

# Full Report

05/30/2008

Item Number: 010177

Last Updated: 10/17/2001

## Narrative:

IMCO Recycling of Ohio, Incorporated, reported that a truck leaving their facility set off the exit radiation monitor alarm. The truck was carrying aluminum ingots made from recycled airplane parts. An investigation revealed that depleted uranium counterweights had been among the recycled airplane parts. Depleted uranium counterweights were also found among aluminum parts waiting to be melted. Radiation levels were approximately 50 uR/hour on contact (normal background is 8 uR/hour). The airplane parts, including the counterweights, were obtained from Cousin's Industries located in Oceanside, New York. No contamination was found in any equipment or areas of the facility other than the aluminum ingots. The Ohio Department of Health conducted an inspection on 2/22/2001 to review the circumstances surrounding the contamination and to perform additional radiation surveys. The State of New York was notified of the incident. IMCO Recycling retained a consultant to perform additional radiation surveys of their facility. The counterweights not yet melted and the contaminated aluminum was shipped back to Cousins. The shipment consisted of five skids of contaminated "deox" cones weighing 14,600 pounds, four pieces of loose scrap weighing 60 pounds, and six ingot bars weighing 11,180 pounds.

Event Date: 02/20/2001

Discovery Date: 02/20/2001

Report Date: 02/22/2001

## Licensee/Reporting Party Information:

Agreement State Regulated:	YS	Reciprocity:	NONE		
License Number:	NON-LICENSEE	Name:	IMCO RECYCLING OF OHIO, INC.		
NRC Docket Number:	NA	City:	UHRICHSVILLE		
NRC Program Code:	NA	State:	OH	Zip Code:	NR
Responsible NRC Region:	3				

## Site of Event:

Site Name: UHRICHSVILLE  
State: OH

## Additional Involved Party:

License Number:	NON-LICENSEE	Name:	COUSIN'S INDUSTRIES		
		City:	OCEANSIDE		
		State:	NY	Zip Code:	NR

## Other Information:

NRC Reportable Event:	N	Abnormal Occurrence:	N
Agreement State Reportable Event:	Y	Investigation:	Y
Atomic Energy Act Material:	Y	NMED Record Complete:	Y
Consultant Hired:	Y	Event Closed by Region/State:	Y

## Event Type:

LAS - LOST/ABANDONED/STOLEN

## Event Cause:

LAS  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED

## Corrective Actions Information:

Action Number: Corrective Action:  
LAS  
1 NOT REPORTED

## Source of Radiation:

LAS  
Source Number: 1  
Source/Radioactive Material: UNSEALED SOURCE OTHER  
Manufacturer: NR  
Model Number: NA  
Serial Number: NA  
Radionuclide or Voltage (kVp/MeV): U-DEP  
Activity: NR Ci NR GBq

## Device/Associated Equipment:

LAS  
Device Number: 1  
Device Name: METAL, DEPLETED URANIUM  
Manufacturer: NR  
Model Number: NA  
Serial Number: NA

A-2

**Keywords:**

LAS

MATERIAL FOUND

RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

<b>Reference Number:</b>	<b>Entry Date:</b>	<b>Retraction Date:</b>	<b>Coder Initials:</b>	<b>Reference Type:</b>
EN37781	02/27/2001		DCH	EVENT NOTIFICATION REPORTED FROM AN AGREEMENT STATE
ML010570219	02/27/2001		RLS	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
PN301006	02/27/2001		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
LTR011004	10/17/2001		DCH	AGREEMENT STATE LETTER

