Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision
Former 3M/Dynacolor Site
Operable Unit No. 2
Brockport, Monroe County, New York
Site Number 8-28-066

March 2005

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* DENISE M. SHEEHAN, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Former 3M/Dynacolor Inactive Hazardous Waste Disposal Site
Operable Unit No. 2
Brockport, Monroe County, New York
Site No. 8-28-066

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for: Operable Unit 2 of the Former 3M/Dynacolor site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for Operable Unit 2 of the Former 3M/Dynacolor inactive hazardous waste disposal site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by implementing the interim remedial measures identified in this ROD. The removal of contaminated soil from the operable unit has significantly reduced the threat to public health and the environment. Therefore, additional sediment sampling and continued fish sampling will be conducted to monitor the effectiveness of previous remedial actions.

Description of Selected Remedy

Based on the implementation of the above IRMs, the findings of the investigation of Operable Unit 2 of the 3M/Dynacolor Site indicate that the Operable Unit no longer poses a significant threat to human health or the environment, therefore No Further Action with additional monitoring was selected as the remedy for this Operable Unit.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

_____ _____

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

Former 3M/Dynacolor Site
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SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the Former 3M/Dynacolor Operable Unit No. 2. Operable Unit No. 2 refers to Tributary 3 to Brockport Creek. As more fully described in Sections 3 and 5 of this document, industrial discharges from the 3M/Dynacolor site and the adjacent 200 State Street Site resulted in the disposal of hazardous wastes, including cyanide, metals, and polychlorinated biphenyls (PCBs). These wastes contaminated the soil and sediment of Tributary 3 to Brockport Creek, and resulted in:

- a significant threat to human health associated with potential exposure to Tributary 3 sediment/soils; and

- a significant environmental threat associated with the impacts of contaminants to Tributary 3 sediment/soils.

During the course of the investigation certain actions, known as interim remedial measures (IRMs) also referred to as interim corrective measures (ICMs), were undertaken in and along Tributary 3 (Operable Unit No. 2 for the 3M/Dynacolor Site) in response to the threats identified above. An IRM or ICM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation/feasibility study (RI/FS). The IRMs undertaken at this Operable Unit included removal of contaminated soils and sediment in the open channel portions of the Tributary and replacement of the storm sewer and removal of associated soils from the piped sections in the Lyman/Barry /Frazier Street neighborhood.

Based on the implementation of the above IRMs, the findings of the investigation of this Operable Unit indicate that the Operable Unit no longer poses a significant threat to human health or the environment, therefore No Further Action with additional monitoring was selected as the remedy for this Operable Unit.

The selected remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this Operable Unit in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and

appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The former 3M/Dynacolor Brockport facility is located in a suburban setting in the Village of Brockport, Monroe County, New York. A Site location map is presented on figure 1. The Site is approximately 5.5 acres in size. It is bordered on the west by Oxford Street, on the north by State Street, on the east by the 200 State Street Site (formerly Kleenbrite/JMT Properties, General Electric [GE]/Black and Decker), and on the south by the eastward continuation of the Spring Street centerline. Immediately north of State Street is the Erie Canal (New York State Barge Canal), flowing approximately west to east when the canal is filled.

Operable Unit (OU) No. 2, which is the subject of this document, consists of the Tributary 3 drainageway, including both the piped portions and the open channel portions of the Tributary. OU No. 2 includes the portions of the storm sewer south of the Erie Canal, three open stream segments north of the Erie Canal and approximately 1700 feet of piped storm sewer north of the Canal. An operable unit represents a portion of the site remedy that for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

The remaining operable unit for this site is the on-site portion of the cleanup at the 180 State Street site. A Record of Decision for Operable Unit No. 1 was signed in March 2004. The remedy consists largely of a carbohydrate injection system to address VOC contamination in groundwater. Construction of that system is complete with carbohydrate injections continuing on a periodic basis.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The former 3M/Dynacolor Brockport facility was originally developed in 1893 by the Brockport Piano Manufacturing Company, which operated the facility until 1913. The McLaughlin Company purchased the piano plant in 1913 and manufactured galvanized pails, buckets, washtubs, and other items using an electrolytic process until 1921. By the late 1920's the site was home to a factory that manufactured boxes primarily for the shipment of canned goods. The box factory operated until the 1940's.

The Site and building were purchased by the Dynacolor Corporation in 1956. From 1956 to 1961, Dynacolor Corporation used the facility to process photographic film. 3M purchased the site in 1961 and continued to use the facility for photo processing until 1978, when 3M ceased operations at the Site. Operational buildings were demolished by 3M in 1979, and the area was covered, graded, reseeded, and maintained as a lawn. In 1985, 3M donated the site to the Town of Sweden. In 1986, the Town of Sweden transferred ownership to Brockport Cold Storage (BCS), now owned by Birds Eye Foods. BCS constructed a frozen-food processing building on the approximate footprint of the former 3M/Dynacolor plant building.

