2.2, 5.2, 7.3, 7.4, 7.8, 10.1, 10.2, 10.3, 11.1, 11.2	Fleet Quality Procedures & Forms Notebook	Department Manager, Fleet Operations, REECO	Undated

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-H-11	None	NV Maintenance Management Program Implementation Committee Charter	NV	1992
D-H-12	None	Establishment of the AMTS Facility Representative Program	AMTS	4/7/92
D-H-13	None	AMTS Management Plan	AMTS	6/18/92
D-H-14	AMTSOI#6	Facility Representative Program	AMTS	7/14/92
D-H-15	None	P.D. Director, NTSO	NTSO	Undated
D-H-16	None	DP ES&H Five Year Plan	NV AMO	5/14/92
D-H-17	Draft NV 4330.4-6	Maintenance Management Program	NV	4/92
D-H-18	None	DOE Order 5000.3A Trending & Analysis Report, First Quarter CY 92	NV	Undated
D-H-19	None	Performance Indicator, 4th Quarter FY 91, 1st Quarter FY 92	NV	Undated
D-H-20	None	REECO Real Property Maintenance Management, FY 91 Annual Work Plan	REECO	Undated
D-H-21	None	Implementation of DOE 4330.4A Maintenance Management Program	DP-66	12/6/91
D-H-22	NV 11XA.1-14	Organization and Functions/NV	N. Aquilina, NV	9/17/90
D-H-23	None	Defense Program Technical Appraisal Report Distribution	C. Hansen, DP-67	5/20/92
D-H-24	None	Procedure for Closure of Nevada Operations Office Action Plans	N. Aquilina, NV	7/13/90
D-H-25	None	Real Property Maintenance Management Plan (Off-NTS) 92 - 98	EG&G	12/10/91
D-H-26	None	DOE Order 5000.3A Trending and Analysis Report , 2nd Quarter 1992	NV	Undated
D-H-27	DOE/INV-355	Self-Assessment Program Implementation Plan	N. Aquilina, NV	6/15/92
D-H-28	NTS-SOP 0001	Nevada Test Site Standard Operating Procedure	NV, Information and Property Management	5/21/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-H-50	None	Designation of the Device Assembly Facility (DAF) as a Non-Nuclear Facility	Manager, NV	4/3/90
D-H-51	PEBM-40505-01	REECo Building Maintenance Master File	REECo	7/20/92
D-H-52	None	Preventive Maintenance Program	W. Jacobs/REECo	4/25/92
Jack Janda				
D-I-1	None	NTS-ES&H Progress Assessment Briefing Book	NV	4/92
D-I-2	None	Draft ES&H Progress Assessment-Hanford Site	DOE/EH	5/92
D-I-3	DOE/EH-1037	Tiger Team TSA/NTS	DOE/EH	12/90
D-I-4	DOE/NV-355	Self-Assessment Program Implementation Plan	NV	6/15/92
D-I-5	None	TSA/NTS	DP-67	5/13/92
D-I-6	None	Procedure for Closure of NV Action Plans	N. Aquilina, NV	7/13/90
D-I-7	None	FY 1993 Injury Incident Rate Reduction Goals	H. Jones, REECo	6/29/92
D-I-8	None	Establishment of a Severity Rate Goal to Measure the Reduction in Lost Workdays	H. Jones, REECo	6/29/92
D-I-9	None	Occupational Safety and Fire Protection Initiatives FY 1993 (DRAFT)	REECo	6/14/92
D-I-10	None	Memorandum: Commitment to Health and Safety	D. Fraser, REECo	5/21/92
D-I-11	None	Performance Management Program (PMP)	REECo	Undated
D-I-12	None	Voluntary Protection Program (VPP) "Dry Run" Onsite Review	REECo	Undated
D-I-13	None	Application of Reynolds Electrical & Engineering Co., Inc. For Participation in OSHA Voluntary Protection Program	REECo	3/92
D-I-14	None	Inter-Office Memorandum - Wackenhut Services, Inc. (NV) Safety Policy	R. Sanders, Jr., WSI	10/5/90
D-I-15	None	Inter-Office Memorandum - FY 92 Environmental, Safety and Health Goals	R. Sanders, Jr., WSI	10/28/91

