



**INVENTUM ENGINEERING, PC**

## **Stormwater Pollution Prevention Plan**

### **For:**

Riverview Innovation & Technology Campus  
3875 River Road  
Tonawanda, New York 14150  
BCP Site No. C915353

### **SWPPP Contact:**

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# 1 Facility Description and Contact Information

## 1.1 Facility Information

Facility Information	
<b>Name of Facility:</b>	Riverview Innovation & Technology Campus
<b>Address:</b>	3875 River Road Tonawanda, NY 14150
<b>County:</b>	Erie
<b>Latitude:</b>	42.9808
<b>Longitude:</b>	-78.9319
<b>Total Acreage:</b>	102 Site 109, Site 110 [Site #915055] and the BCP Site [Site # C915353])
<b>Industrial Activity Acreage:</b>	102
Discharge Information	
<b>Receiving Waters</b>	Niagara River
<b>Receiving Waters Class</b>	A-Special
<b>Prior SPDES Permit:</b>	NY002399
Existing Stormwater Outfalls	
<b>Outfall No. 001</b>	Stormwater runoff from former operational areas of the site.
	Latitude: 42.9808      Longitude: -78.9319
<b>Outfall No. 002</b>	Stormwater runoff from coal and coke yard.
	Latitude: 42.9808      Longitude: -78.9306
<b>Outfall No. 004</b>	Combined flow from Outfalls 001 and 002 and Site 109
	Latitude: 42.9803      Longitude: -78.8336

The Facility does not directly discharge stormwater into a municipal separate storm sewer system (MS4). The facility does accumulate stormwater in certain secondary containment structures. The water is tested and, if settling in containment is not sufficient treatment, the water is treated prior to discharge to the Town of Tonawanda Publicly Owned Treatment Works (POTW).



## 1.2 Contact Information/Responsible Parties

<b>Facility Operator</b>
Riverview Innovation & Technology Campus, Inc. 3875 River Road Tonawanda, NY 14150  Contact: Alen Trpevski, Project Manager Telephone: 716.818.3390 E-Mail: <a href="mailto:atrpevski@oscinc.com">atrpevski@oscinc.com</a>
<b>Facility Owner</b>
Riverview Innovation & Technology Campus, Inc. 333 Ganson Street Buffalo, NY 14203  Contact: Jon M. Williams Telephone: 716.856.3333
<b>SWPPP Contact</b>
Inventum Engineering, P.C. 481 Carlisle Drive; Suite 202 Herndon, VA 20170  Contact: John P. Black, P.E. Telephone: 703.935.0409/571.217.6761 E-Mail: <a href="mailto:john.black@inventumeng.com">john.black@inventumeng.com</a>



### 1.3 Stormwater Pollution Prevention Team

Staff Names	Individual Responsibilities
John P. Black, P.E. (Inventum Engineering, P.C.) and Todd Waldrop (Inventum Engineering, P.C.)	Brownfield Voluntary Cleanup Program Engineer - Responsible for overall development and direction of site investigations and remediation at the site. Responsible for overall development and modifications of the SWPPP. Responsible for coordination of all monitoring required for stormwater management.
Alen Trpevski (OSC, Inc.)	Project Manager – Oversees all aspects of Facility operations and management. Responsible for general implementation and coordination of the SWPPP and adherence to requirements for stormwater management.
Pat Cahil (OSC, Inc.)	Team Member – Responsible for daily inspections and implementation of SWPPP requirements.
Dale Cyphus (OSC, Inc.)	Team Member – Responsible for daily inspections and implementation of SWPPP requirements.
Keith Adderley (Inventum)	Team Member – Responsible for sampling, outfall and E&SC inspections, reporting.

### 1.4 Site Description

The property located at 3875 River Road (Figure 1), Town of Tonawanda, Erie County, New York. The property encompasses approximately 102 acres of land and is located approximately 0.25 miles west of I-190 with parcels located on the east side of River Road. The surrounding properties are primarily industrial or vacant.

The Riverview Innovation & Technology Campus site was an operating coke making and by-products facility for more than 100 years. The facility is inactive and no longer produces coke. The facility was owned and operated from circa 1917 through 1947 by Semet Solvay Company, a subsidiary of Allied Chemical and Dye Corporation. In 1947, Semet Solvay Company was merged into Allied Chemical Corporation, which owned and operated the facility until 1978, when it was sold to the Tonawanda Coke Corporation. The Tonawanda Coke Corporation filed for bankruptcy protection in 2018 and all manufacturing on the property was idled. The United States Environmental Protection Agency (USEPA) conducted stabilization activities and maintained overall control of the site from the time of the bankruptcy until the sale of the property in October 2019. The sale of the property to Riverview



Innovation & Technology Campus, Inc was approved in October 2019. The USEPA remained onsite and continued to manage surface water through March 2020.

The property (Figure 1) is segregated into the following regulatory management units in order to proceed with the investigation and remediation of potential environmental impacts relating from historical operation as a coke production facility:

#### 1.4.1 Brownfield Cleanup Program Site (Site #C915353)

This portion of the site encompasses approximately 86.5 acres<sup>1</sup> of land and will be subject to investigation(s) and remediation under the Brownfield Cleanup Program (BCP) agreement with the New York State Department of Environmental Conservation (NYSDEC) signed February 14, 2020. The former coke production facility is located in the northern center portion of the BCP site which includes the idled coke ovens, portions of a coke by-product plant, storage tanks, and railway line spurs. The southern portion of the BCP portion of the site is mainly open with multiple former raw material coal and coke piles located through the area. Four storage tanks are located on the southernmost portion of the property, two were converted for use as wastewater treatment tanks.

While there is no longer any production, the care, custody and control of the site is considered an industrial activity and on the northern portion of the site includes:

- Management and control of shuttered former process equipment and out-of-service process tanks;
- Management and inspection of storage tanks within secondary containment areas;
- Management and inspection of miscellaneous drums of former process materials and cleanup materials;
- Storm water management;
- ACM management; and
- General Site maintenance.

Existing industrial activities on the southern portion of the BCP site include:

- Excavation, loading, and transportation of coal and coke materials;
- Management of shuttered former process equipment;
- Management and inspection of storage tanks within secondary containment areas;
- Storm water management;
- ACM management; and
- General site maintenance.

#### 1.4.2 Site 110 (Site #915055)

Site 110 (Site # 915055) is located partially on the 3875 River Road property. Approximately 2.5 acres of Site 110 is on the 3875 property. The entire area of Site 110 is 4.8 acres. The remainder of Site 110 is on the adjoining property east of the property line. Site 110 (NYSDEC Site #915055) is subject to an Order on Consent with the NYSDEC through the Inactive Hazardous Waste Disposal Site (IHWDS) Program. Site 110 is located east of the BCP portion of the property and materials such as coal tar sludge, wood shavings impregnated with iron oxide, fly ash, and cinders were reported to have been disposed at Site

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<sup>1</sup> The 3875 River Road tax parcel is listed as 102.4 Acres. The balance of the property at 3875 River Road is in the Sites 110 and 109.



110 prior to 1978. Site 110 is currently overgrown with vegetation and no industrial activities occur in this area.

#### 1.4.3 Site 109 (Site #915055)

This portion of the site encompasses approximately 7 acres of land and is subject to an Order on Consent with the NYSDEC through the IHWDS Program. Site 109 is located west of the BCP portion of the site. Reportedly, an unknown quantity of brick, rubble, and related demolition waste was disposed in this area in 1977. Site 109 is currently overgrown with vegetation. The only industrial activities on Site 109 are stormwater management. Outfall Numbers 001 and 004 as had been defined under the facilities prior individual SPDES Permit (NY002399) are located on Site 109. In addition, the concrete lined settling ponds that manage stormwater from the former process area, the guard shack and a scale are on Site 109.

#### 1.4.4 Site 108 (Site #915055)

Site 108 comprises the western parcel (3800 River Road) of the Former Tonawanda Coke Corporation property adjacent to the Niagara River and was used for transferring coal from the river to the facility via conveyor belts. In 1973 the Erie County Health Department granted Allied Chemical permission to establish a disposal area, which was subsequently filled with refuse, wood, scrap polyethylene and ceramic saddle packing from refining equipment. The disposal of coke/coal, fly-ash cinders, and coal tar sludge has also been documented. A U.S. Environmental Protection Agency (USEPA) mandated removal action was completed in early 2020 that included removal of three large above-ground storage tanks and selected stockpiles of soil.

The electrical substation for the properties is located on Site 108. Although no longer in operation, the river pump house, the ship loading and unloading equipment, a conveyor system, and piping is located on Site 108. The majority of Site 108 is heavily vegetated.