During early operation of the site as a photoprocessing plant, cyanide bearing wastes were reportedly disposed on-site through the use of a leachfield located north of the building. Similar wastes were reportedly disposed off-site via direct discharges to storm sewers that represent the upstream portion of Tributary 3. Near the end of the life of the photoprocessing operation, these cyanide bearing wastes were pre-treated at an on-site wastewater treatment plant prior to being discharged to the sanitary sewer for additional treatment at the Village of Brockport's publicly owned wastewater treatment works (POTW). It is unclear how waste from the small degreasing operation entered the environment. During sampling conducted by NYSDEC in 1994 hazardous waste containing PCBs was found in an on-site manhole. The manhole is believed to have been connected to the on-site wastewater treatment plant. The manhole and associated wastes were later removed.

PCBs were also found on the adjacent 200 State Street Site at a number of locations including locations within the on-site storm sewer system. The 200 State Street Site manufactured small electric consumer appliances until JMT Properties/Kleenbrite used the site to manufacture and warehouse household cleaning products.

3.2: Remedial History

In 1986, the NYSDEC first listed the site as a Class 2a site in the Registry. Class 2a is a temporary classification assigned to a site that has inadequate and/or insufficient data for inclusion in any of the other classifications. In 1995, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The NYSDEC and 3M entered into a Consent Order in June of 1998. The Order obligates the responsible party to implement a RI/FS remedial program. A significant portion of the environmental investigation and cleanup of Tributary 3 was addressed under the 6 NYCRR Part 373 post-closure care permit for the adjacent 200 State Street site. JMT Properties, Black and Decker and General Electric are involved with the 200 State Street Site. JMT Properties along with Black and Decker are the current permit holders for the 200 State Street Site. General Electric was the owner/operator of the site from 1949 through 1984.

SECTION 5: SITE CONTAMINATION

A remedial investigation/feasibility study (RI/FS) has been conducted to evaluate the alternatives for addressing the significant threats to human health and the environment.

5.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The portion of the RI associated with Tributary 3 (Operable Unit 2) was conducted between November 1999 and May 2004. The field activities and findings of the investigation are described in the RI report.

The following activities were conducted during the investigation:

- Research of historical information; and

- Installation of approximately 620 soil borings and a total of 2147 individual soil samples were collected for laboratory analyses and evaluation of the soils' physical properties.

To determine whether the soil contains contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels". The TAGM's Recommended Soil Cleanup Objectives (RSCOs) for PCBs is 1 part per million (ppm) in surface soils and 10 ppm in subsurface soils. For the purposes of the Tributary 3 cleanup, however, a cleanup objective of 1 ppm was used for PCBs regardless of the soil's depth. The cleanup objective was set by NYSDEC for this project in consultation with the New York State Department of Health (NYSDOH) to allow for unrestricted use. A site specific cleanup objective of 10 ppm was used for both silver and cyanide. This was done because 10 ppm approximates background as is represented in three soil samples collected for the 3M/Dynacolor RI and augmented by other background sampling completed in the Brockport area. These background locations were upwind, upgradient, and upstream of the site, and were unaffected by historic or current site operations. The samples were analyzed for metals, semivolatile organic compounds (SVOCs) and cyanide. The results of the analysis were compared to data from the RI (Table 1) to determine appropriate site remediation goals.

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas required remediation. These are summarized below. More complete information can be found in the February 2002, "Data Summary Report, Tributary No. 3, Brockport , New York,", the April 2002, April 2003 and May 2004 "Off-Site Storm Water Drainageway Interim Corrective Measures Implementation Plans" for the JMT Properties Site (200 State Street).

5.1.1: Site Geology and Hydrogeology

In the area surrounding the course of Tributary 3, the overburden is generally less than 10 feet thick and is comprised of fill, glacial and stream related deposits and soils derived from these deposits. The overburden is made up of varying amounts of gravel, sand, silt and clay. Finer grained, less permeable deposits are, however, most abundant. These unconsolidated deposits

overlie the shallow bedrock zone that consists of two sandstone units, the Grimsby, and underlying Devils Hole Formations.

The watertable in the area is generally less than 10 feet below ground surface. Regional groundwater flow in the area is toward the north.

5.1.2: Nature of Contamination

As described in the Data Summary report and in the Off-Site Interim Corrective Measures Implementation(ICMI) plans, many soil/sediment samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs or site specific cleanup objectives are polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). SVOCs were also present but their source was less clearly associated with the 180 and 200 State Street sites. Other potential sources include historic fill, roadway runoff and automobile tailpipe emissions. Nevertheless, SVOCs were largely coextensive with the PCBs and inorganic contaminants and were therefore addressed by the IRMs described below.

