

April 5, 2007

Mr. Peter M. Cammarata  
Director of Urban Development  
BUDC/ECIDA  
275 Oak Street  
Buffalo, New York 14203

Re: Former Trico Manufacturing Building  
Environmental File Review

Dear Mr. Cammarata:

Benchmark Environmental Engineering & Science, PLLC (Benchmark) has prepared this letter report to summarize our peer review of existing environmental reports and to identify recognized environmental conditions that may pose liability at the property located at 791 Washington Street in the City of Buffalo, New York (Site). The subject property comprises the 6-story Century Centre I building, also referred to as the former Trico Production Facility, and related property. This letter report has been prepared in accordance with our February 22, 2007 letter proposal to BUDC/ECIDA, and includes:

- A review of environmental reports for the subject building and related property provided by Watts Engineers.
- Identification of recognized environmental conditions, including residual environmental contaminants, lead-based paint and asbestos-containing materials based upon previous investigations and data in the above-referenced documents.
- A determination, based on professional judgment, as to whether the environmental investigation data provided is sufficient to adequately characterize environmental conditions and, if not, recommendation for additional investigation.

## **SUMMARY OF HISTORIC RECORDS AND DOCUMENTS**

Benchmark reviewed the following documents relating to the Site:

- Sterling Environmental Services. *Report of Cleaning and Verification Sampling of the Transformers and Associated Floors at Trico Products Co., Ellicott St., Buffalo, NY.* July 1993.
- Niagara Frontier Consulting Services, Inc. *Asbestos Inspection and Management Plan for Trico Manufactured Components – Plant #1, 817 Washington Street, Buffalo, New York.* August 4, 1994.

- Green Environmental Specialists, Inc. *Trico Plant I, Determination of Nickel, Chrome & Cyanide Contamination*. October 12, 1994 and October 17, 1994 Supplement 1.
- Occupational Safety & Environmental Assoc., Inc. *Phase I Environmental Site Assessment, Trico Manufactured Components – Plant 1, 817 Washington Street, Buffalo, NY 14203*. November 1994.
- Occupational Safety & Environmental Assoc., Inc. *Phase II Environmental Site Assessment, Trico Manufactured Components – Plant 1, 817 Washington Street, Buffalo, NY 14203*. November 1994.
- Conestoga-Rovers & Associates. *Preliminary Report, Phase II Investigation, Trico Products Incorporated, Washington Street Plant, Buffalo, New York*. November 1994.
- Waste Stream Technology, Inc. *Trico Site Remediation Lab Reports prepared for Severson Environmental Services, Inc.* July and August 1995.
- Severson Environmental Services, Inc. *Analytical Results – Two and One Half Floor Decontamination Project*. September 20, 1995.
- Waste Stream Technology, Inc. *Trico Site Remediation Lab Reports prepared for Vector Publications*. February 1997.
- Microbac Laboratories, Inc. *Phase I Environmental Site Assessment, Century Center I, Former Trico Plant I, 817 Washington Street, Buffalo, NY*. May 31, 2001.
- URS Corporation. *Limited Phase II Environmental Site Assessment of the Former Trico Plant I Facility, Buffalo, NY 14203*. January 2002.
- Watts Engineers. *Phase I Environmental Site Assessment for the Century Centre I six-Story Trico Production Facility, 791 Washington Street, Buffalo, New York*. December 2006.
- Ernie Norman. *Trico Building Environmental Reports – Status Report*. January 12, 2007 E-mail with attached document from Joe Hoiden, former building manager, indicating his recollection of past assessments and remediation projects.

A brief summary of the findings from each of these documents is presented below. Throughout these documents, the Site address has also been listed as 817 Washington Street and Ellicott Street.

