DOE/IG-0384

U.S. Department of Energy
Office of Inspector General

JANUARY 1996

Report on

Inspection of Concerns Regarding the Martin Marietta Corporate Review of Health and Safety at Martin Marietta Energy Systems

The Office of Inspector General wants to make the distribution of its reports as customer friendly and cost effective as possible. Therefore, this report will be available electronically through the Internet five to seven days after publication at the following alternative addresses:

Department of Energy Headquarters Gopher
gopher.hr.doe.gov

Department of Energy Headquarters Anonymous FTP
vm1.hqadmin.doe.gov

Department of Energy Human Resources and Administration Home Page
http://www.hr.doe.gov/refshelf.html

Your comments would be appreciated and can be provided on the Customer Response Form attached to the report.

This report can be obtained from the
U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, Tennessee 37831

U.S. DEPARTMENT OF ENERGY

OFFICE OF INSPECTOR GENERAL

REPORT ON INSPECTION OF CONCERNS REGARDING THE MARTIN MARIETTA CORPORATE REVIEW OF HEALTH AND SAFETY AT MARTIN MARIETTA ENERGY SYSTEMS

Report No.: DOE/IG-0384
Date Issued: January 18, 1996

Office of Inspections
Washington, DC 20585

DOE F 1325.8
(4/93)

United States Government **Department of Energy**

memorandum

DATE: January 18, 1996

REPLY TO
ATTN OF: IG-1

SUBJECT: **INFORMATION:** Report on "Inspection of Concerns Regarding the Martin Marietta Corporate Review of Health and Safety at Martin Marietta Energy Systems"

TO: The Secretary

BACKGROUND:

An Office of Inspector General Hotline allegation was received from an anonymous complainant regarding a July 1994 Martin Marietta Corporation Team's health and safety review at three Department of Energy sites managed and operated by the then Martin Marietta Energy Systems, Inc. (Energy Systems), at Oak Ridge, Tennessee. We determined that the President of Energy Systems had requested a Corporate review at the three sites because of his concerns about safety incidents and accidents during the late Spring and early Summer of 1994. The Corporate Team's charter was to determine if root causes existed for these safety incidents and accidents, and to produce recommendations for the reduction or prevention of future safety incidents or accidents.

DISCUSSION:

Although we did not conclude that Energy Systems had covered-up the Corporate Team's report as was alleged, we found that dissemination of the report was more limited than had typically been the case for past reports resulting from other Corporate reviews. The Energy Systems official who received the Corporate Team's report did not provide copies to any other Energy Systems managers. The Corporate Team Leader told us he had seen no reason for Energy Systems not to have distributed the report to other Energy Systems managers, since the purpose of the Corporate Team's report was to help Energy Systems improve its health and safety system.

We concluded that Energy Systems, as alleged, had not developed timely corrective action plans to address the 18 recommendations contained in the Corporate Team's report. Although a senior Energy Systems official requested the development of a corrective action program on an "urgent" basis, the resulting corrective action plans were not completed nor validated in accordance with standard time frames specified in the applicable Energy Systems procedure. Significant delays in completing these corrective action plans occurred despite the former Oak Ridge Operations Office Manager directing Energy Systems to accelerate corrective actions.

We found that a deliberate recordkeeping inaccuracy reported by the Corporate Team had resulted in a non-compliance with the Resource Conservation and Recovery Act , and could result in enforcement actions by the State of Tennessee. We also found that an Energy Systems internal investigation team incorrectly concluded that a specific daily inspection at the Y-12 Plant's Oil Dike 9 Waste Oil/Solvent Storage Facility, which was the basis for the non-compliance, had complied with Resource Conservation and Recovery Act regulations.

We recommended that the Manager, Oak Ridge Operations Office, review that Office's requirements for Energy Systems to provide timely notification and results of, as well as scheduled or completed corrective actions for, corporate reviews and other assessments that concern Departmental facilities managed and operated by Energy Systems, and revise these requirements as appropriate. We recommended that Energy Systems' progress in implementing the Corporate Team's recommendations be reviewed and, if indicated, that Energy Systems be directed to accelerate associated corrective actions. We also recommended that corrective actions planned and/or implemented for the Corporate Team's recommendations be reviewed to ensure they are sufficient to strengthen identified environmental safety and health management system deficiencies, such as deliberate recordkeeping inaccuracies, lack of supervision, regulatory compliance training, and ineffective internal investigations and corrective actions.

Both the Office of Environment, Safety, and Health and the Oak Ridge Operations Office commented on our report and the recommendations addressed to their particular office. Oak Ridge Operations Office management also identified necessary corrective actions.

John C. Layton
Inspector General

Attachment

cc: Deputy Secretary
Assistant Secretary for Environment, Safety and Health
Associate Deputy Secretary for Field Management
Manager, Oak Ridge Operations Office

REPORT ON INSPECTION OF CONCERNS REGARDING THE MARTIN MARIETTA CORPORATE REVIEW OF HEALTH AND SAFETY AT MARTIN MARIETTA ENERGY SYSTEMS

TABLE OF CONTENTS **PAGE**

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF INSPECTIONS
WASHINGTON, DC 20585

REPORT ON INSPECTION OF CONCERNS REGARDING THE MARTIN MARIETTA CORPORATE REVIEW OF HEALTH AND SAFETY AT MARTIN MARIETTA ENERGY SYSTEMS

I. INTRODUCTION AND PURPOSE

An Office of Inspector General Hotline allegation was received from an anonymous complainant regarding a July 1994 Martin Marietta Corporation (MMC) Team's health and safety review at Martin Marietta Energy Systems, Inc., in Oak Ridge, Tennessee. The complainant alleged that the review team discovered criminal acts regarding health and safety compliance and that management had covered-up these and other problems identified during the review.

Martin Marietta Energy Systems, Inc. (Energy Systems), an MMC subsidiary, is the management and operating contractor for three Department of Energy (DOE) sites: the Y-12 Plant, the Oak Ridge National Laboratory (ORNL), and the K-25 Site. Martin Marietta Energy Systems, Inc., was renamed Lockheed Martin Energy Systems due to the recent merger of Lockheed Corporation and MMC.

We determined that the Energy Systems President requested a Corporate review at the above mentioned sites because of concerns about safety incidents and accidents during the late Spring and early Summer of 1994. The Corporate Team's charter was to determine if root causes existed for these safety incidents and accidents, and to produce recommendations for the reduction or prevention of future safety incidents and accidents.

Based on our review of the allegations, we identified the following issues as the focus of our inspection:

1. Did Energy Systems cover-up the Corporate Team's report?

2. Did Energy Systems develop timely corrective action plans to address the 18 recommendations regarding the deficiencies identified by the Corporate Team?

3. Were the findings of deliberate inaccuracies, which were reported by the Corporate Team, regulatory violations?

4. Did the Energy Systems Evaluations Group's reported findings, which provided the basis for the Corporate Team's conclusion regarding deliberate inaccuracies in recordkeeping, result in effective corrective actions for these inaccuracies?

II. SCOPE AND METHODOLOGY

In conducting this inspection, we reviewed pertinent documentation associated with the Corporate Team's July 1994 review at Energy Systems. Additionally, we reviewed applicable environmental laws and regulations, Resource Conservation and Recovery Act (RCRA) compliance documents, DOE orders, results of past corporate audits, Energy Systems Evaluations Program documentation, and Energy Systems Action Management System procedures and documents. We also reviewed a September 1994 Energy Systems internal investigation report on certain environmental compliance inspection problems at the Y-12 Plant.