Stormwater drainage from the BCP Site, Site 110, and Site 109 along with discharges from other industrial properties east of River Road, flows through a culvert onto Site 108. The culvert discharges to an open channel west of River Road. The flow from the combined discharges and the property west of River Road ultimately discharges to the Niagara River.

### 1.5 General Location Map

The general location map for this facility can be found in Figure 1

### 1.6 Facility Map

The facility map for this site can be found in Figure 2.





## 2 Potential Pollutant Sources

The current activities are documented below. As the investigation, interim remedial measures and remedial measures are developed, this list will be amended.

Industrial Activity	Associated Pollutants
<b>BCP Site</b>	
Management and control of shuttered former process equipment, out-of-service process tanks, and out-of-service storage tanks within secondary containment areas.	<p>Secondary containment areas may contain coke production process residuals that may come into contact with stormwater runoff. These are managed using best management practices and structural controls.</p> <p>Water accumulating in secondary containment areas is treated and discharged to the Town of Tonawanda sewer system under Industrial Sewer Connect Permit No. 331.</p>
Diesel Storage Tank (AST).	500-gallon Diesel AST; adjacent to the guard building. Has integrated secondary containment.
Miscellaneous drums of existing process materials and cleanup materials are labeled and moved to secondary containment or indoor areas.	Located throughout the site. Contact with storm water runoff managed through best management practices and good housekeeping. To date the majority of containers have been found to contain oils, greases, and other lubricants. Another set of containers contain Investigation Derived Wastes (IDW) accumulated by the USEPA.
ACM Management	Asbestos containing materials have been identified throughout the facility. Areas where ACM has fell, or is suspected of having fallen, are managed according to NYS Department of Labor requirements. Materials known to contain asbestos have been marked with red paint.
General site maintenance.	There is maintenance and general rubbish and recyclable material cleanup required across the property. The majority of the materials are ferrous metals and general plant wastes.
Excavation, loading, and transportation of coal and coke materials	Located in the southern half of the BCP Site. Reclamation activities are anticipated to progress until mid-2020. Contact with storm water runoff managed following an excavation work plan specific to these activities.



## 2.1 Spills and Leaks

The following is a descriptive list of where potential spills and leaks could occur at the facility that could contribute to pollutants to stormwater discharge:

Location	Outfalls
Diesel Storage Tank – Near maintenance building	Has secondary containment, if a failure of both the tank and secondary containment occurred subsequent flow would be contained with booms. There are no stormwater inlets in the vicinity of the tank.
Former Process Equipment	Flow to stormwater sewer system, main collector sump with oil removal booms, concrete lined settling basins and the Outfall 001.
Petroleum and Chemical Bulk Storage tanks	Within Secondary Containment. If overflow, flow would go to the storm sewer system, the concrete lined settling basin, then Outfall 001.
Containers	Within secondary containment and inspected. If release and overflow of secondary containment, to the storm sewer system, the concrete lined settling basin, then Outfall 001.
Former EQ and Associated Tanks	Within secondary containment and inspected. If release and overflow of secondary containment, to Outfall 002.
Coal and Coke Reclamation – coal and coke yard – southern half of BCP site	Upgradient of stormwater management facilities. Flows from these areas are captured by one of four sedimentation basins prior to discharge to Outfall 002.

Appendix A is a descriptive list of significant spills and leaks based on DEC records, including those in the past three years, and were all reported prior to the facility shutting down operations in October 2018. Powers Coal and Coke had a small release (Spill #1908744) in December 2019 prior to removing a piece of equipment from the property.

No significant spills or leaks have occurred while the site has been under the care, custody, and control of Riverview Innovation & Technology Campus, Inc.

## 2.2 Unauthorized Non-stormwater Discharges Documentation

Reviews of available historical piping schematics and interviews with knowledgeable former facility employees reveal no existing non-storm water discharges to any of the surface water outfalls at the site.



Secondary containment areas that may contain coke production process residuals and may come into contact with stormwater runoff are managed using best management practices (BMPs) and structural controls (Figure 3). Accumulated water from secondary containment areas in the process area is treated and discharged to the Town of Tonawanda sewer system under Industrial Sewer Permit No. 331 (Appendix B).

### 2.3 Sampling Data Summary

The TCC facility previously operated under SPDES Permit No. NY002399 prior to shutting down production. When the facility was shut down, TCC voluntarily returned the SPDES Permit, and the permit is no longer applicable. The USEPA has maintained monitoring and sampling in general accordance with the former SPDES permit requirements since initiating site response activities in October 2018. A summary of sampling from October 2018 through February 2020<sup>2</sup> is provided in Appendix C.

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<sup>2</sup> Some data is pending and therefore not represented in the Appendix.



## 3 Stormwater Control Measures

Stormwater control measures at the property are adapting to the conditions remaining following closure and transfer of the management of the properties from the former Tonawanda Coke Corporation (TCC) to EPA and finally to Riverview.

### 3.1 Non-numeric Technology-based Effluent Limits

The site is being actively managed and transformed from an abandoned industrial facility to a viable redevelopment property avoiding the possibility of having an abandoned blight in the community. During this transition the following will be implemented.

#### 3.1.1 Minimize Exposure

Riverview immediately implemented a number of active measures to minimize exposure of precipitation and runoff to potentially impacted soil and process equipment when the site was acquired:

- Managed containers throughout the facility. Containers were spread throughout the facility, many stacked in unstable configurations, and many on their sides. Containers were moved onto impermeable liners, separated so they could be inspected, and no containers are stacked. The containers are inspected weekly.
- Eliminated majority of oil storage. The liquids from five petroleum bulk storage tanks (ST-11 to ST-17 [PBS Nos. K-01 to K-05 are included]) and dozens of drums were recycled so the potential for releases and exposure were eliminated. The available information on Tanks at the site are compiled on Table D-1. The Tank locations are identified by Grid in Table D-1 and Shown on Figures D-1 through D-9.
- Covered petroleum and chemical bulk storage tanks. Two tanks (ST-06 [CBS B-03] and ST-07 [PBS D-02])) were located in areas that could have been exposed to significant contact with precipitation. Tanks ST-06 and ST-07 and their associated secondary containments were re-covered with tarps to prevent contact with precipitation.

On an ongoing basis, the stormwater management systems across the entire site are inspected and where needed, controls are put in place, including but not limited to, gravel check dams, filter socks, silt fence and removal of materials from roads and staging areas.

#### 3.1.2 Good Housekeeping

Housekeeping on the property has been neglected for decades. In February 2020 Riverview was awarded ownership of all materials and equipment on the property. Prior to that date, Riverview owned the real property, but not the materials on the surface. The restoration of good housekeeping at the site will be a protracted process due to the combination of the magnitude of the conditions inherited on the property and the potential for contact with potentially impacted materials. While site conditions are being defined, the following are conducted on a routine basis:

- Daily inspections of the roads and site perimeter.
- Observations and identification of any fallen insulation. All fallen insulation is identified, sampled for asbestos content and managed in accordance with state requirements.
- Monitoring the elevations of water accumulating in secondary containment systems. There are seven secondary containment systems on the property:
  - Weak Ammonia Liquor Area – Figure D-2 (F10 to J11)– Tanks ST-01, ST-02, PT-02, PT-03 and FP 1. This is a large reinforced concrete containment area. None of the



tanks in the containment contain liquids in excess of the elevation of the containment walls.

- Light Oil Area – Figure D-2 (H8 - I9) – Tanks PT-04, PT-12, PT-13 – This secondary containment around the light oil decanter and associated tanks was compromised when the former building east of the secondary containment was removed. This containment has limited volume and must be periodically be pumped to the sewer under Permit No. 331.
- ST06 – Figure D-2 (R10) - The secondary containment around ST-06 is a steel box constructed for and specific to this tank. Approximately one-half of the tank is above the sides of the containment, so ~ 2,500 gallons of capacity must be maintained, approximately 4 feet below the crest.
- ST07 – Figure D-2 (P13) - The secondary containment around ST-07 is a steel box constructed for and specific to this tank. Approximately one-half of the tank is above the sides of the containment, so ~ 5,000 gallons of capacity must be maintained, approximately 4 feet below the crest.
- Tar Management Area – Figure D-3 (S7 toU8) – Tanks PT-05 to PT-08, PT-11, and PT-14) – The secondary containment area around the tar management area is maintained at the lowest level possible.
- EQ and Associated Tanks – Figure D-8 (E33 to N36) – Tanks ST-21 to ST24 – The secondary containment walls are above the elevation of the remaining liquids and sludges in the tanks, The capacity is maintained more than 5 feet below the crest.
- Fuel Tank – Figure D-2 (F7) - The mobile fuel tank has its own self-contained secondary containment and is maintained free of liquid.

