

September 19, 1997

Mr. W. John Denson
[]
Lockheed Martin Idaho Technologies Company
P.O. Box 1625, MS 3989
Idaho Falls, ID 83415-3898

EA 97-09

Subject: Preliminary Notice of Violation (NTS-ID-LITC-ATR-1997-0001,
NTS-ID-LITC-PBF-1997-0001, ID--LITC-FUELCSTR-1997-0002,
ID--LITC-PBF-1997-0004, and ID--LITC-TRA-1997-0007)

Dear Mr. Denson:

This letter refers to the Department of Energy's (DOE) evaluation of the circumstances surrounding a number of work process deficiencies associated with operations at the Test Reactor Area and the Idaho Chemical Processing Plant at the Idaho National Engineering and Environmental Laboratory (INEEL). The work process deficiencies involved the failure to adhere to Lockheed Martin Idaho Technologies Company's (LMITCO) established controls which are necessary to ensure that activities are conducted in accordance with your facility authorization bases. Enclosed is an Investigation Summary Report setting forth the results of DOE's review.

The DOE Office of Enforcement and Investigation initiated an investigation of these occurrences on June 10, 1997. Based on an on-site evaluation and review of relevant facility documentation, DOE has concluded that violations of the Work Process provisions of 10 CFR 830.120 likely occurred.

DOE is concerned about these violations because they were not isolated incidents but occurred at multiple nuclear facilities between February 24, 1997, and April 8, 1997, and resulted in six different occasions when your established Operational Safety Requirements/Technical Specification Requirements (OSR/TSR) were not met. For example, a 50,000 pound cask was moved over the [fueled] Test Reactor as a result of the failure to adhere to and implement several established procedures. Had the cask dropped, and compromised fuel element integrity, release of radioactivity to the environment could have resulted. In another event, the continued storage of eight unauthorized fuel rods in the [Facility], placing the facility outside its safety envelope, resulted from LMITCO's failure to properly implement its established annual

[radioactive] materials inventory procedures. Although no adverse consequences resulted as a result of these violations, operating DOE nuclear facilities outside of the parameters of their safety authorization basis can result in conditions that could compromise worker and public safety.

During the DOE investigation, your staff indicated that they believed the OSR/TSR requirements were overly conservative which may have contributed to the problem to the extent that they judged certain requirements to be unnecessary. However, the investigation established that these requirements form, in part, the current approved authorization bases for the facilities in question. While the degree of conservatism of safety documentation weighs in the consideration of the safety significance of a regulatory violation, the fact remains that the violations occurred since the approved and implemented safety authorization basis documents form the basis of agreement as to how the facility will be operated.

Between February and April 1997, there were six examples in which OSR/TSRs were not met in five nuclear facilities. This frequency raises questions regarding the adequacy of administrative controls used by LMITCO to ensure adherence to established nuclear safety requirements. In addition, as documented in DOE-ID PAAA Coordinator's surveillance SP-3Q-97-03, numerous examples of incidents meeting LMITCO reporting criteria were found to be not properly reported in accordance with DOE-Idaho's expectations. While reporting such incidents to DOE, as delineated in DOE-HDBK-1089-95 is not mandatory, contractor tracking and trending of them is important to effective site-wide corrective action development. Therefore, each of the violations is being classified as Severity Level III violations.

You are required to respond to this letter and you should follow the instructions specified in the enclosed Preliminary Notice of Violation when preparing your response. In your response you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective action plan, DOE will determine whether further actions are necessary to ensure compliance with the applicable nuclear safety requirements.

Sincerely,

Peter N. Brush
Principal Deputy Assistant Secretary
Environment, Safety and Health

PRELIMINARY NOTICE OF VIOLATION

Lockheed Martin Idaho Technology Corporation
Idaho National Engineering and Environmental Laboratory
Test Reactor Area and Idaho Chemical Processing Plant

EA 97-09

As a result of a Department of Energy (DOE) evaluation of work control deficiencies that resulted in several failures to meet facility Operational Safety Requirements/ Technical Safety Requirements (OSR/TSR) during the period of February 24, 1997, through April 8, 1997, at the Test Reactor Area and Idaho Chemical Processing Plant of Idaho National Engineering and Environment Laboratory (INEEL), violations of DOE nuclear safety requirements were identified. In accordance with the "General Statement of Enforcement Policy," 10 CFR Part 820, Appendix A, DOE is issuing this Preliminary Notice of Violation. The particular violations are set forth below.

