

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Wednesday, March 11, 2009

From: Chris Russell

Subject: Initial, Response Actions and FINAL POLREP

Regency Artistic Metal Refinishing
4401 Buena Vista Drive, Holiday, FL
Latitude: 28.1847000
Longitude: -82.7414000

POLREP No.:	1	Site #:	A4YN
Reporting Period:	3/8/2009 - 3/10/2009	D.O. #:	
Start Date:	3/8/2009	Response Authority:	CERCLA
Mob Date:	3/8/2009	Response Type:	Emergency
Demob Date:	3/10/2009	NPL Status:	Non NPL
Completion Date:	3/10/2009	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

After receiving a 911 call on March 5th, 2009, the Pasco County Fire Department responded to the site of Regency Artistic Metal Refinishing and found the owner unconscious. Firefighters entered the building and rescued the owner. The firefighters themselves were overcome by unknown fumes inside the facility. The Pasco County HAZMAT team responded to the site and entered the facility in proper PPE and discovered open plating vats, open 5 gallon pails of unknown liquids, and numerous 55 gallon drums. The HAZMAT team suspected acids and cyanide salts were present on site. They in turn requested assistance from the Florida Department of Environmental Protection's Bureau of Emergency Response.

FDEP and the Fire Department personnel secured the scene, including access. Outside the building air monitoring indicated acceptable quality ambient air.

On March 6th, FDEP Bureau of Emergency Response personnel returned to the Site to take mitigation actions pertaining to the release of hydrogen cyanide gas. Upon placing their air monitoring instruments under the doorway before entering the building, they received readings of hydrogen cyanide that were two times the IDLH (Immediately Dangerous to Life and Health) levels for Hydrogen Cyanide. At that point, the FDEP personnel pulled back and ensured that the building was fully secured. They in turn requested assistance from the EPA/R4 Emergency Response and Removal Branch with the mitigation of the hazardous substance. The FDEP personnel advised Region 4 personnel that due to the dense population of residents nearby, it would be best to take response actions the following Monday, during regular working hours. It was agreed that FDEP would monitor the building over the weekend and that EPA personnel would move down March 8th so that response actions could take place starting the morning of March 9th.

On March 8th, Florida Outpost OSC Chris Russell, and Region 4 Atlanta OSC's Alyssa Hughes, and Ben Franco, along with 3 START Contract personnel moved to the area and began response actions the morning of March 9th.

A Unified Command was established between the US EPA, Florida DEP Bureau of Emergency Response, Pasco County Emergency Management, a Representative of the Potentially Responsible Party, and the Pasco County Fire Department.

Current Activities

On the evening of March 8th, 2009, OSC Russell met with the Mr. William Sutton, the Potentially Responsible Party (PRP) in the hospital and explained the nature of why EPA had been requested to respond, as well as provided a full description of possible EPA actions at the Site. A signed Access Agreement was received from Mr. Sutton. Mr. Sutton appointed his grandson, Mr. Charlie Redman to be his PRP representative.

Mr. Sutton explained that while restocking his brass cyanide plating bath, he inadvertently put "brass brightener" (an acid) into his cyanide bath (caustic). He explained that a reaction took place immediately and that at that point, he exited the plating area and went to the front office to call the company that shipped him his product. His concern was that he had ordered brass cyanide plating solution, but he had received brass brightener. Shortly thereafter, Mr. Sutton entered into a state of unconsciousness and was found approximately two hours later by his girlfriend. EMS was summoned and the actions described in the Site Profile then took place. Mr. Sutton advised OSC Russell that he would like to continue the plating business. In turn, OSC Russell advised that he would concentrate on mitigating the release in the suspect plating bath and would not remove the product(s) in the other plating baths.

On March 9th, 2009, OSC's Russell, Hughes, and Franco arrived on site and met with representatives of the Pasco County Emergency Management Agency, Pasco County Fire Department, Florida Department of Environmental Protection/Bureau of Emergency Response, and PRP Representative, Mr. Charlie Redman. The response actions were explained to all those present and a Unified Command was established.

Planned Removal Actions

RESPONSE ACTIONS:

EPA and START personnel started the work day by reviewing the Site Safety and Health Plan.

EPA personnel assessed the perimeter of the building and found no presence of hydrogen cyanide, voc's, etc. Area Raes were placed around the perimeter of the building as a precautionary measure.

It was agreed that EPA and START personnel would make an initial entry into the building to assess the current situation. Pasco County FD personnel provided EMS, decon and backup support. Pasco County EM personnel evacuated the businesses adjacent to the building and ensured that no residents were present in the residences adjacent to the building.

