U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Shantee Creek ER - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #3**
Shantee Creek ER

Toledo, OH
Latitude: 41.7065259 Longitude: -83.5639800

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From: Brian Kelly, OSC
Date: 12/19/2011
Reporting Period:

1. Introduction

1.1 Background

Site Number:	C567	**Contract Number:**	EP-S5-08-02
D.O. Number:	0090	**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/17/2011	**Start Date:**	8/17/2011
Demob Date:		**Completion Date:**	12/19/2011
CERCLIS ID:	OHN000510623	**RCRIS ID:**	
ERNS No.:		**State Notification:**	Yes
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Emergency Response to a cyanide spill in Shantee Creek.

1.1.2 Site Description
The site is situated in northeast Toledo, Lucas County, Ohio and involves Shantee Creek. At the time of the initial response, the visually impacted portion of the creek spanned from approximately the intersection of West Laskey Road and Lewis Avenue, to a point east of North Detroit Avenue. Shantee Creek is a shallow drainage creek, approximately 15 feet in width, and 2 feet in depth. The North Maumee Bay of Lake Erie is located approximately 6.25 river miles east of the impacted portion of Shantee Creek.

1.1.2.2 Description of Threat
On August 15, 2011, a spill was reported in Shantee Creek to the City of Toledo by a resident/business owner who reported a orange discoloration of the water and dead fish within the creek.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
The City of Toledo-Division of Environmental Services (TDES) collected a water sample 500 feet east of the intersection of Laskey Road/Lewis Avenue that showed 6.5mg/L cyanide. Another sample collected at North Detroit Avenue contained 1.5mg/L cyanide. TDES also found elevated levels of zinc in the water samples.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

On August 17, 2011, Ohio EPA (OEPA) requested assistance from U.S. EPA in responding to a cyanide release into Shantee Creek, located in Toledo, OH. In response to this request, U.S.EPA, START, and ERRS mobilized to the Site. Upon arrival at the Site, START used one MultiRAE, two HCN ToxiRAEs, and one NH_3 ToxiRAE to measure the levels of CO, VOCs, H_2S, LEL, O_2, HCN, and NH_3 in the air surrounding the Site. START also used an YSI meter to obtain water quality measurements (i.e., pH, temperature, oxygen reduction potential (ORP), and dissolved oxygen) at five monitoring locations placed along Shantee Creek, spanning from North Detroit Ave to just east of the intersection at West Laskey Rd and Lewis Ave.

The monitoring of the five points in Shantee Creek indicated that the pH of the water ranged from 7.17 to 7.58 standard units (SU); the temperature ranged from 21.10 to 25.65°C; the ORP ranged from 52.0 to 56.1 microsiemens/cm (µS/cm); and the percent dissolved oxygen ranged from 9.9 to 42.8%. Additional monitoring of the water from the first monitoring location, with the HCN ToxiRAE, indicated that hydrogen cyanide was not present in the water, at that time, at levels greater than 1 part per million.

ERRS deployed an aeration system within Shantee Creek (just east of North Detroit Ave) to aid in the removal of any potential cyanide remaining in the creek water.

August 18, 2011, START collected ten water samples (TS-SW1-81811 to TS-SW10-81811) along Shantee Creek, spanning from just east of the intersection of West Laskey Rd and Lewis Ave to the Raintree Village trailer park at the intersection of Raintree Parkway and East Alexis Rd. In addition, START and ERRS walked along Shantee Creek from North Detroit Ave to the intersection of West Laskey Rd and Lewis Ave in order to collect water quality measurements and note any discolored water, fish kills, or observations of importance (i.e., point sources of the contamination).

Based on the monitoring of 30 locations along Shantee Creek, the water quality measurements indicated that the pH of the water ranged from 6.18 to 8.80 SU; the temperature ranged from 19.71 to 25.41°C; the conductivity ranged from 1,564 to 2,036 microseimens/cm (µS/cm); and the percent dissolved oxygen ranged from 28.8 to 70.6%.

Also on August 18, 2011, U.S. EPA and START conducted an investigative assessment of the company known as P&J Industries which is located at 4934 Lewis Avenue, in Toledo, OH, in order to determine if P&J Industries could have been the source of the release. This assessment entailed an examination of the facility's buildings, outdoor containers, and potential sources of cyanide located at the facility. It was noted that P&J Industries was shut down, non-operational, and the majority of the plating facility had been decommissioned. No cyanide sources were discovered during the assessment.

Ohio DNR, which had documented fish kills earlier in the week, found no new fish kills, and reported that healthy fish had returned to the previously impacted areas.

On August 22, 2011 a meeting occurred between EPA, START, the City of Toledo, ERRS, and multiple environmental contractors to review and bid out a proposed job for a confined space entry inspection of the sewer vaults and associated sewer lines near the P&J Industries property and the intersection of West Laskey Rd and Lewis Ave. The purpose of this entry was to determine if P&J Industries was responsible for the cyanide releases into Shantee Creek.

On August 24, 2011, OEPA collected one water sample and three sediment samples from drains located along Laskey Road. The cyanide result for the water sample was 0.0184 mg/kg, while the cyanide results for the three sediment samples ranged from 1.63 to 3.28 mg/kg.