We interviewed Corporate Team members, selected Oak Ridge Operations Office (ORO) and Energy Systems senior officials, and applicable Energy Systems environment, safety, and health (ES&H) personnel. We also conducted physical inspections at selected facilities operated by Energy Systems in Oak Ridge.

This inspection was conducted in accordance with Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency.

III. SUMMARY RESULTS OF INSPECTION

The following is a brief summary of the findings of this inspection:

Regarding the first issue, although we did not conclude that Energy Systems had covered-up the Corporate Team's report, we found that dissemination of the report was more limited than, in the past, had typically been the case for reports resulting from other Corporate reviews.

Although selected Energy Systems senior managers were briefed on July 20, 1994, by members of the Corporate Team on their findings, Energy Systems did not distribute the resulting report internally, as they had done for past reports resulting from other Corporate reviews. The MMC Vice President for Environment, Health and Safety, transmitted the Corporate Team's report to the President of Martin Marietta's Energy Group on August 23, 1994. The Energy Group President in turn forwarded the report to the President of Energy Systems, who subsequently provided the report to the then Energy Systems Vice President for Compliance, Evaluation and Policy. The then Energy Systems Vice President did not make or provide copies of the Corporate Team's report to any other Energy Systems managers. The Corporate Team Leader told us he saw no reason for Energy Systems not to have distributed the MMC report to other Energy Systems managers, since the purpose of the Corporate Team's report was to help Energy Systems improve its health and safety system.

We also found that DOE's Oak Ridge Operations Office had not been provided a copy of the report. The then ORO Manager was not aware of the July 1994 review or August 1994 report until he was informed by the Inspector General in October 1994. The senior ORO official stationed at each of the three Oak Ridge sites included in the Corporate Team's review told us that, in the past, they either had been informed of Corporate reviews, had been invited to the entrance and/or exit briefings, or had access to the resulting reports. However, none of these ORO officials were aware of the Corporate Team's July 1994 review or the resulting report until October 1994 at the earliest.

Regarding the second issue, we concluded that Energy Systems did not develop timely corrective action plans to address the 18 recommendations contained in the Corporate Team's report.

In the August 23, 1994, transmittal letter mentioned above, the MMC Vice President for Environment, Health, and Safety stated that a late Fall 1994 follow-up review had been requested to assess the progress of Energy Systems in addressing the Corporate Team's observations. The MMC Vice President's letter also reflected his expectation that, by the late Fall of 1994, the Energy Systems management team would have had adequate time to digest the contents of the Corporate Team's report, and to have in place the necessary and appropriate corrective actions. However, the senior managers who were tasked with developing the corrective

action program did not initially receive a copy of the Corporate Team's report. The then Energy Systems Vice President for Compliance, Evaluation and Policy distributed a memorandum on August 31, 1994, tasking four Energy Systems senior managers to develop a corrective action program for implementing the Corporate Team's recommendations. While this memorandum contained the Corporate Team's 18 recommendations, the memorandum did not contain the detailed supporting information regarding the recommendations. An Energy Systems health and safety official told us that he, and the other three tasked senior managers, based on the tasking memorandum, identified and developed six findings, which became the basis for developing corrective action plans. Since these managers did not have a copy of the Corporate Team's report, the six findings also did not contain the usual detailed supporting information. After learning that the tasked managers did not have a copy of the Corporate Team's report, the Corporate Team Leader provided the health and safety official a copy in December 1994.

Although the then Energy Systems Vice President's memorandum of August 31, 1994, requested the development of a corrective action program on an "urgent" basis, the resulting corrective action plans were not completed nor validated in accordance with standard time frames specified in the applicable Energy Systems procedure. Energy Systems has developed a centralized computerized data base, the Energy Systems Action Management System (ESAMS), to collect, track, and report corrective actions items for DOE sites managed and operated by Energy Systems. According to the ESAMS Corrective Action Program Procedure, finding information is to be entered into ESAMS after the findings are assigned to the "owners" responsible for developing corrective action plans. A manager with the Corrective Actions Support Staff told us that finding information should normally be entered into ESAMS within seven work days after the findings are assigned to "owners." However, finding information for the Corporate Team's recommendations was not entered into ESAMS until mid-January 1995, or almost five months after the then Energy Systems Vice President assigned responsibility for developing a corrective action program.

In addition, the ESAMS Corrective Action Program Procedure states that corrective action plans should normally be developed and made available for independent validation 30 days after the finding information is entered into ESAMS. Independent validation of corrective action plans for the Corporate Team's recommendations, which preceded

implementation of the plans, was not completed until April 1995, three months after the finding information was entered into ESAMS and nearly eight months after the then Energy Systems Vice President for Compliance, Evaluation and Policy called for a corrective action program on an "urgent" basis.

These delays occurred in spite of the former ORO Manager telling Energy Systems to accelerate corrective actions. The former ORO Manager told us that, after October 1994 discussions with top Energy Systems officials, he determined Energy Systems was responding too slowly in initiating corrective actions for the Corporate Team's reported deficiencies. According to the former ORO Manager, he then told Energy Systems to, among other things, accelerate corrective actions.

Regarding the third issue, we found that one deliberate recordkeeping inaccuracy reported by the Corporate Team did result in a non-compliance with RCRA regulations. This non-compliance could result in enforcement actions by the State of Tennessee.

We analyzed the Corporate Team's workpapers in order to determine the basis for their finding that deliberate recordkeeping inaccuracies had occurred. We found that the finding was primarily based on an Energy Systems Evaluations Group's evaluation of waste management activities which overlapped by one week the Corporate Team's review. The Evaluations Group provided the Corporate Team with information regarding their observations of deliberate recordkeeping inaccuracies at three Energy Systems facilities: (1) the Y-12 Plant's Oil Dike 9 Waste Oil/Solvent Storage Facility, (2) the Y-12 Plant's New Waste Baler Facility, and (3) the Oak Ridge National Laboratory's High Flux Isotope Reactor Facility.

We reviewed documentation related to these reported instances of deliberate recordkeeping inaccuracies in detail to confirm that deliberate recordkeeping inaccuracies had occurred and to determine whether they were regulatory violations. The results of this review were as follows:

FACILITY	CONFIRMED DELIBERATE RECORDKEEPING INACCURACY	REGULATORY VIOLATION	EFFECTIVE CORRECTIVE ACTIONS TAKEN
Y-12 Plant's Oil Dike 9 Waste Oil/Solvent Storage Facility			
Daily RCRA Inspection	Yes	Yes	No
Weekly RCRA Inspection	Yes	No*	Yes
Y-12 Plant's New Waste Baler Facility	Yes	No**	Yes
ORNL's High Flux Isotope Reactor Facility	No	Not Applicable	Not Applicable

* Followup inspection by Energy Systems corrected the violation.
** This is a non-compliance with DOE orders, and would be an Occupational Safety and Health Act (OSHA) violation if the three DOE sites were subject to OSHA regulations.

In this summary, we will only discuss the deliberate recordkeeping inaccuracy that was a violation of the RCRA regulatory requirements. An Evaluations Group evaluator observed a laborer completing a daily inspection checklist at the waste oil/solvent storage facility. This daily inspection, which was required by RCRA, specified that numerous items should be visually inspected. The laborer completed the checklist indicating that all specified items had been inspected, even though all items could not be seen from where the laborer stood.

We discussed the evaluator's observations regarding this daily RCRA inspection with State of Tennessee officials responsible for the enforcement of waste storage regulations at the facility. These State officials confirmed that the laborer's actions would be considered a regulatory violation, subject to enforcement action.

We found that, as a result of the Evaluations Group observations, Energy Systems management had directed an internal investigation at the waste oil/solvent storage facility. The internal investigation team incorrectly concluded that the daily inspection had complied with RCRA regulations.

