



Newsletter from the Monroe County Department of Health
Reviewed by the Brockport Consultation Group

Fifth Issue Brockport Environmental News

Inside this issue

- 1** The Clean-up Process for a Hazardous Waste Site
- 7** *Environmental Health:*
How can toxic substances cause harm?
- 8** Availability Session Announcement

In every issue ...

- 4** Information Sources
- 4** Contacts for Site Information
- 5** What's New
- 6** Community Corner
My Environment, My Health, My Choices
- 7** Glossary of Terms

In following issues...

Land use history of the 3M site and G.E./Black & Decker site

The Clean-up Process for a Hazardous Waste Site

In New York State, the clean-up or remediation of a hazardous waste site typically follows a step-by-step process, which starts with the discovery of contamination and finishes when the remediated site is deleted from a federal or state listing of hazardous waste sites. The clean-up process has many steps and each step takes time. Throughout this process there are opportunities for citizens to ask questions and give input on how they would like to have the site remediated.

Regulatory Clean-up Programs

The following section gives a brief overview of laws used in New York State that deal with sites where there has been a migration or release, or a threat of a release of hazardous substances into the environment. The law that governs the clean-up program depends on the type of hazardous waste or hazardous substance spilled or released (i.e., oil, hazardous waste) and the source (i.e., an underground storage tank, an abandoned facility, a working facility).

Federal clean-up programs such as RCRA (Resource Conservation and Recovery Act) and Superfund have worked with states to develop clean-up programs that mirror the federal processes and standards. This has been done in order to expedite the clean-up of sites. New York State has both a RCRA program and a Superfund program.

Superfund laws focus on closed and abandoned hazardous waste sites. Superfund also provides funding for cleaning up sites where no potentially responsible party can be identified. The former 3M/Dynacolor site is being cleaned up under the regulations of the New York State Superfund program and is being paid for by the 3M Corporation.

RCRA law regulates currently operating businesses and facilities that generate, transport, treat, store or dispose of solid and hazardous waste. (This also includes addressing releases into the environment due to past activities at sites that are no longer operating.) The former G.E./Black & Decker site is being cleaned up under the New York State Department of Environmental Conservation (NYSDEC) RCRA program.

◆ **RCRA**

RCRA was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. Today RCRA

Monroe County Health Department
111 Westfall Road, PO Box 92832
Room 976
Rochester, New York 14692-8932

governs the management of solid and hazardous waste and underground waste storage tanks. Subtitle C of the Resource Conservation and Recovery Act focuses on the management of hazardous waste from the time it is generated to its disposal. This program includes standards for those facilities that generate, transport, treat, store, or dispose of hazardous waste. Because spills or releases into the environment may occur when working with hazardous waste this program also contains provisions governing the clean-up of contaminated air, groundwater, and soil.

The law gives the US EPA the enforcement authority to require all hazardous waste management facilities to follow the regulations and it also authorizes state governments to implement and enforce this regulatory program.

◆ **Superfund**

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund. This was a response to citizen concern over uncontrolled or abandoned hazardous waste sites. Whereas RCRA regulates how wastes should be managed to avoid potential threats to human health and the environment, Superfund focuses on hazardous waste problems that are the result of mismanaged hazardous substances.

Superfund established rules and requirements regarding closed and abandoned hazardous waste sites and made those responsible for releases of hazardous waste at these sites accountable. In addition, a trust fund was created to pay for clean-up actions when no potentially responsible party (PRP) can be identified.

◆ **New York State Law**

The portion of New York State law that focuses on inactive hazardous waste disposal sites is found in Part 375 of Title 6 of the Official Compilation of the Codes, Rules and Regulations of the State of New York (6 NYCRR). The first section of Part 375 outlines the steps that must be followed in the discovery and remediation of an inactive hazardous waste site, as well as how state funding may be allocated to follow these steps. The State will fund an investigation and clean-up of a site if a PRP is not identified, or if a PRP is bankrupt or unwilling to take responsibility. In the latter case, the NYSDEC will proceed with the remediation and after it is complete, the total cost will be calculated and the PRP will be sued to recover the clean-up costs.