## **July 1993 Report of Cleaning and Verification Sampling of the Transformers and Associated Floors at the Trico Products Co.**

Sterling Environmental Services of Amherst, NY was hired by Trico Products Co. to clean transformers and associated floors using EPA's Double Wash/Rinse Method for PCBs. All the floor mats were cut up, placed in drums, and disposed. The report does not provide background information as to the reason for this cleaning nor does it include pre-cleaning analytical data. Verification sampling consisted of concrete chip samples that were composited in the laboratory. Sterling concluded that the analytical results of the grid sampling performed on the floors of all the transformer and switch rooms showed great reduction in the PCB concentrations that were originally present when compared to the wipe sampling episodes that took place prior to Sterling's involvement at Trico. Sterling surmised that some small hits recorded in the rooms that had painted floors could be a result of slight contamination under the painted surfaces that were uncovered during the chip sampling process.

Sampling was completed in five rooms identified as the 25 Cycle Room, Small 25 Cycle Room, Switch Room, 6E Transformer Room and 4E-5E Transformer Room. Fourteen composite samples were collected with sample results ranging from 0.4 milligrams per kilogram (mg/kg) or parts per million (ppm) to 15 ppm. Thirteen of the 15 samples were greater than 1 ppm PCBs. The highest concentration of PCBs was detected in the lab composite sample obtained from the 25 Cycle Room (south).

According to former Building Manager Joe Hoiden, there were three major PCB remediation projects in 1993 and 1994 (this information was provided as an attachment to an email transmission dated January 12, 2007 from Mr. Ernie Norman to Mr. Terry Gilbride of Hodgson Russ, LLP) Mr. Hoiden indicated that the three projects may have involved:

1. Draining PCB oil from transformers in the 25 cycle transformer rooms and refilling them with non-PCB oil in the early 1960s with assistance from Westinghouse Corporation. Subsequent inspections and wipe testing indicated some leaking over time. OSEA arranged for the retesting and cleaning.
2. Remediation of the floor in the two rooms and the floor area outside the power rooms that test positive for PCBs during wipe testing; OSEA provided the oversight.
3. Removal of three PCB oil filled transformers in July 1993 that were located in the two power rooms in the basement of Building #1; three non-PCB oil filled units were then installed.

## **August 1994 Asbestos Inspection and Management Plan**

Niagara Frontier Consulting Services (NFCS) was retained by Trico Manufactured Components to inspect the Plant #1 building, located at 817 Washington Street, for suspect asbestos-containing material (ACM), sample these materials to ascertain asbestos content, and provide recommendations for proper removal. NFCS noted a total of 43,298 linear square feet of ACM during the inspection. Of that total, 2,226 linear square feet were reported as damaged. Samples of the suspect ACM were sent for analysis to Comprehensive Analytical Group, Inc., an ELAP- and NVLAP-certified and accredited laboratory. NFCS recommended all or a combination of the following response actions: encapsulation, containment, enclosure, removal, and/or operation and maintenance procedures.

## **October 1994 Determination of Nickel, Chrome & Cyanide Contamination**

### October 12, 1994 Report

Green Environment Specialists, Inc. (GES) collected 30 samples of dust/dirt from various surfaces at Trico's Plant I located on 817 Washington Street. GES sampled areas previously used in nickel or chrome plating operations, targeting floors or walls with obvious discoloration, staining, or other signs of contamination. All samples were analyzed for nickel, cyanide, and chrome using EPA's *Standard Methods for the Examination of Water and Waste Water* to determine as quantitatively as possible the relative concentration levels present in each sample. Based on the sampling results, GES recommended decontamination and resurfacing of the entire 2<sup>nd</sup> floor area and decontamination of some areas of the 6<sup>th</sup> floor.

### October 17, 1994 Supplement 1

GES collected an additional nine samples from Trico's Plant I building. Seven samples were collected from the 2<sup>nd</sup> floor and two were collected from the 1<sup>st</sup> floor ceiling near a 2<sup>nd</sup> floor drain. GES concluded that "considerable" nickel and cyanide contamination was present in nearly all samples. Based on the chemical reaction during testing of Sample S8, collected from a yellow discolored area on the 1<sup>st</sup> floor ceiling, GES suspected the ceiling discoloration to be pure copper cyanide; this area has been painted over. GES's previous recommendation to decontaminate and resurface was extended to the 1<sup>st</sup> floor ceiling. GES recommended dry physical and vacuum procedures to remove dusts, crystals, and powders followed by chemical decontamination then resurfacing.