With respect to the fourth issue, we reviewed the corrective actions taken in response to the Energy Systems Evaluations Group's findings of deliberate recordkeeping inaccuracies at the two facilities where corrective actions were needed. We

determined that, while some corrective actions were effective, other actions, as shown in the table above, were not effective.

We found, during our inspection, that the deliberate recordkeeping inaccuracies relating to daily inspection checklists were continuing at the waste oil/solvent storage facility nearly six months after the Energy System Evaluation Group's initial observation. We therefore concluded that specified corrective actions regarding daily inspections at this facility were not effective.

We concluded that corrective actions were effective regarding (1) weekly inspections at the waste oil/solvent storage facility and (2) safety inspection checklists at the waste baler facility.

IV. BACKGROUND

The Martin Marietta Corporate Team Review

The President of Energy Systems requested that the MMC Vice President for Environment, Health and Safety conduct a Corporate management review of Energy Systems' health and safety program. The purpose of the management review was to identify any common underlying reasons for 13 accidents and incidents which occurred during the late Spring and early Summer of 1994; including the serious injury of an electrician, the overturning of a solid waste transport trailer, and a chemical explosion in a laboratory.

The MMC Vice President established a Corporate Team, which conducted the requested on-site review during July 1994. The Team consisted of a Team Leader, a facilitator, and three Team members. The MMC General Counsel for Corporate Health and Safety joined the Team midway through the on-site review. The Corporate Team conducted their on-site review during July 11-21, 1994. The Team reviewed applicable documents, such as selected internal evaluation reports, and conducted interviews with a cross-section of Energy Systems employees.

The Corporate Team briefed the President of Energy Systems, and his senior staff, on its findings and recommendations for corrective actions on July 20, 1994. The Corporate Team's report was subsequently sent to MMC's Vice President for Environment, Health and Safety. Selected observations and conclusions from the report were as follows:

"Dedication to safety is not evident. The expectation to achieve high standards of health and safety performance is lacking. Management acknowledges that the organization has a weak safety culture, but has not adopted an aggressive approach to strengthen it. Overall, the organization is intellectually committed and involved in safety, but there is little evidence of direct heart-and-soul involvement in worker protection and accident prevention."

* * * * * * *

"Instances of deliberate inaccuracies in job status and recordkeeping are documented without specific follow-up actions."

* * * * * * *

"There is little sense of urgency to deal with health and safety issues."

* * * * * * *

"Identification and analysis of hazards are frequently missing or ineffective."

* * * * * * *

"Many systems identify and document noncompliances but these systems are not leading to prompt improvement in the workplace, since they are not integrated and corrective actions are slow and do not achieve the required change. . . .

"Many reports disclose that employees do not follow procedures. . . .

"Job Hazard Analysis and safety controls do not accomplish the task they were designed to perform."

* * * * * * *

"There is a lack of responsiveness from the site organizations to the central health and safety evaluations and direction."

The Energy Systems Evaluations Program

Responsibility for evaluating the performance of Energy Systems organizations, including ES&H organizations, is assigned to the Energy Systems Evaluations Group. From July 18 through August 5, 1994, the Energy Systems Evaluations Group performed a three-site evaluation of waste management activities which overlapped by one week the Corporate Team's review. Evaluations Group staff explained that their evaluations consist of on-site observations of the routine work of Energy Systems employees. These evaluations are conducted by trained observers who record their observations in a "statement of fact" format. The observations are then combined together into an "observation package."

The Manager of the Evaluations Program explained that, during evaluations, one-on-one briefings are held between Evaluations Program staff and the division manager of the Energy Systems division where work is being observed. These briefings provide an opportunity for division managers to learn of trends which evaluators are observing, but do not provide division managers with every detail of all observations. At the conclusion of the evaluation, an exit briefing and a copy of the observation package is provided to division and plant management where the evaluation took place. The observation package must be returned to the Evaluations Group within a few days, and may not be reproduced.

After the observation package is returned, the Evaluations Group sends a draft report to the plant management where the evaluation took place. This draft report contains overall findings, specific examples from selected observations which support the overall findings, and associated recommendations. Plant management then responds to the Evaluations Group with planned corrective actions. A final report, incorporating the planned corrective actions for the recommendations, is then issued. The Evaluations Group typically plans follow-up visits 18 months after an evaluation is conducted. According to the Manager of the Evaluations Program, tracking corrective actions is the responsibility of the organization which has been evaluated.

V. RESULTS OF INSPECTION

A. DISSEMINATION OF THE CORPORATE TEAM'S REPORT WAS LIMITED

Regarding the first issue, although we did not conclude that Energy Systems had covered-up the Corporate Team's report, we found that dissemination of the report was more limited than had, in the past, typically been the case for reports resulting from other corporate reviews.

Although selected Energy Systems senior managers were briefed on July 20, 1994, by members of the Corporate Team on their findings, Energy Systems did not distribute the resulting August 1994 report internally, as they had past reports resulting from other corporate reviews. We also found that DOE's Oak Ridge Operations Office had not been provided a copy of the report prior to the initiation of our inspection.

Corporate Team's Report Not Distributed Within Energy Systems

The MMC Vice President for Environment, Health and Safety, transmitted the Corporate Team's report to the President of Martin Marietta's Energy Group on August 23, 1994. The Energy Group President in turn forwarded the report to the President of Energy Systems, who subsequently provided the report to the then Energy Systems Vice President for Compliance, Evaluation and Policy. The then Energy Systems Vice President for Compliance, Evaluation and Policy, told us he and the Energy Systems President jointly decided on handling of the report. The then Energy Systems Vice President also said that the report was not copied nor provided to any other employees because it was a corporate report and stamped "management sensitive," which he said meant copying and dissemination were discouraged. However, the President of Energy Systems and selected senior managers had been briefed on July 20, 1994, by Corporate Team members on the Team's findings.

Some Energy Systems senior managers we interviewed advised they were unaware the Team had even issued a written report. Other senior managers told us that they did not have access to the Team's report because of it's "management sensitive" designation. We confirmed that the Corporate Team's report was marked "management sensitive" due to the nature of certain of its contents. However, we discussed this designation with the MMC General Counsel for Corporate

Health and Safety, who told us that the report was designated as such so that Energy Systems would use "common sense" during report handling.

The Corporate Team Leader told us he would have preferred wider distribution of the report. The Corporate Team Leader further stated that he saw no reason for Energy Systems not to have distributed the MMC report to other Energy Systems managers, since the purpose of the Corporate Team's report was to help Energy Systems improve its health and safety system.

Additionally, we found that corporate reports resulting from other MMC reviews at Energy Systems had, in the past, received wide distribution. For example, copies of reports resulting from Corporate reviews conducted during 1991 through 1993 were distributed throughout Energy Systems.

ORO Not Aware of Corporate Team's Review

We found that DOE's Oak Ridge Operations Office was not provided a copy of the report. The then ORO Manager was not aware of the July 1994 review or August 1994 report until he was informed by the Inspector General in October 1994. The senior ORO official stationed at each of the three Oak Ridge DOE sites told us that they either had been informed of past Corporate reviews, had been invited to the entrance and/or exit briefings, or had access to the resulting reports. However, none of these ORO officials were aware of the Corporate Team's July 1994 review or the resulting report until October 1994 at the earliest.

B. LACK OF TIMELY CORRECTIVE ACTION PLANS FOR THE CORPORATE TEAM'S RECOMMENDATIONS

We concluded that Energy Systems did not develop timely corrective action plans to address the 18 recommendations contained in the Corporate Team's report.