August 30, 2011 Hull & Associates Incorporated performed a confined space entry into the sewer vaults near P&J Industries and used a remote camera to search for visual signs of cyanide contamination throughout the vaults and associated sewer lines. The results of the investigation concluded no direct link from P &J Industries to the cyanide release into Shantee Creek. Further investigation occurred west of P&J Industries (upstream) through the storm sewer manholes along West Laskey Rd. EPA and START visited Al's Polishing, Plating, & Powder Coating Inc. (Al's Polishing) located at 1615 West Laskey Rd, Toledo OH, who indicated they do have a cyanide tank containing a yellow/orange product used for operations. Additional sewer investigation occurred at and upstream of Al's Polishing where OEPA collected sewer water and sediments samples during the investigation.

Al's Polishing was established in Toledo in 1946. The facility provides custom and production plating (chrome, nickel, brass, gold, and copper), polishing, and powder coating.

August 31, 2011 EPA, OEPA, START, and the City of Toledo further investigate storm sewer routes along West Laskey Rd to determine the flow route from the storm sewer lines into Shantee Creek east of P&J Industries and Al's Polishing. OEPA collected one water and one sediment sample from a drain located at Al's Polishing, one sediment sample from a drain located along West Laskey Rd near Lloyd's Car Care, and four sediment and one water samples from drains located along West Laskey Rd. The cyanide result for the water samples ranged from non-detect to 0.580 mg/kg. The cyanide results for the sediment samples ranged from non-detect to 59.0 mg/kg (the drain located in the rear of Al's Polishing and Plating). Further investigation of Al's Polishing occurred including the use of tracking dyes through the storm and sanitary sewer lines on and near the property. OEPA collected additional sediment samples from within the sewer lines.

September 16, 2011 EPA, START, and the City of Toledo discuss with Al's Polishing the cyanide results discovered within sediments located at the rear of their property and options for removing the contaminated sediments from their drainage lines. Al's Polishing elects to hire Safety Kleen Systems Incorporated to wash approximately 465 feet of drainage lines throughout the property by use of a high pressure hydro-jet rod. Safety Kleen arrives onsite and temporarily caps the main drain line is capped temporarily on the Al's

Polishing property to assure that cyanide contaminated water does not travel off site during the washing process.

September 19, 2011 EPA, START, and City of Toledo oversee of the Hydro jet-rodding of the Al's Polishing drainage lines. Each of three drainage lines is washed several times. 616 gallons of contaminated wash water is collected during the cleaning process and placed into an above ground storage tank at the Al's Polishing facility for later treatment.

Post removal site controls include investigation to determine source of release and oversight of Al's Polishing operations by the City of Toledo.

Successful prevention of further cyanide release by Al's Polishing potentially protects approximately 7.6 river miles of Shantee Creek, prior to its discharge into the North Maumee Bay of Lake Erie, and 1 mile of City of Toledo storm water sewer lines.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
The PRP is Al's Polishing and Plating.

2.1.4 Progress Metrics

Miles of river systems cleaned and/or restored	**7.6**
Cubic yards of contaminated sediments removed and/or capped	**10**
Gallons of oil/water recovered	**616**
Acres of soil/sediment cleaned up in floodplains and riverbanks	**0.5**
Acres Protected	**0.5**
Number of contaminated residential yards cleaned up	**0**
Human Health Exposures Avoided	**20**
Number of workers on site	**15**

2.2 Planning Section

2.2.1 Anticipated Activities
City of Toledo will continue to investigate the cause of the release from the PRP.

2.2.1.1 Planned Response Activities

2.2.2 Issues

2.3 Logistics Section
N/A

2.4 Finance Section
No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer
No safety issues have been identified.

2.6 Liaison Officer
N/A

2.7 Information Officer
N/A

3. Participating Entities

3.1 Unified Command
N/A

3.2 Cooperating Agencies
U.S.EPA
Ohio EPA
City of Toledo-Division of Environmental Services
City of Toledo-Division of Sewer and Drainage
Ohio DNR - Wildlife Division

4. Personnel On Site

U.S.EPA
Ohio EPA
Ohio DNR - Division of Wildlife
City of Toledo-Division of Environmental Services
City of Toledo-Division of Sewer and Drainage
Weston Solutions Inc (START)
EQM - Environmental Quality Management (ERRS)
Inland Waters (ERRS)
Hull & Associates (ERRS Subcontractor)

5. Definition of Terms

U.S. EPA - United States Environmental Protection Agency
DNR - Department of Natural Resources
START - Superfund Technical Assessmant and Response Team
ERRS - Emergency and Rapid Response Service
CO - carbon monoxide
VOC - volatile organic compounds
H2S - hydrogen sulfide
LEL - lower explosive limit
O2 - oxygen
HCN - hydrogen cyanide
NH3 - ammonia
DO - disolved oxygen
pH - potential hydrogen
OEPA - Ohio Environmental Protection Agency

6. Additional sources of information

6.1 Internet location of additional information/report
N/A

6.2 Reporting Schedule
N/A

7. Situational Reference Materials

N/A