United States Environmental Protection Agency
Region I
POLLUTION REPORT

Date: Tuesday, October 21, 2008
From: Melanie Morash

Subject: Emergency Response POLREP - First and Final
Evergreen Solar Emergency Response
112 Barnum Road, Devens, MA

POLREP No.:	1	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	10/15/2008	**Response Authority:**	CERCLA
Mob Date:	10/15/2008	**Response Type:**	Emergency
Demob Date:	10/15/2008	**NPL Status:**	Non NPL
Completion Date:	10/15/2008	**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

At 1:00 p.m. on Wednesday, October 15, 2008 EPA OSC Melanie Morash responded to a release of between 5,000 and 8,000 gallons of a diluted hydrofluoric-sulfuric-nitric acid mixture at the Evergreen Solar facility (a solar panel manufacturer) in Devens, MA, near the former Fort Devens Military Base. According to facility calculations, approximately 458 gallons overflowed a containment area under an air scrubber unit, flowing across a parking lot to a storm drain, then to a man-made vegetated retention pond where the liquid was apparently contained.

The exact cause of the release has not yet been determined, but is believed to be related to a faulty float switch in the air scrubber that resulted in an overflow of water into the system. The air scrubber (for removing oxides of nitrogen or "NOx") is one of several treatment systems designed to remove and neutralize acid vapors produced in the solar panel manufacturing process.

According the facility's Environmental Health & Safety (EHS) Manager, a security guard alerted facility staff at 6:39 a.m. when he observed the concrete containment dike overflowing with liquids. The released liquids were determined to be acidic with a pH of 2, released from the scrubber into a dike with a containment capacity of 4,700 gallons. Following the release it was estimated that approximately 458 gallons of liquids overflowed the dike and impacted a downgradient storm drain in the parking lot, which directed the drainage to a vegetated, man-made retention pond adjacent to the facility, which is believed to be clay-lined.

Current Activities

The company hired New England Disposal Technologies, Inc. to respond to the release. Cleanup workers responded in Level B (full face-piece respirators), subsequently downgrading to modified Level D (saranex suits, boots, gloves, face-shields for splash protection) after air monitoring (for ammonia, amines, hydrazine, sulfur dioxide, hydrogen sulfide, hydrogen chloride, chlorine, hydrogen fluoride, hydrogen cyanide, and nitric acid vapor) indicated no detectable acid gases or vapors.

OSC Morash responded to the scene and confirmed that the cleanup workers had recovered all of the free-standing liquids in the containment dike, on the parking lot surface, and in the catch basin sump. The discharged fluids that had migrated off-site, via the catch basin and subsurface drainage piping, appeared to have been contained within the retention pond. The company had retained a Licensed Site Professional (LSP) to oversee the emergency response and subsequent investigation and remediation of any impacted soils in the retention pond area and clean-out of the subsurface drainage system.

OSC Morash discussed the facility's sampling plan with the MassDEP responder on-site, and requested that the facility conduct additional upstream pH sampling of a nearby brook (Coldspring Brook, which flows to the Nashua River), to compare to downstream pH sample results. No impacts to fish, wildlife or vegetation were observed near or along the brook, and pH samples upstream and downstream of the retention pond discharge point to the brook indicated a pH around 6 (according to a color change).

Next Steps

OSC Morash departed the incident scene around 3:30 p.m., after confirming that all response actions being taken were not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Key Issues

OSC Morash and the MassDEP responder discussed with facility representatives the need for additional spill detection, notification, and response training for the facility response team and for the security guards who conduct after-hours patrols.

Examples discussed included verifying that all potential release areas are adequately illuminated during hours of darkness, training security personnel in early release detection, identifying and mapping all downgradient catch basins and subsurface drainage piping in potential release areas and stocking readily accessible catch basin plugs nearby, and training response personnel in immediate response actions, such as plugging catch basins, deploying containment booms, and rapidly pumping out dikes.

The release was also reported late to the National Response Center (NRC), after the facility was instructed to do so by the DEP responder. OSC Morash discussed the requirement to immediately report to the NRC releases of substances that are listed as "characteristically hazardous" (for example, characteristically corrosive liquids with pH of 2) under CERCLA, as well as filing the company's Tier II forms with the Local Emergency Planning Committee (LEPC), MassDEP and EPA.

response.epa.gov/evergreensolar