The NYSDEC is required to maintain a registry of all inactive hazardous waste disposal sites

identified in New York State. These sites are known to have disposed of a consequential or significant amount of hazardous waste. If the amount of hazardous waste disposed at a site does not presently nor will pose a significant threat to the environment or public health then the site would not be a candidate for the registry.

Currently, there are fifty Monroe County sites on the registry including the former 3M/Dynacolor site and the former G.E./Black & Decker site. The registry was first compiled in 1980. The registry is reviewed on a yearly basis to ensure that the status of the included sites is current. At any time, sites may be added or delisted.

Monroe County Health Department's role

The Monroe County Health Department (MCHD) and the NYSDEC have a written agreement that outlines their coordination during the clean-up process. The role of the MCHD is advisory and the NYSDEC's responsibility is to manage the clean-up activities and provide the MCHD with site-specific information such as reports, workplans and correspondence. Before reports and workplans are finalized, the MCHD submits their comments to the NYSDEC.

The MCHD regularly convenes a Waste Site Advisory Committee to review the activities of each site listed on the Inactive Hazardous Waste Site Registry in Monroe County. The committee also reviews potential candidates for the registry as well as sites under the NYS Brownfield and Voluntary Clean-up programs. The membership of this committee includes representatives of the New York State Department of Health, the NYSDEC, the City of Rochester, the Monroe County Environmental Management Council, Monroe County Pure Waters, the Monroe County Planning and Development Department and a geologic consultant.

General Steps to Cleaning It Up

The approach to cleaning up a hazardous waste site, whether it is regulated and guided by a federal program such as federal Superfund or by New York State Superfund Law, is very similar. The terms used to describe the different stages of process may vary, but in general the procedure is the same. The following outlines this general approach using generic terms:

- 1) **Discovery** – The finding of possible releases of hazardous substances on a site or the notification of a federal agency (Environmental Protection Agency (EPA)) or state agency (NYSDEC) of these findings is the first step.

- 2) *Information Gathering* – The regulatory agency responsible for overseeing the clean-up of the site takes a closer look at its operational history and the conditions at the site. During this stage, historical information is collected from various sources. This information includes researching previous owners, past site uses and on-site production processes, storage of chemicals, and disposal of waste chemicals.
- 3) *Site Investigation* – After information is gathered, the regulatory agency and the potentially responsible party or parties develop an initial plan to collect samples from the site. Collecting samples of air, soil, surface water or groundwater, as appropriate, helps to determine the nature of the contamination (what chemicals are present) and the extent of the contamination. Many samples may have to be collected over a period of time to determine the boundaries of the area affected by contamination and to answer questions that may arise with the discovery of new information. This includes the source of the contamination, how far it has spread horizontally over an area, how deeply into the soil it has moved, and how far in groundwater it may have traveled. Samples are collected and analyzed at a certified laboratory. Some samples are ‘split’ and analyzed at two separate labs, one chosen by the PRP and the other by the NYSDEC. This ensures an independent check on the results. This ‘split’ sampling method may be followed at various stages throughout the investigation and clean-up process.

Under the **RCRA** program, the Steps 1,2, and 3 are called the **RCRA Facility Investigation (RFI)**. The **NYS Superfund** program calls these steps the **Remedial Investigation (RI)**.

- 4) *Immediate Clean-up Action* – Sometimes a pocket of contamination is discovered during the initial investigation that can be addressed immediately without having to conduct extensive investigation and evaluation. This is usually done to minimize threats to human health or the environment while site investigations are underway or before final remedies are selected. For example, if three 55-gallon drums are found on a site, they can be removed and disposed of properly. In addition, if there is evidence that the drums had leaked then the impacted soil can be excavated and disposed of properly.

Step 4 in the **RCRA** program is called an **Interim Corrective Measure (ICM)**. Under **NYS Superfund**, it is an **Interim Remedial Measure (IRM)**.

- 5) *Examination of Clean-up Options* – After the extent of the contamination has been determined, the next step is to collect any data that may be needed to evaluate the effectiveness of certain treatment technologies. Once this information has been collected, all the options for remediation are compiled and one is chosen for recommendation. The PRP submits this recommendation to the regulatory agency (i.e., NYSDEC). After the regulatory agency reviews the remedial options including the recommended one, it decides which action is most appropriate and a clean-up action plan is prepared for public review.

