

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Samoa Pulp Mill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IX

**Subject:** POLREP #18  
Progress  
Samoa Pulp Mill  
  
Samoa, CA  
Latitude: 40.8049600 Longitude: -124.1933100

**To:** Harry Allen, EPA Region 9  
Peter Guria, EPA Region 9  
Dan Meer, EPA Region 9

**From:** Steve Calanog, OSC Chris Weden, OSC Maggie Waldon, OSC

**Date:** 6/12/2015

**Reporting Period:** 5/4/2015 thru 6/12/2015

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A949	<b>Contract Number:</b>	EP-S9-12-01
<b>D.O. Number:</b>	0937	<b>Action Memo Date:</b>	7/30/2014
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	9/30/2013	<b>Start Date:</b>	10/1/2013
<b>Demob Date:</b>		<b>Completion Date:</b>	9/30/2015
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

The Samoa Pulp Mill Site is a 70 acre former industrial pulp manufacturing facility. The pulp mill was constructed in 1963 by Georgia Pacific. In the early 1970's Louisiana Pacific acquired and ran the facility until 1990. From 1990 until 2008 various smaller groups owned and operated the facility. The last operating owner of the facility was the Evergreen Pulp Company which ran the facility until 2008. Evergreen experienced financial difficulties and "walked away" from the mill site without properly closing operations. Sometime in 2009 a venture group called Freshwater Tissue Company purchased the facility site with intent of converting to a tissue mill. This quickly failed to reach fruition and Freshwater began scrapping the facility and consolidating hazardous waste. In August of 2013 Freshwater Tissue Company sold the facility to the Humboldt Bay Harbor District (aka - Port Authority). The facility is currently staffed with 2 part-time Humboldt Bay Harbor District employees.

##### 1.1.2.1 Location

The Samoa Pulp Mill Site is located within Humboldt County in Samoa, CA. The Site is approximately 70 acres of industrial pulp processing operations and is situated on the North Spit of Humboldt Bay. The facility is on the shore line of Humboldt Bay and has an industrial wharf on the Bay. The Pacific Ocean is located within 800 yds to the west of the facility.

##### 1.1.2.2 Description of Threat

The primary concern is 11 ASTs containing 3-4 million gallons of highly caustic liquids (pH greater than 13). Five of these ASTs are not designed to store caustic liquids and periodic seismic activity (6.8 earthquake occurred off coast of Humboldt Co. 3/9/2014) has caused grave concern regarding their stability. Additionally, there are a half dozen ASTs containing 2000-3000 gallons of sulfuric acid (pH less than 1), 3,000 tons of corrosive sludges in uncontained areas, approximately 3000 gallons of turpentine, and several thousand containers of various types (i.e., compressed gas cylinders, paints/thinners, mercury containing gauges and equipment).

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Please refer to previous Polreps

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

Toolbox Safety Meetings are held each morning before the start of the work day. Meeting topics are related to the actual work activity scheduled for that particular day. EPA's Mobile Command Post is staged by a nearby truck scale each day document tare and loaded weights for all trucks entering and leaving the site.

During this reporting period, the crew continued the demolition and sludge removal phase of the project. Using a 55 ton hydraulic crane, the superstructure and roofs were removed off tanks 140 thru 142 (65' dia x 35' high). This enabled the demo crews to access the sides of the tanks safely. The sides of these tanks were stainless steel and required the use of a Plasma Arc to cut the steel (see Section 5). Sheets of stainless steel were measured and connected to the crane with "picking eyes" prior to cutting. After the steel plate was cut and removed it was deconned and prepared for transport to the recycler. To date, a total of 737.69 tons including 22 tons of stainless steel have been shipped off site.

While tank demolition continued, sludge removal crews continued solidification of contaminated materials found in the tank bottoms and prepared the material for transportation and disposal (T&D). Solidification of the sludge materials required an add-mix of wood flyash and sawdust to bring it to an acceptable quality for T&D. The add-mix quantity differed from tank to tank from 30% to as much as 60%. As of this reporting period 3025 tons of non-hazardous sludge (pH <12.5) have been removed. Corrosive liquids that were extracted from the sludge were consolidated into frac tanks, pending off-site disposal.

As demolition of tanks 140 thru 142 continued, a second demo crew prepared to pull over tanks 63 thru 66 (30' dia x 40' high). Wire rope slings (1 1/4" x 70' long) were shackled together and connected to a 80,000 lb. excavator. As a safety precaution and prior to pulling the tank to the ground, a Job Hazard Analysis was performed including an engineered planned layout drawing. To control the direction of the planned fall, a relief cut was made approximately 5' up from the bottom of the tank and approximately 20' wide. This "Controlled Method" was used to help direct and drop the tank slowly and safely to the ground. A warning signal was given by the SSO using a hand held air horn before the tank was dropped. Once the tanks were on their sides, demo crews easily removed the roof and bottom allowing the tank cylinder to be cut and laid out in one flat section.