Cyanide in Tributary 3 soils appears to be present largely as ferrocyanide, a less toxic and less soluble form of cyanide. It is therefore associated predominately with soils rather than water. Ferrocyanide compounds have a number of industrial uses including use as bleaching agents in photoprocessing.

PCBs are industrial chemicals that were developed largely because they are heat and fire resistant. Before their production was banned in the US during the 1970s, PCBs were used in a wide variety of industrial and consumer products and industrial processes. They were used as dielectric fluids in electrical transformers and capacitors. They were also used in hydraulic and cutting oils as well as for plasticisers in paints, varnishes and plastics. As with ferrocyanide, PCBs are not water soluble to a significant degree and are associated with soil/sediment rather than water.

The SVOCs present in Tributary 3 are a class of compounds called polycyclic aromatic hydrocarbons (PAHs). These compounds are combustion by-products and components of petroleum and coal tar.

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.
Chemical concentrations are reported in parts per million (ppm) for tar, soil/sediment. For comparison purposes, where applicable, SCGs are provided.

Table 1 summarizes the degree of contamination for the contaminants of concern in soil and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Soil/Sediment

Approximately 2100 soil/sediment samples were collected and analyzed to define the nature and extent of contamination. The contaminant distribution is depicted in figures 2-10. The figures are numbered sequentially from upstream to downstream (south to north) by stream segment. Soils with contaminant concentrations above cleanup objectives in Segments 1, 2, and 3 extended laterally up to 50 feet from either side of the Tributary's centerline. At most locations contaminated soils had a much smaller lateral extent. Soils with contaminant concentrations above cleanup objectives were present to depths of up to approximately 6 feet. Typically contamination extended to a greater depth nearest the centerline of the stream and extended to much shallower depths further away from the Tributary's centerline. PCBs were present in concentrations up to 270 ppm. Silver was present at concentrations of up to 439 ppm and cyanide was present at concentrations of up to 2230 ppm.

Tar

The storm sewer pipe that extended between stream segment 1 and 2 and that extended beneath East Avenue was coated prior to its installation with a bituminous tar-like coating to inhibit corrosion. During completion of the 2002 IRM that addressed stream segments 1 and 2, sampling revealed that this tar coating was contaminated with PCBs at concentrations of up to 670 ppm.

Fish

Samples from the fish collected from Brockport Creek downstream from Tributary 3 contained elevated levels of PCBs. Total PCB concentrations in fish flesh ranged from 0.117 to 2.39 ppm. All fish samples collected at the two background locations (upstream of the Tributary 3 confluence) showed detectable PCBs, at concentrations up to 0.86 ppm. All fish monitoring results are for whole-body Creek Chub composite samples. No sport fish of edible size were found at any of the sampling locations in Brockport Creek, so fillets could not be collected for analysis.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. 3M and GE/Black and Decker were involved in the 2002 and 2003 soil/sediment removals. The soil removal and pipe replacement completed in 2004 was conducted by GE/Black and Decker, however, 3M was also involved in the work. This involvement, due to the space constraints, was not exactly in the same manner as prior IRMs. To minimize the disruption to the residents, all of the IRMs were coordinated projects involving GE, Black and Decker, and 3M.

- 2002 - Approximately 4950 tons of contaminated soil/sediment were removed from stream segments 1 and 2. The extent of the excavation is depicted by the shaded areas in figures 2-7. This included removal of soil from 10 residential properties and from The New York State Canal Corporation property. Soils were excavated to depths of up to 6

feet. Excavations extended laterally and to depths where contaminant concentrations were below cleanup objectives described above. The IRM also included cleaning of approximately 3000 feet of storm sewer resulting in removal of 140 tons of debris. Approximately 110 feet of storm sewer were replaced resulting in disposal of an additional 270 tons of debris. The excavated material was disposed at permitted facilities and the area was restored to original grade.

- 2003 - Approximately 10,714 tons of contaminated soil/sediment were removed for disposal from stream segment 3. The extent of the excavation is depicted by the shaded areas in figures 8-10. Soils were excavated to depths of up to 6 feet. Excavations extended laterally and to depths where contaminant concentrations were below the cleanup objectives described above. An additional 140 tons of wood and wood chips were disposed. The excavated material and other debris were disposed at permitted facilities and the area was restored to original grade.