### 3.1.3 Maintenance

Maintenance is the primary concern on the property. Inspection checklists are provided in Appendix E. There are ongoing maintenance activities required to maintain surface water quality:

- As described above, inspecting and controlling the water levels in secondary containment structures. There are secondary containment structures in the tar management area, the light oil area, and around several storage and wastewater treatment tanks. The structures are routinely inspected, and water is pumped from the containments before any risk of overtopping.
- Stormwater controls are inspected daily and maintained as soon as any potential issue is observed, including but not limited to, repairing silt fence, placing stone check dams to prevent flow from circumventing stormwater inlets, and replacing silt socks as needed. The controls include:
  - The Collection “Mansion” Sump - Figure 3, Grid D2;
  - Inlets along the North Storm Sewer - Figure 3, Grids D2 to Y5;
  - Catch Basins – Figures 5 and 6;
  - Sedimentation Pool #003 – Figure 5, Grids N15 to N20;
  - North Ditch- Figures 5 and 6;
  - Sedimentation Pool #002 – Figure 5, Grids I22 to M22;
  - Storm Water Retention Basin – Figure 7, Grids F26 to I27;
  - Sedimentation Pool #001 – Figure 7, Grids J29 to O29;
  - South Ditch – Figures 6 and 7; and



- Coal Yard – Excavation Water Levels and Silt Fence – Figure 6, Grids N29 to Ag26.
- Maintaining the water level in the coal and coke yards (Figures 3 through 6). The water level in pools within the coal and coke yards are maintained at or below the surrounding ground surface outside the perimeter dikes to ensure no seepage or potential release.
- Maintaining the collection (a/k/a Mansion) sump behind Building No. 001 (Figure 3, Grid D2). The sump behind Building No. 001 is a collection point for two surface water sewer systems. The sump is the first point that oil and sediment would be managed. Booms are maintained in the sump in the event of any sheen and the sump allows sediment to settle. The booms and sediment are periodically removed. The booms are replaced if they become saturated and no longer float above the top of the biological buildup. Sediment is removed whenever the sediment is visible in the sump.
- Maintaining storm sewers. The storm sewers throughout the former production area (AOI 2, Figures 2, 3 and 4) require periodic cleaning. The cleaning is conducted after the flow is restricted at the site.

Material storage tanks and pipelines are inspected daily by onsite OSC personnel. Abnormalities identified by onsite personnel shall be evaluated and repaired/cleaned up as soon as possible.

Fueling and maintenance of Facility equipment and vehicles will be performed in designated areas that are regularly inspected for the presence of any leaks or spills and will be closely monitored in conjunction with the terms of this SWPPP.

### 3.1.4 Spill Prevention and Response

Spill prevention is based on good housekeeping and maintaining the containers and tanks at the property. During the remedial actions, task specific spill prevention and response plans will be required. All petroleum spills that occur within New York State (NYS) must be reported to the NYS Spill Hotline (1-800-457-7362) within 2 hours of discovery, except spills which meet all of the following criteria:

1. The quantity is known to be less than 5 gallons; and
2. The spill is contained and under the control of the spiller; and
3. The spill has not and will not reach the State's water or any land; and
4. The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in the coal yard, coke yard, any soil surfaces or any gravel parking lot is considered to have impacted land and is reportable. Any spills or releases that do not require reporting to the NYS Spill Hotline will be reported, in writing, to the DEC BCP Project Manager within 48-hours of discovery.

During Regular Business Hours:

1. The person discovering the spill shall report to the onsite foreman or project manager immediately:
  - a. Pat Cahill - 716.860.5994
  - b. Al Trpevski - 716.818.3390
2. As long as it poses no safety risk, attempt to secure the source of flow and stop discharge;
3. Block any catch basin(s) or storm sewer that could receive flow from the spill with filter sock or soil;



4. Project Manager shall inspect the area as soon as the flow is abated and call the NYS Spill Hotline (1-800-457-7362) within 2 hours of incident identification;
5. In the event of a potential or actual release from the property beyond Outfall 004, the following shall be called in the order given after calling the NYS Spill Hotline (1-800-457-7362):
  - a. National Response Center - 800.424.8802
  - b. U.S. Coast Guard - 716.846.4168
  - c. U.S. EPA - 732.548.8730
  - d. NYSDEC (Region 9) - 716.851.7220
  - e. NYSDEC (Albany) - 800.457.7362
6. Project Manager shall direct cleanup. If less than a drum full of material, collect, contain and label drum;
7. If more than can be managed onsite call the following contractor:
  - a. Ontario Specialty Contracting - 716.856.3333

After Regular Business Hours:

1. The person discovering the spill shall report to the onsite foreman or project manager immediately:
  - a. Pat Cahill - 716.860.5994
  - b. Al Trpevski - 716.818.3390
  - c. John Black - 571.217.6761
2. If qualified and as long as it poses no safety risk, attempt to secure the source of flow and stop discharge;
3. If qualified and have access to materials, block any catch basin(s) or storm sewer that could receive flow from the spill with filter sock or soil;
4. Project Manager shall inspect the area as soon as the flow is abated and call the NYS Spill Hotline (1-800-457-7362) within 2 hours of incident identification;
5. In the event of a potential or actual release from the property beyond Outfall 004, the following shall be called in the order given after calling the NYS Spill Hotline (1-800-457-7362):
  - d. National Response Center - 800.424.8802
  - e. U.S. Coast Guard - 716.846.4168
  - f. U.S. EPA - 732.548.8730
  - g. NYSDEC (Region 9) - 716.851.7220
  - h. NYSDEC (Albany) - 800.457.7362
6. Project Manager shall direct cleanup. If less than a drum full of material, collect, contain and label drum;
7. If more than can be managed onsite call the following contractor:
  - i. Ontario Specialty Contracting - 716.856.3333

In the event of a spill that generates material from on-Site cleanup efforts (e.g., sorbent material, impacted soil, etc.), the Project Manager will confer with Inventum and the DEC regarding the nature of the waste in order to determine the proper reuse, recycling and/or disposal method.

Spill kits are available onsite that include:

- Hazmat absorbent socks, no less than 4 feet long
- One hazmat sock, no less than 10 feet long



- Hazmat absorbent pads
- Clear sealable watertight bags
- Cable ties or other fasteners for socks and bags
- Spill response book or form to record incident and contacts made
- Polypropylene drum or bucket.

In addition, absorbent materials and standby clean drums and buckets are available on the site. The spill kits are located at the maintenance office - Figure 3, Building 8, Grid E7 and by the guard shack – Figure 7, Building 70, Grid E31.

### 3.1.5 Erosion and Sediment Controls

Erosion and sediment controls are critical components of the surface water management systems at the site. Erosion and sediment controls include:

- Filter socks around catch basins (Appendix F) in the coal and coke yard and wherever there is potentially impacted soils that could erode into a collection system;
- Vegetation in and around the North and South Drainage Ditches;
- Gabion Baskets to control velocity of flow in the North and South Ditches and Sedimentation Pool #003. The Gabion Baskets are located:
  - Sedimentation Pool #003 – Figure 5, Grids N15 and N19; and
  - South Ditch, Figure 6 Grid AI28 and Figure 7, Grid N29.;
- Stone Check Dams to direct flow to catch basins (Figures 5 and 6);
- Silt Fence (Appendix F) along stockpiles Figure 5, Grids N27 to Y30) that could produce runoff to a stormwater catch basin;
- Maintaining the ground surface around the stormwater catch basins at an elevation no higher than 6-inches below the lowest elevation of the inlet; and
- Vegetation in and around the North and South Drainage Ditches provides control of sheet flow velocity. The vegetation, where it exists, will be maintained and additional areas of vegetated growth will be seeded as natural soils are exposed at the Site.

The Erosion and Sediment Controls are checked weekly and monthly stormwater management system inspections are conducted in accordance with the Checklists in Appendix E.

### 3.1.6 Management of Runoff

Runoff from the site will be managed in accordance with the AOI (Figure 2):

- AOI 1 – North Rail Corridor – Runoff is directed to the North Ditch or the North Storm Sewer. Flow to the East Coke Yard Ditch (Figure 5) is managed in the Sedimentation Pool #003 (Figure 5), Stormwater Retention Basin and then discharged through Outfall #002. Flow from the central and western portions of AOI 1 is directed to the North Storm Sewer, through the Collection Sump and to the Concrete-lined Settling Ponds prior to discharge through Outfall #001.
- AOI 2 – Former Process Area – Runoff is directed to the Box Culvert or the North Storm Sewer. Flow is directed through the Collection Sump and to the Concrete-lined Settling Ponds prior to discharge through Outfall #001. Stormwater from secondary containment areas are managed separately from these flows.

