Site Address: 40 Favor Street; Attica, NY **November 2012**

Hillcrest Industries Update: 11/1/12

Summary of Work

- October 31, 2011 - DEC receives first odor complaint.
- November 2011 – DEC inspects site and follows up with letter to Hillcrest dated November 18
- November 2011 - Hillcrest starts odor control, adding lime to the pile and installing odor control product along the train tracks
- DEC remains in contact with Hillcrest via inspections, phone calls, letters, and e-mail correspondence throughout the winter and spring of 2011-2012.
- May 2012 – Hillcrest stops adding recycled material to the pile
- June 2012 – Hillcrest places plastic cover on the pile.
- June 2012- DEC sends first Notice of Violation
- July 2012 - DEC meets with Hillcrest in July to discuss a resolution
- July 2012 - Hillcrest stops accepting mixed recycled material to use in its manufacturing process
- August 2012 – Hillcrest begins injections of nitrogen and carbon dioxide
- August 2012 – Hillcrest adds Posi-shell
- September 2012 – DEC contacts EPA for assistance; EPA agrees pile needed to be separated
- September 2012 – Hillcrest injects F-500 fire suppressant
- September 2012 – Hillcrest hires Wargo Construction to break up pile, EPA oversees
- October 14, 2012 – fire extinguished
- October 17, 2012 – DEC sends Hillcrest Order of Consent
- October 19, 2012 – DEC and Hillcrest meet to discuss Order

Why was USEPA called to assist with the site?

- EPA was contacted by the DEC after Hillcrest had unsuccessfully attempted to reduce or eliminate the odors and temperature in the mixed glass/paper/plastic recyclable pile.

What did USEPA do and what happens now? The EPA began overseeing Wargo's work to put the fire out on September 29, 2012. Nearly 49,000 cubic yards of material was moved and placed in smaller piles to prevent reignition. The fire was officially extinguished on Sunday, October 14, 2012.Hillcrest is monitoring the temperature in the unprocessed glass piles until the material is processed and removed from the site. EPA's most recent results of air monitoring show no detectable levels of volatile organic compounds. Levels of particles have also been very low throughout most of the work. Data from previous lab analyzed results are posted on the EPA's website at
http://www.epa.gov/region02/superfund/removal/hillcrest/index.html

Who paid to break up the piles and extinguish the fire?

- Hillcrest hired and paid Wargo Construction to perform the work. EPA's role was to oversee the work paid for by Hillcrest.

Enforcement Actions

What is the timeframe for legal enforcement action related to Hillcrest?

- Order with compliance schedule will be signed within next several months; Hillcrest is cooperating and committed to come into compliance

Can DEC prevent Hillcrest from operating?

- No, DEC can only shut a facility down if the operation is causing an imminent danger to the health or welfare of the people of the State of New York. No agency (federal, state, health) has

determined Hillcrest is a danger to the health or welfare of Attica residents.

- DEC did direct Hillcrest to cease operation of two furnaces and two emission points that vent grit crushing, screening and drying operations while needed repairs to control equipment, and cleaning are performed.
- Hillcrest has made the necessary changes to both glass bead furnaces and, following a DEC inspection, has been authorized to operate the furnaces. The indoor grit and glass crushing, screening and drying operations are partially operable at this time. A stack test to demonstrate compliance with the particulate emission limits will be conducted in the near future. Hillcrest has an Air State Facility permit to operate. In order to revoke the permit, the DEC would need to follow regulatory procedures that provide Hillcrest with the opportunity to contest the revocation by requesting a hearing which can be a lengthy process. Hillcrest also has a Beneficial Use Determination (BUD) that permits them to process slag into an abrasive material but is considering ending that part of their business.
- DEC has worked with Hillcrest not only to bring its operations into compliance, but also to assure the availability of the funds necessary to clean up the site. This is important because neither DEC nor EPA has a dedicated fund for cleanup of non hazardous sites.