**Narrative:**

Ameristeel, Incorporated, reported that a radioactive device/source was melted at their facility in Jacksonville, Florida. The Florida Bureau of Radiation Control (BRC) responded to the facility along with the Mobile Emergency Response Laboratory. The team determined that the radionuclide was Cs-137, but the source of the contamination was unknown. Investigators suspected that the contamination was from a sealed source belonging to a fixed gauge. Preliminary estimates placed the source activity at no more than 3.7 GBq (100 mCi). Additional measurements and calculations are being conducted. The contamination was first identified when a radiation detector in the mill's baghouse alarmed. The source apparently made it past multiple detectors designed to scan scrap metal loads before they make it into the furnace. A large thunderstorm on the day of the event resulted in repeated false alarms by the Exploranium radiation gate monitors. The source slipped past the gate monitors during the storm. The contamination was confined to two bag houses that collect dust from the furnace and the ductwork going from the furnace to the bag houses. There was no release of radioactive material outside of the facility and the steel product was not contaminated. The slag materials were surveyed and no Cs-137 was detected. Twenty-two individuals were working in the area at the time of the event and initial surveys indicated that nobody received any external exposure or contamination. These individuals were sent for whole body surveys as a precautionary measure. The tests confirmed that there was no internal contamination of facility personnel. The facility was shut down pending cleanup. Ameristeel contracted with GTS Duratek for cleanup of the facility. The contractor was on-site and submitted a Health and Safety Plan to the Florida Bureau of Radiation Control. Cleanup of the facility was determined to be a major operation due to high heat conditions, which posed a significant hazard to those workers in protective clothing and respirators. The contractor completed clean-up on part of the facility on 8/6/2001 to allow for business operations to resume and to eliminate the need for facility personnel layoffs. The Bureau conducted a confirmatory survey, granted preliminary clearance of the system, and determined that the facility met the radiological criteria for unrestricted use. Maintenance workers were able to reassemble the emission control system components as soon as they were cleared for release. The facility resumed melting operations on 8/7/2001. Remaining cleanup activities were expected to continue for several weeks. The origin of the Cs-137 source of contamination could not be determined by the investigation. The facility stated that they were shut down for more than 24 days for decontamination. The estimated cost is four million dollars for the cleanup contractor, four to five million dollars lost in production and business, with the balance of the cost in transportation and disposal. The total cost of cleanup is estimated at ten to twelve million dollars.

Event Date: 07/13/2001

Discovery Date: 07/13/2001

Report Date: 07/13/2001

**Licensee/Reporting Party Information:**

Agreement State Regulated:	YS	Reciprocity:	NONE
License Number:	NON-LICENSEE	Name:	AMERISTEEL CORP.
NRC Docket Number:	NA	City:	BALDWIN
NRC Program Code:	NA	State:	FL Zip Code: NR
Responsible NRC Region:	2		

**Site of Event:**

Site Name: JACKSONVILLE  
 State: FL

**Additional Involved Party:**

License Number:	NR	Name:	NR
		City:	NR
		State:	NR Zip Code: NR

**Other Information:**

NRC Reportable Event:	Y	Abnormal Occurrence:	N
Agreement State Reportable Event:	Y	Investigation:	Y
Atomic Energy Act Material:	Y	NMED Record Complete:	N
Consultant Hired:	Y	Event Closed by Region/State:	

**Event Type:**

LAS - LOST/ABANDONED/STOLEN  
 RLM - RADIOACTIVE MATERIAL REL.

**Event Cause:**

LAS  
 Cause: NOT REPORTED  
 Old Cause: NOT REPORTED

RLM

Cause: NOT REPORTED  
 Old Cause: NOT REPORTED

**Corrective Actions Information:**

Action Number:	Corrective Action:
LAS	
1	NOT REPORTED
RLM	
1	NOT REPORTED

**Release of Material or Contamination Information:**

Type or Release or Contamination:	Activity:	Radionuclide:	Effect of Release or Contamination:
SURFACE	Ci GBq NR NR	CS-137	

**Source of Radiation:**

LAS

**Source Number:** 1

Source/Radioactive Material:	SEALED SOURCE OTHER	Radionuclide or Voltage (kVp/MeV):	CS-137
Manufacturer:	NR	Activity:	NR Ci NR GBq
Model Number:	NR		
Serial Number:	NR		

RLM

**Source Number:** 1

Source/Radioactive Material:	SEALED SOURCE OTHER	Radionuclide or Voltage (kVp/MeV):	CS-137
Manufacturer:	NR	Activity:	NR Ci NR GBq
Model Number:	NR		
Serial Number:	NR		

**Reporting Requirements:**

LAS

Reporting Requirement: 20.2201(a)(1)(ii) - Lost, stolen, or missing licensed material in a quantity greater than 10 times the Appendix C quantities.