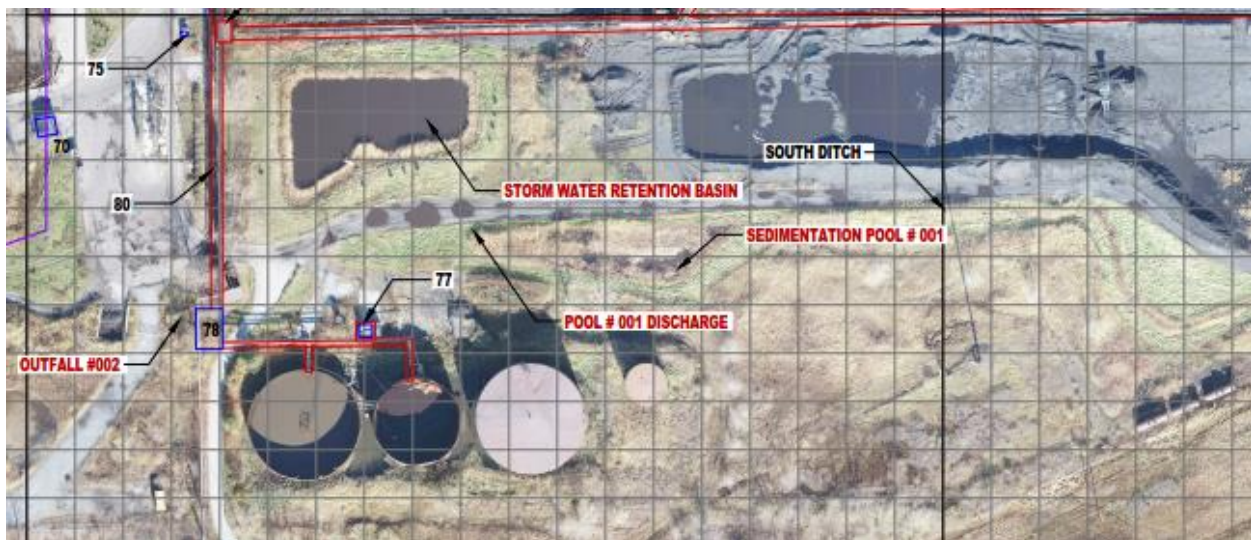




- AOI 3 – Parking Lot – Flow is directed to the box culvert or the storm sewer inlets on the North South Storm Sewer, Sump and to the Concrete-lined Settling Ponds prior to discharge through Outfall #001.
- AOI 4, 5, 6 and 7 – Coke Yard, Coal Yard, Water Treatment and South Drainage – The runoff from these areas are routed to the North and South Ditches, to Sedimentation Pools #001 and #002, then the Stormwater Retention Basin, prior to discharge through Outfall #002.

Precipitation that falls with a secondary containment is managed separately. The dikes around process storage tank areas were constructed to contain at least the 110 percent of the volume of the largest tank plus additional volume to provide freeboard for precipitation. Water collected within the dikes is pumped for treatment prior to discharge to the Town of Tonawanda Sewer under Permit No. 331.

Water collected in the diked area around the EQ and associated tanks (Tanks 20 to 24, Figure 7, Grids E32 to N43) will be tested prior to discharge. If the water meets the Industrial Waste Permit Criteria and no detection of ammonia or mercury above POTW discharge criteria, the water will be discharged to the Sewer (POTW). If the water does not meet the discharge criteria, it will be pumped to a weir tank for treatment. DEC will be notified if treatment is required.



Stormwater in the former process area (AOI 2) that falls outside of the secondary containments is routed to the two concrete lined settling/skimming ponds (Figure 7) through the plant storm sewer system. The runoff is collected in the sump behind Building 001 (known as the Collection or Mansion Sump) in the northwest corner of the property (Figure 3). Initial sediment removal occurs in the collection sump. Any sheen on the water is removed in the collection sump. The runoff overflows to the secondary sewer system (North South Sewer) that conveys flow to the south. The runoff is discharged to the concrete lined settling ponds (Figure 7) from the North South Storm Sewer through an underground manifold. The runoff is held in the ponds to allow settling and skimming (oil separation) and is subsequently discharged through Outfall 001. The concrete lined settling pond system has been designed to remove coal fines, along with incidental amounts of oil and other materials that may enter the catch basins in the former process areas.



### 3.1.7 Dust Generation and Vehicle Tracking of Industrial Materials

A water truck will be used to control dust on roads used for heavy vehicle traffic during coal and coke recovery, investigations, interim remedial measures, demolition and remedial actions.

During any offsite shipment of coal, coke or other bulk materials, a staging/tire wash station will be established in the vicinity of the scale (Figure 7, Grids C26 and C27). Tires of over the road haulage trucks leaving the site will be inspected to ensure there is no mud or industrial materials on the tires. Any excess accumulations of mud or industrial materials will be removed onsite before reaching the truck scale area. The removed materials will be accumulated in a drum or roll off container prior to characterization.

### 3.2 Numeric Effluent Guidelines

There is no longer an applicable Discharge Permit for the BCP Site. In lieu of a permit, under the BCP the site is subject to monitoring in accordance with this SWPPP. Table 2 provides the effluent guidelines for the site. There are three outfall locations at the site. The corresponding action levels and monitoring frequency are presented for Outfall #001 (Figure 7, Outfall #002 (Figure 7) and Outfall #004 in Table 2. The numerical effluent values represent action levels that trigger the need for a work plan to either:

- Conduct additional sampling of the outfall to confirm the concentrations;
- Conduct additional sampling upstream of the outfall to determine the likely source of the excursion;
- Develop an interim remedial measure to address any onsite source contributing to the excursion at the outfall; or
- Adjustment to any activity that is contributing to the excursion.



## 4 Schedules and Procedures

### 4.1 Good Housekeeping

As described earlier, Riverview has inherited a property that has had less than optimal housekeeping. The site will be brought into a reasonable level of organization over the next twelve months by addressing in priority:

1. Water in secondary containment sumps and pits;
2. Asbestos Containing materials;
3. Drums and containers;
4. Surface debris and equipment that could contribute constituents of concern to surface water;

### 4.2 Maintenance

As stated in Section 3.1.3, maintenance is the primary concern on the property. There are ongoing maintenance activities required to maintain surface water quality:

- Inspecting and controlling the water levels in secondary containment structures. There are secondary containment structures in the tar management area, the light oil area, and around several storage and wastewater treatment tanks. The structures are inspected daily, weekly and monthly (see Checklists, Appendix E), and water is pumped from the containments before any risk of overtopping.
- Stormwater controls are inspected daily and maintained as soon as any potential issue is observed, including but not limited to, repairing silt fence, placing stone check dams to prevent flow from circumventing stormwater inlets, and replacing silt socks as needed.
- Maintaining the water level in the coal and coke yards. The water level in pools within the coal and coke yards are maintained at or below the surrounding ground surface outside the perimeter dikes to ensure no seepage or potential release.
- Maintaining the sump behind Building No. 001. The sump behind Building No. 001 is a collection point for two surface water sewer systems. The sump is the first point that oil and sediment are managed. Booms are maintained in the sump in the event of any sheen and the sump allows sediment to settle. The booms and sediment are periodically removed.
- Maintaining storm sewers. The storm sewers throughout the site requires periodic cleaning.

Material storage tanks and pipelines are inspected daily by onsite OSC personnel. Inspection Checklists are included in Appendix D. Abnormalities identified by onsite personnel shall be evaluated and repaired/cleaned up as soon as possible.

Fueling and maintenance of Facility equipment and vehicles will be performed in the designated area near the warehouse (Figure 3, Building 18) and at the coal yard pump (Figure 5, Grid M27) that are regularly inspected for the presence of any leaks or spills and will be closely monitored in conjunction with the terms of this SWPPP.

### 4.3 Employee Training

All onsite personnel, except the Security Guards, are trained in accordance with 40 CFR 1091.120 Hazardous Waste Operations and Emergency Response (HAZWOPER). Spill Prevention and Notification Training is provided for all onsite employees and contract workers who have the potential to handle materials that contain potential pollutants (i.e., oils, lubricants, fuel) or to respond in the event of a



spill of these materials. The training is provided as part of the annual Hazardous Waste Operations and Emergency Response (HAZWOPER) refresher course and includes training regarding spill reporting obligations under applicable Federal and State laws and regulations.