Detailed figures were not included with these reports; therefore, sampling locations referred to in these reports are unknown or unclear. However, it appears that the entire 2<sup>nd</sup> floor, the entire 1<sup>st</sup> floor ceiling, and portions of the 3<sup>rd</sup> and 6<sup>th</sup> floors were impacted. It should be

noted that sampling was not completed in all parts of the building, but biased towards visually impacted areas or areas of known nickel or chrome plating operations.

### **November 1994 Phase I Environmental Site Assessment**

Occupational Safety & Environmental Assoc., Inc. (OSEA) was contracted by Trico Manufactured Components to perform a Phase I ESA of the manufacturing plant (Plant 1) and parking area on 817 Washington Street. The figures and photographs are missing from this report. According to OSEA's report, which is the first to provide a Site description and history, Trico was a major manufacturer of wiper blade components for trucks and automobiles. The manufacture of wiper blade components involved zinc die-casting, rubber extrusion, and metal fabrication. Raw materials used in these processes included: zinc alloy (containing minor amounts of lead, manganese, chromium, and nickel), aqueous solutions containing sodium nitrate and chlorine; and spring oil containing kerosene and wire drawing lubricant. Electroplating using copper, nickel, and chromium ceased in 1976. Prior to 1993, 1,1,1-trichloroethane was used in the degreasing process located in the basement; it was phased out and replaced with Simple Green soap concentrate. A 1,1,1-trichlor waste (Cool Tool) was a portion of the 10 drums of flammable liquid waste typically hauled to Northeast Chemical Company (NEC) annually. Other hazardous wastes generated and disposed off-site included: solvents, paints, lead-contaminated sorbent pads, solid oxidizer salt, and laboratory chemicals. The basement was also the location of compressors for steam generation, a storage area for old machines, the hazardous waste storage area, and the electric transformer room.

The 15 transformers located by OSEA that formerly contained PCB dielectric fluid were apparently retrofitted in 1986 and certified as being non-PCB containing. In 1992, minor leaking was observed in several units. The samples were collected by OHM Corporation and analyzed by S.D. Meyers Laboratory. Since one transformer contained borderline contamination, Westinghouse Corporation repaired all the transformer leaks in July 1993. These documents were not provided to Benchmark for review. OSEA recommended that the visibly oil stained areas in the basement be wipe sampled and analyzed for PCBs. In January 1994, a one-time disposal of 95,000 pounds of PCB-contaminated oil and waste was disposed off-site following a cleanup in the basement.

OSEA also recommended: quantifying the extent of contamination on floors 2.5, 3, 5, and 6 where nickel, chromium, and cyanide electroplating was conducted; verifying that no soil and groundwater contamination exists in the vicinity of the two former underground storage tanks (30,000 gallon #6 fuel oil and 1,000 gallon gasoline) decommissioned/removed in 1991, despite the fact that no contamination was identified during closure; remediation of the estimated 2,226 square feet of damaged ACM; an investigation of the wastewater sewer lines to verify integrity of the system; testing of air emissions from the die-cast machines and spring ovens to determine if the NYSDEC permit should be updated; and a review of the non-hazardous chemical storage practices. OSEA also noted damage to basement ceilings

below die-casting machines as a result of long standing spillage and leaks. They suggested that some of this material may enter floor drains and ultimately be discharged to the Buffalo Sewer Authority system.

### **November 1994 Phase II Environmental Site Assessment**

Occupational Safety & Environmental Assoc., Inc. (OSEA) was contracted by Trico Manufactured Components to perform a Phase II ESA of the manufacturing plant (Plant 1) and parking area on 817 Washington Street to provide data for a potential property transfer. Summaries of the Phase II activities with OSEA's conclusion are provided below.