RLM

Reporting Requirement: 30.50(b)(1)(iii) - old - (SUPERSEDED) UNPLANNED CONTAMINATION EVENT THAT HAS ACCESS TO THE AREA RESTRICTED FOR A REASON OTHER THAN TO ALLOW ISOTOPES WITH A HALF-LIFE LESS THAN 24 HOURS TO DECAY PRIOR TO DECONTAMINATION.

**Keywords:**

LAS

MATERIAL FOUND  
ORPHAN SOURCE  
RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

Reference Number:	Entry Date:	Retraction Date:	Coder Initials:	Reference Type:
PN201022	07/17/2001		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
PN201022A	07/23/2001		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
PN201022B	08/13/2001		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
LTR010814	08/14/2001		DCH	AGREEMENT STATE LETTER
LTR010814A	08/15/2001		DCH	AGREEMENT STATE LETTER
LTR010814B	08/16/2001		DCH	AGREEMENT STATE LETTER
LTR010816	08/16/2001		DCH	NRC LETTER
FL01-076	10/16/2001		DCH	AGREEMENT STATE EVENT REPORT
ML012950256	10/24/2001		RLS	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
ML012950258	10/24/2001		RLS	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
ML012950260	10/24/2001		RLS	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE

Item Number: 020653

Last Updated: 08/02/2004

**Narrative:**

ELG Metals reported receiving a load of scrap metal from Island Recycling located in Honolulu, Hawaii, that set off their radiation monitor alarms. The scrap had radiation levels of 4,494 cpm (background of 3,745 cpm). The load was transported by Quick Cargo Trucking. Half of the load was bound for ELG Metals and the other half for TIMCO. The load in question was bound for TIMCO. On 4/16/2002, a State of California Department of Health Services inspector visited TIMCO to check the contaminated load. However, because the load did not set off the radiation monitor alarms at TIMCO, the load had already been processed/melted. The inspector determined that TIMCO had not calibrated their gate monitor since May 2000. The inspector strongly recommended that TIMCO calibrate their monitors at least yearly. No other actions were taken due to the low activity and the load having been already processed.

Event Date: 04/05/2002

Discovery Date: 04/05/2002

Report Date: 04/05/2002

**Licensee/Reporting Party Information:**

Agreement State Regulated:	YS	Reciprocity:	NONE
License Number:	NON-LICENSEE	Name:	TIMCO
NRC Docket Number:	NA	City:	FONTANA
NRC Program Code:	NA	State:	CA
Responsible NRC Region:	4	Zip Code:	NR

**Site of Event:**

Site Name: FONTANA  
State: CA

**Additional Involved Party:**

License Number:	NR	Name:	ISLAND RECYCLING
		City:	HONOLULU
		State:	HI
		Zip Code:	NR

**Other Information:**

NRC Reportable Event:	U	Abnormal Occurrence:	N
Agreement State Reportable Event:	Y	Investigation:	Y
Atomic Energy Act Material:	U	NMED Record Complete:	Y
Consultant Hired:	N	Event Closed by Region/State:	Y

**Event Type:**

LAS - LOST/ABANDONED/STOLEN

**Event Cause:**

LAS  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED

**Corrective Actions Information:**

Action Number: Corrective Action:  
LAS  
1 NO CORRECTIVE ACTION TAKEN

**Source of Radiation:**

LAS

<b>Source Number:</b>	1	Radionuclide or Voltage (kVp/MeV):	NR
Source/Radioactive Material:	UNSEALED SOURCE OTHER	Activity:	NR Ci
Manufacturer:	NR		NR GBq
Model Number:	NA		
Serial Number:	NA		

**Device/Associated Equipment:**

LAS

<b>Device Number:</b>	1	Model Number:	NA
Device Name:	CONTAMINATED METAL, SCRAP	Serial Number:	NA
Manufacturer:	NR		

**Keywords:**

LAS  
MATERIAL FOUND  
RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

Reference Number: Entry Date: Retraction Date: Coder Initials: Reference Type:

CA-XCA199  
TEL020711  
LTR040729

07/08/2002  
07/11/2002  
08/02/2004

DCH  
DCH  
DCH

AGREEMENT STATE EVENT REPORT  
OTHER  
AGREEMENT STATE LETTER

**Narrative:**

Timken Company reported that a Cs-137 source was melted in a furnace at their facility. The initial detection of a problem occurred when radiation alarms identified radioactive material in a load of baghouse dust from a plant furnace, which was being sent offsite as hazardous waste. The licensee determined that the Cs-137 source was inadvertently melted in the furnace along with scrap metal. Dose rates in the bag house were 660 uR/hour. Radiation detectors at the plant did not identify the radioactive source, which was received at the plant in a load of scrap metal. The origin of the radioactive source is not known. The Ohio Department of Health performed an onsite investigation of the event. The licensee hired a contractor to perform decontamination activities. Investigational surveys determined that the Cs-137 contamination was isolated to the internal components of the Electric Arc Furnace Exhaust Emission Control system. There was no indication that a release of radioactive material to the environment had occurred. On 5/13/2004, the Bureau of Radiological Protection authorized implementation of remedial activities. From 5/19 to 5/21/2004, Bureau staff observed the clean-up progress, reviewed final survey data, and conducted independent confirmatory surveys. The Bureau authorized restart of the facility on 5/22/2004. A total of 950 tons of contaminated material, containing approximately 5.25 GBq (142 mCi) of Cs-137, was generated during the remedial effort. The licensee is evaluating their options for final disposition of the incident material. Corrective actions taken by the licensee included increased monitoring capabilities of incoming scrap metal and changing their internal procedures.

Event Date: 05/04/2004      Discovery Date: 05/04/2004      Report Date: 05/05/2004

**Licensee/Reporting Party Information:**

Agreement State Regulated: YS      Reciprocity: NONE  
License Number: OH-31201770025      Name: TIMKEN CO.  
NRC Docket Number: NA      City: CANTON  
NRC Program Code: NA      State: OH      Zip Code: 44706-0927  
Responsible NRC Region: 3

**Site of Event:**

Site Name: CANTON  
State: OH

**Additional Involved Party:**

License Number: NR      Name: NR  
City: NR  
State: NR      Zip Code: NR

**Other Information:**

NRC Reportable Event: Y      Abnormal Occurrence: N  
Agreement State Reportable Event: Y      Investigation: Y  
Atomic Energy Act Material: Y      NMED Record Complete: N  
Consultant Hired: Y      Event Closed by Region/State: N

**Event Type:**

EQP - EQUIPMENT  
LAS - LOST/ABANDONED/STOLEN  
RLM - RADIOACTIVE MATERIAL REL.

**Event Cause:**

EQP  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED  
LAS  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED  
RLM  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED

**Corrective Actions Information:**

Action Number: Corrective Action:  
EQP  
1      PROCEDURE MODIFIED  
LAS  
1      PROCEDURE MODIFIED  
RLM  
1      PROCEDURE MODIFIED

**Release of Material or Contamination Information:**

Type or Release of      Activity:      Radionuclide:      Effect of Release  
Contamination:                or Contamination:

Contamination:	Ci	GBq	or Contamination:
SURFACE	0.142	5.254	CS-137

**Source of Radiation:**

EQP

**Source Number: 1**

Source/Radioactive Material: SEALED SOURCE OTHER

Radionuclide or Voltage (kVp/MeV): CS-137

Manufacturer: NR

Activity: NR Ci NR GBq

Model Number: NR

Serial Number: NR

LAS

**Source Number: 1**

Source/Radioactive Material: SEALED SOURCE OTHER

Radionuclide or Voltage (kVp/MeV): CS-137

Manufacturer: NR

Activity: NR Ci NR GBq

Model Number: NR

Serial Number: NR

RLM

**Source Number: 1**

Source/Radioactive Material: SEALED SOURCE OTHER

Radionuclide or Voltage (kVp/MeV): CS-137

Manufacturer: NR

Activity: NR Ci NR GBq

Model Number: NR

Serial Number: NR

**Reporting Requirements:**

EQP

Reporting Requirement: 30.50(b)(2)(ii) - old - (SUPERSEDED) EQUIPMENT IS DISABLED OR FAILS TO FUNCTION AS DESIGNED WHEN THE EQUIPMENT IS REQUIRED TO BE AVAILABLE AND OPERABLE WHEN IT IS DISABLED OR FAILS TO FUNCTION.

