

United States Environmental Protection Agency
Region III
POLLUTION REPORT

Date: Thursday, April 26, 2007

From: Mike Towle

Subject: POLREP 02 and Special Bulletin B

Stoney Creek Technologies
3300 4th Street, Trainer, PA
Latitude: 39.8300000
Longitude: -75.3975000

POLREP No.:	2	Site #:	
Reporting Period:		D.O. #:	
Start Date:	4/19/2007	Response Authority:	CERCLA
Mob Date:	4/19/2007	Response Type:	Emergency
Demob Date:		NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

The On-Scene Coordinator (OSC) initiated a response action at the Stoney Creek Technologies Site on April 17, 2007. The conditions at the Site, the threats posed by the Site, and the response actions taken by the OSC are documented in POLREP 01 and Special Bulletin A and are reiterated herein. This document (POLREP 02 and Special Bulletin B) provides additional information related to the threats posed by the Site and identifies and clarifies actions that may be taken to minimize the threat of a release of hazardous substances from the Site. The OSC also continues to conduct a removal site evaluation pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at the Site; this document provides updated information obtained by the OSC.

The Site is the location of Stoney Creek Technologies' chemical manufacturing facility. The removal site evaluation identified the existence of a threatened release of hazardous substances posing a significant threat to public health or welfare or the environment. Stoney Creek Technologies is experiencing serious financial difficulties and may not be able to safely operate its facility and/or maintain the safety of the chemicals therein for much longer. The OSC evaluated Site conditions against the factors contained in Section 300.415 of the NCP and determined on April 17, 2007, that immediate response activities pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, were necessary to begin to mitigate the immediate threats posed by the Site. Pursuant to Delegation of Authority 14-2, the OSC authorized the expenditure of CERCLA funding in an amount not to exceed \$250,000 to initiate an emergency Removal Action to prevent a release of hazardous substances stemming from tanks and containers of flammable chemicals, combustible chemicals, acid chemicals, and combinations of these and other chemicals as well as from these same types of chemicals located within trenches, pipes, equipment, and other locations throughout the facility. The OSC must take actions especially in the event that the current operator of the facility is unable to continue to do so.

In POLREP 01 and Special Bulletin A, the OSC identified actions to take to minimize the threat of release of hazardous substances. Among those actions was the need to identify, evaluate, and arrange for or operate facility systems (e.g., nitrogen system), or take other similar actions, to minimize the potential for fire or chemical reaction or release. This document (POLREP 02 and Special Bulletin B) clarifies this action item to include the removal of chemical product inventory or operation of facility systems that result in the removal of chemical product inventory from the Site as a means to minimize the potential for release of hazardous substances from the Site. The OSC determines that removal of chemical product inventory from the Site or safe operation of the facility systems by the Company that result in a reduction of on-Site inventory will facilitate the reduction of threat by removing the chemicals that contribute to the threat of a release. As such, the OSC may consider limited activities by the Company as it manufactures chemicals to be consistent with the overall intent and scope to reduce the threats posed by the Site provided that the Company operates consistent with the direction of the OSC and operates the facility's safety systems (e.g., nitrogen system). The OSC communicated this potential action item to the Pennsylvania Department

of Environmental Protection which acknowledged its benefit provided it is directed by the decision of the OSC.

Current Activities

See POLREP 01 and Special Bulletin A.

Between April 17 and April 25, 2007, the OSC continued to meet with representatives of Stoney Creek Technologies and the Pennsylvania Department of Environmental Protection (PADEP) to gather information (especially inventory information) and evaluate, among other things, the status of the facility's operations and response actions by PADEP and EPA. The OSC also coordinated with local authorities including the Delaware County Department of Emergency Services and the local fire chief.

A reevaluation of the facility's inventory suggests an estimated 2 million gallons of flammable or combustible or corrosive chemicals that pose a threat of fire or release and an estimated 17 million pounds of total chemical inventory in the on-Site tanks. The inventory is separated amongst several entities claiming possible ownership. Other chemical materials are also present in drums, small containers, open containers, water treatment vessels, fuel vessels, piles, trenches, drains, and other places.

