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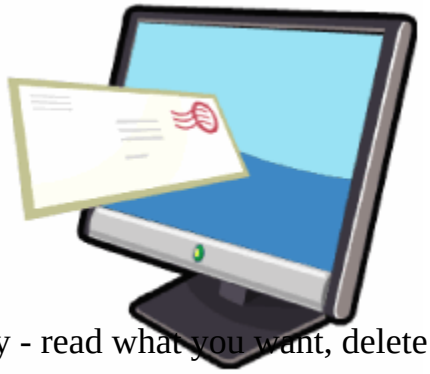

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NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

September 2015

FACT SHEET

Brownfield Cleanup Program

Receive Site Fact Sheets by *Email.* See "For More Information" to Learn How.

Site Name: Buffalo Color Corporation Area D
DEC Site #: 915012
Address: 1337 South Park Avenue
Buffalo, NY 14202

Have questions? See "Who to Contact" Below

Notice of Explanation of Significant Difference
Variation From Approved Record of Decision

The public is invited to review the Explanation of Significant Difference (ESD) for the Buffalo Color Corporation Area D Site ("site") located at 1337 South Park Avenue, Buffalo, Erie County. Please see the map for the site location. Documents related to the cleanup of this site can be found at the location(s) identified below under "Where to Find Information." Although this is not a request for comments, interested persons are invited to contact the Department's Project Manager for this site to obtain more information or have questions answered.

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Buffalo Color Corporation (BCC) Area D Site (Site) and to inform you about a change in the Site remedy. The Site is located in a mixed residential/industrial area in the South Buffalo section of the City of Buffalo, NY. The Site is approximately 19 acres in size and occupies an entire peninsula situated along the upper industrial reach of the Buffalo River. In November 1991, the New York State Department of Environmental Conservation (the Department) issued a Record of Decision which selected a remedy to clean up the Site. The selected remedy consisted of the following:

- containment of waste by a soil bentonite vertical hydraulic barrier wall and engineered cap system;
- extraction and treatment of contaminated groundwater;
- removal of near shore contaminated sediments from the Buffalo River; and
- protection of the river bank from erosion.

During the course of the remedial construction, an extensive amount of waste material was discovered outside the boundary limits of the cap and perimeter vertical hydraulic barrier wall along a section of river bank along the southwest section of the Site. The waste material consisted of fill and grossly contaminated material (GCM) typically found throughout the site. A majority of this GCM along the riverbank was removed and a planned riverbank habitat enhancement was abandoned. However, due to the technical difficulties of bracing the recently constructed soil bentonite vertical hydraulic barrier wall necessary to excavate all GCM outside of the containment limits of the vertical hydraulic barrier wall, a section of GCM along the river bank was only partially removed. Approximately 4,000 cubic yards of GCM was left in-place submerged in the river along the riverbank. The submerged GCM was covered with a geosynthetic fabric and a sand layer for waste isolation, and a riprap layer for erosion protection. The covered GCM and cover system is

situated within the legal property limits of the Site. This Explanation of Significant Differences (ESD) is intended to modify the ROD selected remedy to allow for the permanent containment of this material. An institutional control has been placed on the Site including the area containing GCM material along the riverbank and long-term monitoring will be conducted under the Site Management Plan.

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Erie County Public Library Main Branch 1 Lafayette Square Buffalo, New York 14203 (716) 858-8900 **http://www.buffalolb.org** Monday: 8:30 a.m. – 6:00 p.m. Tuesday: 8:30 a.m. - 6:00 p.m. Wednesday: 8:30 p.m. - 6:00 p.m. Thursday: 8:30 a.m. – 8:00 p.m. Friday: 8:30 a.m. - 6:00 p.m. Saturday: 8:30 a.m. - 6:00 p.m. Sunday: 12:00 a.m. - 5:00 p.m.	NYSDEC Region 9 Office Division of Environmental Remediation 270 Michigan Avenue, 3rd Floor Buffalo, New York 14203-2915 Monday - Friday: 8:30 a.m. - 3:30 p.m. Contact: Eugene Melnyk (716) 851-7220 **eugene.melnyk@.dec.ny.gov** By Appointment Only

2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

2.1 Site History, Contamination, and Selected Remedy

- This Site, known as Area D, is part of the former Buffalo Color Corporation (BCC) chemical/dye plant, which contained other areas designated as Areas A through H. These areas of the BCC plant were developed and operated during various periods through the decades of chemical production at the site. The BCC Area D Site is located in a mixed residential/ commercial/industrial area in the South Buffalo section of the City of Buffalo, NY. The Site occupies an entire peninsula situated along the upper industrial use reach of the Buffalo River. The Site consists of a 19 acre parcel that is currently vacant, open land. No structures are currently situated on the Site. Area D is bounded by the Buffalo River along the eastern and southwestern property limits, an active rail line along the west, and an abandoned railroad right-of-way and the former BCC Area A plant site along the north side.