#### Task 1 – Sewer Investigation

Based on the age of the buildings sewer system, the potential existed for wastewater discharges to enter the subsurface via leaks or old/disconnected sewer lines. The Drain Doctor (J.A. Brundage Assoc.) performed a visual inspection of the sewer system followed by a high-pressure cleaning and subsequent inspection with an explosion-proof video camera. OSEA concluded that all existing lines are properly connected to city mains; however, they do not all have accessible cleanouts. The sewer lines were also found to be intact and in good working condition. Five drums of sludge and sediment were collected; no reports were located to indicate whether these drums were tested for PCBs and/or disposed.

#### Task 2 – Interior Building Investigations

OSEA reiterated the results of the GES October 1994 nickel, chrome, and cyanide sampling events and provided order-of-magnitude cost estimates for the following remedial efforts: (1) If the floor was determined to be structurally sound and reused, decontamination and chemical encapsulation of the surface of the 2.5 floor to prevent future toxic dust generation, and decontamination of the walls and ceilings of 2.5 would be approximately \$200,000; (2) a structural integrity evaluation and installation of a load-bearing steel drop ceiling below the 2.5 floor would cost approximately \$170,000; and (3) transportation and disposal costs only for the estimated 500 tons of hazardous waste generated from demolition of the 2.5 floor would be approximately \$250,000.

OSEA collected one solid (assumed to be dust/dirt) (PCB-1) and three wipe samples (PCB-2, PCB-3 and PCB-4) from visibly oil stained floor areas in the basement for analysis of PCBs by Waste Stream Technology. Those results indicated that sample locations PCB-1, PCB-2, PCB-3 and PCB-4 contained approximately 23 ppm, 41 ppm, 17 ppm and 303 ppm PCBs respectively. OSEA recommended cleaning/decontaminating the basement floor until no visible evidence of oil stains remains.

OSEA made the following general assumptions about miscellaneous contamination with the building: the flaking paint in older parts of the building is likely lead-based paint; cutting oils used in leaded steel manufacturing operations is likely lead contaminated and has likely contaminated the floors near the machinery; and some evidence of contamination exists in areas of ongoing industrial activities (i.e., salt and oil stains) that should be cleaned when activity ceases but no special hazards are expected to be present.

### Task 3 – Subsurface Investigation

GE operated a transformer maintenance facility in what is currently the Trico Plant 1 Ellicott Street parking lot. OSEA contracted Conestoga-Rovers & Associates (CRA) to perform a Phase II Investigation of soil and groundwater conditions. CRA prepared a separate report describing the investigation and findings. CRA installed a total of six boreholes located around the perimeter of the former transformer substation, in the vicinity of the former 30,000-gallon #6 fuel oil UST, and through the bottom of a floor sump in the basement [Benchmark note- only BH-6 was on the site of the six story building; all other borings were off-site]. Soil samples were collected from the 0-2 foot and 2-4 foot intervals at each location for a total of 12 samples. The soil samples were analyzed for SVOCs and PCBs. SVOCs, specifically polyaromatic hydrocarbons (PAHs), were detected at concentrations that exceed NYSDEC's Part 375-6 restricted-commercial soil cleanup objectives (SCOs), primarily in BH-1, with higher concentrations generally detected in the 2-4 foot interval. However, PAHs are ubiquitous in urban soils and the concentrations detected were typical of those encountered. CRA installed and sampled two groundwater monitoring wells. The groundwater samples were analyzed for VOCs, SVOCs, and pesticides/PCBs. No compounds were detected in the groundwater samples above Class GA groundwater quality standards. Based on the results of CRA's subsurface investigation, OSEA concluded that soil and groundwater contamination was not present above what is typical in urban environments. CRA attempted to drill and sample near the interior 1,000-gallon gasoline UST but insufficient clearances for the drill rig prevented the work.

### Task 4 – Waste Disposal Activities

According to Section 1 of the report, Task 4 was a review of paperwork related to past waste disposal activities for evaluation of potential off-site liabilities resulting from improper waste disposal; however, a summary of their review was not presented in the report.