Demolition continued on the next series of tanks 36 thru 38. The decision was made to dismantle tank 36 using the onsite 55 ton crane to handle the steel cut by oxygen & acetylene torches. Tank 36 was constructed very close to an electrical switch gear room and any steel that could fall from the demolition of the tank could damage the building. Tank 38 was constructed with a stainless steel inner liner and a mild steel outer shell. The stainless liner had leaked and made it very difficult for the torch operator to cut through the double wall tank shell. The liquor trapped in the annulus of the double wall tank caused splash back on to the torch operator and created a hazardous work environment. To alleviate this problem a 80,000 lb. excavator with large set of demo shears was mobilized to the site and dismantled the double wall tank quickly and safely.

As the sludge and mixing structures were removed from tanks 140 thru 142, it was learned that these tanks had conical bottoms and the corrosive material below the thin/eroded concrete bottom was at a higher pH than the sludge itself. This necessitated a new profile for the waste as it would need to be disposed at a Subtitle C facility. The TO was modified to add additional funding and ERRS prepared an RFP and disposal profile for this material. Bids have been received and ERRS received subcontract consent from the CO.

A nominal amount of mercury-contaminated debris that was identified during the early days of this project (two 55-gallon drums) and waste sulfuric acid (two 55-gallon drums) were prepared for T&D. Additionally, two flasks of elemental mercury were prepared for retirement.

With the majority of pulping liquors gone and the rainy season over, frac tank temporary storage needs diminished. A total of 11 frac tanks were on site for this project providing a total storage capacity of 231,000gal. As frac tanks were emptied, they would be cleaned and demobbed from the site. Prior to cleaning any of the tanks, a Confined Space Entry permit is filled out and issued by the SSO and a site specific activity meeting is held at the tank to be entered and cleaned.

#### 2.1.2 Response Actions to Date

04-09 May 2015 - OSC Waldon

Completed removal of stainless steel sides on tank 141. Continued to remove sections of steel from tank 36. Deconned and prepared steel for shipment to recycler.

Completed cleanout of sludge from tank 142

Continued extraction of liquids from tanks 19, 38, and 141.

Removed pipe rack from tank 19

Solidified and removed sludge from tanks 19 and 141. Plan to use tank 19 as a solidification mixing tank

Continued removal of mixing rakes from tanks 140 and 141

Dismantled tanks 63 and 64 and began dismantling tanks 65 and 66

11-16 May 2015 - OSC Calanog

Continue solidification and removal of sludge from tank 141

Continue extraction of liquids from tanks 19, 38, and 141

Cut larger access in tank 38 and remove sludge and commence dismantling.

Completed dismantling tank 66

Remove sludge from tank 19 to make room as sludge mixing tank

Continued removal of rakes from tanks 140 and 141

Removed two tanks from the boiler building and solidified caustic material and drummed sulfuric acid for disposal

Continued solidifying sludge with sawdust and fly ash in tanks 7, 8, 19, and 42

Completed removal mercury contaminated items from warehouse. Waiting on proper packaging material to prepare elemental mercury for retirement.

18-23 May 2015 - OSC Guria

Continued removal of tank sludges and tank demolition. Three tanks remain for demo (37,38, ?). Mobe hydraulic shears week of 5/25 to demo tank 38 which is double lined and may have caustic trapped between liners. Shears to also be used to finish off any tank demo that is not completed by cutting torch.

Continued T & D of tank sludge. Shipped 44 loads totaling 990.56 tons this week. Total sludge shipped to date: 5,676.56 tons. Resume sludge T/D Tuesday 5/26. Estimate completion of sludge T/D by 6/4.

Removed remaining tank liquids from Tanks 37 & 140. Liquids transferred to frac tanks in prep of T/D. Subcontract consent for T/D of frac tank liquids granted by CO 5/21. Total of 140K gallons staged in 8-frac tanks. Plan to begin shipping liquids Tuesday 5/26. Estimate completion of frac tank liquid T/D by 6/12.

Continued processing and consolidation of scrap steel across the site. Steel cut into manageable sections/sheets and staged for load-out. Shipped 4-loads totaling 40 tons of scrap steel this week for reclamation.

Continued receiving fly ash and sawdust for tank sludge consolidation. Sludge stockpiled in tank areas 7/8 for T/D.

Tank pad areas that were previously excavated to remove contaminated soil were backfilled with on-site debris and soil and brought to grade to prevent fall hazards. Excavations were marked with liners before backfill placement to mark excavation depths.

Began sludge/solid removal of tank area drainage trenches. Material to be consolidated with tank sludge for T/D.

Deconned 2-frac tanks in preparation of demobilization.