Next Steps

How will DEC ensure that the situation at Hillcrest improves? DEC met with Hillcrest on October 19 to discuss the terms of a draft Consent Order to address their violations of the Environmental Conservation Law. Hillcrest will submit a written response to the Order on November 2, 2012. DEC will place Hillcrest on an aggressive schedule to screen out the non-glass items (paper, plastic, metal) in the extinguished material for proper disposal offsite no later than April 1, 2013. Similarly, a schedule is planned to process the glass from this screening operation. DEC will closely monitor Hillcrest and do everything possible to ensure there will be no further impacts to the community. Hillcrest will also be required to:

- Monitor temperatures in the extinguished piles;
- Cover outdoor materials that may be sources of fugitive dust;
- Institute Best Management Practices for raw materials;
- Address general site housekeeping issues;
- Upgrade their air pollution control equipment;
- Conduct stack tests;
- Control fugitive emissions;
- Apply for a SPDES Multi-Sector General Permit;
- Remove fill from the adjacent area of Wetland AT-6;
- Address Petroleum Bulk Storage issues;
- Limit storage of slag to that allowed under BUD No. 745-9-61;
- Pay a penalty for violations of the Environmental Conservation Law.

Websites

DEC – http://www.dec.ny.gov/chemical/83781.html
USEPA – http://www.epa.gov/region02/superfund/removal/hillcrest/index.html

Who to Contact

Comments and questions are always welcome and should be directed as follows:

Project Related Questions:
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Site-Related Health/Respiration Questions:
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Wyoming County Director of Environmental Health
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Air Quality Station: EPA and DEC Air and Particulate Sampling Summary

EPA Air Sampling

At the request of the DEC, EPA took 24 hour samples on September 13, 2012 at ten locations on the Hillcrest Industries site and in the community surrounding the site. The samples were analyzed for 68 individual volatile organic compounds (VOCs). Thirty one of those compounds were detected. Most were well below health based screening values. As expected, levels of those contaminants that were detected were higher on the site than in the surrounding community.

This confirms previous air sampling showing that the burning pile was emitting these chemicals. Levels of these pollutants off the Hillcrest site were nearly all below health-based screening values. Levels of benzene in one off-site sample, taken near the railroad tracks at the end of Pearl Street, were elevated above the health-based screening values and suggested that emissions from the pile were migrating off-site into the community.

DEC's Community Residential Sampling – Night air sample

A Village resident collected a one-hour ambient air sample for the DEC on August 26th at 9:30 p.m. when the odor was strong. DEC's laboratory analyzed the sample and provided the results for 41 VOCs. Results for some of the contaminants were higher than the day time sampling results that DEC performed, but were still below the Short-term Guideline Concentrations (SGCs). DEC believes the concentrations were higher at night because the air is generally heavier and calmer so there is less mixing or dilution of the emissions in the atmosphere. In addition, more of the pile was smoldering by this time and the chemicals associated with smoldering polyethylene plastics (styrene, ethylbenzene and benzene) were being emitted from the pile at higher rate and were migrating off-site into the community.

DEC's Residential Sampling – Air

DEC collected four one-hour ambient air samples on August 8, 2012 between 12:00 p.m. and 3:00 p.m. in response to community concerns about odors and exposure to volatile air contaminants from the Hillcrest facility. Three samples were collected in the odor plume in the neighborhood downwind from the Hillcrest facility, one of which was at the facility property line. A fourth sample was collected at the Attica High School between the gas well and baseball diamond, approximately 20 yards south of the parking lot. DEC's laboratory analyzed all air samples and provided the results for 41 VOCs. These results were compared to DEC's Short-term Guideline Concentrations (SGCs) since the sample collection was a short period of time. SGC's are used by DEC to ensure that short-term exposures do not cause any significant health effects.

In addition to the 41 VOCs targeted by the sample method, our sampling results identified the presence of odorous chemicals of biogenic origin, such as fatty acid esters. As these decay products are not targeted air contaminants we routinely monitor, concentrations cannot be quantified. People differ in their ability to detect these chemicals by smell, but in some cases the odor thresholds can be very low – down to parts per billion (ppb) levels.