The **RCRA** program refers to Step 5 as the **Corrective Measure Study (CMS)**. **NYS Superfund** calls this step a **Feasibility Study (FS)**.

- 6) *Public Participation* – Citizen participation facilitates communication among the regulatory agency and individuals, groups, and organizations that have an expressed interest in or are affected by a hazardous waste site. At sites where there is a high level of citizen interest, public meetings, availability sessions and fact sheets are often used to inform the public about site activities at key points during the investigation and clean-up process.

The proposed remedial action plan is presented by the regulatory agency to interested citizens at a public meeting. Citizens have the opportunity to ask questions and voice their concerns during this meeting. In addition, the public may submit comments either written or oral during a period after the presentation of the remediation plan. Concerns are addressed in a document called a responsiveness summary, and made available to the public. Included in the responsiveness summary is a brief analysis of the remedy selected including a discussion of any significant changes from the original proposal.

Under **RCRA**, Step 6 is called the **Draft Statement of Basis**. Under **NYS Superfund**, the proposed remedial action plan is also known as a **PRAP**.

- 7) *Finalization of the Clean-up Plan* – After all citizens' comments have been addressed and changes, if appropriate, have been made to the plan, it becomes finalized and the clean-up actions begin.

Under **RCRA**, Step 7 is called the **Final Statement of Basis**. Under **NYS Superfund**, Step 7 is referred to as the **Record of Decision**.

- 8) *Design and Construction* – During this phase of the process, the technical specifications for clean-up remedies and technologies are designed and then constructed or implemented.

Under **RCRA**, Step 8 is the **Corrective Measures Implementation**

- 9) *Operations and Maintenance* – This stage of the process, which maintains the effectiveness of the remedy, depends on the type of clean-up remedy used at a site. For example, landfill caps, gas collection systems, groundwater extraction systems, groundwater monitoring, and surface water treatment require this step in the process.

Contacts for Site Information

New York State Dept. of Environmental Conservation (NYSDEC)

Linda Vera, Citizen Participation Specialist
(716) 226-5324

- Lisa LoMaestro Silvestri, Citizen Participation Specialist (716) 226-5326

New York State Department of Health (NYSDOH)

Dave Napier, Regional Toxics Coordinator
(716) 423-8071

Monroe County Health Department (MCHD)

Joe Albert, Senior Sanitarian
(716) 274-6904

Neighborhood Contacts

Kathy Snyder	(716) 637-7391
John Lessord	(716) 637-5580
Lynne Gardner	(716) 637-4803
Shawn Lessord	(716) 637-4068
Louise Cardillo	(716) 624-8392
Ken Pike	(716) 395-9080

Information Sources

More on Federal Superfund and RCRA

United States Environmental Protection Agency

- **Superfund Web Site**
www.epa.gov/superfund/index.htm
- **RCRA Orientation Manual**
www.epa.gov/eposwer/general/orientat/
- **Frequently Asked Questions about RCRA Hazardous Waste**
www.epa.gov/epaoswer/osw/basifact.htm
- **NYSDEC Link to Region 8 Website & to Hazardous Waste Website**
www.dec.state.ny.us

Web Pages for Kids, Students & Teachers



United States Environmental Protection Agency

- **EPA Student Center**
www.epa.gov/epahome/students.htm
- **Superfund Kids' Page**
www.epa.gov/superfund/kids/index.htm

National Institute of Environmental Health Science (NIEHS)

- **NIEHS Kids' Pages**
www.niehs.nih.gov/kids/home.htm

National Safety Council (NSC)

- **Environmental Health Center: Kids' Corner**
www.nsc.org/ehc/kidscorn.htm

What's New

Demolition of Oxford Street Houses

The 3M Corp. completed the asbestos removal and subsequently demolished five houses along the east side of Oxford Street. The foundations of the houses were removed and clean fill was spread over the excavations. Before the excavations were filled, soil along the sides and bottom of the excavation were sampled for site-related contaminants.