### **1995 Analytical Results – Two and One Half Floor Decontamination Project**

The analytical results provided to Benchmark did not contain a narrative, figures, plans, or photos; therefore, the rationale for the sampling plan and the sampling locations are not known. According to the January 12, 2007 E-mail report from Ernie Norman, floor two and a half was the location of storage tanks that were used when there was a copper, nickel, and chrome plating operation located on the third floor. This area was cleaned out and

chemical contamination was found in the floor. Former Building Manager Joe Hoiden indicated that the floor was decontaminated and the remaining contamination was encapsulated. Ernie Norman (or Joe Hoiden) described the data provided to Benchmark as an incomplete collection of approximately 188 wipe samples collected at unknown locations throughout the structure for unknown reasons.

The analytical report provided to Benchmark is separated into two sections; Section 1 – Pallets & Cabinets and Section 2 – Walls, Floors, & Piping. Wipe samples were collected and analyzed for total nickel, chromium, arsenic, and cyanide. Of the analytical results reviewed by Benchmark, arsenic was the only metal not detected. Nickel, chromium, and cyanide were all present at concentrations above laboratory detection limits.

### **1997 Remediation Lab Reports**

Benchmark reviewed analytical data prepared by Waste Stream Technology for Vector Publications in February 1997. According to the analytical data report, two oil samples were collected from the basement on February 3, 1997. Sample Basement 1 was a grab sample of oil and Sample Basement 2 was a composite sample from the oil layer in coolants. Both samples were analyzed for PCBs. The oil grab sample was also analyzed for total lead and total organic halides. No PCBs were detected in either sample. Total lead was detected at a concentration of 244 mg/kg, and total organic halides were detected at a concentration of 7,600 mg/kg.

Former Building Manager Joe Hoiden indicated that a large Severson remediation project occurred in 1997 and a report was prepared. This referenced report was not provided to Benchmark for review.

### **2001 Phase I Environmental Site Assessment**

Microbac Laboratories, Inc. performed a Phase I ESA for Signature Management Group at Century Center I, 817 Washington Street to learn of observable environmental hazards and/or environmental liabilities associated with the site. Microbac described the following recognized environmental conditions (RECs):

- Chrome, cyanide, and nickel contamination on concrete floors. PCB contamination on the basement floor.
- Potential contamination in the vicinity of the former 30,000-gallon #6 fuel oil UST. Microbac suggested investigating 8-10 feet below the surface since CRA's 1994 investigation only extended to 4 feet below grade.
- Potential for asbestos; Microbac did not review the 1994 report by NFCS.

- Potential for lead-based paint based on the age of the building.
- Potential for accumulated dirt and oil on the floors to contain lead and other heavy metals based on former operations.
- Potential for accumulated dust within the exhaust system and bag house to be hazardous to workers involved in the removal.

Microbac observed approximately 35 smaller transformers located throughout the facility that were labeled as non-PCB containing but no records of testing were found; however, this observation was not listed as a recognized environmental condition.

### **2002 Limited Phase II Environmental Site Assessment**

URS Corporation, Inc. conducted a limited Phase II ESA for the former Trico Plant I facility located at 817 Washington Street for Signature Management Group, Inc. According to the report, the purpose of the assessment was to address two of the recognized environmental conditions identified in Microbac's Phase I ESA; specifically, the dirt and oil accumulation on the floors and the accumulated dust in the exhaust ducts. URS collected samples of the concrete and linoleum floors as well as materials from the floors for analysis of VOCs, SVOCs, PCBs, and RCRA metals (plus antimony, copper, manganese, nickel, and zinc). NYSDEC TAGM 4046 soil cleanup criteria were used in order to determine the proper disposal of the materials tested.

URS classified solid material collected from seven floor areas as a RCRA characteristic hazardous waste (cadmium, chromium, lead, and mercury) by comparing the results to 20 times the 6 NYCRR Part 371.3 Toxicity Characteristic Leaching Procedure (TCLP) levels. One additional solid floor sample (SH-06) contained a PCB concentration (65 mg/kg) above 50 mg/kg, classifying the sample as listed hazardous waste [sample SH-06 was a piece of the linoleum-type flooring from Floor 4].