#### 4.4 Inspections and Assessments

Inventum and the onsite personnel perform the following regular and periodic inspections (Appendix D):

1. All operators prior to, during and after, the operation of any vehicle are instructed to identify potential sources, or actual spills or releases.
2. The Tar Management Area (AOI 2, Grids S7 to U8, Figure 3) is inspected daily to identify all accumulations of liquids in or around the secondary containment.
3. The Process Wastewater Tank Areas (AOC 3 Grids F9 to I11, Figure 3 and AOC 6 Figure 7 Grids E32 to N 34) are inspected weekly to identify all accumulations of liquids in the secondary containments.
4. Outfalls are inspected at least on a weekly basis by Inventum to insure there is no change in appearance. The outfalls are sampled in accordance with the schedules in Table 2 (see Section 4.7).
5. Inspection of storage and containment areas, including drum storage areas, tanks, and secondary containment systems, is performed by Inventum and onsite personnel. Any deterioration of the curbing or containment walls will be promptly repaired. Any leaking tanks or piping within containment areas will also be promptly repaired or the tank will be emptied. Onsite personnel are to notify the Project Manager upon the identification of a maintenance and/or repair issue regarding any issue associated with storage and containment areas.
6. Inspection of the former Tar Mixing Pad is performed by Inventum and onsite personnel. Any deterioration of the containment walls will be promptly repaired. If the water level rises within 6 inches of the top, the water in the pad will be tested, pumped, treated, and discharged to the sewer.
7. The stormwater collection system is to be visually inspected on a monthly basis by a representative of Inventum.

The stormwater collection system (Figures 3 to 7) inspection is to specifically include, but not be limited to:

- Catch basins,
- Underdrains,
- Collection Ditches,
  - Coke Yard;
  - North;
  - North Lateral;
  - South;
  - Site 109 drainage ditch; and
  - Site 108 drainage ditch.
- Milled asphalt roads surrounding the perimeter of the coal pile/coke storage areas,
- Mixing Pad,
- Tank Rail cars,
- Sedimentation Pools #001, #002 and #003,
- Stormwater Retention Basin,



- Concrete-lined Sedimentation Pond,
- Collection Sump (Mansion Sump),
- Inlets and catch basins in AOI 2.

The inspector shall check the level of accumulated breeze, coal, coke and related materials surrounding the catch basins, underdrains, and milled roads, as well as accumulated sediment and vegetation within the stormwater management control system. In each such case, excess material is to be removed within 7 days of detection. The results of the visual inspections are to be recorded and stored in a system that can be retrieved as requested by DEC.

The stormwater inspection frequency will be:

- Twice per month from April 1 through June 30, i.e., there will be two inspections in April, May, and June each year;
- Monthly July to March each year; and
- Within 3 days of a rain event that is greater than 0.5 inches, based on data collected from a local weather station.

#### 4.5 Monitoring

Monitoring of the outfall will be conducted in accordance with the schedule given in Table 2. Monthly, quarterly and semi-annual sampling is required at the outfalls in accordance with the Table 2. Monitoring reports will be submitted by the 25<sup>th</sup> of the trailing month; for example, the self-monitoring report for January will be due no later than February 25<sup>th</sup>.



## 5 Corrective Actions

The stormwater management system was designed and constructed for an operating coke plant. The loading to the system decreased with the shutdown of the plant and is anticipated to decrease as the interim remedial measures, demolition, and remedial actions are implemented. Specific stormwater controls will be included in the work plans for each interim measure, demolition activity, or remedial action. These specific controls may supersede the procedures of this plan, depending on the nature of the work being performed. As discussed in Section 3.2, the previous owner shut down the facility with minimal planning. It is also recognized that this is a BCP Site and while there is no applicable Discharge Permit, Riverview is required to prevent off-site migration of contaminants from the site. Table 2 provides the effluent guidelines for the site. There are three outfall locations related to the site. The corresponding action levels and monitoring frequency are presented in Table 2. The numerical effluent values represent action levels that trigger the need for a corrective action/work plan to either:

- Conduct additional sampling of the outfall to confirm the concentrations at the specific outfall;
- Conduct additional sampling upstream of the outfall to determine the likely source of the excursion;
- Develop an interim remedial measure to address any onsite source contributing to the excursion at the outfall; or
- Adjust the activity or controls associated with any activity that is contributing to the excursion.

The owner will attempt to meet with DEC within 5-days of any action level being exceeded to discuss the proposed actions to monitor or remediate the cause of the exceedance. The owner will generate meeting minutes from this meeting summarizing the discussion and the selected actions to address the action level exceedance(s).



## 6 SWPPP Modifications

The SWPP has been prepared to manage the surface water discharges from the Riverview Site in the condition left by TCC. This plan will be reviewed and, if necessary, will be modified following completion of:

- Coal and coke recovery which are anticipated to be completed by end of 2020,
- Removal of major components or buildings within the property,
- Engineering for major grading or earthmoving operations on the site,
- Engineering of any planned modifications to the storm water management system, or
- Planning of the proposed redevelopment.

A modified SWPP will be submitted to NYSDEC for approval within 30-days of the completion of each item listed above or any other change at the site that significantly alter stormwater flow at the site.



## Tables





Table 1  
 Flow Diagram  
 Surface Water Managemnt Plan  
 Riverview Innovation Technology Campus, Inc.  
 Tonawanda, New York

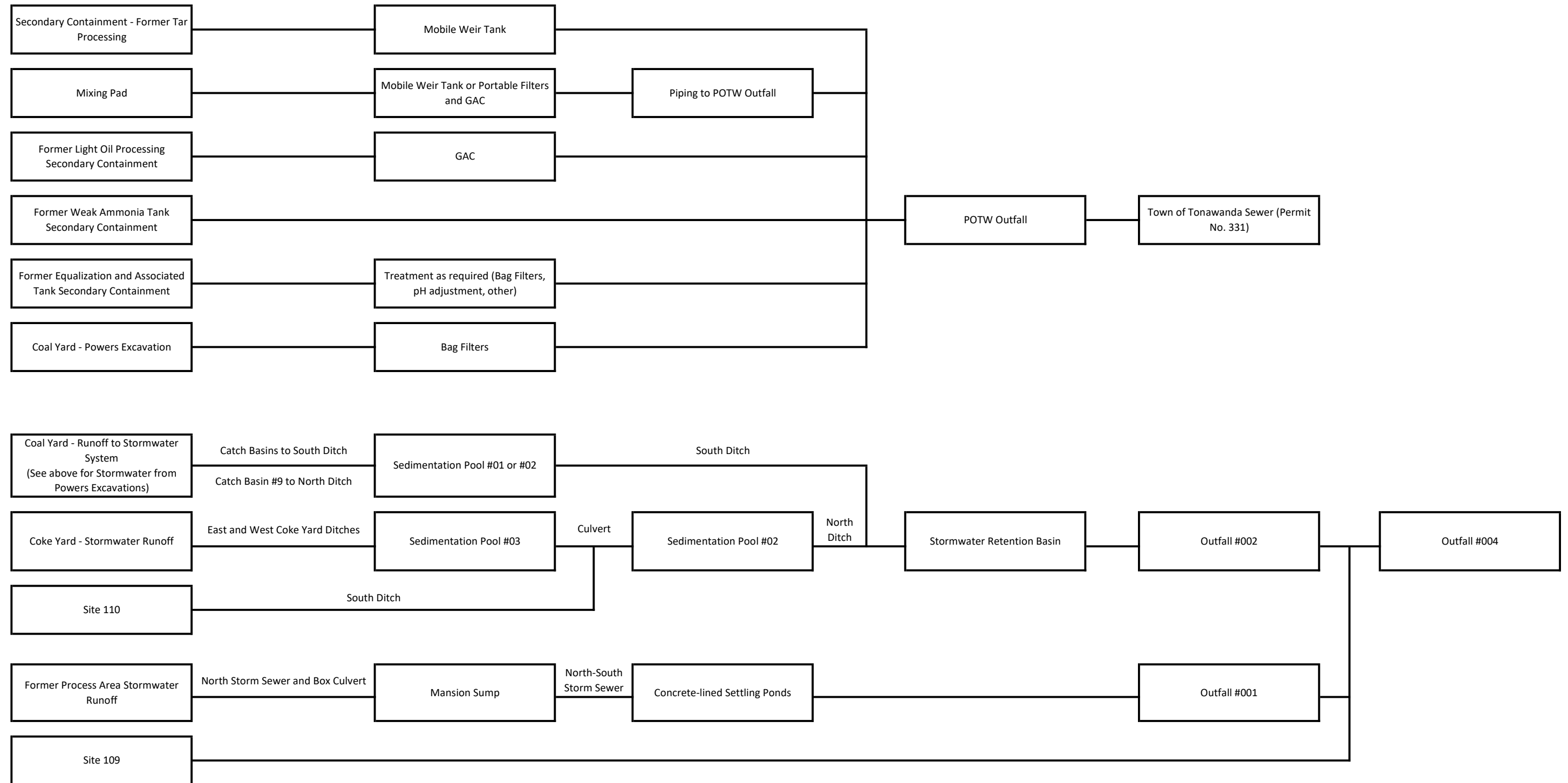


Table 2  
 Effluent Guidelines  
 Riverview Innovation Technology Campus, Inc.  
 Tonawanda, New York