LAS

Reporting Requirement: 20.2201(a)(1)(i) - Lost, stolen, or missing licensed material in a quantity greater than or equal to 1,000 times the Appendix C quantities.

RLM

Reporting Requirement: 30.50(b)(1)(iii) - old - (SUPERSEDED) UNPLANNED CONTAMINATION EVENT THAT HAS ACCESS TO THE AREA RESTRICTED FOR A REASON OTHER THAN TO ALLOW ISOTOPES WITH A HALF-LIFE LESS THAN 24 HOURS TO DECAY PRIOR TO DECONTAMINATION.

**Keywords:**

LAS

MATERIAL FOUND  
ORPHAN SOURCE  
RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

Reference Number:	Entry Date:	Retraction Date:	Coder Initials:	Reference Type:
EN40725	05/10/2004		DCH	EVENT NOTIFICATION REPORTED FROM AN AGREEMENT STATE
ML041270248	05/11/2004		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
PN304006	05/11/2004		DCH	EVENT NOTIFICATION REPORTED FROM AN AGREEMENT STATE
OH040003	08/02/2004		DCH	AGREEMENT STATE EVENT REPORT



Item Number: 070088

Last Updated: 02/14/2007

**Narrative:**

Gerda Ameristeel reported that a truck/trailer transporting scrap metal from Oconee Metals set off their radiation monitor alarms and was rejected. DOT Exemption GA-GA-07-02 was issued on 1/26/2007 and the load was returned. On 1/29/2007, Georgia Environmental Radiation Program personnel surveyed the scrap metal at Oconee Metals and identified two large pieces of metal with slag/scale residue on their external surfaces. Radiation surveys using a Ludlum Model 19 revealed readings of 15 to 20 uR/hour. It was determined that the two pieces of metal were used in an aluminum melting facility. The radionuclide was identified as Th-232 using an Exploranium GR-135. They believe that the Th-232 is more than likely due to residue from refractory material/lining. Oconee Metals management was advised to dispose of the refractory material as exempt from the rules and regulations.

Event Date: 01/26/2007      Discovery Date: 01/26/2007      Report Date: 01/26/2007

**Licensee/Reporting Party Information:**

Agreement State Regulated: YS      Reciprocity: NONE  
License Number: NON-LICENSEE      Name: OCONEE METALS RECYCLING  
NRC Docket Number: NA      City: COVINGTON  
NRC Program Code: NA      State: GA      Zip Code: NR  
Responsible NRC Region: 1

**Site of Event:**

Site Name: COVINGTON  
State: GA

**Additional Involved Party:**

License Number: NON-LICENSEE      Name: GERDAU AMERISTEEL  
City: CARTERSVILLE  
State: GA      Zip Code: NR

**Other Information:**

NRC Reportable Event: N      Abnormal Occurrence: N  
Agreement State Reportable Event: Y      Investigation: Y  
Atomic Energy Act Material: Y      NMED Record Complete: Y  
Consultant Hired: N      Event Closed by Region/State: Y

**Event Type:**

LAS - LOST/ABANDONED/STOLEN

**Event Cause:**

LAS  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED

**Corrective Actions Information:**

Action Number: Corrective Action:  
LAS  
1      MATERIAL DISPOSED OF AS WASTE

**Source of Radiation:**

LAS  
Source Number: 1  
Source/Radioactive Material: UNSEALED SOURCE NORM      Radionuclide or Voltage (kVp/MeV): TH-232  
Manufacturer: NR      Activity: NR Ci      NR GBq  
Model Number: NA  
Serial Number: NA

**Device/Associated Equipment:**

LAS  
Device Number: 1  
Device Name: CONTAMINATED METAL, SCRAP      Model Number: NA  
Manufacturer: NR      Serial Number: NA

**Keywords:**

LAS  
MATERIAL FOUND  
RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

Reference Number:      Entry Date:      Retraction Date:      Coder Initials:      Reference Type:



**Narrative:**

The licensee reported the loss of an Industrial Dynamics fixed gauge (model FT-50, serial #110259) that contained an Am-241 source (model 06110, serial #1131) with an activity of 3.7 GBq (100 mCi). During clean up of their facility, the source and housing were included with scrap metal removed from the plant on 3/13 or 3/14/2007. Its absence was noted on 4/5/2007 during a routine inventory audit. Their initial investigation determined that the device may have been removed by their contractor, Highland Recycling, to Southern Metals in Saint Louis, Missouri. Those metals were subsequently transferred between 3/14 and 3/20/2007 to either Grossman Iron & Steel or PSE Metals, both located in Saint Louis, for processing. The scrap metal facilities were notified on 4/5/2007. Those facilities stated that the scrap from the licensee's facility had already been processed. The licensee hired a consultant (RM Wester & Associates) to investigate the matter and conduct surveys of the two scrap facilities. Surveys conducted by the consultant and on-site monitors revealed no presence of radioactive material. Steps were taken to identify potential facilities where the shredded scrap would be further processed/smelted. Surveys and analysis results of several facilities revealed no Am-241. Corrective actions taken by the licensee included providing additional training to all their personnel regarding generally licensed material at the site and retaining a consultant to review their radiation protection program.

Event Date: 03/13/2007

Discovery Date: 04/05/2007

Report Date: 04/05/2007

**Licensee/Reporting Party Information:**

Agreement State Regulated:	YS	Reciprocity:	NONE
License Number:	IL-92236-30	Name:	PINNACLE FOOD GROUP
NRC Docket Number:	NA	City:	SAINT ELMO
NRC Program Code:	NA	State:	IL
Responsible NRC Region:	3	Zip Code:	62458

**Site of Event:**

Site Name: SAINT ELMO  
State: IL

**Additional Involved Party:**

License Number:	NON-LICENSEE	Name:	NR
		City:	SAINT LOUIS
		State:	MO
		Zip Code:	NR

**Other Information:**

NRC Reportable Event:	Y	Abnormal Occurrence:	N
Agreement State Reportable Event:	Y	Investigation:	Y
Atomic Energy Act Material:	Y	NMED Record Complete:	Y
Consultant Hired:	Y	Event Closed by Region/State:	Y

**Event Type:**

LAS - LOST/ABANDONED/STOLEN

**Event Cause:**

LAS  
Cause: MANAGEMENT DEFICIENCY

**Corrective Actions Information:**

Action Number: Corrective Action:  
LAS  
1 PERSONNEL RECEIVED ADDITIONAL TRAINING

**Source of Radiation:**

LAS

<b>Source Number:</b>	1	Radionuclide or Voltage (kVp/MeV):	AM-241
Source/Radioactive Material:	SEALED SOURCE GAUGE	Activity:	0.1 Ci
Manufacturer:	INDUSTRIAL DYNAMICS		3.7 GBq
Model Number:	06110		
Serial Number:	1131		

**Device/Associated Equipment:**

LAS

<b>Device Number:</b>	1	Model Number:	FT-50
Device Name:	GAUGE FIXED	Serial Number:	110259
Manufacturer:	INDUSTRIAL DYNAMICS		

**Reporting Requirements:**

LAS

Reporting Requirement: 20.2201(a)(1)(i) - Lost, stolen, or missing licensed material in a quantity greater than or equal to 1,000 times the Appendix C quantities.

**Keywords:**

LAS

MATERIAL LOST AND NOT FOUND

RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

<b>Reference Number:</b>	<b>Entry Date:</b>	<b>Retraction Date:</b>	<b>Coder Initials:</b>	<b>Reference Type:</b>
EN43284	04/11/2007		DCH	EVENT NOTIFICATION REPORTED FROM AN AGREEMENT STATE
IL070020	04/30/2007		DCH	AGREEMENT STATE EVENT REPORT
IL070020A	05/24/2007		DCH	AGREEMENT STATE EVENT REPORT
IL070020B	06/18/2007		DCH	AGREEMENT STATE EVENT REPORT

Narrative:

Southern Aluminum Castings reported that they discovered radioactive contamination in magnesium scrap, smelter dross, and finished product. It was determined that the contamination was part of 6,900 pounds of magnesium scrap that had been purchased from Powercon Services, Incorporated, (a scrap broker) and is believed to have been shipped to Alabama from Peach Bottom Metals of Griffin, Georgia, who is suspected to have acquired it from a small salvage company working at Fort Stuart, Georgia. The radionuclide is suspected to be thorium. All but approximately 500 pounds of the material had been smelted before the discovery of the contamination. Large metal concave disks, 15 inches in diameter and weighing about seven pounds, demonstrated gamma exposure levels of 1.0 to 1.5 mR/hr (maximum) at contact with no detectable removable contamination. These hubs are painted military OD and have what appears to be part numbers. In addition, the shipment contained numerous one-inch diameter elbow pipe fittings, which demonstrated gamma exposure levels of 0.25 mR/hr at contact. This material had been purchased as clean cast magnesium scrap. The finished products, cast aluminum automobile engine intake manifolds, were surveyed and found to emit approximately 5 to 8 uR/hr (twice background). Dross, the slag like material containing a mixture of metals and impurities from the top of the smelt, is cooled, stored and shipped to Smelter Service Corporation of Mount Pleasant, Tennessee, where it is reprocessed and the aluminum metal returned to Southern Aluminum Castings in the form of 2,000 pound castings known as sows. These sows were surveyed and found to produce 22 uR/hr (maximum) at contact. Approximately 20 sows were contaminated. The dross in storage and awaiting shipment to Smelter Service Corporation was surveyed and found to vary from no detectable radiation to 200 uR/hr above background at contact. The U.S. Army's Industrial Operations Command was asked to recover the magnesium-thorium from Southern Aluminum Castings. After reviewing the analytical results from samples taken of the material, Waste Control Specialists in Texas agreed to accept the waste. Vista Technologies was contracted to dispose of the waste no later than the week of 10/18/1999. As of 10/22/1999, the contaminated dross had been cleared from the property.

Event Date: 09/14/1998      Discovery Date: 09/14/1998      Report Date: 09/14/1998

Licensee/Reporting Party Information:

Agreement State Regulated: YS      Reciprocity: NONE  
License Number: NON-LICENSEE      Name: SOUTHERN ALUMINUM CASTINGS  
NRC Docket Number: NA      City: BAY MINETTE  
NRC Program Code: NA      State: AL      Zip Code: NR  
Responsible NRC Region: 2

Site of Event:

Site Name: BAY MINETTE  
State: AL

Additional Involved Party:

License Number: NR      Name: NR  
City: FORT STUART  
State: GA      Zip Code: NR

Other Information:

NRC Reportable Event: U      Abnormal Occurrence: N  
Agreement State Reportable Event: Y      Investigation: Y  
Atomic Energy Act Material: U      NMED Record Complete:  
Consultant Hired: N      Event Closed by Region/State: Y

Event Type:

LAS - LOST/ABANDONED/STOLEN

Event Cause:

LAS  
Cause: NOT REPORTED  
Old Cause: NOT REPORTED

Corrective Actions Information:

Action Number: Corrective Action:  
LAS  
1      MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

LAS  
Source Number: 1  
Source/Radioactive Material: UNSEALED SOURCE OTHER      Radionuclide or Voltage (kVp/MeV): TH-232  
Manufacturer: NR      Activity: NR Ci      NR GBq  
Model Number: NA  
Serial Number: NA

Device/Associated Equipment:

LAS

**Device Number:** 1  
**Device Name:** CONTAMINATED METAL, SCRAP  
**Manufacturer:** NR

**Model Number:** NA  
**Serial Number:** NA

**Keywords:**

LAS

MATERIAL LOST AND FOUND  
RAD MATERIAL IN LANDFILL/INCINERATOR/SCRAP METAL

**References:**

<b>Reference Number:</b>	<b>Entry Date:</b>	<b>Retraction Date:</b>	<b>Coder Initials:</b>	<b>Reference Type:</b>
PN298041	09/24/1998		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
9809220070	10/26/1998		DCH	PRELIMINARY NOTIFICATION REPORTED FROM AN AGREEMENT STATE
AL980015	10/26/1998		DCH	AGREEMENT STATE EVENT REPORT
9910120003	11/17/1999		RLS	OTHER
9908230088	11/30/1999		RLS	NRC LETTER
TN990001031	04/02/2001		DCH	AGREEMENT STATE EVENT REPORT
LTR040226	04/07/2004		RLS	AGREEMENT STATE LETTER