The MMC Vice President for Environment, Health and Safety, in his August 23, 1994, letter transmitting the Corporate Team's report, indicated that he expected necessary and appropriate corrective actions for the report to be in place by the late Fall of 1994. Subsequently, the then Energy Systems Vice President for Compliance, Evaluation and Policy distributed an August 31, 1994, memorandum tasking four Energy Systems senior managers to develop a corrective

action program for implementing the Corporate Team's recommendations. However, these tasked managers were not initially provided a copy of the Corporate Team's report.

Although the then Energy Systems Vice President's memorandum requested the development of a corrective action program on an "urgent" basis, the resulting corrective action plans were not completed nor validated until significantly later than the standard time frames specified in the applicable Energy Systems procedure. These delays occurred in spite of the MMC Vice President's expectations, and the former ORO Manager telling Energy Systems to accelerate corrective actions.

Energy Systems Action Management System

We reviewed how Energy Systems tracks corrective actions and determined that these actions are usually tracked through a computerized data base referred to as the Energy Systems Action Management System. The purpose of ESAMS is to implement a centralized system to collect, track, and report commitments and action items for DOE sites managed and operated by Energy Systems. ESAMS was established in December 1991 to consolidate the corrective action tracking systems at five DOE facilities, all then operated by Energy Systems, into one data base. The system currently tracks actions at three Oak Ridge sites: Oak Ridge National Laboratory, the K-25 Site, and the Y-12 Plant.

Management of the system was placed under the Manager of the Corrective Actions Support Staff in July 1993. The Manager told us that corrective actions are entered into ESAMS according to the "Corrective Action Program" procedure, QA-16.1. The scope of information that is entered into ESAMS results from external assessments, such as Corporate audits and DOE reviews; internal/self-assessment activities; occurrence reports; compliance requirements; and significant management commitments.

According to the ESAMS Corrective Action Program procedure, after findings from these reviews/assessments have been assigned to the proper "owners," finding information is entered into ESAMS and "owners" have 30 days to develop corrective action plans. The corrective action plans require validation by an independent party before they are entered into ESAMS. The system then tracks these corrective action plans and sends 60, 30 and 10 day reminders to "owners" that completion dates for corrective actions are coming due. After the independent party has verified that

specified corrective actions have been completed, the Corrective Actions Support Staff closes the associated findings in ESAMS.

Corrective Action Plans Required for the Corporate Team's Recommendations

We followed the Corporate Team's recommendations through to the corrective action stage and determined that corrective action plans were required. In an August 23, 1994, letter, the MMC Vice President for Environment, Health and Safety, stated that he expected necessary and appropriate corrective actions for the Team's report to be in place by the late Fall of 1994. Subsequently, the then Energy Systems Vice President for Compliance, Evaluation and Policy distributed a memorandum on August 31, 1994, tasking four Energy Systems senior managers to develop an action program for implementing the Corporate Team's recommendations on an "urgent" basis. While this memorandum contained the Corporate Team's 18 recommendations, the memorandum did not contain the detailed supporting information regarding the recommendations. The Team's report, which contained the recommendations as well as detailed supporting information regarding the recommendations, was not provided to these managers, as would usually be the case.

Corrective Action Plan Process for The Corporate Team's Report

An Energy Systems health and safety official, one of the senior managers tasked to develop corrective action plans for reported deficiencies, told us that he and the other tasked managers did not have a copy of the subject report until the Corporate Team Leader provided him a copy in December 1994, almost four months after the senior managers received the tasking. The health and safety official also told us that he and other senior managers involved in the corrective action process would have found the process easier had they possessed the Corporate report earlier. When we later interviewed the Team Leader, he told us he had expressed surprise that the health and safety official had been preparing corrective action plans without a copy of the Team's report.

According to the ESAMS Corrective Action Program Procedure, finding information is to be entered into ESAMS after the findings are assigned to the "owners" responsible for developing corrective action plans. A manager with the Corrective Actions Support Staff told us that finding

information should normally be entered into ESAMS within seven work days after the findings are assigned to "owners." Finding information was not input into ESAMS until mid-January 1995, or almost five months after the Energy Systems Vice President's memorandum was distributed. We were told by the Energy Systems health and safety official that he, and the other three tasked senior managers, had categorized the 18 recommendations into six findings. Since these managers did not have a copy of the Corporate Team's report, the six findings did not contain the usual detailed supporting information. These managers wrote a memorandum containing the six findings which was signed by the Energy systems health and safety official on December 3, 1994. This memorandum was subsequently distributed multisite-wide to 14 other senior managers in order to obtain their concurrences prior to entering the findings into ESAMS. The 14 senior managers were requested to give their responses by December 16, 1994. As a result of the timing of these actions, finding information was not entered into ESAMS in accordance with standard time frames specified in the applicable ESAMS procedure.

The corrective action plans were not available for independent validation until mid-January 1995, or nearly five months after the August 31, 1994, memorandum requesting an action program on an "urgent" basis. Further, independent validation of the corrective action plans was not completed until mid-April 1995, or nearly eight months after the Energy Systems Vice President's memorandum was distributed. Tracking of the corrective action plans' status did not begin until after the independent validation occurred. Again, ESAMS Procedure states that "owners" have 30 days after finding information is entered into ESAMS in which to develop corrective action plans. Further, the MMC Vice President for Environment, Health and Safety, expected necessary and appropriate corrective actions for the Team's report to be in place by the late Fall of 1994. We therefore concluded that Energy Systems did not take timely corrective actions to address the 18 recommendations regarding deficiencies identified in the Corporate Team's report.

ORO Manager's Actions After Reviewing Report

As discussed in the first issue, the former ORO Manager did not have a copy of the Corporate Team's report until October 1994. The then ORO Manager told us that, after he obtained and reviewed the Corporate Team's report, he discussed corrective actions for its findings with top Energy Systems

officials. From this discussion, the former ORO Manager said that he felt Energy Systems was responding too slowly in beginning to correct the report's findings. According to the former ORO Manager, he then told Energy Systems to (1) accelerate corrective actions, (2) respond to any safety deficiencies, and (3) arrange for the return of the Corporate Team to meet with supervisors and assist with corrective actions.

In response to this request and in order to accelerate the corrective action process, the Corporate Team Leader told us the Corporate Team returned to Oak Ridge on December 4-9, 1994. The team briefed over 2,000 managers on the Corporate Team's recommendations during this return visit. Energy Systems also prepared a video tape of these briefings, which we later reviewed. Selected statements made on the video tape by a Team member were as follows:

- "There are multiple references in written material to situations where employees, and in a couple of cases supervision, had knowingly and deliberately created inaccurate records. They had either signed a record or recorded information about things that they knew had not been done. These are not simple mistakes, it's not just somebody making an error as they tried to create a record. These are situations where people knew what they were doing. This ought to be unacceptable to each of us. . . . Recommendation is . . . reinforce the corporate procedure."

- "There was little evidence of really urgent response to truly significant safety and health issues. . . . That process frequently takes weeks or months. . . . Management and supervision . . . need to set the expectation that the response to incidents and hazards will be prompt and will be complete. . . . We need to have a process in place for evaluating and screening incidents and hazards that are identified, and unsafe behaviors, and prioritizing them so that the most significant ones get addressed most aggressively and earliest in the process."

- "There is a general cultural reluctance within Energy Systems to follow procedures. Many of the procedures were not well understood, some not understood at all, many of the procedures were

either incorrect of overly complicated. . . . Failure to follow procedure was a consistent causal factor in accident and incident investigations. . . . The recommendations to address the procedure issue including [sic] reemphasizing a clear cut policy and expectation that procedures will be followed and that if you are doing a job that requires following a procedure and the procedure doesn't work, the worker stops working and gets with you, his supervision and management, to resolve the issue before he goes on with the work. . . . We need to have a capable program to improve procedures and obtain employee ownership. The policy to follow procedures needs to be strongly enforced."