URS collected samples of black solid material or liquid oily material from the inside of the exhaust ductwork for analysis of VOCs, SVOCs, PCBs, and RCRA metals (plus antimony, copper, manganese, nickel, and zinc). URS classified three samples as RCRA characteristic hazardous waste for benzene, cadmium, chromium, lead, and/or mercury. One composite sample (SH-13), a black solid from Floor 1 near an exhaust duct, was considered hazardous for both metals (lead and chromium) and PCBs.

URS also collected a sample of the liquid oily material inside an open process tank in the basement and a sample of gray solid particles inside a drum of baghouse dust on the 4<sup>th</sup> floor. These samples were also analyzed for VOCs, SVOCs, PCBs, and RCRA metals (plus

antimony, copper, manganese, nickel, and zinc). The baghouse dust sample (SH-07) met the criteria of a RCRA characteristic hazardous waste as it contained chromium and lead above regulatory levels. The process tank sample (SH-16) met the criteria of a non-hazardous waste.

In general, URS recommended decontaminating and re-sampling the impacted concrete surfaces; scarifying and resurfacing the concrete impacted with PCBs; removing the impacted linoleum-type flooring (and other surficial coatings) and evaluating the underlying concrete; removing and properly disposing the exhaust ductwork; disposing the baghouse dust drums; and disposing the liquid in the process tank.

### **2006 Phase I Environmental Site Assessment**

Watts Architecture & Engineering, P.C. conducted a Phase I ESA for Century Centre I located at 791 Washington Street for the Buffalo Niagara Medical Campus (BNMC). According to Watts, the subject property was previously owned by the Stephen B. McGarvey, LLC but at the time of the Phase I ESA, was in receivership as a result of bankruptcy proceedings. BNMC is apparently interested in purchasing the subject property. Watts' outlines and provides recommendations for five recognized environmental conditions (RECs) and seven other environmental-related concerns.

As part of their Phase I ESA, Watt's also reviewed the documents that were reviewed by Benchmark as summarized in this report. Watts' findings are generally consistent with findings of previous studies, with some additional information, notations or clarifications as follows.

- In February 1994, Sterling Environmental Services apparently removed PCB-contaminated dirt and debris that was accumulated on the underside of a hydraulic heat casting machine in the oil containment pan. The die casting machine was sampled, determined to be clean, and put back into service. Reports were not provided to Benchmark for review.
- A composite sample of visibly oil stained debris was collected from the sub-basement in Building No. 3 (no figure showing sampling locations was provided). The material consisted of decomposed wood pieces and soot from the boiler, and contained less than 25 mg/kg of PCBs. Watts noted that although the concentration is below NYSDEC's PCB threshold of 50 mg/kg for listed hazardous wastes, PCBs are present in the area at levels above generally accepted health and safety/cleanup guidelines.
- A Phase I ESA was conducted in January and April 1999 for the North Parking Lot at Ellicott and Virginia Streets. Watts summarizes the report as describing previous

subsurface testing of a former Niagara Mohawk facility east of the subject property and north of Burton Street for PCBs related to past use of the site as an electrical sub-station. The results indicated that PCB contamination was below regulatory cleanup levels.

- Watts reviewed a report prepared September 12, 2000 by ATC Associates, Inc. that did not pertain to the six-story structure but contained information on the USTs referenced throughout previous reports. Apparently the 30,000-gallon UST was removed in 1990; no specific information regarding the condition of the UST, soil, or groundwater was provided to NYSDEC. In addition, the 1,000-gallon UST was reportedly filled-in-place in 1981. A letter was identified indicating the intent to close the tank; however, no documentation that this event actually occurred was located.
- Watts personnel observed several hydraulic lifts within the loading dock area. No test data was available to ascertain whether the lifts contain or contained PCB oil.
- The Hazardous Waste and PCB Storage Area contained approximately 19 full drums with unknown contents, a large pile (few hundred) of oil-filled light ballasts, and some fluorescent lamps. A few hundred fluorescent lamps in boxes were stored near the hazardous waste storage area.
- The interior of the building was generally moist with standing water and water intrusions throughout. Mold was evident in many areas.

