United States Environmental Protection Agency
Region X
POLLUTION REPORT

Date: Friday, March 14, 2008
From: Dan Heister

Subject: Initial Response
Schnitzer Cesium
12005 North Burgard Way, Portland, OR
Latitude: 45.6094100
Longitude: -122.7775300

POLREP No.:	2	**Site #:**	
Reporting Period:	3/13/2008 to 3/14/2008	**D.O. #:**	
Start Date:	3/14/2008	**Response Authority:**	CERCLA
Mob Date:	3/13/2008	**Response Type:**	Emergency
Demob Date:	3/31/2008	**NPL Status:**	Non NPL
Completion Date:	3/31/2008	**Incident Category:**	Removal Assessment
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

The site is Schnitzer Steel located at 12005 North Burgaard Way. The site is a large steel scrapyard in north Portland along the Willamette River. Large marine barges loaded with scrap steel dock on the Willamette and are off-loaded using cranes with claw attachments. The cranes load the scrap steel into large off road construction dump trucks, which then procede to a "portal screen" where they are scanned for radioactive material.

On 3/12/08 Matthew Cusma of Schnitzer Steel notified Oregon Department of Human Services, Radiation Protection Services (RPS) that while off loading a barge shipped from Axim Inc., based in Vancouver, British Columbia, three pieces of scrap metal (2 pipes and 1 "box")set off the portal monitor alarm. According to Matthew Cusma the pieces of scrap initially showed 1500 - 3000 uR/hr.

Later on 3/12/08 Daryl Leon with RPS responded to the incident at Schnitzer Steel. Exposure measurements of 5-30 uR/hr were taken from the 3 items that were located on a metal skid.

The items were identified as fixed gauge housings. The smaller item the "box" (Item 1) was clearly missing its metal ID tag and only rivets could be seen where the name plate had previously been located. It also had a shutter that appeared to be partially ajar. The larger two items also had no markings indicating the manufacturer or ID number. The larger two items were once a single instrument that had been "sheared" into two pieces resulting in lead shielding being exposed at the shear point.

Daryl Leon notified Terry Lindsey, Section Manager for RPS who then contacted NRC (Report #44058) and OARS.

The radiation sources were identified by RPS personnel to be Cs-137.

At the end of the day the items were unloaded from the metal skid and plastic bags were taped over the ends of the exposed items. The items were then placed on a wood pallet that was then transported by a Schnitzer Steel forklift to a large outbuilding used for vehicle storage and locked in a storage room. The building has no offices and the storage room was very secure. The storage room was then surveyed and the highest exposure level was found to be 0.4 mR/hr. The door to the storage room was locked and marked with a radiation sticker.

RPS personnel conducted a survey of the skid and the ground in the area where the items were located and found no residual contamination. Later that afternoon RPS was assisted by the Oregon National Guard CST in conducting a survey of the docked barge that had carried the gauges from Canada. No residual contamination was found on the barge.

Current Activities

March 13, 2008

USEPA activated Seattle START at approximately 1340 hours. START Team Members (STM) Ryan Whitchurch and Andy Uhrig prepared to mobilize to the site with the USEPA Seattle ER Truck. Before departing, an abbreviated Emergency Response Safety Plan was drafted and forwarded to the Ecology & Environment, Inc. Health Physicist for review and radiation attachments. Additional radiation monitoring equipment was also loaded into the ERT before departure. START departed the Seattle warehouse at 1430 hours.

While enroute, USEPA On Scene Coordinator (OSC) Dan Heister contacts START and notified them to proceed to the Doubletree Hotel in the Lloyd district to meet with him and OSC Diane Thangamani. Oregon DHS RPS personnel had already departed the site for the evening. Heister was the first to arrive in Portland and met with Terry Lindsey and Justin Spence of RPS at their office at the State Health Department. Heister was briefed for approximately 45 minutes on the situation at the facility. Spence and Lindsey believed the sitution had been stabilized for the short term and posed no immediate threat to workers. They agreed that many issued still needed to be resolved in order to assist the facility to properly ID and dispose of the equipment. RPS agreed to meet at their office with EPA and its START contractors the following morning. After the meeting Mr. Spence agreed to accompany EPA to the site to speak with facility representatives and conduct additional surveys in conjunction with EPA.

Heister met Thangamani and START at the hotel at approximately 1750 hours to discuss the RPS site briefing and plan for response activity the following day.

March 14, 2008

USEPA and one STM met with Oregon DHS RPS personnel at the state health building at 0845 hours. The second STM proceeded directly to the site to determine ingress route, access issues, and begin deploying radiation monitoring equipment.

The meeting between USEPA and Oregon DHS RPS discussed the previous two days events and what needed to happen next. Key points of the discussion were:
- The devices appear to be manufactured by Kay-Ray/Thermo and Ohmart based on their external design, but without ID numbers further validation will be required.
- To identify the origin of sources the devices need to be opened in a hot cell and the serial numbers recorded.
- The scrap metal barge originated from Vancouver, BC and was sent by a company called AMIX.
- The AMIX facility may have been contaminated if the radioactive sources were sheared at their facility.
- State regulation require that Schnitzer Steel can only hold the radioactive sources for 7 days.
- Schnitzer needed to identify a contractor that can transport the sources to a facility with a hot cell and ultimately for final disposal.
- CID and FBI needed to make a determination if they intended to pursue the matter as a criminal case before the items could leave the site.
-Candaian authorities at the provincial and federal level would need to be notified to conduct any follow up on their side of the border.