- 2004 - Approximately 2000 feet of storm sewer were replaced, including approximately 1700 feet of storm sewer in the residential area north of the Erie Canal. The location of the replaced sewer is between stream segments 1 and 2 and is depicted in figure 11. Contaminated soils associated with and immediately adjacent to the sewer were also removed. Approximately 103 tons of pipe and related material were removed for disposal. Approximately 2057 tons of soil were excavated for disposal. Some of the soil beneath the storm sewer was removed because it contained PCBs above 1 ppm, however, some of the soils had cyanide and/or silver concentrations at or above 10 ppm but had PCBs less than 1 ppm. New piping was installed to replace the piping that was removed. The piping and excavated material were disposed at permitted facilities and the area was restored to original grade.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.
The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Contaminants present in the soil/sediment in and along Tributary 3 prior to implementation of the IRMs represented a potential exposure through: 1) ingestion of contaminated soil/sediment and ingestion of creek water containing suspended sediment eroded from contaminated areas of the Tributary; and 2) inhalation of wind-born particulate generated from erosion of soil from contaminated areas of the Tributary. The implemented IRMs have adequately reduced the potential for exposure to contaminants in soils.

5.4: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site prior to the IRM. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

The following environmental exposure pathways and ecological risks have been identified:

- Samples from the fish collected from Brockport Creek downstream from Tributary 3 contained elevated levels of PCBs, and therefore a viable exposure pathway to fish and wildlife receptors was present.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS AND SELECTED REMEDY

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

Prior to the completion of the IRMs described in Section 5.2, the remediation goals for this site were to eliminate or reduce to the extent practicable:

- exposures of persons at or around the Tributary to PCBs, silver, and cyanide in soil/sediment;

- environmental exposures of flora or fauna to PCBs in soil/sediment; and

- the release of contaminants from, surface soil, subsurface soil and sediment into surface water through storm water erosion or into air through wind-born dust.

The NYSDEC believes that the IRM has accomplished these remediation goals. Fish sampling and additional sediment sampling will be conducted to evaluate effectiveness of the IRMs. Fish

sampling to be conducted will be performed under the NYSDEC-approved Biological Monitoring Plan for Brockport Creek, prepared and submitted on behalf of General Electric and Black and Decker.

The main SCGs applicable to this project are as follows:

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels". The TAGM's Recommended Soil Cleanup Objectives (RSCOs) for PCBs is 1 part per million (ppm) in surface soils and 10 ppm in subsurface soils. For the purposes of the Tributary 3 cleanup, however, a cleanup objective of 1 ppm was used for PCBs regardless of the soil's depth. The cleanup objective was set by NYSDEC for this project in consultation with the New York State Department of Health (NYSDOH) to allow for unrestricted use. A site specific cleanup objective of 10 ppm was used for both silver and cyanide. This was done because 10 ppm approximates background as is represented in three soil samples collected for the 3M/Dynacolor RI and augmented by other background sampling completed in the Brockport area. These background locations were upwind, upgradient, and upstream of the site, and were unaffected by historic or current site operations. The samples were analyzed for metals, semivolatile organic compounds (SVOCs) and cyanide. The results of the analysis were compared to data from the RI (Table 1) to determine appropriate site remediation goals.

The following elements of the IRMs already completed have achieved the remediation goals and satisfy SCGs for the site:

1. 2002 - Approximately 4950 tons of contaminated soil/sediment were removed from stream segments 1 and 2. This included removal of soil from 10 residential properties and from Canal Corporation property. The IRM also included cleaning of approximately 3000 feet of storm sewer resulting in removal of 140 tons of debris. Approximately 110 feet of storm sewer were replaced resulting in disposal of an additional 270 tons of debris. The excavated material was disposed at permitted facilities and the area was restored to original grade.

2. 2003 - Approximately 10,714 tons of contaminated soil/sediment was removed for disposal. An additional 140 tons of wood and wood chips were disposed. The excavated material was disposed at permitted facilities and the area was restored to original grade.

3. 2004 - Approximately 2000 feet of storm sewer were replaced, including approximately 1700 feet of storm sewer in the residential area north of the Erie Canal. The location of the replaced sewer is between stream segments 1 and 2 and is depicted in figure 11. Contaminated soils associated with and immediately adjacent to the sewer were also removed. Approximately 103 tons of pipe and related material were removed for disposal. Approximately 2057 tons of soil were excavated for disposal. Some of the soil beneath the storm sewer was removed because it contained PCBs above 1 ppm, however, some of the soils had cyanide and/or silver concentrations at or above 10 ppm but had PCBs less than 1 ppm. New piping was installed to replace the piping that was removed.

The piping and excavated material were disposed at permitted facilities and the area was restored to original grade.

Based on the results of the investigations at the site, the IRMs that were performed, and the evaluation presented here, the NYSDEC has selected No Further Action as the preferred alternative for Tributary 3.

The basis for this selection is the NYSDEC's conclusion that No Further Action with continued fish sampling and additional stream sediment sampling to evaluate the effectiveness of the IRMs, will be protective of human health and the environment and will satisfy all SCGs, as described above. Overall protectiveness is achieved through meeting the remediation goals listed above.