Covered remaining tank structures 140-142 and tank 19 with heavy-duty tarps to prevent rainwater from entering. Tanks have been dismantled to approximately 8' above concrete pad. All sludge/solids have been removed. USCG PST to monitor tanks every two week and pump out any free liquid that accumulates.

Collected samples of soil under tanks 140/141 for characterization. Once analytical is received, a determination will be made as to removal of tank structures/soil. Results expected week of 6/1.

Collected sample of smoke stack ash for characterization. Results expected week of 6/1.

Demobed 4-crew members this week.

EQM swapped out Health & Safety Officer Heyneman for Lawrence who will also coordinate T/D.

Remaining wastes for T/D: 2-drums H2SO4; 40 lbs elemental Hg; 1-cy Hg debris; 1-cy ACM pipe wrap insulation; 140,000 gallons caustic liquids; ~40 cy smoke-stack ash

26-28 May 2015 - OSC Heister

Sludge Trucks: T&D 33 loads x 21 tons = 693 tons

Liquid Tanker Trucks: T&D 4 loads = 23,710 gallons

Tanks dismantled: Horizontal Turpentine Tank (No Tank#) dismantled with shears  
Tank 38 dismantled with shears  
Tank 37 pulled down and dismantling ongoing

Frac Tanks: Emptying and decon'ing continues

Asbestos Piping: ACM wrapped and prepped for shipment and offsite disposal

Hg, Misc. T&D Debris: Profiling of material on going

Metal Scrapping: Stainless and milled steel decon'ed, segregated and recycling continues

The shears arrived Tues. PM and were used Wed AM to cut up horizontal turpentine tank and began work on Tank 37 when they broke down.

28 May – 13 Jun 2015 OSC Weden

Complete Load and transport sludge materials to offsite disposal per task order

Completed demolition of tank 37

Continued hauling Liquor from Frac Tanks 7012 and 7252 to offsite disposal

Cleaned Frac Tanks as they are emptied and demob off site.

Demolished Tank 38 with Excavator & Shears

Continued to decon and prepare ship steel scrap for shipment to off-site recycle

Covered tanks 7, 8, 19 and 42 in case of rain event.

Received T&D bid results for additional sludge materials 6/10/15, subcontract consent received from CO by COB 6/12/15!

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

On-going

### 2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal	Recycled
Caustic liquids	liquids	2.7m gallons				To date - 2.7 million gallons Kapstone Paper Company, Longview, WA
Sulfuric Acid - Re-usable	liquids	6k gallons				Purchased by Valley Acid, Stratford, CA (11/13)
Sulfuric Acid - Waste	liquids	4k gallons		x	x	21st Century Environmental Management of CA, LP
Hydrochloric Acid - Waste	liquids	2,100 gallons	011138259 JJK	x	x	
Corrosive sludges	semi-solids	9k tons			x	Recology, Vacaville, CA To date: ~7000 tons
Turpentine	liquids	3k gallons				
Lab Chemicals	various	~2k containers	0000990296DAT	x	x	21st Century Environmental Management of CA, LP
"HHW" type	various	~2k containers				HBHD to coordinate with Humboldt County HD
Hg	liquids	2 drums of drebris	On file			Approved facility
Waste oils	liquids	~2k gallons				~200 gallons removed by Asbury Environmental for recycling

### 2.2 Planning Section

1. Submit required profile to successful T&D vendor(s) 6/8 thru 6/10 2. Schedule sludge trucks to

start T&D week of 6/15 3. Continue to ship liquor from frac tanks - Clean & call off rent 4. Continue to decon and prepare ship steel scrap for recycle 5. Remove sludge from Tanks 140 thru 142 and demo

### 2.3 Logistics Section

No information available at this time.

### 2.4 Finance Section

No information available at this time.

### 2.5 Other Command Staff

No information available at this time.

## 3. Participating Entities

### 3.1 Unified Command

USEPA Federal On-Scene Coordinator  
USCG PST FOSCR - Deputy

### 3.2 Cooperating Agencies

Humboldt Bay Harbor District  
CalOSHA  
Samoa Volunteer FD

## 4. Personnel On Site

At the end of this reporting period after various demobilizations.

1 - OSC  
0 - PST  
1 - HBHD  
10 - ERRS (7 - EQM, 3 - Global)

## 5. Definition of Terms

**Plasma cutting** is a process that is used to cut [steel](#) and other [metals](#) of different thicknesses (or sometimes other materials) using a [plasma torch](#). In this process, a gas (oxygen, air, inert and others dependant on material) is blown at high speed out of a nozzle; at the same time an electrical arc is formed through that gas from the nozzle to the surface being cut, turning some of that gas to [plasma](#). The plasma is hot enough to melt the metal being cut and moves fast enough to blow molten metal away from the cut. - Wikipedia

## 6. Additional sources of information

No information available at this time.

## 7. Situational Reference Materials

No information available at this time.