LIST OF SITE DOCUMENTS REVIEWED

Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-I-16	None	Inter-Office Memorandum - 29 CFR 1910.1030 Occupational Exposure to Bloodborne Pathogens - Interim Training Requirements for Wackenhut Services, Inc.	R. McKay, WSI	6/1/92
D-I-17	None	Fire Protection Program	R. Sanders, Jr., WSI	6/22/90
D-I-18	None	Accident/Incident, Injury/Illness Investigation, Reporting and Recordkeeping Requirements	WSI	9/9/91
D-I-19	None	Activity Data Sheets (ADS) for Wackenhut Services, Inc. Five-Year ES&H Program Plan	R. Sanders, Jr., WSI	4/23/92
D-I-20	None	WSI Waste Minimization and Pollution Prevention Awareness Plan	W. Ray, WSI	1/22/92
D-I-21	Assessment: 89-00001 Reports R0029, 20, R0001, R0002	Compliance Assessment of NTS	NTS	6/18/92
D-I-22	NV 11XA.1-14	Organization and Functions Part A Nevada Test Site Office	NTS	9/7/90
D-I-23	None	Organization Chart	RSN	6/22/92
D-I-24	None	ES&H Policy Statements	B. Colston, RSN	3/11/91
D-I-25	None	Safety and Health Management Program and Implementation Plan	RSN	4/28/91
D-I-26	None	Tiger Team Findings	RSN	9/24/90
D-I-27	None	Safety & Health Procedures Manual Awareness Training	RSN	1/92
D-I-28	None	Update of the Action Plan in Response to the December 1989 Compliance Assessment	NV	5/15/92
D-I-29	None	U.S. Department of Energy Nevada Field office Compliance Assessment Program Final Report (DRAFT)	NV	Undated
D-I-30	File: 5482.5	Review Comments for Proposed Performance Objectives for Reynolds Electrical & Engineering Co., Inc. (REECo) October 1, 1992, through March 30, 1993	D. Schlick, NV	7/17/92

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Ref. No.	Document #	Title/Description	Document Author/ Issuing Org.	Revision/ Issue Date
D-131	None	Performance Appraisal Plan	D. Schlick, NV	7/1/91 - 6/30/92 signed off 3/5/92
D-132	None	Health Protection Division Management Plan for FY 1992	NV	12/91
D-133	OSH-92-443	Industrial Hygiene Plan (EG&G)	T. McManus, EG&G	7/13/92
D-134	None	Environmental, Safety, and Health Division Management Plan	EG&G	4/91
D-135	None	Area Safety Representative Management Notebook	EG&G	8/20/91
D-136	None	1992 - Risk Assessment Activity	EG&G	7/10/92
D-137	None	Interoffice Memorandum - Status of Aviation Safety/Risk Analysis Reviews	G. Sasso, EG&G	5/1/92
D-138	None	Listing of Appraisals/Inspections conducted by EG&G	EG&G	Undated
D-139	None	ES&H Management Plan - EG&G Energy Measurements, Inc.; FY90 - FY94	EG&G	Undated
D-140	No. 30-003.B	Standard Operating Rule - ES&H Program Elements and Management Plan	EG&G	3/31/92
D-141	None	Internal Appraisal Schedule	J. Maddox, EG&G	11/21/92
D-142	SWIM-92-051	5-Year Budget Plan Input	J. Maddox, EG&G	6/1/92
D-143	KS-92-297	Revised FY92 and Proposed FY93 Budget Submittal	J. Maddox, EG&G	5/14/92
D-144	None	Support Services Division - Safety Program	REECo	Undated
D-145	ID-92-05	Office of Environmental, Safety and Health - Site Representative Program - Idaho Regional Office - Monthly Report for May 1992	G. Pelton, DOE EH Site Representative and B. Bowser, DOE EH Senior Site Representative	5/92
D-146	None	Memorandum: Commitment to Health and Safety	D. Fraser, REECo	5/21/92

