EPA Completes the Removal of Thousands of Containers from Superior Barrel and Drum Site

Elk Township, Gloucester County, New Jersey

Community Update **July 2014**

If you have any questions or would like additional information, please contact:

Keith Glenn
On-Scene Coordinator
732-321-4454
glenn.keith@epa.gov

Elias Rodriguez
Press Officer
212-637-3664
rodriguez.elias@epa.gov

Sophia Kelley
Community Involvement Coordinator
212-637-3670
kelley.jessicasophia@epa.gov

If you would like information on general environmental concerns or the federal Superfund hazardous waste program, have concerns or complaints about the Superfund program, or if you seek assistance in resolving site-specific issues that were not fully addressed by the EPA, please contact:

George Zachos
U.S. EPA
Regional Public Liaison
(732) 321-6621
zachos.george@epa.gov

Or toll free at (888) 283-7626

SITE BACKGROUND

In fall 2013, the U.S. Environmental Protection Agency (EPA) conducted an investigation at the Superior Barrel and Drum Site in Elk Township, New Jersey. The five-acre site was a drum recycling and reconditioning business that cleaned and reconditioned metal and plastic drums for resale, reuse or disposal. Approximately 2,150 containers, including 55-gallon drums, industrial totes, and others were discovered at the site, many of which were in deteriorated condition. The EPA collected samples from each container and found toxic chemicals inside many of the containers, such as trichloroethylene, benzene, lead, mercury, chloroform and vinyl chloride. In addition to container sampling, the EPA collected soil and surface water samples from areas throughout the property. Results from these samples did not indicate widespread soil contamination or an imminent ground water or drinking water concern.

REMOVAL ACTIVITIES

Starting in September 2013, containers were grouped based on similar characteristics and composite samples were collected. All samples were analyzed for the presence of hazardous substances. Once results were received, transportation and disposal companies were subcontracted to perform the removal of materials. Beginning in January 2014, materials were sent off-site to regulated facilities for treatment, fuel blending, incineration, neutralization/stabilization, recycling, and other disposal methods based on characteristic. Bulk liquids were removed via tanker trucks while bulk solids were removed via roll-off containers. Non-bulk materials and unique chemicals were transported in Department of Transportation approved containers. All containerized waste was removed by July 2014, totaling approximately 210,000 gallons of waste.

In addition, Elk Township and state officials removed approximately 75 tires from the facility to be sent for recycling. All scrap metal recovered from removal operations was also sent to a local metal recycling firm.

Surface water samples were collected in April 2014 under consultation with the U.S. Fish and Wildlife Service. Samples were collected in sensitive environments including wetlands, vernal pools (amphibian reproductive areas), and endangered species habitats. Results indicated that there is no threat from surface water flows originating from the site.

NEXT STEPS

With all containerized waste removed from the facility, the EPA is shifting focus to determine any environmental impacts associated with historic spills, leaks, and potential dumping of chemicals. From July to August 2014, the EPA will be conducting a comprehensive soil and ground water investigation. Soil samples will be collected up to five feet in depth while ground water wells will allow for the collection of water down to 100 feet. This will determine if any potential drinking water or agricultural supply wells may be contaminated.

http://www.epa.gov/region2/superfund/removal/superiorbarrel/

OVERALL ASSESSMENT PROCESS

Operation	*Process Details*
Geo-Physical Survey	The removal of all containers from the site allows for further investigation of potential environmental impacts. A geo-physical survey will use various technologically advanced equipment to show if any buried objects exist at the site. This is important to know since the EPA will be collecting samples at depth and installing ground water wells. Utilizing techniques such as ground penetrating radar (GPR), proton magnetometry and/or electromagnetic terrain conductivity, sub-surface images will be created, allowing personnel to see if any suspicious objects such as tanks, drums, piping, etc. are located below ground. This not only gives site managers the ability to gain knowledge of buried utilities or obstacles for future sampling activities, but it also indicates any areas where the owner may have conducted illegal dumping operations. Areas of suspected dumping may be investigated in more detail following the geo-physical assessment.
Soil Sampling	The EPA found many areas of stained soil located around leaking and damaged drums and totes staged throughout the site. Initial testing from some of these areas indicated the presence of hazardous substances. Due to weathering, these samples may not fully indicate the extent of potential contamination below the surface. To gain an understanding of possible migratory conditions from containers through the soil column, samples will be collected below grade. A subsurface soil boring unit will aid in digging to depths down to five feet and collecting a core of the strata. Visual inspections of the soil core will detect staining from possible chemical interaction while field screening instruments will be used for detecting volatile organic compounds and heavy metals. The EPA developed a statistical sampling design for obtaining a high level of confidence in the testing of soils, but also allows for biased sampling in areas of man-made impounds. Approximately 30 locations will be investigated throughout the site.
Ground Water Investigation	The water table is near the surface in the area of the site. As evidence of this, wetlands and vernal pools are located on-site as well as on the neighboring properties. The concern is that if significant soil contamination exists on-site, the contamination could reach ground water and move off-site. Residences and agricultural institutions in the area use this ground water for drinking and crop production. During the soil sampling event, shallow monitoring wells will be installed. At a depth no greater than 10 feet, up to six temporary wells will be installed at random points located throughout the site. These wells will be used to survey the top most water-bearing zone and gauge the direction of water flow. Additionally, using data obtained from the soil samples, up to 12 temporary ground water monitoring wells will be installed throughout the site and near potential hot spots. All of these wells will be placed at depths up to 100 feet below surface. More than half of these wells will be high-resolution wells and have samples collected every 10 feet. The remaining wells will be sampled at the surface of the water table as well as 50 and 100 feet below the ground surface.
Evaluation	Using data collected from the geo-physical survey, soil sampling and ground water investigation, the EPA will evaluate the site to determine whether additional cleanup work and/or additional investigations are necessary.