- "The use of job hazard analysis within Energy Systems was not well understood. . . . There were hazardous activities or work activities involving hazardous materials and hazardous conditions where no job hazard analysis had been done. . . . Recommendations with respect to job hazard analysis, is that Energy Systems develop a standardized Energy System's wide job hazard analysis procedure. . . . When the process is in place, which can be done very quickly . . . it should be enforced and used on a day-to-day basis."

- "[The] summary observation . . . was a general lack of an expectation of excellence in health and safety performance. The hallmark of an excellent health and safety program is zero tolerance for accidents and hazards. There was too much evidence that unsafe conditions, unsafe behaviors, noncompliance, safety violations and long-term hazards, were accepted by managers and supervision, as well as the safety and health organizations across Energy Systems. . . . We need to make it very clear that the only acceptable answer is not to have accidents. We need to aggressively reinforce that expectation of intolerance. . . ."

C. DELIBERATE INACCURACIES REPORTED BY THE CORPORATE TEAM

We found that one deliberate recordkeeping inaccuracy reported by the Corporate Team did result in a non-compliance with RCRA regulations. This non-compliance could result in enforcement actions by the State of Tennessee.

We analyzed the Corporate Team's workpapers in order to determine the basis for their finding that deliberate recordkeeping inaccuracies had occurred. We found that the finding was primarily based on an Energy Systems Evaluations Group's evaluation of waste management activities which overlapped by one week the Corporate Team's review. The Evaluations Group provided the Corporate Team with information regarding their observations of deliberate recordkeeping inaccuracies at three Energy Systems facilities: (1) the Y-12 Plant's Oil Dike 9 Waste Oil/Solvent Storage Facility, (2) the Y-12 Plant's New Waste Baler Facility, and (3) the Oak Ridge National Laboratory's High Flux Isotope Reactor Facility.

We reviewed documentation related to these reported instances of deliberate recordkeeping inaccuracies in detail to confirm that deliberate recordkeeping inaccuracies had occurred and to determine whether they were regulatory violations. The results of this review were as follows:

FACILITY	CONFIRMED DELIBERATE RECORDKEEPING INACCURACY	REGULATORY VIOLATION	EFFECTIVE CORRECTIVE ACTIONS TAKEN
Y-12 Plant's Oil Dike 9 Waste Oil/Solvent Storage Facility			
Daily RCRA Inspection	Yes	Yes	No
Weekly RCRA Inspection	Yes	No*	Yes
Y-12 Plant's New Waste Baler Facility	Yes	No**	Yes
ORNL's High Flux Isotope Reactor Facility	No	Not Applicable	Not Applicable

* Followup inspection by Energy Systems corrected the violation.
** This is a non-compliance with DOE orders, and would be an Occupational Safety and Health Act (OSHA) violation if the three DOE sites were subject to OSHA regulations.

Observations at a Waste Oil/Solvent Storage Facility

We concluded that deliberate recordkeeping inaccuracies had occurred at a waste oil/solvent storage facility known as Oil Dike 9 (OD-9). As a result, corrective actions were needed to prevent future occurrences. Additionally, one of these inaccuracies caused non-compliance with RCRA regulations and could result in enforcement actions by the State of Tennessee.

The observations were originally reported by evaluators from the Energy Systems Evaluations Group in their report on a July 1994 evaluation of waste management activities at the three Oak Ridge sites. We reviewed the Evaluations Group's report and determined that these observations were based on a review of both a weekly compliance inspection and a daily compliance inspection. We further determined that both the weekly and daily inspection checklists had been completed at OD-9 by employees who did not first verify the status of each item on the inspection checklists.

Oil Dike 9 Description

OD-9 is a waste oil/solvent storage facility which receives and stores nonignitable and nonreactive waste oil/solvents that may contain water, may be contaminated with polychlorinated biphenyls and radionuclides, and may contain chlorinated organic solvents. The liquid wastes are stored at OD-9 until sufficient volume is accumulated for transportation to an outside facility for recovery or disposal.

The OD-9 facility currently contains five 40,000 gallon storage tanks. The facility also includes a truck transfer station used for the loading and unloading of wastes. Transfer pumps and auxiliary piping are positioned within the transfer station. The truck transfer station has a container storage area with a RCRA capacity of 8,800 gallons.

At the time of the Energy Systems Evaluations Group's July 1994 evaluation, approval of the OD-9 RCRA storage permit was pending, and OD-9 was operating under 40 CFR Part 265, "Interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities." On September 30, 1994, a final storage permit was issued by the State of Tennessee, Department of Environment and Conservation, for the OD-9 facility.

Observation of Technician's Weekly Inspection at OD-9

An evaluator from the Evaluations Group observed a technician conducting a weekly RCRA environmental compliance inspection without entering a radiological control area where required inspection items were located.

Evaluator's Report. The evaluator's field notes reported the following:

> "The technician performed the daily, weekly, and monthly inspections of the waste oil/solvent storage facility without entering the regulated area. He explained that dress-out was required to enter the regulated area, and he either knew that inspection items inside the area were acceptable or could verify them from outside the boundary."
>
> * * * * * * *
>
> "The technician spent 20 minutes inspecting the waste oil/solvent storage facility. He returned to the field office to complete his round sheets, check lists, and logs. Completion of the nine rounds sheets, check lists, and logs, which comprise the daily, weekly, and monthly checks, took 35 minutes. The technician marked a number of inspection items as acceptable, which could not be confirmed as such without entering the regulated area. Examples were eyebath and safety shower inspections and tests, spill control equipment inventory, pump seals not leaking, and tags correct and not outdated."

40 CFR Part 265 Requirements. 40 CFR Part 265 requires the owner or operator to develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or human health hazards. Further, 40 CFR 265.174 requires the owner or operator, at least weekly, to inspect areas where containers are stored looking for leaks and deterioration caused by corrosion or other factors.

Internal Investigation of Weekly Inspection. In response to the observation of the technician's weekly RCRA inspection at OD-9, Energy Systems management, in August 1994, requested that an internal investigation be conducted. The

Energy Systems Senior Vice President, who was the former Vice President for Compliance, Evaluation and Policy, told us that, when he saw the waste management evaluation report, he became concerned about an evaluation observation contained in the report. He notified the President of Energy Systems and subsequently held meetings with Energy Systems senior management. As a result, he asked management to investigate the observation of the technician's weekly RCRA inspection at OD-9 and recommend disciplinary action as appropriate.

In one of the above meetings, a senior manager in the Y-12 Plant Waste Management and Decontamination/Decommissioning (D&D) organization, who has ultimate responsibility for OD-9, was tasked to lead an internal investigation into the evaluator's observation. Another manager assisted in the internal investigation. They interviewed the Evaluations Group personnel, OD-9 personnel, and Energy Systems environmental management personnel. The stated purpose of the internal investigation was to determine if inspections of Y-12 waste management areas were being conducted properly; to determine if the July 1994 observations should be classified as reportable non-compliances; and to recommend corrective and appropriate disciplinary actions.

Regarding the weekly RCRA inspection, the internal investigation team determined that a separate oversight inspection had been properly conducted by Energy Systems Environmental Management Department (EMD) personnel during the specified week. Since this separate inspection checked items identical to ones that should have been checked by the technician, the internal investigation team concluded that the non-compliance with environmental regulations had been corrected. Nevertheless, the technician had performed an invalid weekly compliance inspection, and, as a result, corrective actions were necessary to prevent future invalid RCRA inspections by this and other technicians.