Appendix G

List of Contacts and Interviews

LIST OF CONTACTS AND INTERVIEWS

Ref. No.	Date	Organization	Topic
Louis A. Rancitelli			
I-A-1	6/18/92	NV AMO, ERWM	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-2	6/18/92	NV AMTS, EEM, EMD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-3	6/18/92	RECo	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-4	6/18/92	WSI, WSI ES&H Section, WSI Plans/OAESH Division	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-5	6/19/92	EG&G/EM, EG&G/EM LANL Program, EG&G/EM ES&H Division	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-6	6/19/92	RSN, RSN ES&H	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-7	6/19/92	NV AMESH, PAQ, SHD, EPD, HPD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-8	6/19/92	NV AMA, HRD/FPB, HRD/TDB, RMD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-9	6/19/92	NV PAQ	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-10	7/13/92	DP-50, DP-52	Planning, Budgeting, and Resource Allocation; and human resource management
I-A-11	7/13/92	DP-252	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-12	7/14/92	DP-62, DP-624	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-13	7/14/92	EM-45, EM-452	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-14	7/14/92	EM-322, BDM	Self-assessment; planning, budgeting, and resource allocation; and human resource management

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Ref. No.	Date	Organization	Topic
I-A-15	7/14/92	DP-67	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-16	7/14/92	DP-541	Planning, Budgeting, and Resource Allocation; and human resource management
I-A-17	7/14/92	DP-9	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-18	7/20/92	NV TOD, TOD/TTB	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-19	7/20/92	NTSO, ESHOB, LB, TCB	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-20	7/20/92	NV HPD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-21	7/20/92	NV	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-22	7/21/92	RSN ESH, Compliance Department, SHD, ESHCD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-23	7/21/92	REECo OMD, REECo Field Ops Department/Drilling, REECo SMD, REECo Field Ops Department/LANL-LLNL, REECo Fleet OPS Department	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-24	7/21/92	REECo FOD-DOD, REECo Construction	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-25	7/21/92	REECo AD, HR, TEDS	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-26	7/21/92	REECo SHD, GM, HPD, OSFPD, WMD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-27	7/22/92	WSI Plans/OA ESH Division, FO, AD, HRS	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-28	7/22/92	NV AMA, HRD, HRD/CHRMIB, TDB, RMD	Self-assessment; planning, budgeting, and resource allocation; and human resource management

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Ref. No.	Date	Organization	Topic
I-A-29	7/22/92	RSN TSD, RSN ERWM, RSN HRD, RSN QAD	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-30	7/22/92	REECO ECO	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-31	7/22/92	EG&G/EM PA, ESH, QS, SSSAO	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-32	7/22/92	EG&G/EM LANLP, NVP, PBO	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-33	7/23/92	NV ERWM, WOB, ERB	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-34	7/23/92	NV AMESH, PAQ	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-35	7/23/92	NV PAQ	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-36	7/23/92	DP-651, DP-67	Self-assessment; planning, budgeting, and resource allocation; and human resource management
I-A-37	7/29/92	DP-9, DP-62	Self-assessment
I-A-38	7/30/92	NV HPD	Human resource management
David Schweller			
I-B-1	6/17/92	NV	Directive system
I-B-2	6/17/92	NV	Directive system
I-B-3	6/18/92	EG&G/EM	Directive system
I-B-4	6/18/92	EG&G/EM	Directive system
I-B-5	6/18/92	EG&G/EM	Directive system
I-B-6	6/18/92	REECO	Directive system
I-B-7	6/19/92	NV	ES&H oversight
I-B-8	6/19/92	NV	ES&H oversight

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Ref. No.	Date	Organization	Topic
I-B-9	6/19/92	NV	ES&H oversight
I-B-10	6/19/92	NV	ES&H oversight
I-B-11	6/19/92	NV	ES&H oversight
I-B-12	7/13/92	DP-50	Planning/budgeting
I-B-13	7/13/92	DP-252	CPAF, ES&H oversight
I-B-14	7/14/92	DP-62	Directive system, ES&H oversight
I-B-15	7/14/92	EM-45, EM-452	CPAF, ES&H oversight
I-B-16	7/14/92	EM-322	CPAF, ES&H oversight
I-B-17	7/14/92	DP-67	ES&H oversight
I-B-18	7/14/92	DP-541	Human resource planning
I-B-19	7/14/92	DP-9	ES&H oversight, self-assessment
I-B-20	7/20/92	NV AMESH	ES&H oversight, CPAF
I-B-21	7/20/92	NV Contracts Branch	CPAF
I-B-22	7/20/92	NV Managers Office	ES&H program CPAF
I-B-23	7/20/92	NV SHD	CAP program
I-B-24	7/21/92	NV Resource Management Division	Budget call
I-B-25	7/21/92	NV Planning & Projects Branch	Non-DOE funded work
I-B-26	7/21/92	REEC	ES&H oversight, CPAF
I-B-27	7/21/92	EG&G/EM ES&H Division	ES&H oversight
I-B-28	7/21/92	NV AMTS	Line ES&H oversight
I-B-29	7/21/92	NV PAO, SHD, EPD, HPD	Independent ES&H oversight
I-B-30	7/22/92	NV AMO	Line ES&H oversight
I-B-31	7/23/92	NV AMESH, PAO	Roles, responsibilities, authorities, ES&H program
I-B-32	7/23/92	REEC	Reimbursable work
I-B-33	7/23/92	NV AMESH	Stop work authority