Therefore, the NYSDEC concludes that No Further Action is needed beyond continued fish sampling and additional stream sediment sampling to evaluate the effectiveness of the IRMs.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

1 Repositories for documents pertaining to the site were established.

2 A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established. Numerous fact sheets were mailed to those included on the list. Public meetings and/or availability sessions were held at many stages of the project as it progressed.

3 A public meeting was held on March 8, 2005 to present the PRAP and receive comment on the PRAP.

4 A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

In general, the public comments received were supportive of the selected remedy.

TABLE 1
Nature and Extent of Contamination
Range of sampling dates; Oct/Nov 1999 – Jan/Feb 2004

TAR	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
PCBs	Total PCBs	ND-670	NS	NS

PRE-IRM SOIL/Sediment	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	2,4,5-Trichlorophenol	0 - 1.3	0.1	32 of 521
	2,4-Dichlorophenol	0 - 1.3	0.4	27 of 521
	2,4-Dinitrophenol	0 - 6.8	0.2	34 of 521
	2,6-Dinitrotoluene	0 - 1.3	1	1 of 521
	2-Chlorophenol	0 - 1.3	0.8	2 of 521
	3+4-Methylphenol	0 - 1.3	0.9	2 of 521
	Benzo(a)anthracene	0 - 13	0.224	66 of 521
	Benzo(a)pyrene	0 - 13	0.061	101 of 521
	Benzo(b)fluoranthene	0 - 12	1.1	25 of 521
	Benzo(k)fluoranthene	0 - 11	1.1	24 of 521
	Chrysene	0 - 14	0.4	55 of 521
	Dibenzo(a,h)anthracene	0 - 3.2	0.014	103 of 521
	Hexachlorobenzene	0 - 2.5	0.41	39 of 521
	Indeno(1,2,3-cd)pyrene	0 - 8.7	3.2	6 of 521
	Nitrobenzene	0 - 2.5	0.2	63 of 521
	Phenol	0 - 2.5	0.03	65 of 521
	p-Nitroaniline	0 - 13	NA	NA
	p-Nitrophenol	0 - 13	NA	NA
	Pyrene	0 - 25	50	0 of 521
PCB	Total	0.0045 – 269.8	1	177 of 2147
Inorganic	Cyanide, Total	0 – 2,230	10	281 of 2,032

PRE-IRM SOIL/Sediment	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Compounds	Cyanide, Available	0 – 9.08	10	0 of 1,117
	Silver	0.05 - 439	10	170 of 1,337
	Aluminum	1,900 – 13,600	NA	NA
	Antimony	0 - 0	NA	NA
	Arsenic	0 - 25.6	7.5	32 of 474
	Barium	19.8 – 2,270	300	26 of 474
	Beryllium	0 - 21.9	0.16	149 of 474
	Cadmium	0 - 21.4	1	27 of 474
	Calcium	0 – 96,800	NA	NA
	Chromium	5.3 - 98.2	10	4 of 474
	Cobalt	0 - 38.8	30	0 of 474
	Copper	3.3 - 358	25	0 of 474
	Iron	6,280 – 84,100	2000	0 of 474
	Lead	2.5 – 3,050	400	2 of 474
	Magnesium	0 – 31,800	NA	NA
	Manganese	131 – 10,700	NA	NA
	Mercury	0 - 1.1	0.1	6 of 474
	Nickel	5.7 - 76.6	13	215 of 474
	Potassium	0 – 2,490	NA	NA
	Selenium	0 - 19.8	2	26 of 474
	Sodium	0 - 439	NA	NA
	Thallium	0 - 23.7	NA	NA
	Vanadium	5.9 - 50.6	150	0 of 474
	Zinc	18.3 – 3,420	20	471 of 474

POST-IRM SOIL/Sediment	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	2,4,5-Trichlorophenol	0 - 0.47	0.1	18 of 291
	2,4-Dichlorophenol	0 - 0.47	0.4	14 of 291
	2,4-Dinitrophenol	0 - 2.4	0.2	20 of 291
	2,6-Dinitrotoluene	0 - 0.47	1	0 of 291
	2-Chlorophenol	0 - 0.47	0.8	0 of 291
	3+4-Methylphenol	0 - 0.47	0.9	0 of 291
	Benzo(a)anthracene	0 - 7.3	0.224	25 of 291
	Benzo(a)pyrene	0 - 6.8	0.061	55 of 291
	Benzo(b)fluoranthene	0 - 5.4	1.1	2 of 291
	Benzo(k)fluoranthene	0 - 5.7	1.1	2 of 291
	Chrysene	0 - 7.3	0.4	18 of 291
	Dibenzo(a,h)anthracene	0 - 1.5	0.014	61 of 291
	Hexachlorobenzene	0 - 0.48	0.41	27 of 291
	Indeno(1,2,3-cd)pyrene	0 - 4.5	3.2	0 of 291
	Nitrobenzene	0 - 0.49	0.2	47 of 291
	Phenol	0 - 0.49	0.03	48 of 291
	p-Nitroaniline	0 – 2.5	NA	NA
	p-Nitrophenol	0 – 2.5	NA	NA
	Pyrene	0 - 15	50	0 of 291
PCBs	Total	0.0045 – 0.96	1	0 of 532
Inorganic Compounds	Cyanide, Total	0 – 9.88	10	0 of 1,213
	Cyanide, Available	0 – 5	10	0 of 800
	Silver	0 - 9.85	10	0 of 441
	Aluminum	3,830 – 13,600	NA	NA
	Antimony	0 - 0	NA	NA
	Arsenic	0 - 25.6	7.5	15 of 257
	Barium	37.8 – 2,270	300	12 of 257
	Beryllium	0 - 21.9	0.16	65 of 257
	Cadmium	0 - 21.4	1	5 of 257
	Calcium	1,610 – 51,000	NA	NA
	Chromium	5.3 - 51.8	10	1 of 257