House on Oxford Street undergoing asbestos removal

NYSDOH Collects Blood from Brockport Residents to Test for PCB Exposure

In mid-October, the NYSDOH held a two-day clinic at Lakeside Memorial Hospital to draw blood samples from individuals whose homes are adjacent to the above ground portions of Tributary #3 and who had expressed an interest in participating. Blood tests were also offered to individuals who had lived in this specific area in the past.

Biomonitoring Plan for Fish in Brockport Creek

The NYSDEC requested G.E./Black & Decker to prepare a biomonitoring plan to determine if the fish population in Brockport Creek has been impacted by the contamination detected in the sediment. Prior to preparing this plan, G.E./Black & Decker conducted a field investigation in mid-October to gather information such as the types of fish species present that would be useful for biomonitoring.

Sampling begins along Tributary #3

The 3M Corp. and G.E./Black & Decker collected soil samples along Tributary #3 to determine the horizontal and vertical extent of the contamination. Soil samples were being collected from the ground surface down to a depth of 4 feet along the tributary. The samples were collected along 35 transects. These transects are lines of sample points positioned across the current stream channel of Tributary #3 and in areas where the tributary has been piped underground. Soil

samples were collected at specific distances measured from the center of the tributary. Samples collected below the surface of the ground were gathered by using a machine that pushes a probe into the ground and pulls out a core of soil (see the picture below). The majority of soil samples were collected in the residential area between the Erie Barge Canal and East Avenue. The testing also occurred north of East Avenue to where the tributary merges with Brockport Creek. In addition to the soil sampling along the tributary, an inspection of the piped sections of the storm sewer in this area was conducted using a video camera. This information will be used in designing a clean-up plan for this portion of the tributary drainage way. Stream water samples have also been collected.



Machine used to pull cores of soil from the ground

Former 3M/Dynacolor Site

The results from the soil sampling conducted at eight residences on the west side of Oxford Street were provided directly to the owners of the properties sampled. In general, the results found that cyanide and silver concentrations detected in soil samples were consistent with concentrations found in background samples. These levels do not indicate that the 3M site has impacted the properties. Other metals and semi-volatile organic compounds were detected at slightly elevated levels in some of the soil samples. This is most likely due to the fill material that is present in the soils on these properties. There were no sump water samples that contained cyanide above the groundwater standard.

The workplan for excavating the remaining portions of an abandoned wastewater treatment facility located on the former 3M/Dynacolor site has been approved by the NYSDEC. The remnants of this facility are buried under a layer of fill material approximately 3 to 8 feet deep. The excavated materials and surrounding soils will be sampled to ensure that no remaining contamination is left on-site. This remediation is expected to be completed by early December.

Community Corner

My Environment, My Health, My Choices

In June, 5 three-person teams consisting of science, social studies and health teachers from area high schools began a seven-year project to develop an environmental health curricula with guidance and support from the University of Rochester Environmental Health Sciences Center Outreach Program. This project, which is funded by the National Institute of Environmental Health Sciences, is intended to help teachers develop curriculums that introduce environmental health and science topics to students. The project aims to increase student and teacher knowledge about the links between environment and human health.

The project will eventually involve a total of 15 teams of teachers representing high schools and middle schools around the area. The high schools currently involved are Brighton, Webster, Rush-Henrietta, East High, and Marion. These schools were selected based on their proposals submitted as part of the application process and on the degree of support to be provided by their school administrators. The proposals focused on a specific environmental health question or problem such as the links between air pollution and asthma.

In the summer of 2003, five middle schools will begin to participate in the project. The selection process for these participants will begin in the fall of 2002. An additional group of high schools and middle schools will join the project in the summer of 2004.

For More Information

Visit the My Environment, My Health, My Choices web site:

www2.envmed.rochester.edu/envmed/EHSC/outreach/MyEnvironment.html

Or contact:

Dr. Dina Markowitz, Director of Community Outreach and Education Programs for the University of Rochester Environmental Health Sciences Center, at (716) 275-3171.

