

September 4, 1997

Dr. Robert Van Hook  
[ ]  
Lockheed Martin Energy Systems, Inc.  
P.O. Box 2009  
Oak Ridge, TN 37831-8002

Subject: Enforcement Letter  
Occurrence Report ORO--LMES-K25WASTMAN-1997-0001

Dear Dr. Van Hook:

This letter refers to the Department of Energy's (DOE) investigation of the erroneous transfer, during December 1996 through January 1997, of 165 55-gallon drums of mixed waste ash from K-25 to [a Y-12 industrial landfill] for disposal. This incident was determined by DOE to be, in part, the result of several noncompliances with Title 10, Code of Federal Regulations, Part 830, "Nuclear Safety Management" (10 CFR 830). Lockheed Martin Energy Systems' (LMES) procedures did not provide adequate administrative control for the identification of drums intended for the Y-12 landfill nor for coordination between the various departments involved in the identification and segregation of the correct drums; nor was the identification and segregation process itself administered adequately by LMES.

Beginning in August 1996 LMES began to actively plan the disposal of ash wastes generated by the Toxic Substances Control Act incinerator: nonhazardous, nonradioactive ash from the trial burning of surrogate hazardous waste materials, and ash from the incineration of actual mixed waste. Disposal planning involved recategorizing the nonhazardous, nonradioactive ash - a nonroutine activity - from mixed to industrial waste. Separate lists were prepared for the location of mixed and industrial waste ash drums. In concert with the list preparations was coordination between various departments involved in positioning the ashes to appropriate disposal facilities. During the coordinating sessions, the drum lists became confused and this confusion was not realized since existing protocols for waste handling did not require adequate cross-checking. The December 1996 and January 1997 disposal of 165 drums of mixed waste ash at a Y-12 industrial landfill was not discovered until February 4, 1997.

LMES originally declared the K-25 Uranium Enrichment Facility to be a Hazard Category 2 Nuclear Facility. On July 1, 1996, LMES sent a letter to the Oak Ridge Operations (ORO) Office requesting, in part, that certain K-25 waste storage vaults be

downgraded to radiological areas. ORO, though, had not approved the request by the time LMES's Price-Anderson evaluations of the ash disposal were conducted. Since LMES's DOE-approved basis for interim operation at the time of the incident declared K-25 a Category 2 Nuclear Facility, DOE, therefore, considered the K-25 vaults as part of a nuclear facility and, thus, subject to 10 CFR 830 requirements.

Based upon our evaluation, we have concluded that noncompliances with 10 CFR 830 did occur, namely 10 CFR 830.120(c)(1)(iv), "Documents and Records," with respect to the use of an uncontrolled drum list; and 10 CFR 830.120(c)(2)(i), "Work Processes," with respect to the lack of work procedures for conduct of the disposal. These noncompliances raise concerns since the potential existed for such poor work controls to lead to a more serious radiological consequence in LMES's disposition of waste, even if such a consequence was not realized in the incident under review. DOE recognizes that this particular incident and related noncompliances have a very low safety significance since the quantity of radioactive material disposed was small and the dose assessment indicated that any resultant dose commitment would be minimal. Furthermore, DOE has evaluated LMES's corrective actions and has concluded they appear to have resolved deficiencies in procedures used in dispositioning nonroutine wastes.

DOE has concluded that these events lack the requisite safety significance to warrant further enforcement action. Therefore, DOE has decided to exercise discretion and not undertake an enforcement action at this time.

Please contact Mr. Steven Zobel, of my staff, on 301-903-2615 should you want to discuss these matters further.

Sincerely,

R. Keith Christopher  
Director  
Office of Enforcement and Investigation