START measured background radiation levels at Gate 5, the main entrance to the facility. The Ludlum Model 192 (A59247) measured 4 to 5 micro-R per hour, and the Ludlum Model 2241-2 (A59916) measured 4 to 7 kilo-counts per minute with a sodium iodide detector. START also began dose tracking with electronic forms and Canberra personal electronic dosimeters (A59882 and A59883).

The entire USEPA, State, and START team assembled on site at approximately 1145, and met with Schniter Steel's environmental coordinator, John Harrie. Mr. Harrie provided additional information regarding the devices and the group discussed options for removing the devices from the site for further analysis and eventual disposal. Mr. Harrie expressed his company's desire to dispose of the equipment in the most expeditious manner possible and that Schnitzer was willing to pay the disposal costs. He said Schnitzer's legal counsel would pursue cost recovery if the responsible party was later identified.

At 1245 hours, USEPA, State, START, and Schnitzer personnel arrive at the Mold Loft Building. The devices (Item 1, Item 2, Item 3) are stored in a locked room inside. Mr. Harrie opens the locked room, and Justin Spence and START survey the entrance and the devices. The Model 192 measured 100 to 200 micro-R per hour at a distance of 3 to 4 feet from the devices. The Model 2241-2 measured 150 to 200 kilo-counts per minute at the same distance. Justin Spence removes Item 1 from the locked room and places it on a plastic sheet on the building's floor for further inspection. Mr. Spence believed the shutter had been damaged, allowing greater radiation to escape from the bottom of Item 1. Mr. Spence

and START collect a wipe sample around the shutter using a pair of pliers and a Whatman filter round. START measures the wipe with the Model 2241-2 Pancake probe at 35 counts. The background reading with the Pancake probe is 22 counts.

Schniter Steel located the dump truck that the items were initially loaded into from the barge. Mr. Spence surveys the dump truck with the START Model 192 for radioactive contamination. Model 192 readings in the truck bed are 15 to 20 micro-R per hour (within 3 times the background measured by the State on 3/12/2008), and the truck was cleared to leave.

Justin Spence and START survey the U-shaped device (Item 2) and the straight pipe (Item 3). The highest readings were from the sheared off end of Item 2 at 5 milli-R per hour using the Canberra personal electronic dosimeter (State's meter). Spence uses a flashlight to check the condition of the source in Item 3. Spence said that the tube containing the source appears to be mostly in tact within Item 3.

At 1420, the State, USEPA, and START discussed storage options for the devices. The devices must remain in storage until law enforcement approved disposal, and until a removal contractor is retained by Schnitzer Steel. At 1500 OSC Heister was contacted by Anthony Barber, USEPA Emergency Response Team Lead. Barber told Heister that based on current facts the FBI had no interest in pursuing a criminal case. Heister informed Mr. Harrie that he could begin to contact disposal contractors to arrange for disposal of the three items.

It was decided that plastic sheeting would be placed over the devices in the storage room, and the sides of the sheeting would be held in place with scrap lumber. The sheeting is intended to limit air movement around the devices to prevent the spread of removable contamination until they are removed. The sheeting supplements plastic applied earlier by the State.

START, USEPA, and the State departed the site after decon and decon survey with the Model 2241-2 with Pancake probe. PPE and trash are left with in the storage room with the devices. Schnitzer Steel applied additional warning stickers in bothe English and Spanish to the locked room.

March 31, 2008
All parties arrived on Monday March 31, 2008, 08:00AM at Schnitzer Steel, Gate 5, 12005 North Burgard Way, Portland, OR. Site PPE requirements included hardhat, safety glasses, high-visibility vest, safety shoes. Radiological PPE requirements was dependant on our level of work. The real work was performed by the consultants.

The assessment and packaging process took about three hours. Below are the basic steps that were taken to package and ship the devices:
Acquired background air sample -govt (RPS)
Performed surveys and took photos -TGA, govt
Estimated source activity -TGA
Acquired air sample during work activities -govt (RPS)
Conducted leak tests -TGA
Packaged materials -TGA
Conducted container surveys/wipe tests -TGA
Conducted area surveys/wipes -TGA, govt

Government Personnel:
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Justin Spence, Health Physicist
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May 8, 2008
Thermo opened device two, viewed the source, and obtained the source number. Thermo personnel were unfamiliar with the serial number, and the number has not linked the device to an owner. Canadian officials have not provided any updates to Oregon since March 18

Planned Removal Actions
Before leaving the site Heister, Thangamani, and Spence discussed disposal arrangements with Mr. Harrie. A disposal contractor told Mr. Harrie that he would be out early the following week to make arrangements. Mr. Harrie agreed to notify Spence and Heister when the contractor was scheduled to arrive so that one or both could be present. Spence also reminded Harrie that the equipment would need to have the source removed in a hot cell to properly ID it for disposal, and that both RPS and EPA would like for him to share that information once it was obtained. Mr. Harrie agreed.

Removal was completed 3/31/08.

Next Steps
Continued coordination between EPA and OR Health, RPS to oversee proper disposal. Both agencies will also need to continue to coordinate with their Canadian counterparts to ensure proper follow up. Additionally, Spence will work with the facility to provide any reasonable time extension, should the disposal effort exceed the 7 day storage limit.

Key Issues
Given the seriousness of this event and the possible consequences, the State Health Dept. and personnel at Schnitzer Steel reacted accordingly and averted what could have been a much more complicated situation.