Observation of Laborer's Daily Inspection at OD-9

Another evaluator from the Evaluations Group observed an OD-9 laborer quickly complete a daily RCRA tank inspection checklist while standing in a location where all required items could not be seen. This daily tank inspection was required by 40 CFR Part 265.195. The evaluator's field notes reported the following:

"Tank area inspection items included dikes, foundations or bases, sump areas, pipes, valves, fittings, tank level indicator, debris and refuse, ladders, structural supports, pipe connections, protective coatings, tank shell, anchor bolts, nozzles, and danger signs. The tank containment structure, which was the area to be inspected, had dimensions of 42 feet by 73.5 feet and contained five tanks that were 13.5 feet in diameter and 38 feet high. The operator stood at the boundary of the area and completed the daily inspection log sheet in less than five minutes. The only deficiency noted on the log sheet was a high sump level due to accumulated precipitation. Many of the items required to be inspected could not be seen from where the laborer stood."

Internal Investigation of Daily Inspection. The daily RCRA tank inspection observed by the Evaluations Group was completed at the same facility as the weekly RCRA inspection. Therefore, the Energy Systems internal investigation team established to review the observations related to the weekly inspection also reviewed the observations related to the daily inspection.

Despite the actions of the OD-9 laborer as discussed above, the internal investigation team concluded that the daily RCRA tank inspection at OD-9 complied with regulations. The internal investigation team reported that their conclusion was based on statements from two EMD personnel who had determined that legal requirements for daily RCRA tank inspections could be met from outside the OD-9 dike, which forms the boundary of the area. Our review indicated that these EMD personnel did not take this position.

These EMD personnel provided us with statements which contradicted comments attributed to them in the internal investigation report. Although one EMD employee recalled discussing the weekly RCRA inspection at OD-9 with the internal investigators, he did not recall ever discussing daily RCRA tank inspections at OD-9 with them or the second EMD employee. The second EMD employee told us that he did not speak with either of the internal investigators. However, he did recall telling an employee of one internal investigation team member that some, but not all, required inspection items could be inspected from outside the diked area.

Senior Energy Systems Environmental Official's Views. We discussed the recordkeeping inaccuracies associated with the daily RCRA tank inspection with the senior Energy Systems official responsible for environmental compliance at all three Oak Ridge sites. He said that, although he was involved in meetings regarding observations at OD-9, he was neither informed of the observation of an invalid daily RCRA tank inspection, nor asked to determine the compliance status of this RCRA daily tank inspection. Based on the description of the inaccuracies associated with the daily inspection, he said that such an inspection would be a regulatory non-compliance. The official further said that, at a minimum, a valid daily RCRA tank inspection would require walking around the tanks and inspecting the entire tank shell in order to detect small leaks or dike cracks which would otherwise be blocked from view. In his opinion, a daily RCRA tank inspection conducted by standing in one location, without walking around the tanks' shells, would be considered invalid and a non-compliance with environmental regulations.

State Regulators' Views on Daily RCRA Tank Inspection. We discussed the Evaluations Group's observation of the OD-9 daily RCRA tank inspection with State of Tennessee officials responsible for the enforcement of the waste storage regulations at that facility. These State officials confirmed that the laborer's actions would be considered a regulatory violation, subject to enforcement action. These officials explained that a thorough daily inspection of the entire tank system, including all portions of the tanks' shells, was required in order to comply with RCRA regulations.

Observation at a Waste Baler Facility

We concluded that safety inspection checklists, which had been completed at the Y-12 Plant's New Baler Facility, contained deliberate inaccuracies. As a result, corrective actions were needed to prevent future inaccuracies. This observation was also originally reported by evaluators from the Energy Systems Evaluation Group in their July 1994 report. We analyzed the evaluator's write-up of this observation and determined that baler facility operators had improperly completed safety checklists without conducting the associated safety inspections.

New Baler Facility Description

The Y-12 Plant's New Baler Facility consists of a waste baler, machinery controls, and waste unloading area. The purpose of the New Baler Facility is to condense non-hazardous trash into compacted bales, which allows for more space efficient trash disposal.

Safety Inspection Checklists Not Properly Completed

An evaluator from the Evaluations Group observed a baler facility operator at Y-12's New Baler Facility completing an inspection checklist in the facility's breakroom, without actually conducting an inspection. The evaluator's field notes reported that the operator should have inspected safety and emergency equipment. The evaluator further reported:

> "The inspection sheet required checks of emergency lights, emergency exit doors, sumps, general housekeeping (including area checks of scuffs [radiological protection], respirators, cartridge containers, hoses, extension cords, etc.), equipment checks on two bobcats and one forklift (including fluid levels, brakes, safety alarms, etc.), high temperatures in the facility, and baler hydraulic fluid temperature, which was recorded as 100°F. Actual hydraulic fluid temperature was 118°F.
>
> ". . . A review of completed daily inspection sheets back to January 3, 1994, revealed that every inspection sheet that was completed, was completed exactly the same. Also, the baler hydraulic temperature was always recorded as 100°F. Eight daily inspection sheets, dated between June 3 and June 14, 1994, were not signed or filled out by an operator. Additionally, the inspection sheets for June 27 and June 28, 1994, were not in the notebook.
>
> ". . . The facility's weekly inspection sheets were reviewed back to January 3, 1994. Every sheet was checked "yes" under the block labeled "Fire Extinguisher In Date." However, the fire extinguisher on one of the bobcats was discharged, and the needle on the indicator dial was on the recharge mark. The fire extinguisher had a tag attached that listed the last inspection date as

November 1992. The operator responsible for performing these weekly checks said the fire extinguishers in the building and those on the bobcats and forklift were checked weekly. Additionally, the bobcat operator said those two bobcats had been in that facility for over two years."

We determined that the inspections observed and/or reviewed by the evaluator at the New Baler Facility were required by DOE's occupational safety and health orders, which in turn reference the standards of the Occupational Safety and Health Administration. DOE exercises statutory authority under the Atomic Energy Act of 1954, and subsequent Federal laws, for the occupational safety and health of management and operating (M&O) contractor employees at specified DOE sites. Accordingly, the three Oak Ridge sites managed and operated by Energy Systems are not subject to regulation under OSHA.

By improperly completing safety checklists without conducting associated safety inspections, the baler facility operators failed to comply with applicable DOE orders. Failure to properly complete these safety inspections at the baler facility would also have been OSHA violations if the facility was subject to OSHA regulations.

Energy Systems Management's Actions on Safety Inspection

We interviewed the Energy Systems supervisor responsible for the New Baler Facility and its operations. He recalled the visit by the Evaluations Group evaluator in July 1994, and the evaluator's concern about whether or not employees were conducting required inspections. The evaluator told the supervisor about observing an employee complete a checksheet without actually performing the inspection. The evaluator also told the supervisor about observing that the baler hydraulic fluid temperature as recorded on past checksheets did not vary.

The supervisor agreed with the evaluator's observations and took the following corrective actions: (1) the employee who was observed by the evaluator was reprimanded for making false entries on a safety checklist; (2) all facility employees who conduct inspections were retrained; (3) facility inspection procedures were revised; and (4) supervisory oversight of inspections was increased.

Observation at the High Flux Isotope Reactor

We concluded that inaccuracies in the preparation of safety work permits (SWPs) had not occurred at the High Flux Isotope Reactor (HFIR). Accordingly, corrective actions were not required. This observation was originally reported in a January 1994 Energy Systems Evaluations Group evaluation at the HFIR. To reach our conclusion, we reviewed HFIR files pertaining to the specified SWPs, as well as SWP procedures. We also interviewed HFIR employees, including the division manager responsible for the personnel involved and for any resulting corrective actions.