## **SITE SUMMARY**

Based on the information reviewed, Benchmark has compiled the following general site summary:

- The subject property is an approximate 2.1-acre parcel, presently developed with a 490,000-square foot, six-story building, commonly referred to as the Century Centre I office complex. The building is presently unoccupied.
- The Site has been developed for over 150 years. Trico Products Corporation occupied the site from the mid-1920s to the mid-1990s. The Site was utilized for heavy industrial purposes (manufacture of wiper blades for the automobile industry) during Trico's entire occupancy of the Site. Specific site operations by Trico included electroplating, smelting, die-casting, rubber extrusion and metal fabrication.
- Prior to and concurrent with Trico's earlier occupancy of the Site (1920s), previous Site use of environmental concern included a foundry and several auto repair facilities.
- Starting in the early 1990s, there have been several environmental site assessments, subsurface investigations, sampling of building components (floors, walls, ducts) and discrete clean-ups of PCBs and heavy metals on or within building components. Although many previous investigations and remediation projects have been

completed, there is not a clear understanding of the amount of hazardous, non-hazardous or petroleum contamination remaining on-Site due to incomplete reports (e.g., missing figures, tables or text).

## **RECOGNIZED ENVIRONMENTAL CONDITIONS**

Based on the data provided to us from previous investigations conducted at the Site, Benchmark has identified the following recognized environmental conditions (RECs) potentially exist at the subject property:

1. **Known/Suspect Surface Contamination within Building** – Residual contamination, including lead, chromium, cyanide, nickel, and/or PCBs, has been identified in previous reports on surfaces of floors 1, 2/2.5, 3, 4, 6 and basement/sub-basement. Contamination has penetrated the concrete floor on the second floor and migrated to the first floor ceilings in at least one area.
2. **Potential Subsurface Contamination in the Vicinity of Former USTs** – One 30,000-gallon fuel oil UST and one 1,000-gallon gasoline UST were located north of Burton Street, adjacent to the subject property. One soil boring/monitoring well was completed proximate the 30,000-gallon fuel oil UST, but soil sampling only extended to 4 fbg's in the vicinity of the UST. Subsurface soil and groundwater sampling was not conducted at the location of the former 1,000-gallon gasoline UST. An additional UST was located in the street in front of the subject property at 799 Washington Street. Benchmark is not aware of subsurface samples in that area.
3. **Potential Subsurface Contamination in the Vicinity of Hydraulic Lifts** – Hydraulic lifts were noted in the loading dock area. Hydraulic lifts often leak hydraulic oil that sometimes contains PCBs. Benchmark is not aware of subsurface samples in the area of the lifts to determine if they leaked or sampling of oil inside the lifts.
4. **PCB Contamination in Sub-Basement** – Oil stained debris collected during historic investigations from the sub-basement contained PCBs. It is not known whether the contamination was addressed. Watts noted that the sub-basement was filled with water in late 2006.
5. **Oil Stained Floor in Waste Oil Storage Area** – The floor within the Waste Oil Storage Area was heavily stained with waste oil as noted during the 2006 Phase I ESA. The Waste Oil Storage Area likely stored lead-contaminated cutting oils, PCB oils, former degreasing wastes, and other wastes of concern. The visual contamination on the floors indicates past releases. PCB-contamination was confirmed during OSEA's 1994 Phase II ESA.