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Ref. No.	Date	Organization	Topic
I-B-34	7/23/92	EG&G/EM	Reimbursable work
I-B-35	7/23/92	DP-651, DP-67	ES&H oversight
Lorin Brinkerhoff			
I-C-1	7/20/92	NV	Corrective action
	7/20/92	NV	
I-C-2	7/20/92	NV	Corrective action
I-C-3	7/20/92	REEC0	Corrective action
I-C-4	7/20/92	RSN	Corrective action
I-C-5	7/21/92	REEC0	Corrective action
I-C-6	7/21/92	EG&G/EM	Corrective action
I-C-7	7/22/92	RSN	Corrective action
I-C-8	7/22/92	RSN	Corrective action
I-C-9	7/22/92	NV	Corrective action
I-C-10	7/22/92	WSI	Corrective action
I-C-11	7/22/92	RSN	Corrective action
I-C-12	7/23/92	NV	Corrective action
Robert Crowley			
I-D-1	6/18/92	NV	Interaction of NTS users for groundwater monitoring
I-D-2	6/18/92	DRI	DRI interaction with NV
I-D-3	6/29/92	NV	Environmental strategic planning
I-D-4	6/30/92	NV	Roles and responsibilities for the groundwater protection management program plan
I-D-5	7/14/92	EM-452	Planning, oversight, guidance, implementation, Yucca Mountain integration

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Ref. No.	Date	Organization	Topic
I-D-6	7/14/92	EM-452	Planning, oversight, guidance, implementation, Yucca Mountain integration
I-D-7	7/14/92	DP-65	Guidance, oversight, to NV for implementation of DOE Orders and the GMPP
I-D-8	7/16/92	Yucca Mountain Project Office	Integration and coordination of NTS and Yucca Mountain groundwater protection activities
I-D-9	6/03/92	Yucca Mountain Project Office	Integration and coordination of NTS and Yucca Mountain hydrology activities
I-D-10	7/20/92	NV	Groundwater Protection Management Program Plan implementation of GCP potable and nonpotable water sampling and NEPA requirements for the GCP
I-D-11	7/20/92	NV	Guidance, oversight, reporting, planning and implementation of the GCP
I-D-12	7/20/92	NV	Implementation of drilling E-12-1 for the GCP, training for PE's, oversight on contractors (RSN & REECco)
I-D-13	7/20/92	DRI	Role of DRI in the GCP both before and after contracting with IT
I-D-14	7/20/92	NV	GCP planning, prioritization, EM oversight
I-D-15	7/21/92	NV	GCP planning, implementation, EM oversight
I-D-16	7/21/92	NTSO	GCP drilling operations and oversight
I-D-17	7/22/92	TOD	Groundwater protection implementation
I-D-18	7/22/92	REECo	Oversight of sampling and analysis
I-D-19	7/22/92	REECo	Radiological groundwater monitoring
I-D-20	7/22/92	REECo	Radiological groundwater monitoring
I-D-21	7/23/92	DP-67	Environmental protection activities in the NTS TSA
I-D-22	7/23/92	Self Employed Contractor	Environmental protection activities in the NTS TSA
I-D-23	7/23/92	NV	Development of groundwater protection SOP

