Full Report

04/19/2010

Item Number: **TX060032** **Last Updated:** 06/11/2007

Event Type: RLM - RADIOACTIVE MATERIAL REL.

Event Cause: BREACH OF SEALED SOURCE

Event Date: 06/29/2006 **Report Date:** 07/25/2006

Licensee/Reporting Party Information:

Name: LETOURNEAU INC License Number: NON-LICENSE
City: LONGVIEW State: TX Zip Code: 75606

Other Information:

Reportable Event:	Y	Reciprocity:	NONE
Atomic Energy Act Material:	Y	Abnormal Occurrence:	N
Investigation:	Y	Send this Report to NRC:	Y
Consultant Hired:	N	Event Closed by State:	N

Narrative:

LeTourneau, Incorporated, reported detecting radioactive material in their arc furnace ash (by-product of steel production referred to as K061). A radiation gate monitor alarmed at the Horsehead Resource Development Company in Rockwood, Tennessee, indicating the possible presence of radioactive material in the truck. The truck was returned to the LeTourneau facility, where it was isolated. On 7/24/2006, LeTourneau obtained the services of a consultant to identify the material in the truck. Surveys indicated the presence of Cs-137. After determining that the K061 in the truck was contaminated with Cs-137, a full survey of the furnace facility was performed and samples collected to quantify the activity. Exposure levels in the facility ranged from 50 to 3000 uR/hour. The highest radiation readings were in the ash hopper and silo. LeTourneau is collecting additional samples and the State of Texas Department of Health Services is investigating the incident. The time frame for the material in the truck was from 6/29/2006 (when the last shipment was made to Horsehead) to 7/10/2006 (when the truck alarmed the radiation monitors at Horsehead). The K061 could have contained material from a dozen or more of Letourneau's customers. At this time, Letourneau does not know where the Cs-137 activity came from. Letourneau plans to continue operations for a week and up to two additional truckloads of contaminated K061 waste may be generated. They plan to contract with Earth Tech (Texas licensee) to allow continued operation of the facility under their license. The delay is to allow time to stage all of the necessary equipment and personnel needed to perform the decontamination of the facility. Decontamination is scheduled to be complete in less than 90 days.Update 8/22/06 The furnace was shutdown on 8/6/06. Decontamination work began on August 7, 2006. Clean up and release of the furnace and fly ash system from the furnace head up to and including the bag house and replacement of all bag house filters was completed 8/13/06. The furnace returned to operation on 8/14/06. Fly ash is being collected and analyzed for Cs 137. The fly ash silo is currently bypassed and is being decontaminated, and surveyed for release. Latest fly ash sample indicated 40pCi/gm. This value is higher than expected due to reduced plant operation time creating limited fly ash production. On 4/5/07 the State of Texas performed samples of roll off bins at Letourneau to confirm Cs 137 activities below 2 pCi/gm. Sample results were all <2 pCi/gm. On 5/2/07 the damper on F furnace was removed from the fly ash handling system. The damper and housing was surveyed. Two small areas were found to be contaminated and the areas were removed. These were the last items in the fly ash system that needed to be released.

Corrective Actions:

Action Number:	Corrective Action:
1	NEW EQUIPMENT OBTAINED
2	NEW PROCEDURE WRITTEN

Release of Material or Contamination Information:

Type or Release or Contamination:	Activity: Ci	Activity: GBq	Radionuclide:	Effect of Release or Contamination:
SURFACE	UNKNOWN		CS-137	TEMPORARY RAD CONTROLS

Source of Radiation:

Source Number: **1**

Form of Radioactive Material: UINKNOWN Radionuclide or Voltage (kVp/MeV): CS-137
Source Use: UNKNOWN Activity: UNKNOWN Ci GBq

Manufacturer: UNKNOWN
Model Number: UNKNOWN
Serial Number: UNKNOWN

Reporting Requirements:

Reporting Requirement: 20.2203(a) - radiation exposures , releases or concentrations of radioactive material that exceed limits
Mode Reported: Telephone

References:

Reference Number:	Entry Date:	Coder Initials:	Type of Report:
I-83534	08/22/2006	AT	AGREEMENT STATE EVENT REPORT