- The BCC plant had been used for the production of dyestuff, organic chemicals and intermediate chemicals for more than one hundred years until the remaining plant operations in Areas A, B, C and E ceased in 2003. The BCC plant was originally founded as the Schoellkopf Aniline and Dye Company in 1879, the plant produced dyes and organic chemicals based primarily on aniline and various aniline derivatives. The company was reorganized into the National Aniline Chemical Company in 1916. It became one of the five companies that merged to create Allied Chemical Corporation and Dye Corporation (Allied Chemical) in 1920. Area D was used from 1905 to 1974 as a chemical manufacturing, handling and disposal site. Specific chemical manufacturing included production of acids, chemicals, and dye intermediates from 1905 to 1920; phosgene gas from 1917-1918; and petroleum based detergents, dye intermediates, picric acid, and various other chemicals from 1920 until 1974 when all chemical manufacturing operations in the Area D portion of the BCC plant ceased. Chemical waste handling in Area D continued on until 1976. During operation of the Site, spills from chemical

processing and on-site process waste management resulted in contamination of soil and groundwater on the Site. Contaminant sources included iron oxide lagoons which were used to manage iron oxide sludge wastes and a metal sludge weathering area which was used for the management of triphenylmethane dyes. In 1977, the dye-making facility and the right to produce certain dyes and intermediates were sold by Allied Chemical to BCC. At the time of the sale, the plant was divided into eight areas currently designated with the letters A, B, C, D, E, F, G, and H. BCC purchased plant areas A through E, while Allied Chemical retained an acid plant (which was subsequently sold to PVS Chemical in 1981), the research and development facility on Area F, and the parking lots on Areas G (Elk Street) and H (Smith Street). As part of the sale agreement, Allied Chemical maintained environmental liabilities that preceded the sale to BCC. BCC razed all buildings on Area D in 1984. BCC filed for bankruptcy in 2005 and foreclosed by the City of Buffalo in 2008 for back-taxes. In 2009, Area D and other former BCC Plant areas (Areas A, B, C and E) were acquired by South Buffalo Development (SBD), LLC through a City of Buffalo In-Rem tax foreclosure auction.

- A Consent Agreement between BCC and the Department was signed in 1982. A Remedial Investigation / Feasibility Study (RI/FS) was finalized in 1991. Portions of Area D that were a concern included:
  - the "weathering area" located at the tip of the peninsula which was utilized for the storage of metal oxide sludges for weathering before shipment to metal recyclers (1916-1976);
  - the "iron oxide sludge lagoons" which were used for storage of iron oxide sludge from the manufacture of dyes and intermediates (1916-1976);
  - tank farm areas used for the bulk storage of petroleum products and process chemicals; and
  - an area on the eastern side of the peninsula formerly occupied by open burn pits (1922-1954) and later by an incinerator (1954-1972).

  The RI revealed widespread and variable contamination throughout Area D. Contamination was found at virtually every location that the Site was investigated.

- The Record of Decision (ROD), signed in 1991, selected a remedy for Area D consisting of:
  - containment of waste by a soil bentonite vertical hydraulic barrier wall and an engineered cap system;
  - extraction and treatment of contaminated groundwater;
  - removal of contaminated sediments from the Buffalo River; and
  - protection of the river bank from erosion.

  Since Allied Chemical (predecessor to Honeywell) maintained environmental liabilities on the Site, Allied Chemical entered into a Consent Order with the Department in 1993 for Site Remedial Design/Remedial Action (RD/RA) and initiated remedial design activities. Remedial construction work, including covering of the remaining GCM outside the limits of the perimeter slurry wall, was initiated in 1997 and was completed in 1998. Final riverbank habitat enhancements were completed in 1999.

- During the course of the remedial construction, Site conditions varied along the riverbank, and in general, more contaminated sediment and GCM requiring removal was encountered than originally planned. In most instances, the additional submerged fill and contaminated sediment were removed. A section of riverbank along the southwest section of the Area D peninsula contained a significant amount of GCM outside the boundary limits of the cap and perimeter soil bentonite vertical hydraulic barrier wall. This section of the riverbank, prior to site remediation, was known as the "slough area" which was the result of an embankment failure that reportedly occurred in 1937. The characteristics of the soil in the embankment slough area had not been adequately characterized during the RI. During the course of the

riverbank work, it became apparent that the sloughed material was similar to GCM and fill found throughout the upland areas of the Site. Field change measures were implemented to remove the GCM from the slough area outside the limits of the vertical hydraulic barrier wall. However, a section of GCM along the river bank could not be completely removed due to technical constraints related to maintaining the structural stability of the recently constructed vertical hydraulic barrier wall. This situation resulted in the need to limit the complete excavation of the GCM to feasible limits that could be achieved without a failure of the slope and thus the vertical hydraulic barrier wall. This resulted in leaving in-place approximately 4,000 cubic yards of GCM along approximately 500 lineal feet of riverbank between Site riverbank stations 19+00 and 24+00. The interim action taken to address the GCM in the riverbank near the vertical hydraulic barrier wall involved covering this material with a geosynthetic fabric followed by a sand and rock isolation layer, and an upper riprap layer for erosion protection. This area on the southwest side of the Area D peninsula riverbank was to be restored with unique riverbank habitat enhancements. These habitat restoration enhancements were modified as the plan originally envisioned could no longer be constructed.