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Ref. No.	Date	Organization	Topic
I-D-24	7/24/92	NV	Development of the groundwater protection management program plan
I-D-25	7/24/92	NV	Integration planning for coordination of hydrogeologic studies at NTS
I-D-26	7/24/92	NV	Integration planning for coordination of hydrogeologic studies at NTS
I-D-27	7/24/92	NV	Groundwater Protection Management Program Plan
David Wunsch			
I-E-1	7/20/92	DOE/NV AMO	Quality assurance (QA) implementation in AMO
I-E-2	7/20/92	DOE/NV ERWM	Quality assurance in ERWM and GCP
I-E-3	7/20/92	DOE/NV AMESH	QA implementation in AMESH
I-E-4	7/20/92	DOE/NV PAQ	QA program implementation
I-E-5	7/20/92	DOE/NV	Quality program implementation
I-E-6	7/21/92	REECo Quality Systems	QA implementation and quality program integration at REECo
I-E-7	7/21/92	REECo ES&H Division	QA implementation in REECo ES&H programs
I-E-8	7/21/92	REECo ASD	QA implementation in REECo ES&H programs
I-E-9	7/21/92	RSN Quality Division	QA implementation at RSN and within the GCP
I-E-10	7/21/92	REECo Drilling Department	QA implementation at REECo within the GCP
I-E-11	7/22/92	EG&G Performance Assurance, EG&G Quality Services, EG&G ES&H Division	QA implementation at EG&G
I-E-12	7/22/92	NV EEM Division	NV review and comment of M&O QAPs/IPs
I-E-13	7/23/92	WSI Quality Assurance Div., WSI Assessment & Oversight Department	WSI QA implementation
I-E-14	7/23/92	IT Corporation	QA implementation at IT and the GCP
I-E-15	7/23/92	DOE/NV Performance Assessment & Quality Division	QA implementation at NV

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Ref. No.	Date	Organization	Topic
I-E-16	7/23/92	IT Corporation	QA implementation on GCP
I-E-17	7/24/92	DP-651	PSO approval process for 5700.6C
I-E-18	7/24/92	DP-62	PSO approval process for 5700.6C
I-E-19	7/24/92	NV	Budget process and cost capturing
I-E-20	7/24/92	REECo	QA implementation in ES&H
I-E-21	7/24/92	NV	QA requirements for IT
I-E-22	7/24/92	NV AMO	QA compliance at AMO
William Levitan			
I-F-1	7/14/92	DOE/HQ Environmental Restoration EM-45	DOE HQ management of the NTS environmental restoration program
I-F-2	7/20/92	NV Environmental Restoration and Waste Management Division (ERWM)	NV ERWM programs
I-F-3	7/20/92	NV ERWM Environmental Restoration Branch	NTS environmental restoration program
I-F-4	7/20/92	NV Environmental Protection Division	EPD oversight of the NTS environmental restoration program
I-F-5	7/20/92	REECo Environment Safety and Health Division	REECo occurrence reporting system
I-F-6	7/20/92	DOE Emergency Management Division	NV occurrence reporting system
I-F-7	7/21/92	REECo Environmental Management Division, Environmental Remediation Section	Spill working group, REECo environmental restoration activities
I-F-8	7/21/92	REECo Environmental Compliance Office	REECo and NTS release reporting programs
I-F-9	7/21/92	EG&G/EM Facilities Management Office	EG&G/EM occurrence reporting system
I-F-10	7/21/92	PAI, RSN	NV environmental restoration program planning and management systems

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Ref. No.	Date	Organization	Topic
I-F-11	7/21/92	LANL	LANL spill and occurrence reporting systems for NTS activities
I-F-12	7/21/92	RSN	RSN environmental restoration activities
I-F-13	7/22/92	NTSO	Groundwater characterization project
I-F-14	7/22/92	RSN	Performance measurement system
I-F-15	7/22/92	NV ERWM	Tiger Team inactive waste site findings corrective actions
I-F-16	7/22/92	NV EPD	Release reporting, environmental restoration program
I-F-17	7/22/92	NV ERB	Groundwater characterization project
I-F-18	7/22/92	NTSO	Release reporting
I-F-19	7/23/92	NV TDB, REEC	Plutonium-contaminated soils integrated demonstration
I-F-20	7/23/92	IT Corporation	NTS environmental restoration program
I-F-21	7/23/92	NV ERB	NTS environmental restoration program
I-F-22	7/23/92	NV ERWM	ERWM program planning, management, and integration
I-F-23	7/24/92	LANL	Release reporting procedures
I-F-24	7/24/92	NV ERB, MACTEC	NTS environmental restoration program roadmapping
Carlos Coffman			
I-G-1	7/20/92	NV HPD	Industrial hygiene programs
I-G-2	7/20/92	NV	Hazard communication; respiratory protection
I-G-3	7/20/92	NV	Ventilation, asbestos
I-G-4	7/21/92	NTSO	Asbestos, hazardous communication, respiratory protection
I-G-5	7/21/92	REEC	Medical program
I-G-6	7/21/92	REEC	Industrial hygiene programs
I-G-7	7/21/92	REEC	IH field operations section