6. **Dust Within Exhaust Ductwork** – The dust accumulated within the ductwork was sampled and shown to contain benzene, cadmium, chromium, lead, mercury, and PCBs.
7. **Former 1,1,1-Trichloroethane Degreasing Unit** – Chlorinated solvent 1,1,1-trichloroethane was used in the degreasing unit until 1993; no investigation into possible leakage has been conducted.
8. **Lead-Based Paint** – Peeling and flaking paint throughout the building is likely lead-based due to the age of building.
9. **Asbestos-Containing Material** – A 1994 survey identified an estimated 43,298 square feet of asbestos-containing material (ACM); 2,226 square feet of the total was reported as damaged. More ACMs may have been damaged since 1994.
10. **Mold**- The Site was noted to contain mold growth in several areas of the building.
11. **Hazardous Waste Generation and Storage** – At least 19 drums with unknown contents and suspect PCB oil filled light ballasts were noted within this area during the 2006 Phase I ESA. The Site is listed a Resource Conservation and Recovery Act (RCRA) generator of hazardous waste, indicating hazardous waste has historically been generated on-Site and transported off-Site. The condition of these drums is unknown and may present a risk of release.

## **RECOMMENDATIONS FOR MITIGATING POTENTIAL ENVIRONMENTAL CONDITIONS**

Based on our recent discussion, the existing six-story building will likely be demolished and a new building constructed on-Site. As such, we recommend the following measures be taken prior to Site redevelopment.

### **Building Inspections/Surveys**

Benchmark recommends the following:

- a thorough site inspection/walkthrough of the building to confirm the data reviewed;
- a thorough sampling and analysis plan consisting of wipe samples, chip samples and core samples of all building components in visually impacted areas or in areas of the building where hazardous/regulated materials or waste were utilized and/or stored;
- sampling of drum contents and transformers to determine the appropriate method of disposal;
- pre-demolition asbestos survey;

- a lead-based paint survey; and,
- a quantitative hazardous/regulated material and waste inventory (i.e., drums, light ballasts, mercury-filled thermostats, hydraulic lifts).

Upon completion of the above, a comprehensive building decontamination work plan should be developed to detail the quantity and location of the hazardous/regulated materials and wastes on-site and contaminated materials within the building components. Such a plan should include detailed figures and sample locations to determine which areas of the site require remediation prior to building demolition. The building decontamination work plan can serve as a basis for a cost estimate for building decontamination, hazardous or regulated materials or waste removal/disposal and building demolition costs.

### **Building Decontamination**

Prior to demolition, the building should be decontaminated based on a comprehensive decontamination plan. The purpose of building decontamination is to minimize demolition costs as costs associated with disposal of building materials contaminated with hazardous/regulated materials is significantly greater than the cost to dispose of or recycle building materials as construction and demolition (C&D) debris.

### **Subsurface Investigation**

Benchmark recommends a subsurface soil and groundwater investigation in the vicinity of the former UST located in the street at 799 Washington Street and along the northern property boundary in the vicinity of the 30,000-gallon fuel oil UST and 1,000-gallon gasoline UST. If there is no access to the area of the former USTs, such an investigation can be completed subsequent to demolition of the building.

Based on the historic degreasing activities that utilized chlorinated solvents, a soil and groundwater investigation is recommended. Such an investigation can be completed either by advancing sample locations through the basement floor (if accessible and safe), or subsequent to building demolition.

### **Other considerations**

Based on recent discussions with the NYSDEC, there may an opportunity to enter the site in the New York Environmental Restoration Program (ERP) (for government agencies) or the New York Brownfield Cleanup Program (BCP) (for private corporations). If accepted into the ERP, up to 90% of certain costs to investigate and/or remediate the known and/or suspected environmental conditions on-Site may be eligible for reimbursement. If accepted into the BCP, up to 22% of investigation, remediation and site redevelopment costs may be eligible for reimbursement via a refundable New York State tax credit.

## **DECLARATION/LIMITATIONS**

This report has been prepared for the exclusive use of Buffalo Urban Development Corporation (BUDC). The contents of this report are limited to information made available to Benchmark Environmental Engineering & Science, PLLC by BUDC, and assume all referenced historic information sources to be true and accurate. The findings herein may be relied upon only at the discretion of BUDC. Use of or reliance on this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.

Please do not hesitate to contact us if you have any questions or wish to discuss this report.

Sincerely,  
Benchmark Environmental Engineering & Science, PLLC

Michael Lesakowski  
Project Manager

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