POST-IRM SOIL/Sediment	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Inorganic Compounds	Cobalt	0 - 38.8	30	0 of 257
	Copper	3.3 - 249	25	0 of 257
	Iron	8,420 – 84,100	2000	0 of 257
	Lead	2.5 – 3,050	400	2 of 257
	Magnesium	0 – 8,770	NA	NA
	Manganese	186 – 10,700	NA	NA
	Mercury	0 - 1.1	0.1	2 of 257
	Nickel	5.7 - 76.6	13	62 of 257
	Potassium	0 – 2,490	NA	NA
	Selenium	0 - 9.85	2	10 of 257
	Sodium	0 - 321	NA	NA
	Thallium	0 - 23.7	NA	NA
	Vanadium	9 - 50.6	150	0 of 257
	Zinc	19.1 – 3,420	20	218 of 257

[a] ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
[b]SCG = Standards, criteria, and guidance values;
NS = No standard
NA = Not available
Many constituents remaining after remediation do not appear to be site related, and may represent background or be from other sources.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Former 3M/Dynacolor Site
Operable Unit No. 2
Brockport, Monroe County, New York
Site No.8-28-066
March 2005

The Proposed Remedial Action Plan (PRAP) for operable unit 2 of the Former 3M/Dynacolor site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 25, 2005. The PRAP outlined the remedial measure proposed for the contaminated soil/sediment, in and along Tributary 3 to Brockport Creek.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 8, 2005, which included a presentation of the Remedial Investigation (RI) and completed IRMs as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 28, 2005.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

COMMENT 1: I'd like to personally thank Kelly, and the rest of the DEC staff on behalf of myself and my family, for all the help you've given us over the last nine years. I'd also like to thank 3M and GE for taking responsibility and cleaning this up.

RESPONSE 1: The comment is acknowledged.

COMMENT 2: I notice there are hardly any residents here, so they all must be pleased with your clean up. In the past, your meetings were very crowded and well attended.

RESPONSE 2: The comment is acknowledged.

COMMENT 3: I too would like to thank the residents for all their patience and to the DEC, 3M, and GE for the fine job they did. The village received relatively zero complaints throughout the whole clean up process, so that just shows how great the communication was with the people on the site, the DEC, and everyone concerned with the project. The workers got in and got out and did a great job, a fantastic job.

RESPONSE 3: The comment is acknowledged.

Mr. Shawn Lessord of the Erie Canalkeeper (Waterkeeper Alliance member) submitted an electronic transmittal (dated March 9, 2005) which included the following comments:

COMMENT 4: Is additional testing going to be done on the Tributary to see if cleanup areas

downstream have been impacted by PCB's from the 200 State Street location?

RESPONSE 4: Yes, the additional sampling is referred to in both the PRAP and the ROD.

COMMENT 5: If testing is done and contamination is found, what procedures will be put into place to remediate?

RESPONSE 5: While NYSDEC anticipates that the completed IRMs have been effective, appropriate measures will be taken if the data collected indicate such actions are needed. NYSDEC would evaluate potential remedies before determining what would be required, if significant contamination is found. Before any specific measures are finalized the community would be involved.

COMMENT 6: Is any further testing planned, in fish, soil and sediments on Brockport creek from the confluence point to Route 104?

RESPONSE 6: Additional fish sampling is planned for that portion of Brockport Creek under the NYSDEC-approved Biological Monitoring Plan for Brockport Creek, prepared by Blasland, Bouck & Lee, Inc.

COMMENT 7: Is further testing planned on the 200 State Street area to see what impacts they are having on the storm sewer system and where PCB's could be coming from?

RESPONSE 7: Quarterly sampling is currently being conducted at the sediment trap. A number of other locations within the storm sewer at the 200 State Street Site are also being sampled on a similar frequency. NYSDEC expects this sampling to continue as long as the data indicate that it is warranted.