The initial entry team consisted of OSC Russell, OSC Hughes, and START Berry. The initial entry was made via the front office, Short Term Exposure Limits (STEL) exceedences for Hydrogen Cyanide were noted immediately. As the team progressed towards the plating area, IDLH conditions for Hydrogen Cyanide were observed. Upon conducting air monitoring activities adjacent to the suspect plating bath, readings of three times the IDLH were observed. After OSC Russell agitated the plating bath, air monitoring readings of four times IDLH were recorded (It should be noted that the air monitoring equipment had a limit of 4X IDLH, in turn, higher concentrations of hydrogen cyanide were most likely present). A Ph in the range of 4.8 was noted in the suspect plating bath.

The team incorporated engineering controls in the building by covering the suspect plating vat, as well as all of the other plating baths present. These actions greatly reduced the amount of HCN observed. The team then methodically opened up the doorways (front, middle, and back) to allow fresh air to enter the facility. The perimeter Area Raes indicated that no HCN gas was being released past the perimeter.

It was agreed that a second team would make entry and try to stabilize the suspect plating bath with commercial grade sodium hydroxide provided by FDEP/BER. Once again, Pasco FD provided EMS, decon and back-up support.

The second entry team consisted of OSC Hughes, OSC Franco, and START Berry. Second team member START Berry incorporated ten pounds of commercial grade sodium hydroxide (crystals dissolved in solution) into the suspect plating vat. No visible reactions were noted and a Ph reading in the low 5's was noted. Air monitoring readings indicated that levels of four times IDLH were still present in the vicinity of the vat. The levels of HCN were below IDLH in the areas away from the suspect vat.

Due to the limited amount of freeboard available in the vat, it was decided that an industrial grade of sodium hydroxide would be needed to mitigate the reaction taking place in the suspect vat. In turn, FDEP/BER contractor personnel brought a bag of 90% concentration by weight sodium hydroxide to the Site. It was agreed that a third team would make entry to try and mitigate the release.

Pasco County FD provided EMS, decon, and backup support for the third entry team. The third team consisted of OSC Russell, START Brandon, and START Paul.

OSC Russell systematically incorporated the sodium hydroxide into the suspect vat. The first two infusions resulted in minor controlled reactions. The subsequent three infusions showed very little reaction. The Ph was brought up to the low 12 range. OSC Russell thoroughly agitated the plating bath to ensure that all reactions were fully mitigated. Air monitoring readings indicated that the level of HCN

directly over the suspect vat had been reduced to the 2 - 4 ppm range. The third team then made a full air monitoring assessment of the building to ensure that no other releases were taking place.

The Unified Command agreed that it would be beneficial to seal the building up for one hour and then conduct another air monitoring survey. In turn, the building was closed up for an hour and another air monitoring survey was conducted with EPA, START, and FDEP personnel. The survey indicated that low levels of HCN (2-4 ppm) were present in the plating area while the building was closed. It was agreed that due to the nature of the plating business such levels are most likely background levels.

After the above actions were completed, OSC Russell and FDEP personnel met with the PRP rep, Mr. Redman and advised him that they would need to properly dispose of the wastes located in the suspect vat. Mr. Redman agreed that they would do so accordingly. FDEP Regulatory personnel advised that they would oversee the proper disposal of these wastes by the PRP. Mr. Redman was also fully briefed on the actions that took place during the day. Mr. Redman was further advised to ensure that there is adequate ventilation in the building while personnel are present.

A debrief with all parties present was conducted at the conclusion of the response. A formal hotwash was conducted by the EPA and START personnel present later that evening. Pluses and Deltas were noted and will be used during future response actions.

On 3/20/2009, OSC Russell met with FDEP/BER Manager Chris Rossbach and his staff to review the actions taken relevant to this response. Afterwards, OSC Russell met with the FDEP Southwest Regulatory Hazardous Waste Program Manager to discuss this facility as well as similar facilities in the area. The Hazardous Waste Program Manager advised that his staff would ensure that the PRP properly removed and disposed of the wastes generated as discussed the day before.

Next Steps

FDEP Southwest Regulatory personnel will oversee the transportation and disposal of the wastes by the PRP.

Key Issues

None at this time.

Disposition of Wastes

Brass Cyanide Plating Wastes: Will be disposed of by PRP with oversight by FDEP Regulatory Personnel.

PPE was screened for hazardous substances and no hazardous substances were observed.

Sodium Hydroxide product used to mitigate the reaction was left on site, clearly marked, and properly containerized. FDEP personnel were advised that the product was left behind and they agreed they would advise the PRP of such.

response.epa.gov/RegencyArtisticMetalRefinishing