With the exception of one chemical (1,1,1-trichloroethane or 1,1,1-TCA, which had slightly higher results than typical background levels but still well below SGCs), levels of VOCs detected in the four samples are very low, mostly less than one part per billion, and similar to what's found in typical urban background air. In general, these results did not show a consistent pattern of higher concentrations near the Hillcrest facility and decreasing concentrations moving away from the facility as would be expected if the facility was the main source of these VOCs. For many of the analyzed chemicals, results from the four

samples were roughly the same and for several others, results from the two sites between Hillcrest and the school were higher than the Hillcrest and school results. None of the four samples showed any results above DEC's SGC. Two samples had somewhat higher results than typical background for 1,1,1-TCA, but there was not a consistent pattern observed that would suggest a likely 1,1,1-TCA source. This chemical was historically used as an ingredient in consumer products such as household cleaners and aerosol sprays for stain removal and as a degreaser to clean metal parts. It is no longer manufactured for common household uses, but may be found in previously sold household products. It should be noted that the 24 hour samples collected by EPA did not detect this compound at any of the 10 monitoring locations.

Uncertainties and Limitations

There is a lot of uncertainty with the collection of short-term, one hour samples. Air levels of these chemicals can change quickly, so a single one-hour sample only provides a "snap-shot" of one point in time, and levels could be much different at other times. When DEC conducts these types of air sample collections, they are considered for screening purposes for short-term exposures only. Results from single one-hour samples cannot be used to characterize long-term exposures. Because of the sensitivity of the sampling equipment nearby sources such as lawn mowing, cigarette smoking, residential storage of gasoline will also influence the air sample results.

Conclusion

In conclusion, the VOC results were generally low. The one hour samples were below DEC's SGCs and the majority of the 24 hour samples collected by EPA were below longer term health benchmarks. Air contaminants that are odorous at very low concentrations were observed in the DEC analysis but are not reported in the results because their concentrations cannot be estimated with this method. Overall, the DEC and EPA results did not indicate a health concern in the community from increased exposure to the volatile organic chemicals assessed with this sampling method. Nevertheless, acute health symptoms such as headache, nausea and cough could still be expected among residents experiencing persistent strong odors from chemicals not captured in these sampling results.

DEC's Residential Sampling – Particulates

DEC conducted two rounds of residential samples for particulates in the vicinity of Hillcrest Industries in Attica in response to resident's concerns about health risks from exposure to dust releases from the facility. The samples were collected July 10-17 and August 23-30, 2012 at four residential properties. Eleven samples were collected from the Hillcrest facility at specific release points and from raw material and finished product. Matching the types of particles found on the residential properties with the types found onsite of the facility provided DEC staff with an understanding of which release points need to be better controlled. The samples were submitted to DEC's Microscopy Lab, Bureau of Air Quality Surveillance, for analysis. The lab determined the composition of the residential dust samples and the size of the particles to evaluate whether the dust could be from operations at the Hillcrest facility. Both sets of samples indicated that particulate from Hillcrest Industries was impacting the four residential areas sampled. Fractured glass was the most predominant particulate observed, but both sets of samples also contained glassy spheres, glass beads and slag material. The second set of samples had considerably more biological material in them, especially ragweed pollen and plant fibers, and also contained a porous black sooty material not present in the first set of samples. There were also fewer glassy spheres and slag in the second round of samples.

Conclusion

The residential samples consisted primarily of large particle fragments from the Hillcrest facility. The facility release points for most of the particles found in the residential samples will be controlled through repair of leaking equipment, repairing and/or installing additional air pollution control devices and application of dust suppressant to the raw material piles and to the onsite roadways. DEC will continue to

monitor the operations of this facility to ensure our particulate air pollution mitigation strategies are successful.