- A. 10 CFR 830.120 (C) (2) (i) "Work Processes" requires that work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means. Items shall be identified and controlled to ensure their proper use.

Contrary to the above, LMITCO personnel did not perform work to established technical standards and administrative controls in that:

1. [] On February 24, 1997, LMITCO personnel moved an experiment cask weighing approximately 50,000 pounds over the fueled reactor vessel without having first met the requirement of establishing reactor (building) confinement. Specifically, primary coolant pump shield blocks, part of reactor building confinement, were not in place during the cask lift.

This constitutes a Severity Level III violation.

2. [] On March 5, 1997, LMITCO removed a [fuel handling unit] (FHU) from a [test reactor] fuel shipping cask and failed to ensure the other FHUs in this cask remained in the approved storage condition. During the intended lift of one fuel element, an unplanned lift of the cask insert and all the remaining spent fuel elements to approximately one half to two thirds out of the cask occurred.

This constitutes a Severity Level III violation.

3. The [Facility] Safety Analysis Report (section 9.6.2) requires an annual inspection of [radioactive] material to assess compliance with approved procedures. This requirement is to be implemented and documented by following the instructions in Form RP-0009 (Rev. 5/17/95) Step 3, "Criticality Audit," which requires an annual inspection of [radioactive] material storage and handling, as well as an annual assessment of compliance with approved procedures. However, the annual inspection performed by LMITCO in 1996 did not include a physical inspection of [radioactive] material stored or prove compliance with approved procedures. During this period the NMIS Facility was in violation of procedures and Technical Specifications by the storage of eight unauthorized [] fuel rods.

This constitutes a Severity Level III violation.

4. [] On March 19, 1997, a new shipment of [test reactor] fuel, containing approximately [weight of radioactive material], was moved into the [] Facility and placed in out-of-vault storage without the required protective measures.

This constitutes a Severity Level III violation.

5. [] LMITCO did not conduct the surveillance [of fuel storage racks] in the required (five year plus six month) time frame in that the surveillance interval (five years plus six months) ended on March 17, 1997, while the surveillance was not completed until May 7, 1997.

This constitutes a Severity Level III violation.

6. [] On April 8, 1997, LMITCO performed maintenance on [the canal level] system, and failed to ensure the system was operable or to implement

the required visual observation and level recording.

This constitutes a Severity Level III violation.

B. 10 CFR 830.120 (C) (1) (iii) requires processes to detect and prevent quality problems shall be established and implemented. Items, services, and processes that do not meet established requirements shall be identified, controlled, and corrected according to the importance of the problem and the work affected. Correction shall include identifying the cause of problems and working to prevent recurrence.

Contrary to the above, between March 1996 and April 1997 LMITCO failed to correct the use of an inappropriately developed Maintenance Work Order (700269) for calibration of components in a safety related system even though problems in performing this work were identified and reported by workers following the March 1996 calibration of the same system. The Maintenance Work Order (700269) had inadequate instructions for performing the work and had an inappropriate Quality Level assigned maintenance on a safety related system. This Maintenance Work Order was used to perform the calibration of this system on April 8, 1997, and resulted in the system being left in an unplanned inoperable condition for more than two hours.

This constitutes a Severity Level III violation.

Pursuant to 10 CFR 820.24, the Lockheed Martin Idaho Technologies Company is hereby required within 30 days of the date of this Notice, to submit a written statement or explanation to the Director, Office of Enforcement and Investigation, Office of the Assistant Secretary for Environment, Safety and Health, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874-1290, Attention: Office of the Docketing Clerk, CXXI/3, Suite 305, with copies to the Manager, DOE-Idaho Operations Office, and to the cognizant DOE Secretarial Office for the facility(s) that is/are the subject of this Notice. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following: (1) admission or denial of the alleged violation, (2) the corrective steps that have been taken and the results achieved, and (3) the date when full compliance will be achieved.

This Preliminary Notice of Violation will become a Final Notice of Violation if the violation is not denied within 30 days and sufficiently justified.

Secretary

Peter N. Brush
Principal Deputy Assistant

Environment, Safety and Health

Dated at Washington, D.C.
this _____ day of _____ 1997