Parameter	CAS No.	Effluent Limit or Calculated Level Daily		Compliance Level/ML	Action Level	Units	Sample Frequency	Sample Type	Footnote	Outfalls		
		Monthly Average	Daily Maximum							1	2	4
Flow	NA	monitor	monitor	-	-	MGD	Continuous	Recorder	-	Y	N	N
Flow	NA	monitor	monitor	-	-	MGD	Weekly	Calculated, V-Notch Weir and Cumulative Flow	-	N	Y	N
Flow (May-Oct)	NA	monitor	monitor	-	-	MGD	Monthly	Calculated	-	N	N	Y
Temperature	NA	-	102	-	-	°F	Monthly	Grab	-	Y	N	N
Temperature (continuous)	NA	monitor	90	-	-	°F	Weekly	Recorder	-	N	N	Y
Solids, Total Suspended	NA	-	50	-	-	mg/L	Monthly	24-hr. comp.	1	Y	Y	N
Oil & Grease	NA	-	15	-	-	mg/L	Monthly	Grab	-	Y	Y	N
Settleable Solids	NA	-	0.1	-	-	mL/L	Monthly	Grab	-	N	N	Y
Mercury, Total	NA	-	50	-	-	ng/L	Quarterly	Grab	-	Y	Y	Y
Ammonia, Total (as N)	7664-41-7	-	-	-	1.5	mg/L	Quarterly	24-hr. comp.	-	Y	N	N
Cyanide, Total	57-12-5	-	-	-	0.03	mg/L	Quarterly	Grab	-	Y	Y	N
Phenols, Total	NA	-	-	-	0.08	mg/L	Semi-annual	Grab	1	Y	N	N
Benzene	71-43-2	-	-	-	0.0015	mg/L	Quarterly	Grab	-	Y	N	N

Table 2  
 Effluent Guidelines  
 Riverview Innovation Technology Campus, Inc.  
 Tonawanda, New York

Parameter	CAS No.	Effluent Limit or Calculated Level Daily		Compliance Level/ML	Action Level	Units	Sample Frequency	Sample Type	Footnote	Outfalls		
		Monthly Average	Daily Maximum							1	2	4
Napthalene	91-20-3	-	-	-	0.003	mg/L	Quarterly	Grab	-	Y	N	N
Toluene	108-88-3	-	-	-	0.003	mg/L	Quarterly	Grab	-	Y	N	N
Fluoride	16984-48-8	-	-	-	1.5	mg/L	Semi-annual	24-hr. comp.	-	Y	N	N
Surfactants	NA	-	-	-	0.5	mg/L	Semi-annual	24-hr. comp.	-	Y	N	N
Iron	NA	-	-	-	4	mg/L	Semi-annual	24-hr. comp.	-	Y	N	N
Aluminum	NA	-	-	-	1	mg/L	Semi-annual	Grab	-	N	Y	N
Copper	NA	-	-	-	0.2	mg/L	Semi-annual	Grab	-	N	Y	N
Manganese	NA	-	-	-	1	mg/L	Semi-annual	Grab	-	N	Y	N
Nickel	NA	-	-	-	0.5	mg/L	Semi-annual	Grab	-	N	Y	N
Zinc	NA	-	-	-	0.5	mg/L	Semi-annual	Grab	-	N	Y	N
WET - Acute Invertebrate	NA	-	-	-	15	Tua	Quarterly	see footnote	2	N	N	Y
WET - Acute Vertebrate	NA	-	-	-	15	TUa	Quarterly	see footnote	2	N	N	Y
WET - Chronic Invertebrate	NA	-	-	-	100	TUc	Quarterly	see footnote	2	N	N	Y
WET - Chronic Vertebrate	NA	-	-	-	100	TUc	Quarterly	see footnote	2	N	N	Y
pH (range, monthly)	NA	6.0 - 9.0	SU	-	-	-	monthly	Grab	-	N	Y	N
pH (range)	NA		SU	-	-	-	2/monthly	Grab	-	Y	N	N
Acenaphthylene	208-96-8	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Chrysene	218-01-9	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Fluoranthene	206-44-0	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Indeno(1,2,3-cd)pyrene	193-39-5	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N

Table 2  
 Effluent Guidelines  
 Riverview Innovation Technology Campus, Inc.  
 Tonawanda, New York

Parameter	CAS No.	Effluent Limit or Calculated Level Daily		Compliance Level/ML	Action Level	Units	Sample Frequency	Sample Type	Footnote	Outfalls		
		Monthly Average	Daily Maximum							1	2	4
Phenanthrene	85-01-8	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Xylenes-mixed isomers	1330-20-7	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Benz(a)anthracene	56-55-3	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Benzo(a)pyrene	50-32-8	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Benzo(b)fluoranthene	205-99-2	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Benzo(k)fluoranthene	207-08-9	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Dibenz(a,h)anthracene	55-70-3	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Arsenic	NA	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
Lead	NA	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N
2-Methylphenol	95-48-7	monitor	monitor	-	monitor	mg/L	Quarterly (Q3 2020 to Q2 2021)	Grab	-	Y	Y	N

Table 2  
 Effluent Guidelines  
 Riverview Innovation Technology Campus, Inc.  
 Tonawanda, New York

Parameter	CAS No.	Effluent Limit or Calculated Level Daily		Compliance Level/ML	Action Level	Units	Sample Frequency	Sample Type	Footnote	Outfalls		
		Monthly Average	Daily Maximum							1	2	4
3-Methylphenol	108-39-4	<i>monitor</i>	<i>monitor</i>	-	monitor	mg/L	<i>Quarterly (Q3 2020 to Q2 2021)</i>	Grab	-	Y	Y	N
4-Methylphenol	106-44-5	<i>monitor</i>	<i>monitor</i>	-	monitor	mg/L	<i>Quarterly (Q3 2020 to Q2 2021)</i>	Grab	-	Y	Y	N
VOC TICs	NA	<i>monitor</i>	<i>monitor</i>	-	monitor	mg/L	<i>Quarterly (Q3 2020 to Q2 2021)</i>	Grab	-	Y	Y	N
SVOC TICs	NA	<i>monitor</i>	<i>monitor</i>	-	monitor	mg/L	<i>Quarterly (Q3 2020 to Q2 2021)</i>	Grab	-	Y	Y	N
Asbestos	NA	<i>monitor</i>	<i>monitor</i>	-	monitor	#N/A	<i>Quarterly (Q3 2020 to Q2 2021)</i>	Grab	-	Y	Y	N

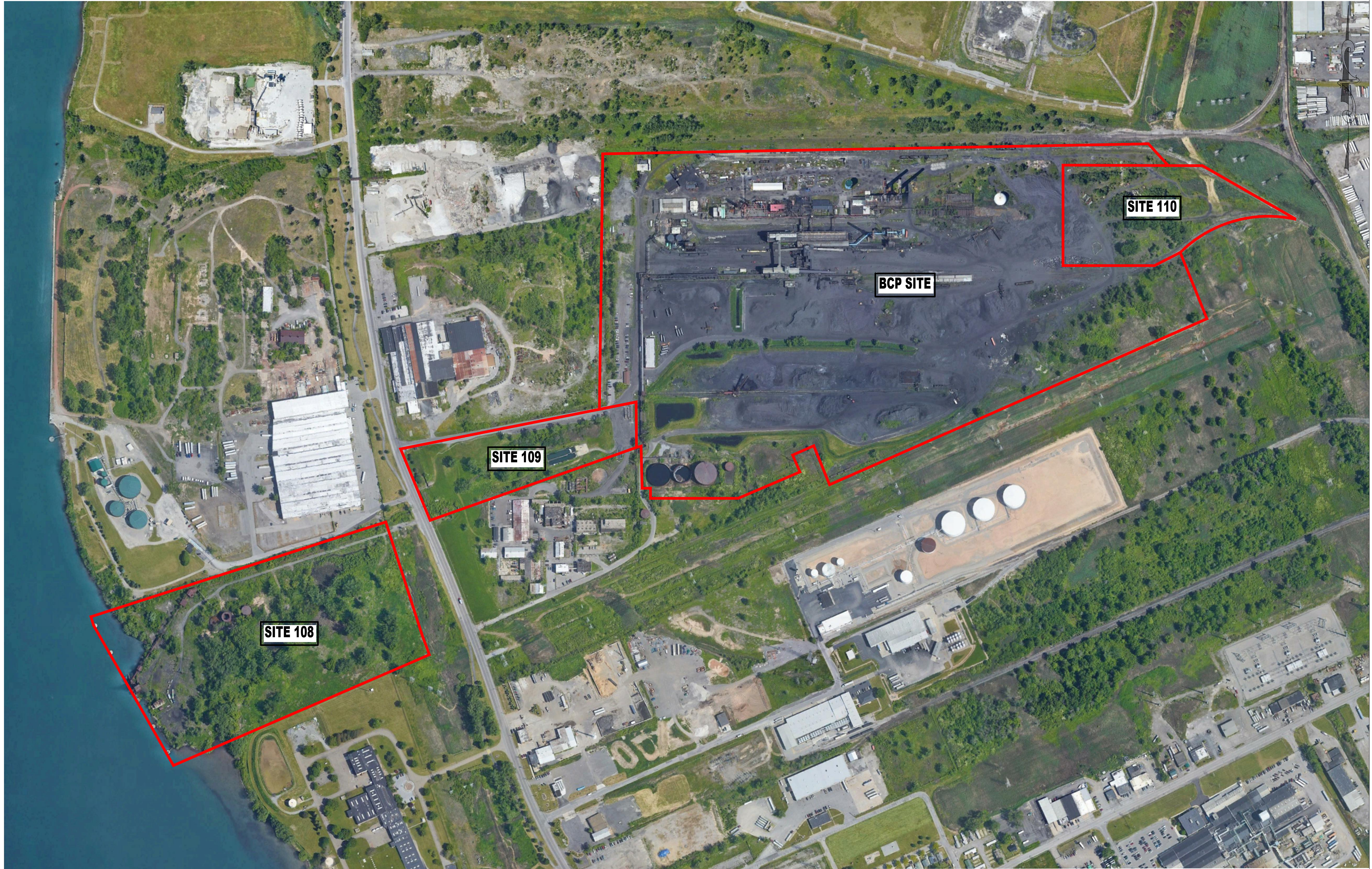
Footnote 1 Action Levels:

Action Levels are monitoring requirements which trigger additional monitoring and review when exceeded. Within 5 business days of a reported exceedence, the DEC and owner, or owners representative shall meet and determine if additional sampling or an interim remedial measure are appropriate.

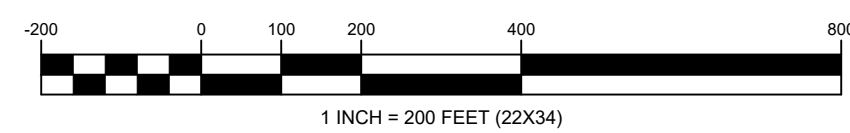
Footnote 2 Whole Effluent Toxicity (WET) refer to page 7 of the former TCC permit for full text of WET sampling requirements.  
 refer to page 7 of the former TCC permit for full text of WET sampling requirements.

# Figures





D



Notes:

1. Erie County, New York, Google Maps, [www.google.com/maps](http://www.google.com/maps)
2. Boundaries as shown are approximate.

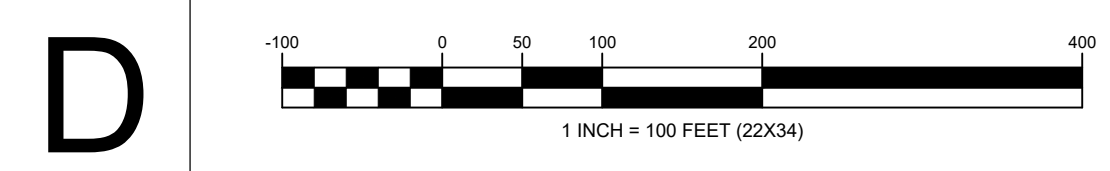
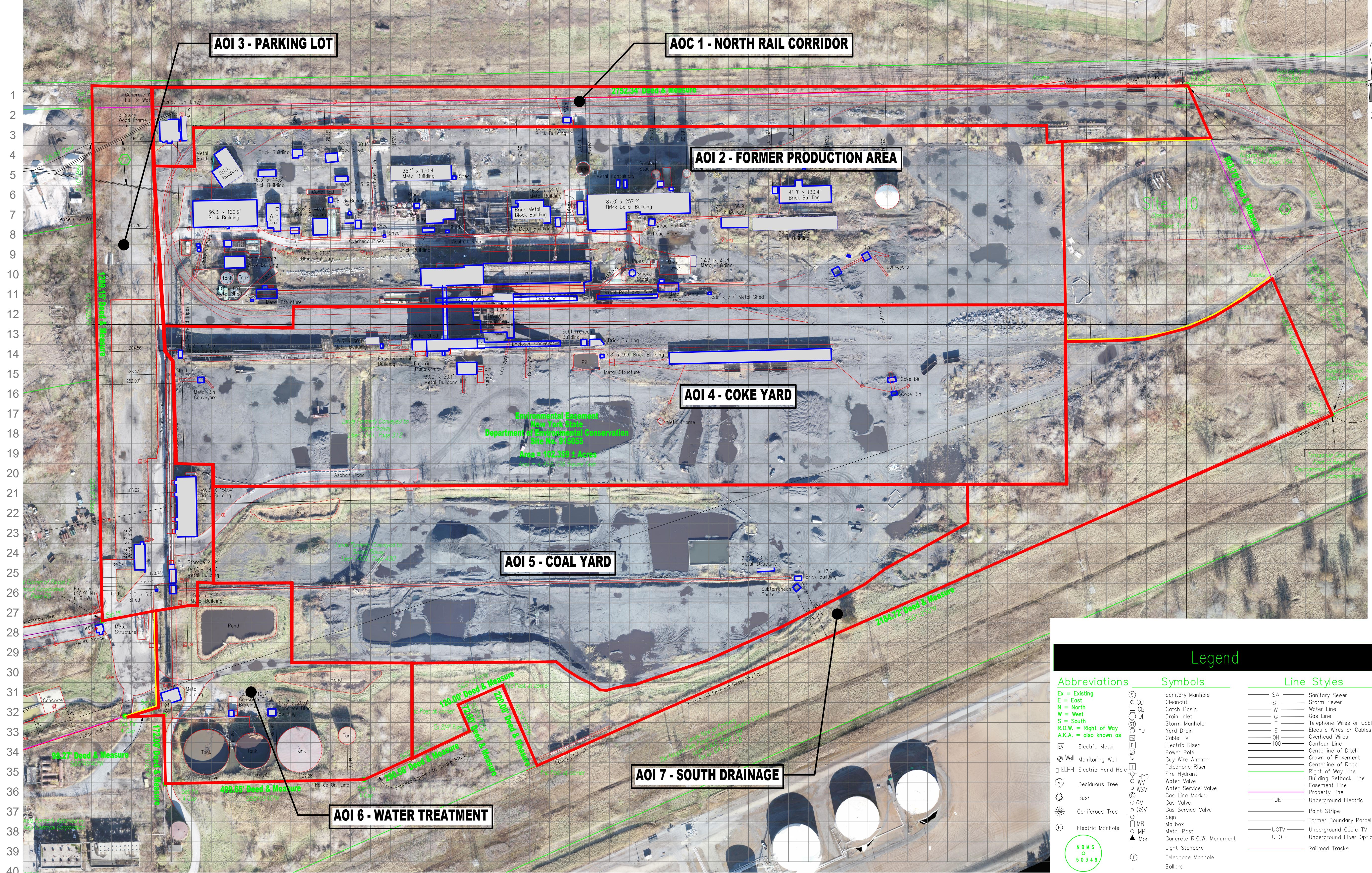
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**SITE LOCATION MAP**  
**RIVERVIEW INNOVATION & TECHNOLOGY**  
**CAMPUS**  
**TONAWANDA NEW YORK**

**INVENTUM ENGINEERING**  
 481 CARLISLE DRIVE  
 SUITE 202  
 HERNDON, VIRGINIA 20170  
 (703) 722-6049  
[www.inventumeng.com](http://www.inventumeng.com)

FIGURE 1

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL N



D

**AOI 3 - PARKING LOT**

**AOI 1 - NORTH RAIL CORRIDOR**

**AOI 2 - FORMER PRODUCTION AREA**

**AOI 4 - COKE YARD**

**AOI 5 - COAL YARD**

**AOI 6 - WATER TREATMENT**

**AOI 7 - SOUTH DRAINAGE**

Site 110  
Openfile this  
see sheet 31020

Environmental Easement  
New York State  
Department of Environmental Conservation  
Site No. 933004  
Area = 102,358.1 Acres