LIST OF CONTACTS AND INTERVIEWS

Ref. No.	Date	Organization	Topic
I-G-8	7/21/92	REECo	Asbestos
I-G-9	7/21/92	REECo	Industrial hygiene, field operations programs
I-G-10	7/21/92	REECo	Tunnel operations
I-G-11	7/22/92	REECo	Industrial hygiene programs
Douglass Abramson			
I-H-1	6/18/92	NV SHD	Maintenance safety oversight
I-H-2	7/20/92	NV SHD	Safety oversight
I-H-3	7/20/92	ES&H Operations Branch	Safety oversight, maintenance safety
I-H-4	7/20/92	NV EEM	Offsite safety and maintenance
I-H-5	7/20/92	NV EEM	Implementation of 4330.4A
I-H-6	7/20/92	NV SHD	Safety and maintenance interaction, oversight
I-H-7	7/21/92	REECo, Site Maintenance Work Control	Maintenance work control priority, safety
I-H-8	7/21/92	REECo, Site Maintenance	Safety, training, prioritization, maintenance operations
I-H-9	7/21/92	REECo, Fleet Operations	Vehicle safety, priority, maintenance
I-H-10	7/21/92	REECo, Fleet Operations	Implementation of DOE 4330.4A
I-H-11	7/21/92	REECo, Operations Equipment	Implementation of 4330.4A, maintenance, safety
I-H-12	7/22/92	NTSO	Oversight and guidance for safety and maintenance
I-H-13	7/22/92	NTSO	Safety oversight inspections
I-H-14	7/22/92	NTSO	Safety oversight inspections
I-H-15	7/22/92	REECo Equipment Operations	Safety procedures for maintenance
I-H-16	7/22/92	REECo Operations Maintenance Division	Safety procedures for maintenance
I-H-17	7/23/92	REECo	Implementation of 4330.4A and Safety
I-H-18	7/23/92	REECo	Implementation of 4330.4A and Safety
I-H-19	7/23/92	NV	NV policy for implementation of 4330.4A and Safety
I-H-20	7/23/92	NV	NV policy for ES&H integration into activities

LIST OF CONTACTS AND INTERVIEWS

Ref. No.	Date	Organization	Topic
I+21	7/24/92	IPM/PIB/NV	NV policy/order implementation
I+22	7/24/92	IPM/PIB/NV	NV control of personal property
Jack Janda			
I+1	6/19/92	NV	Worker safety
I+2	7/20/92	NV	Worker safety
I+3	7/20/92	NV	Worker safety
I+4	7/20/92	WSI	Worker safety
I+5	7/20/92	RSN	Worker safety
I+6	7/20/92	RSN	Worker safety
I+7	7/20/92	RSN	Worker safety
I+8	7/20/92	EG&G	Worker safety
I+9	7/21/92	REECO	Worker safety
I+10	7/21/92	NTSO	Worker safety
I+11	7/21/92	REECO	Worker safety
I+12	7/21/92	REECO	Worker safety
I+13	7/21/92	REECO	Worker safety
I+14	7/22/92	REECO	Worker safety
I+15	7/23/92	NV	Worker safety
I+16	7/23/92	NV	Worker safety