The microscopy lab found particles in dust samples collected at all four of the residential locations with similar characteristics as the particles of glass fragments from the facility. The samples collected from the facility contained particles which ranged in size from fine particulate matter (particles 2.5 microns or less in size) to much larger sizes, well above 100 microns with most particles very large in size. By comparison, the width of human hair is 40 to 120 microns, where a micron is one millionth of a meter. Similarly the particles in the residential dust samples which were distinguished as either glass fragments, glass beads or slag fragments were also mostly very large in size, generally 10 microns and larger, but also contained smaller particles in the 2.5 to 10 micron range. A significant portion of the second set of samples collected revealed glass particles in excess of 277 microns and glass spheres in excess of 54 microns. The particles found in the residential samples attributable to facility releases appear to be from crushed clear glass that feeds the bead furnace and fines from the glass bead furnace cyclone. In addition to the glass spheres and fractured glass, some slag product was identified. Particles less than 2.5 microns are most difficult to identify without the aid of elemental composition. DEC's ability to analyze these particles elementally is currently not available, therefore no estimate of particle percentage can be provided in this size range. Although it is clear from the images contained in the reports that there are many particles in the 2.5 micron size range in these samples, it is not possible to positively attribute these particles to Hillcrest. It is important to note that in any environmental sample there are many particles in the 2.5 to 10 micron range. Mobile sources, wood smoke, earthy minerals, and mold spores would all be examples of this. The percentage of particles that fall in the 2.5 - 10 micron range that is attributable to Hillcrest Industries ranges from about 1% to 7% depending on the location of the sample. Considerably more crushed glass and glassy spheres were larger than 10 microns, and some glass particles measured in access of 277 microns.

This particle identification work was conducted to identify the specific sources of the particle fallout in the community so they could be effectively mitigated. The information contained in these reports cannot be used for comparisons to the current National Ambient Air Quality Standards for particulate matter.

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Air Quality Station: Air Permit Summary

- Hillcrest Industries has an Air State Facility Permit to operate glass bead manufacturing furnaces and abrasive blasting media processes, along with particulate control devices such as baghouses, cartridge filters, drop boxes and cyclones to control air emissions associated with its manufacturing processes.

- Hillcrest's air permit allows some emissions to the outside atmosphere. The particulate emissions from the glass bead furnaces are limited, and the grit dryer baghouse and the grit screening cartridge filters must be 99.9% efficient. Visible emissions from the above emission points cannot exceed 20% opacity averaged over 6 minutes. Opacity is the measure of the amount of background light blocked by emissions.

- When complaints of glass and slag dust were received by DEC and potential sources of dust were identified during DEC inspections, Hillcrest was instructed to fix the sources of dust. In July DEC sampled the fallout to determine the source(s) of the dust. Following that, Hillcrest fixed additional sources of dust and made some operational modifications to reduce particulate emissions. Follow up dust sampling was conducted by the DEC in the community during August. When several follow up DEC inspections determined that Hillcrest had not adequately addressed all the potential sources of dust by late September, they were instructed to cease operation of the two glass bead furnaces and two emission points that vent grit crushing, screening and drying operations. Hillcrest was required to inspect, make needed repairs to control equipment, and clean the equipment prior to operating. Hillcrest made the necessary repairs to both glass bead furnaces and following DEC inspections has been authorized to operate the furnaces. The indoor grit and glass crushing, screening and drying operations are partially operable at this time because they are now venting through indoor particulate controls. Stack testing to demonstrate compliance with the particulate emission limits in the permit will be conducted in the near future.

- In addition to emissions from the permitted sources, Hillcrest has had fugitive emissions from stockpiles of material, truck traffic, outdoor screening operations, and housekeeping issues. Hillcrest will be required to identify and minimize all sources of fugitive dust in compliance with the Environmental Conservation Law and regulations.