COMMENT 8: Talking with people who worked in the plant (200 State Street), they have told me they remember spills on the floors of the building interior. Could this concrete be migrating into the storm sewer system?

RESPONSE 8: There is no indication that the concrete floor inside the 200 State Street building is a significant source of contaminants within the storm sewer.

COMMENT 9: Otherwise I think the NYSDEC has done a great job on this and please pass this information along.

RESPONSE 9: The comment is acknowledged.

The Honorable Josephine Matela, Mayor of the Village of Brockport submitted a letter (dated March 9,2005) which included the following comments:

COMMENT 10: When I was first made aware of the contamination situation with Tributary 3, I knew it would be a long and difficult process. However, four years later we can be proud of the fact that everyone worked together to resolve the issue and manage it in an efficient and sensitive way.

I realize the situation created hardships for the people most affected. Your attention to their problems and concerns was genuine and timely. I am thankful that we can now put this behind us, being ever

mindful that it does take a lot of coordination, determination and expense for a project such as this to succeed.

I would like to take this opportunity to thank all those involved in bringing this to a successful conclusion.

RESPONSE 10: The comment is acknowledged.

Mr. Paul Hare, Manager, Northeast/Midwest regions, Environmental Remediation Program of the General Electric Company submitted a letter (dated March 15, 2005) which included the following comments:

COMMENT 11: The PRAP states that NYSDEC used Technical and Administrative Guidance Memorandum (TAGM) 4046 to set the cleanup objective for polychlorinated biphenyls (PCBs) for the interim remedial measures (IRMs) that were completed along Tributary 3, and that the soils that were excavated were all considered to be at or near the surface. See page 4 (bottom of first column and top of second column) and page 7 (bottom of second column) continuing on page 8 (top of first column). The PCB cleanup objective set forth in TAGM 4046 is 1 parts per million (ppm) in surface soils and 10 ppm in subsurface soils, and that the Department has typically used 12 inches, 18 inches or 24 inches to distinguish between surface and subsurface soils. NYSDEC should clarify that the IRMs involved excavation of soils with PCBs at or above 1 ppm down to 4 feet, and clearly exceeded TAGM 4046. In fact, some of the excavated soils were located beneath a large-diameter storm sewer pipe. The cleanup objective set by NYSDEC for this project was set in consultation with the New York State Department of Health (NYSDOH) and allows for unrestricted use. The PRAP should be revised to reflect these clarifications.

RESPONSE 11: Language was added to Sections 5.1 and 6 of the ROD to make this clarification.

COMMENT 12: The PRAP states that "[t]he soil removal and pipe replacement completed in 2004 was conducted by GE/Black and Decker". See page 6 (middle of first column). As the Department is aware, the 3M Corporation (3M) was also involved in this work, although, due to the space constraints, not exactly in the same manner as prior IRMs. It should be noted that some of the soils excavated beneath the storm sewer pipe had cyanide and/or silver at or above 10 ppm but had PCBs less than 1 ppm. The PRAP should be revised to reflect that this IRM was another coordinated project by GE, B&D and 3M to minimize, to the extent possible, the amount of disruption to the residents.

RESPONSE 12: Language was added to Section 5.2 of the ROD to make this clarification.

COMMENT 13: The PRAP briefly discusses the results of fish sampling conducted in Brockport Creek. See page 6 (top of first column), and also page 7 (bottom of first column and top of second column). The PRAP states that "[s]amples ... collected from Brockport Creek downstream from Tributary 3 contained elevated levels of PCBs" and that "PCB concentrations in fish flesh ranged from 0.117 to 2.39 ppm". Use of the word "flesh" could imply that fillets were analyzed. The PRAP should clarify that all of the fish monitoring results are for whole-body Creek Chub composite samples. No sport fish of edible size were found at any of the sampling locations in Brockport Creek, so fillets could not be collected for analysis.

The PRAP correctly identifies the maximum concentration of 2.39 ppm, for a sample collected in Spring 2002 at Location 1 about 400 feet downstream from the confluence of Tributary 3 and Brockport Creek. The maximum PCB concentration was 2.03 ppm in Spring 2003 and 2.01 ppm in Spring 2004, again at Location 1. These were the only fish samples that exceeded 2 ppm. The PRAP should also note that fish samples collected at the two background locations have all showed detectable PCBs, at concentrations up to 0.86 ppm.

RESPONSE 13: Language was added to Section 5.1.3 of the ROD to make these clarifications.

COMMENT 14: In the PRAP, the Department selects "no further action," yet mentions "continued fish sampling". See page 7 (bottom of second column) and page 8 (middle of second column). We request that the Department clarify that the "continued fish sampling" is associated with the NYSDEC-approved Biological Monitoring Plan for Brockport Creek, prepared by Blasland, Bouck & Lee, Inc. (BBL), and that the Department is not referring to any other fish sampling.