The Evaluations Group observed maintenance activities at the HFIR, and reported that a supervisor had signed two SWPs for equipment maintenance before the permits were signed by applicable safety officials. An SWP is an Energy Systems form issued to establish safety boundaries and controls which help to ensure adequate protection for employees performing work with special requirements or unusual hazards. SWPs, when required, are filled out before such work is initiated.

In the first instance, the Evaluations Group observed a maintenance supervisor signing an SWP prior to an industrial hygiene evaluation of the work site. However, we reviewed the SWP and determined that an industrial hygiene evaluation was not required in this instance. In the second instance, the Evaluations Group observed the same supervisor signing another SWP prior to a health physics assessment. Based on a review of SWP procedures and a discussion with the division manager, we determined that the supervisor, in this instance, could sign the SWP either prior to or after the health physics assessment.

D. CORRECTIVE ACTIONS FOR SPECIFIC DELIBERATE INACCURACIES REPORTED BY THE ENERGY SYSTEMS EVALUATIONS GROUP

We reviewed the corrective actions taken in response to the Energy Systems Evaluations Group's findings of deliberate recordkeeping inaccuracies at the two facilities where corrective actions were needed. We determined that, while some corrective actions were effective, other actions, were not effective.

We found, during our inspection, that the deliberate recordkeeping inaccuracies relating to daily inspection checklists were continuing at the waste oil/solvent storage facility nearly six months after the Energy Systems

Evaluation Group's initial observation. We therefore concluded that specified corrective actions regarding daily inspections at this facility were not effective.

We concluded that corrective actions were effective regarding (1) weekly inspections at the waste oil/solvent storage facility and (2) safety inspection checklists at the waste baler facility.

OD-9 Daily RCRA Inspection Corrective Actions Not Effective

With regard to the Energy Systems Evaluations Group's observation related to a daily RCRA compliance inspection at the OD-9 facility, we concluded that corrective actions were ineffective. Office of Inspector General (OIG) inspectors visited the OD-9 facility six months after the July 1994 waste management evaluation was completed. During this January 1995 visit, we determined that OD-9 personnel continued to sign daily RCRA tank inspection checklists without examining all required items.

We identified several contributing causes for the continuing deliberate inaccurate entries on OD-9 daily RCRA tank inspection checklists. We also discussed our observations with State of Tennessee officials who told us that, as a result of the continuing inaccurate entries, regulatory violations may have occurred.

State Storage Permit Requirements

At the time of our January 1995 visit to the OD-9 facility, specific daily tank inspection requirements had been in effect for approximately four months. On September 30, 1994, OD-9 began operating under State of Tennessee Department of Environment and Conservation Final Permit Number TNHW-032. Prior to permit issuance, including during the July 1994 waste management evaluation, OD-9 was operating under interim status regulations codified in 40 CFR Part 265. Part 265.195 required daily inspection of the following items: overfill/spill control equipment, the above ground portions of the tank system, data gathered from monitoring equipment and leak detection equipment, the construction materials, and the area immediately surrounding the tanks and dikes.

Final Permit Number TNHW-032 requires an inspection that parallels that specified under 40 CFR Part 265. The permit requires daily inspection of the storage tanks for signs of corrosion, erosion, exterior damage, or other deterioration

of construction materials. Also, the permit requires checks of the following: tank valves for leaks, tank ladders and structural support problems, dike failure or leakage, dike drainage valve malfunctions, accumulation of spilled hazardous waste within the dike, and accumulation of runoff within the dike. Furthermore, the permit specifies that the inspector is required to check the status of each item on the inspection checklist, and to indicate whether the status of the item is either acceptable or unacceptable.

Results from OIG Visit to the OD-9 Facility

During our visit to the OD-9 Facility, we determined that OD-9 personnel continued to sign daily RCRA tank inspection checklists without examining all required items. During this visit, we interviewed laborers assigned to conduct daily RCRA tank inspections, and identified the specific laborer observed by the Evaluations Group in July 1994. The laborer told us that, during the July 1994 evaluation, he had conducted the daily RCRA tank inspection by completing the checklist while standing in one spot outside of the diked area, which forms the facility boundary. Furthermore, the laborer told us that, after the July 1994 evaluation, OD-9 laborers were told by their supervisor to enter the diked area every day when conducting their daily RCRA tank inspections. Despite these instructions, the laborer told us that he and other laborers had not gone into the diked area during every daily tank inspection completed since July 1994. The laborer added that his supervisor had never observed how the inspections were being conducted.

The laborer also demonstrated to OIG inspectors how OD-9 laborers usually conduct the daily RCRA tank inspection. This demonstration confirmed the laborers were not entering the diked area on a daily basis as they had been instructed. The demonstration also confirmed that, contrary to storage permit requirements, the laborers were not visually verifying the status of each item on the inspection checklist on a daily basis. However, by completing specific portions of the daily checklist, the laborers were representing they had visually verified the status of items they could not observe without entering the facility.

Contributing Causes Identified

We identified several contributing causes for the continuing deliberate inaccurate entries on OD-9 daily RCRA tank inspection checklists. The causes included: (1) insufficient

information in the 1994 internal investigation report; (2) a lack of supervision; (3) a lack of training sufficient to ensure employees could perform their duties in compliance with regulatory requirements; and, (4) ineffective corrective actions for prior internal/external reviews. According to the Energy Systems internal investigation report previously discussed, the OD-9 laborer who conducted the inaccurate daily RCRA tank inspection could not be identified. As a result, the daily inspection was not investigated to the extent that the weekly inspection was investigated. However, OIG inspectors easily identified this laborer since his name was printed in the signature block of the RCRA checklist in question. Environmental Management Department personnel also told us that the internal investigation report misquoted them. According to these personnel, the internal investigation team incorrectly attributed to them the determination that the daily RCRA tank inspection was in compliance with regulations. Therefore, it appeared specific corrective actions, such as disciplinary actions, were not needed for daily inspection practices.

When we questioned the OD-9 supervisors, they told us that they had never observed the actual daily tank inspection practices to ensure sufficiency. These supervisors also told us, and their employees confirmed, that the employees had not received specific training on the proper conduct of routine inspections.

Corporate audits completed in 1991 and 1992, as well as an Energy Systems Central Waste Management Assessment completed in 1994, all addressed incomplete inspections and/or recordkeeping at the OD-9 facility. Corrective action plans resulting from these reviews had been closed, indicating that corrective actions at OD-9 had been completed. However, in view of the above discussed inaccurate entries, we believe these corrective actions did not specifically correct all inspection and recordkeeping problems. This is also consistent with the portion of the Corporate Team's overall conclusion that corrective actions for health and safety problems at Energy Systems were ineffective.

Continuing Deliberate Inaccurate Entries May Be Additional Regulatory Violations

We discussed our observations with officials from the State of Tennessee's Department of Environment and Conservation. These officials, who are responsible for ensuring compliance with Final Permit Number TNHW-032, confirmed that, as a

result of the continuing deliberate inaccurate entries, regulatory violations may have occurred. According to these officials, such regulatory violations could result in enforcement actions by the State. Furthermore, these officials were also concerned that facility personnel were not completing a training program that would teach them to perform their duties in a way that ensures compliance with regulatory requirements.

OD-9 Weekly RCRA Inspection Corrective Actions Effective

We determined that specific corrective actions had been effectively implemented as a result of the Evaluation Group's observations of a weekly RCRA compliance inspection at the waste oil/solvent storage facility referred to as OD-9. For the weekly RCRA compliance inspection, we learned that the technician observed by the Energy Systems Evaluations Group in July 1994 had been disciplined for making false entries on the RCRA compliance checklist. The technician's supervisor had been disciplined as well. We visited the OD-9 facility and the technician told us he was now entering the regulated area of the facility during weekly RCRA inspections, and was confirming the condition of all required items before signing the checklist.