The facility uses, among other things, a vaporized nitrogen system to minimize the fire threat posed by the flammable and combustible chemicals contained within certain tanks and connected to a solvent recovery system. The facility uses the same nitrogen system to maintain a low moisture condition in oleum and acid tanks at the facility; increased moisture in the acid tanks may lead to the generation of flammable hydrogen gas. The facility has a wastewater treatment plant that treats process and storm water before discharge. Stoney Creek Technologies' workforce continues to produce chemicals and operate its chemical safety, pollution control, and treatment systems. However, the financial status of the Company is not good and its ability to continue to pay its workforce or operate its systems is increasingly doubtful.

The nitrogen system, water treatment plant, and other pollution control or security features of the facility rely upon electricity to prevent fire or chemical release. The electricity was scheduled to be shut off by the power company on 13 April 2007 due to lack of payment. EPA and PADEP communicated environmental concerns to the power company and were able to extend the delivery of power to April 20, 2007 (contributing to the urgency of the situation leading to the EPA response action documented in POLREP 01 and Special Bulletin A). PADEP continued to coordinate with the power company regarding the delivery of power and arranged for the delivery of electricity until April 27; however, the facility's delivery of natural gas used to produce chemicals was terminated.

The OSC understands that PADEP will begin to pay for electricity needed to maintain the safety systems at the Site beginning April 27, 2007. The OSC further understands that PADEP will suspend the facility's permits on April 26, 2007, due in large part to violations and compliance issues. This will likely result in a cessation of chemical production operations currently ongoing at the facility.

The most significant threats posed by the Site continue to include: 1) the potential generation and release of flammable vapors which, if ignited by a static spark or other ignition source, pose a serious risk of fire and explosion; 2) the potentially violent reaction between oleum and moisture; and, 3) the potential off-Site migration of untreated water and liquids present in the trenches and drains and process areas influent to the on-Site wastewater treatment plant. These threats are significantly increased if the power should be cut and/or the facility work force vacates the premises rendering the systems that maintain the chemical inventory inoperable. These threats would result in the release of hazardous substances constituting a "release" as defined in Section 101(22) of CERCLA, as amended, 42 U.S.C. § 9601(22). These threats would be reduced by the removal of chemical product inventory from the Site.

Planned Removal Actions

Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of a Removal Action. Paragraphs (b) (2) (i), (iii), (vi) and (vii) of Section 300.415 directly apply as follows to the conditions as they exist at the Stoney Creek Technologies Site. These conditions will exist if the facility is unable to reliably supply energy and a workforce to maintain stable conditions at the facility. Existing information continues to indicate that this situation will likely soon occur.

A. 300.415 (b) (2) (i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants"

The Site is situated in a mixed residential and industrial area of Trainer, Pennsylvania. If the facility is unable to operate and maintain its workforce or loses power due to its inability to pay, the chemicals at the

facility would pose a significant threat of release and potential exposure to nearby human populations. Many of the chemicals are volatile organic compounds and would release to the air in the absence of the operating vapor recovery or pollution controls. If the vapors from the chemicals at the site do not ignite when they are released, they will migrate to downwind populations. These residents would then be potentially exposed to the chemicals at the facility. For example, inhalation of acid chemicals at the facility could damage tissue within the respiratory system. For example, inhalation of organic compounds such as methanol could be toxic to the nervous system. If the wastewater treatment plant is not operative, chemicals at the site could also release through water migration pathways. If the chemicals do not ignite when released, these chemicals (untreated) could seriously impact the regional waste water treatment authority's ability to treat area wastewater from many sources and/or discharge to nearby Stoney Creek.

B. 300.415 (b) (2) (iii) "Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release"

The Stoney Creek Technologies Site includes about 200 tanks and about 1000 drums. Many of these tanks and drums contain chemicals and mixtures of chemicals described herein. The chemicals in the tanks are most safely maintained within the tanks when certain systems (e.g., nitrogen system) are operated. Without a workforce or without electrical power, these systems will become much less effective at preventing a release of chemicals to the environment.