Appendix H

Causal Factor Definitions

LIST OF POTENTIAL CAUSAL FACTORS

Causal Factor	Definition
Policy	Evaluate if ineffective, outdated, or nonexistent policies contributed to the finding.
Policy Implementation	Ascertain if written policies, reflecting Federal, state, and local laws and regulations, codes, and standards were appropriately disseminated, implemented, and updated. If not, is this a contributing factor to the finding.
Procedures	Identify if written procedures have been prepared to effectively implement site policy, DOE Orders, and Federal, state and local laws and regulations were a contributing factor to the finding. Determine if a lack of familiarity or availability of those procedures contributed to the finding.
Personnel	Identify if the lack of educational and work experience for personnel holding responsible positions contributed to the finding. Determine if the level of personnel knowledge about the technical aspects of their jobs contributed to the finding.
Resources	Ascertain if the number of personnel assigned to a job contributed to the finding. Evaluate if inadequacies in facilities and equipment were a contributing factor to the finding.
Training	Identify if inadequate personnel training on implementing site policy, DOE orders, and applicable Federal, state, and local laws and regulations was a contributing factor to the finding.
Change	Evaluate if changes in site mission, function, operation and established requirements, which rendered existing policies or procedures inadequate or inappropriate, were contributing factors to the finding. Evaluate if the timeliness and effectiveness of changes to site and DOE policy, and the implementing procedures, were a contributing factor to the finding.
Risk	Evaluate if the site personnel responsible for a situation contributing to a finding have assessed and were aware of the relative degree of risk involved in the action.

LIST OF POTENTIAL CAUSAL FACTORS (continued)

Causal Factor	Definition
Safety	Determine if inadequacies in the site's safety program, or lack thereof, contributed to the finding. Evaluate if appropriate level of importance has been given to the safety aspects of the operation(s) being evaluated, and, if not, is it a contributing factor to the finding.
Appraisals, Audits/Reviews	Determine if ineffective or insufficient appraisals, audits and reviews, and/or inadequate follow-up, were contributing factors to the finding.
Design	Evaluate if inadequate design of a system was a contributing factor to the finding.
Human Factors	Ascertain if human factors, such as fatigue or deliberate circumvention of a safety system, were contributing factors to the findings.
Quality Assurance/ Control	Identify if inadequacies in the quality assurance/control program were causal factors in the identified finding.
Barriers & Controls	Determine if inadequacies in established barriers and controls, both administrative and physical, including operational readiness, routine inspections and preventive maintenance, and/or a lack of these controls, contributed to the finding.
Supervision	Identify if ineffective supervisory controls for implementing policies, directives, procedures, standards, laws, etc. were a contributing factor to the finding.

Appendix I

List of Acronyms

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Definition
AMESH	NV Office of the Assistant Manager for Environment, Safety and Health
AMO	Assistant Manager of Operations (NV)
AMTS	Assistant Manager for Technical Support
CAP	Compliance Assessment Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CPAF	Cost Plus Award Fee
D&D	Decontamination and decommissioning
DASMA	Deputy Assistant Secretary for Military Application
DNA	Defense Nuclear Agency
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy - Headquarters
DP	Defense Program
EEM	Engineering and Energy Management Division
EG&G/EM	EG&G Energy Measurements, Inc.
EM	Environmental Restoration and Waste Management
EPA	U.S. Environmental Protection Agency
EPD	Environmental Protection Division
ERB	Environmental Restoration Branch
ERWM	Environmental Restoration and Waste Management Division
ES&H	Environment, Safety, and Health
GCP	Groundwater Characterization Project
GPMPP	Groundwater Protection Management Program Plan
HPD	Health Protection Division
HRMP	Hydrology/Radionuclide Migration Program
IH	Industrial Hygiene
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
M&O	Management and Operating (Contractors)
MOA	Memorandum of Agreement
NPL	National Priorities List
NTS	Nevada Test Site
NTSO	U.S. DOE, Nevada Test Site Office

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Definition
NV	U.S. DOE Nevada Field Office
OPI	Office of Primary Interest
ORR	Operational Readiness Review
OSHA	Occupational Safety and Health Administration/Act
PAQ	Performance Assessment and Quality
POC	Performance Objective Criteria
PSO	Program Secretarial Officer
QA	Quality Assurance
RCRA	Resource Conservation and Recovery Act
REECo	Reynolds Electrical & Engineering, Co., Inc.
RI/FS	Remedial Investigation/Feasibility Study
RSN	Raytheon Services Nevada
SAR	Safety Analysis Report
SEN	Secretary of Energy Notice
SNL	Sandia National Laboratories
TDB	Training and Development Branch or Technology Development Branch
TQM	Total Quality Management
TSA	Technical Safety Appraisal
TSD	Treatment, Storage, and Disposal
TSR	Technical Safety Requirement
WOB	Waste Operations Branch
WSI	Wackenhut Services, Inc.
YMP	Yucca Mountain Project

END

**DATE
FILMED**

12/28/93