New Baler Facility Corrective Actions Effective

We learned that the New Baler Facility employee who was observed by the Energy Systems Evaluations Group in July 1994 had been reprimanded for making false entries on the safety checklist. All facility employees who conduct inspections had been retrained, and facility inspection procedures had been revised. The New Baler Facility supervisor had also become closely involved in oversight of the inspection process. We conducted a limited review of facility safety checklists completed since these corrective actions had been implemented and determined that checklist falsification problems observed by the evaluator in July 1994 appear to have been corrected.

VI. CONCLUSIONS

In summary, our conclusions were as follows:

Regarding the first issue, although we did not conclude that Energy Systems had covered-up the Corporate Team's report, we found that dissemination of the report was more limited than, in the past, had typically been the case for reports resulting from other Corporate reviews.

Regarding the second issue, we concluded that Energy Systems did not develop timely corrective actions to address the 18 recommendations identified in the Corporate Team's report.

Regarding the third issue, we found that one deliberate inaccuracy reported by the Corporate Team did result in a non-compliance with RCRA regulations. This non-compliance could result in enforcement actions by the State of Tennessee. An Energy Systems internal investigation team incorrectly concluded that this deliberate inaccuracy had complied with RCRA regulations.

With respect to the last issue, we reviewed the actions taken in response to the Energy Systems Evaluations Group's findings of deliberate inaccuracies at the two facilities where corrective actions were needed. We determined that, while some corrective actions were effective, other actions, were not effective.

VII. RECOMMENDATIONS

We recommend that the Assistant Secretary for Environment, Safety, and Health:

1. Evaluate how Environment, Safety, and Health (EH) personnel, including EH site representatives, can utilize the results of Energy Systems Evaluation Group reviews to enhance EH oversight responsibilities.

EH responded that, in planning and conducting surveillances, comprehensive inspections and special reviews by the Office of Oversight, DOE line management and contractor self-assessments (such as the Energy Systems Evaluations Group Reviews) as well as other internal and external reviews are considered and analyzed for significant environment, safety, health, safeguard, and security issues.

Additionally, EH provided a general comment that: "While the issues identified in your report are of interest to EH, of greater concern is the apparent lack of accountability at the MMC level to ensure all issues identified by the MMC Review Team were addressed and resolved."

While we have not made a recommendation regarding EH's comment, we believe that Departmental officials may want to consider whether, and how, the Department should clarify any expectations for the application of corporate management expertise in the future.

We recommend that the Manager, Oak Ridge Operations Office:

2. Evaluate how ORO personnel can utilize the results of Energy Systems Evaluation Group reviews to enhance ORO oversight responsibilities.

3. Review ORO requirements for Energy Systems to provide timely notification and results of, as well as scheduled or completed corrective actions for, corporate reviews and other assessments that concern DOE facilities managed and operated by Energy Systems, and revise these requirements as appropriate.

4. Review the progress of Energy Systems in implementing the Corporate Team's recommendations and, if indicated, direct Energy Systems to accelerate associated corrective actions.

5. Review the corrective actions planned and/or implemented for the Corporate Team's recommendations and ensure they are sufficient to strengthen identified ES&H management system deficiencies, such as deliberate recordkeeping inaccuracies, lack of supervision, regulatory compliance training, and ineffective internal investigations and corrective actions.

ORO, in an October 20, 1995, memorandum to us, concurred with Recommendations 2 through 5, and provided additional comments regarding corrective actions planned. ORO subsequently provided us with an October 25, 1995, letter from the ORO Assistant Manager for Environment, Safety, and Quality (AMESQ) to the Energy Systems Acting Vice President for Compliance, Evaluation and Policy, Subject: "July 1994 Martin Marietta Corporate Review of Safety and Health."

Regarding Recommendation 2, ORO commented that they would request that the Energy Systems Compliance, Evaluation and Policy organization provide ORO with a summary report and analysis of the results of Evaluation Group reviews on a quarterly basis beginning with the fourth quarter of CY 1995, focusing on the identification of the root causes of operational problems with a summary of corrective actions. ORO said this information would provide insight and awareness into the effectiveness of these reviews, identification of strengths and weaknesses, and permit selective follow-up by ORO as necessary.

ORO, in the October 25, 1995, letter, requested that Energy Systems submit a summary report and analysis of the results of Evaluation Group reviews on a quarterly basis, beginning with the fourth quarter of CY 1995, focusing on the identification of root causes of operation problems and summarizing corrective actions taken and/or planned.

With respect to Recommendation 3, ORO said that their AMESQ would, by November 15, 1995, prepare a letter to the Energy Systems Vice President of Compliance, Evaluation and Policy establishing a routine notification and distribution to ORO of all future corporate assessments involving DOE facilities and a summary report and analysis of reviews performed by the Energy Systems Evaluation Group. ORO also commented that it has access to the Energy Systems Action Management System which tracks all scheduled corrective actions to completion. ORO will periodically review this system to ascertain that Energy Systems is tracking issues identified in corporate reviews and other assessments that concern DOE facilities managed by Energy Systems.

The AMESQ's October 25, 1995, letter to Energy Systems requested that Energy Systems provide routine notification and distribution of all future Energy Systems corporate assessment reports involving DOE facilities.

Regarding Recommendation 4, ORO commented that a review had determined that Energy Systems had completed 20 of 32 actions contained in the action plan for the Corporate Team's report. ORO said that all 32 actions were scheduled for completion by May 1996, and that ORO would review and monitor Energy Systems' progress toward closure of these actions, directing, if necessary, that Energy Systems accelerate closures. Additionally, ORO said it was requesting that Energy Systems provide a monthly status, beginning November 1, 1995, to report progress on closing the remaining open Corporate Team corrective actions. In the October 25, 1995, letter, ORO requested that the Energy Systems Acting Vice President of Compliance, Evaluation and Policy, initiate a monthly status report beginning on November 1, 1995, describing the progress towards closing the remaining Corporate Team corrective actions.

For Recommendation 5, ORO said that they would review the status of corrective actions for the Corporate Team's report on a monthly basis until all actions are complete, currently scheduled for May 1996. ORO also said that, following completion of all corrective actions, their representatives would meet with the Energy Systems Safety and Health

Director to review the objective evidence of closure for corrective actions. In addition, ORO stated that Energy Systems' performance would be monitored via performance indicators, occurrence reports, daily event logs, and other sources of performance information to ensure that the corrective actions continue to be effective.

IG Report No. DOE/IG-0384

CUSTOMER RESPONSE FORM

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We wish to make our reports as responsive as possible to our customers' requirements, and therefore ask that you consider sharing your thoughts with us. On the back of this form, you may suggest improvements to enhance the effectiveness of future reports. Please include answers to the following questions if they are applicable to you:

1. What additional background information about the selection, scheduling, scope, or procedures of the audit or inspection would have been helpful to the reader in understanding this report?

2. What additional information related to findings and recommendations could have been included in this report to assist management in implementing corrective actions?

3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?

4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?

Please include your name and telephone number so that we may contact you should we have any questions about your comments.

Name_____ Date_____

Telephone_____ Organization_____

When you have completed this form, you may telefax it to the Office of Inspector General at (202) 586-0948, or you may mail it to:

Office of Inspector General (IG-1)
Department of Energy
Washington, D.C. 20585

ATTN: Customer Relations

If you wish to discuss this report or your comments with a staff member of the Office of Inspector General, please contact Wilma Slaughter on (202) 586-1924.