3.0 CURRENT STATUS

The Buffalo River submerged riverbank in the vicinity of the existing cover system installed in 1998 is situated in an environment where conditions are suitable for capping/covering in-place. The interim remedy has been effective functioning as a sediment cap isolating the GCM from the environment. Ongoing monitoring and maintenance is required to ensure that the cover system, which is located outside the navigation channel limits, is not damaged by navigation or another use of the river or dredged as part of future navigation maintenance of the river.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCE

4.1 New Information

Following the issuance of the ROD in 1991, and completion of the Site remediation work and implementation of an interim cover over the remaining GCM in 1998, several focused investigations and evaluations of the riverbank in this area were conducted to assess the toxicity potential of the covered GCM to the benthic organisms, contamination of the surface water and contamination of newly deposited sediments in the Buffalo River. Evaluations of near shore environmental conditions were completed in 2003, 2005, and 2009. The laboratory results of sampled material underlying the riverbank cover confirmed that the GCM below the interim cover was similar to the contaminants typically found in the pre-remediation upland areas and is heavily contaminated. Toxicity testing of water from the covered in-place area revealed varying levels of toxicity to test organisms. However, the river bottom adjacent to this area is a low energy environment and is depositional in nature. New sediment from the upstream watershed is continually deposited in this riverbank area further isolating the covered GCM. Additional investigation including additional coring and sampling of newly deposited sediment in the near-shore riverbank area was completed in 2011 and summarized in a Focused Feasibility Study. The additional investigation confirmed that the isolation of the remaining GCM in the river effectively isolates the remaining GCM from the river environment and there were no indications of contaminant migration through pore water from the covered area to adjacent sediment is occurring. The focused feasibility study concluded that no further action would be protective. In summary, the remaining GCM is being effectively contained beneath the cover. Ongoing deposition of upstream sediment continues to accrete in this area, further isolating the remaining material from erosion and diffusion into the Buffalo River riverine environment. The level of contaminants in the remaining GCM will not likely diminish over

time, but are immobilized and isolated by the constructed cover system and natural depositional process that further isolates this material. This conclusion is supported by the results of several investigations and evaluations over a period of 13 years.

4.2 Comparison of Changes with the 1991 ROD Remedy

The 1991 ROD for the Site specified the removal of contaminated material from the Site within the submerged and above grade sections of the riverbank and consolidated within the confines of the perimeter vertical hydraulic barrier wall and engineered cap. Habitat enhancement was planned along the southwestern section of the Area D riverbank in an area that was underlain by previously unknown GCM, which required removal. A complete field revision of the remediation plan for this section of the Area D riverbank was required during the construction phase of the project. The revised remediation measures resulted in the removal of most of this material, but because of the timing of the work and prior completion of the soil-bentonite vertical hydraulic barrier wall remedial element, complete removal of the GCM could have compromised the integrity of the recently constructed wall along a 500 foot section of riverbank.

Various options were evaluated and the Responsible Party elected to cover in-place approximately 4,000 cubic yards of grossly contaminated material with a cover consisting of a geotextile fabric overlain by a sand/rock layer for isolation, and covering the sand layer with riprap armoring for erosion protection. This measure resulted in leaving GCM along a riverine riparian embankment under an isolation cover and eliminating a planned riverbank habitat restoration feature.

The Site Management Plan includes additional measures to monitor and maintain the in-river cover system and implementation of additional institutional controls through the filing of an environmental easement for the Site which was completed in October 2014.

5.0 SCHEDULE AND MORE INFORMATION

The revised riverbank remediation and restoration efforts have been in place since 1998. No further remediation efforts are deemed necessary. The Site, including the riverbank environment is under ongoing routine maintenance and monitoring with periodic reporting of conditions of the remediation measures and effectiveness of the engineering controls.

Who to Contact
For Technical Questions about the Explanation of Significant Differences, Contact:

Project Related Questions
Eugene Melnyk, PE
Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Ave
Buffalo, NY 14203-2915
716-851-7220
eugene.melnyk@dec.ny.gov

Site-Related Health Questions
Jacqueline Nealon
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza, Corning Tower, Rm. 1787
Albany, NY 12237
518-402-7860
BEEI@health.ny.gov

We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.

Project documents are also available on the NYSDEC website at:
http://www.dec.ny.gov/chemical/37554.html

Receive Site Fact Sheets by Email

Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: http://www.dec.ny.gov/chemical/61092.html. It's quick, it's free, and it will help keep you *better informed*.

As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.