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Other Issues/Questions Station: Freshwater Wetland AT-6

- Freshwater Wetland AT-6 is present along the west side of the Hillcrest Industries site and extends off-site to the south. It is a large emergent marsh/forested swamp that functions to retain flood water, cleanse runoff from adjoining areas before the water enters Tonawanda Creek, and provide habitat for a diversity and abundance of wetland dependent wildlife.

- Environmental Conservation Law Article 24 protects a 100-foot area adjacent to regulated freshwater wetlands in order to provide additional protection to the wetland.

- Hillcrest placed recyclable material as much as thirty feet into the regulated 100-foot adjacent area surrounding Freshwater Wetland AT-6 in violation of Part 663.4(d)(20).

- Hillcrest subsequently installed silt fence along the west and south edges of the recyclable pile which kept material from entering the wetland.

- Hillcrest will remove the material from the adjacent area and will undertake other measures to revegetate the adjacent area and mark the boundary of the adjacent area to prevent future encroachment.

Freshwater Wetland AT-6 as viewed from west edge of recyclable pile, facing south.

Silt fence installed between recyclable pile and Freshwater Wetland AT-6, facing north.

Other Issues/Questions Station: Stormwater

- Division of Water staff inspected the site on 5/2/12. The need for appropriate stormwater controls was noted at that time, including the need for a State Pollutant Discharge Elimination System (SPDES) Multi Sector General Permit. Division of Water staff provided feedback on operations and the needed stormwater controls.

- The State Pollutant Discharge Elimination System (SPDES) Multi Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-12-001) is a five (5) year permit that covers discharges of stormwater to surface waters of the State from industrial activities.

- Industrial Facilities such as Hillcrest are required to obtain a SPDES Multi Sector General Permit for discharge of their facility stormwater to surface waters.

- Hillcrest does not have a SPDES permit for stormwater discharge, but will obtain one.

- Stormwater runoff was controlled during the operation to break up the large pile of recyclable material into smaller piles. The fire fighting waters were collected and pumped into tanks then reused in the firefighting efforts. Hillcrest is awaiting approval to discharge the fire fighting waters into the sanitary sewer for treatment.

Other Issues/Questions Station: Petroleum Bulk Storage

- Article 17, Title 10, of the Environmental Conservation Law regulates both Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs), or groupings of USTs or ASTs with a combined storage capacity of more than 1,100 gallons. Facilities with over 1,100 gallons capacity must be registered with the DEC pursuant to 6 NYCRR 612.

- Hillcrest has petroleum bulk storage tanks with a combined capacity over 1,100 gallons, but the tanks are not registered.

- Hillcrest plans to permanently close tanks to bring the facility under 1,100 gallons capacity limit.

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Solid Waste Station

- Hillcrest mistakenly believed their facility was exempt under 360-12.2: Manufacturing facilities which accepts a single general type of source separated, nonputrescible recyclable, including, but not limited to glass, plastics, metals or paper, and which produces, through physical or chemical transformation of the material, a marketable product that is then leased, sold, used by a manufacturer or offered for sale or offered for promotional purposes to a consumer as a product and is not disposed of by the manufacturer.

- In actuality, Hillcrest should have obtained a 360-1.7 permit for a solid waste management facility.

- Hillcrest is no longer accepting anything but clean recycled glass to use in its manufacturing process, which is allowed under the manufacturing exemption described above.

- Hillcrest has a Beneficial Use Determination (BUD) for the slag which they use to make an abrasive blasting media. Hillcrest stored more slag on their site than was allowed by the BUD approval. Hillcrest is reviewing their options in terms of continuing to use slag to make blasting media. If they decide to continue, Hillcrest will reduce the size of the slag pile in accordance with the requirements of the BUD. If they decide to eliminate this operation, the slag will be shipped off-site to an authorized facility. Hillcrest has loaded some of the slag onto railroad cars and shipped it off-site.

- Hillcrest will evaluate the cap on Westinghouse's closed foundry sand landfill. The cap must consist of clay with topsoil to support vegetative growth. If the cap does not meet these criteria, Hillcrest will submit a remedial plan for DEC review and approval.