RESPONSE 14: Language was added to Section 6 of the ROD to make this clarification.

COMMENT 15: Finally, for informational purposes, sampling points are missing on Figures 4, 7 and 7A for Stream Segments 1 and 2, and to a lesser extent also on Figures 10, 10A, 10B and 10C for Stream Segment 3. For example, on Figure 7A, there is a kite-shaped excavation area located near East Avenue. One sampling point is shown in the center of this area, and one sampling point is shown at one of the four corners of the area. However, there were sampling points at the other three corners, and these are not shown. It also appears that the excavation boundary is not correct on the figures in some places. For example, on Figure 4, the excavation extended farther south on Transect T1 than shown by the grey shading; a faint dotted line is present on this figure a few feet to the south that appears to demark the location of the actual excavation boundary. As another example, on Figure 7A, the excavation boundary extended farther to the west on Transect T18 than shown by the grey shading. In summary, interested parties should refer to the Interim Corrective Measures Implementation (ICMI) Plan dated April 16, 2002 (as subsequently revised and approved by NYSDEC on August 9, 2002) and the Engineering Certification Report dated February 25, 2003 for sampling locations and excavation boundaries along Stream Segments 1 and 2, and the ICMI Plan dated April 11, 2003 (as subsequently revised and approved by NYSDEC on June 30, 2003) and the Engineering Certification Report dated December 16, 2003 for sampling locations and excavation boundaries along Stream Segment 3. These documents were all prepared by Blasland, Bouck & Lee, Inc. (BBL) for GE and B&D, and are available at NYSDEC's offices in both Albany and Avon, and also the local document repository at Seymour Public Library in Brockport. Interested parties should also consult relevant documents prepared by Arcadis G&M, Inc. for 3M.

RESPONSE 15: While the figures are as accurate as possible, they were prepared at a scale to allow them to be included in the PRAP. Because the figures represent a large area and significant quantities of analytical data, some details were omitted. As the comment indicates, larger more detailed figures are available in the document repository.

APPENDIX B

Administrative Record

Administrative Record

Former 3M/Dynacolor Site
Operable Unit No. 2
Site No.8-28-066

1. Proposed Remedial Action Plan for the Former 3M/Dynacolor site, Operable Unit No. 2, dated February 2005, prepared by the NYSDEC.

2. Order on Consent, Index No.B8-0495-05-96, between NYSDEC and 3M, executed on June 15, 1998.

3. "Data Summary Report, Tributary No. 3, Brockport , New York," dated February 2002, Prepared by Arcadis G&M, Inc.

4. "Off-Site Storm Water Drainageway Interim Corrective Measures Implementation Plan for the JMT Properties Site (200 State Street), dated April 2002, prepared by Blasland Bouck and Lee, Inc

5. "Engineering Certification Report, Off-Site Storm Water Drainageway Interim Corrective Measures" dated February 2003, prepared by Blasland Bouck and Lee.

6. "IRM Report for Tributary No. 3 Remediation, Former 3M/Dynacolor Facility," dated March 2003, prepared by Arcadis G&M, Inc.

7. "Off-Site Storm Water Drainageway Interim Corrective Measures Implementation Plan" for the JMT Properties Site (200 State Street), dated April 2003, prepared by Blasland Bouck and Lee, Inc.

8. "Engineering Certification Report"Off-Site Storm Water Drainageway Interim Corrective Measures" dated December 2003, prepared by Blasland, Bouck & Lee, Inc.

9. "IRM Report for Segment 3 Remediation, Tributary No. 3, Former 3M/Dynacolor Facility" dated January 2004, prepared by Arcadis G&M, Inc.

10. "Off-Site Storm Water Drainageway Interim Corrective Measures Implementation Plan" for the JMT Properties Site (200 State Street), dated May 2004, prepared by Blasland Bouck and Lee, Inc.

11. Storm Sewer Video Inspection (including project record drawings and subsurface structure inspection logs) dated January 2005, prepared by Blasland Bouck and Lee, Inc.

12. Various correspondence between NYSDEC and 3M concerning the Storm Sewer and Tributary 3 in the years 2000 through 2004.

13. Various correspondence between NYSDEC and the General Electric Company concerning the Storm Sewer and Tributary 3 in the years 2001 through 2004.

14. Electronic correspondence dated March 9, 2005 from Mr. Shawn Lessord of the Erie Canalkeeper (Waterkeeper Alliance member.)

15. Letter dated March 9, 2005 from the Honorable Josephine Matela, Mayor of the Village of Brockport.

16. Letter dated March 15, 2005 from Mr. Paul Hare, Manager, Northeast/Midwest regions, Environmental Remediation Program of the General Electric Company.