Questions from the Community

- Q:** Has there been testing conducted on both sides of Lyman Street?
- A:** Yes. In 1996, G.E. under the supervision of the NYSDEC conducted a residential testing program for sump water and indoor air in houses located on the south and north sides of Lyman Street. There were houses located in the 'study area', which were houses located within the area where groundwater contamination had been detected, and houses located in two 'control groups areas', which were houses thought to be outside of the contaminated area. One control group area was located on Lyman Street and the other control group area was located on Frazier Street. No G.E. site-related contaminants (trichloroethylene (TCE) or cis-1,2-dichloroethylene (cis-1,2-DCE)) were detected in any of the control homes.

Please send, call, or e-mail your health-related questions regarding the 3M/Dynacolor or G.E. and Black & Decker sites to:

Monroe County Health Department
111 Westfall Road, Room 976, PO Box 92832
Rochester, NY 14692-8932
Attn: Karen Paris Tuori

Karen's phone: (716) 274-6397

Karen's email: kptuori@mcls.rochester.lib.ny.us

The Monroe County Health Department Staff will make every effort to respond in the next newsletter.

**Environmental Health:
How can toxic substances cause
harm?**

Since chemicals can be toxic, it is important to understand how they can affect health. To determine the risk of harmful health effects from a substance, you must first know how toxic the substance is; how much, and by what means, a person is exposed; and how sensitive that person is to the substance.

Toxicity

Some substances are more toxic than others. The toxicity of a substance is described by the types of effects it causes and its potency.

Types of Effects: Different chemicals cause different effects. For example, Chemical A may cause vomiting, but not cancer. Chemical B may have no noticeable effects during exposure, but may cause cancer years later.

Potency: Potency (strength) is a measure of a chemical's toxicity. A more potent chemical is more toxic. For example, sodium cyanide is more potent than sodium chloride (table salt) since swallowing a smaller amount of cyanide can poison you.

The potency and, therefore the toxicity of a chemical can be affected by its breakdown within the human body. When a substance is absorbed into the body, its chemical structure may be changed or metabolized to a substance that is more toxic or less toxic. For example, carbon tetrachloride (once a commonly used solvent) is changed by the human body into a more toxic chemical that causes liver damage. For some other chemicals, human metabolism changes the chemical into a form that is more easily eliminated by the body.

(Health information courtesy of the New York State Department of Health)

Glossary of Terms

Asbestos Abatement: Procedures to control fiber release from asbestos-containing materials in a building or to remove them entirely, including removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

Attenuation: The process by which a compound is reduced in concentration over time, through absorption, adsorption, degradation, dilution, and/or transformation.

Cleanup: Actions taken to deal with a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Cost Recovery: A legal process by which potentially responsible parties who contributed to contamination at a Superfund site can be required to reimburse the Trust Fund for money spent during any cleanup actions by the federal government.

Operation and Maintenance: 1. Activities conducted after a Superfund site action is completed to ensure that the action is effective. 2. Actions taken after construction to ensure that facilities constructed to treat waste water will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3. On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

Pathway: The physical course a chemical or pollutant takes from its source to the exposed organism.

Sump: A pit or tank that catches liquid runoff for drainage or disposal.

ENVIRONMENTAL HEALTH EDUCATION AVAILABILITY SESSION

The Monroe County Health Department invites you to discuss your environmental health questions and concerns regarding the former 3M/Dynacolor site and former G.E./Black & Decker site.

The session format will offer the opportunity for you to speak with experts on a one-on-one basis.

The fields of expertise include:

- **Toxicology**
- **Occupational/Environmental Medicine**
- **Pediatric Medicine**

Health professionals from the following organizations will participate:

- ✓ **Agency for Toxic Substances and Disease Registry (ATSDR)**
- ✓ **New York State Department of Health**
- ✓ **Finger Lakes Occupational Health Services**
- ✓ **University of Rochester Environmental Health Sciences Center**
- ✓ **Oak Orchard Community Health Center**

New York State Department of Environmental Conservation will be present to address technical questions about the sites.

Date: Monday, November 26, 2001

Place: Oliver Middle School, 40 Allen Street, Village of Brockport

Time: Any time between 4:00 p.m. to 8:30 p.m.

If you have any questions, please contact Karen Paris Tuori, Monroe County Health Department at (716) 274-6397.