C. 300.415(b)(2)(vi) "Threat of fire or explosion"

Many of the chemicals and chemical mixtures at the Stoney Creek Technologies Site are flammable or combustible. In addition, Oleum, an acid, reacts with metals to produce flammable hydrogen gas. The facility uses nitrogen in the airspace of the tanks to reduce the oxygen content and prevent the airspace of the tanks from becoming flammable. Many tanks are connected by a common venting system which sweeps air from the tanks and prevents buildup of vapors which could endanger the integrity of the chemicals and containment. Ignition of vapors in the venting system could travel to many tanks. The facility has suffered fire events in tanks and also in trenches conveying wastewater to the wastewater treatment plant. The OSC has coordinated with the local fire chief and verified that the fire chief has significant concerns about the fire threat posed by the chemicals at the plant especially if the facility loses power or a trained workforce. Fire prevention and fire suppression and emergency notification systems at the facility rely on electricity.

D. 300.415 (b) (2) (vii) "The availability of other appropriate federal or state response mechanisms to respond to the release"

The Commonwealth of Pennsylvania Department of Environmental Protection has requested assistance in mitigating the potential threats posed by this Site as the financial resources to completely address this Site are currently unavailable. PADEP is significantly contributing to the response by coordinating with utility providers and assuring the continuation of energy.

Next Steps

The OSC has determined, based on information gathered from the removal site evaluation that the threatened release of a hazardous substances at this Site presents an imminent and substantial endangerment to public health, welfare or the environment. For this reason, the OSC initiated an immediate removal action. The threat of release is still present.

At this time the OSC intends to reduce the potential for increasing threats by assuring that systems and tasks necessary to maintain the security of the chemicals described herein are continued in the absence of a workforce or reliable source of energy. The OSC intends to initiate actions that will maintain security and minimize the potential for fire or environmental release should the facility be unable to do so. Existing information indicates that such a condition may be imminent. The OSC and the ERRS contractor have met with facility employees and initiated a process to better understand the systems and identify critical tasks that need to be performed to maintain the safety of the facility. The OSC intends to work towards finding potentially responsible parties to complete the necessary removal action. The Actions authorized have not changed, but have been clarified as identified below in Item #3. Other actions may follow.

Actions:

1. Mobilize personnel and equipment to the Site to implement response actions;
2. Provide security to prevent unauthorized entry/removal to/from the facility;
3. Identify, evaluate, and arrange for or operate facility systems (e.g., nitrogen system), or take other

similar actions, necessary to minimize the potential for fire or chemical reaction or release (actions may include operation of facility systems or other activities that result in the removal of chemical product inventory from the facility, for example by transportation into the stream of commerce);

4. Arrange for treatment or treat wastewaters (and other liquids or chemicals) prior to discharge from the Site to standards currently applicable to the discharge of such waters (as identified by PADEP and DELCORA) through the wastewater treatment plant or through implementation of similar actions;
5. Continue to coordinate with PADEP and assure that energy continues to be provided to the facility to minimize the potential for fire or chemical reaction or release.

The proposed removal action will attain Applicable or Relevant and Appropriate Requirements (ARARs) to the extent practicable given the exigencies of the situation. The OSC is initiating response under exigent conditions. The OSC has identified the current discharge requirements imposed upon the facility by agreement between the facility, DELCORA, and PADEP as a potential ARAR. The OSC also will coordinate with PADEP to identify substantive requirements of environmental regulations to attain during operation of facility systems.

The current owner/operator of the property on which the Site is located has been verbally notified of the conditions at the Site and the potential CERCLA Liability as an owner/operator. The OSC will continue to forward all available information to EPA enforcement personnel to ensure that full notice and evaluation of potentially responsible parties can be accomplished. The property owner/operator has stated that he was financially unable to comply with all the health, safety, and environmental concerns that need to be addressed at the Site.

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