**Legend**

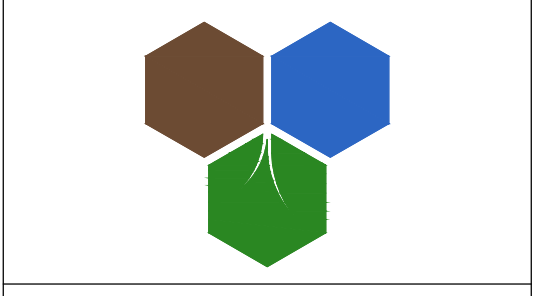
Abbreviations	Symbols	Line Styles
Ex = Existing	Sanitary Manhole	SA Sanitary Sewer
E = East	Cleanout	ST Storm Sewer
N = North	Catch Basin	W Water Line
W = West	Drain Inlet	G Gas Line
S = South	Storm Manhole	T Telephone Wires or Cables
R.O.W. = Right of Way	Yard Drain	E Electric Wires or Cables
A.K.A. = also known as	Cable TV	OH Overhead Wires
	Electric Meter	100 Contour Line
	Well	Centerline of Ditch
	Monitoring Well	Centerline of Road
	Electric Hand Hole	Right of Way Line
	Deciduous Tree	Building Setback Line
	Bush	Easement Line
	Coniferous Tree	Property Line
	Electric Manhole	UE Underground Electric
		Point Stripe
		Former Boundary Parcel Line
		UUCTV Underground Cable TV
		UFO Underground Fiber Optic
		Railroad Tracks

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RIVERVIEW INNOVATION & TECHNOLOGY  
CAMPUS, INC.  
3875 RIVER ROAD  
TONAWANDA, NEW YORK 14150**

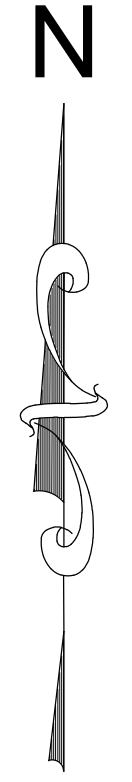
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**FIGURE 2**  
DRAWING NUMBER  
**107**

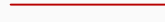




A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



NW-1

**LEGEND:**

-  MANHOLE
-  CATCH BASIN
-  BOX CULVERT
-  NORTH SOUTH STORM SEWER
-  NORTH STORM SEWER

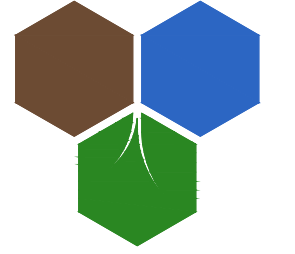
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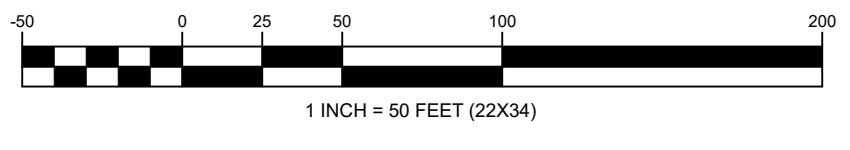
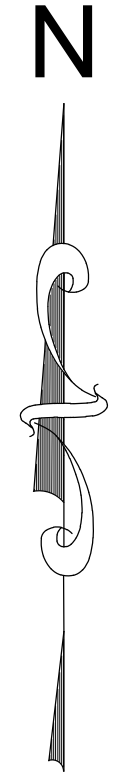


FIGURE 3

DRAWING NUMBER  
**WCW SET**

N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT



NC-2

**LEGEND:**

-  MANHOLE
-  CATCH BASIN
-  BOX CULVERT
-  NORTH SOUTH STORM SEWER
-  NORTH STORM SEWER

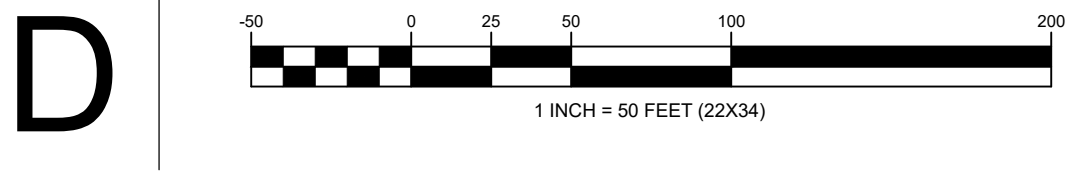


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**FIGURE 4**  
 DRAWING NUMBER  
**107A**



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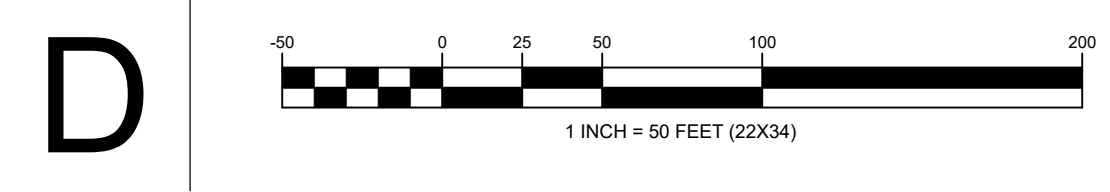
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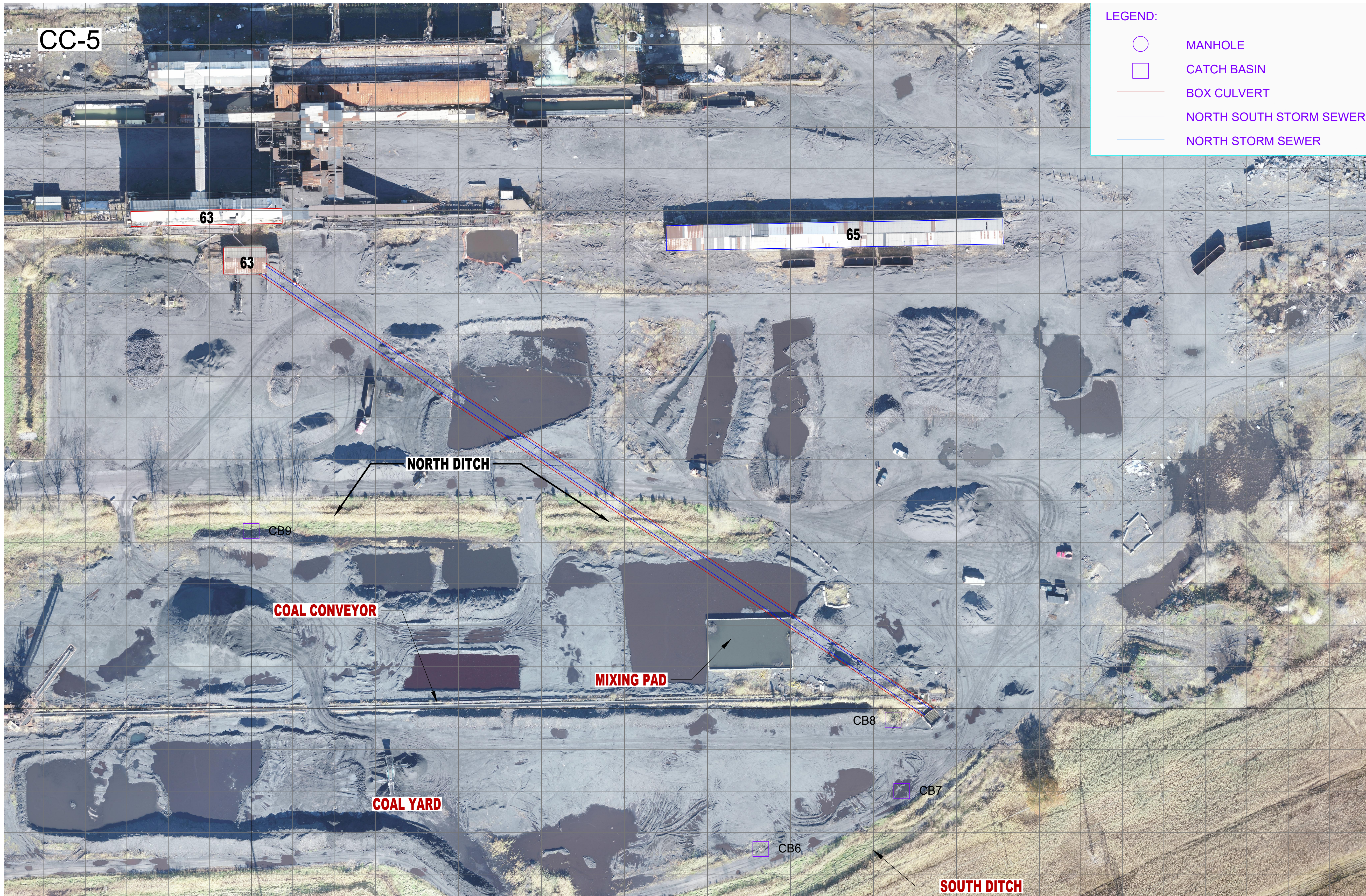
NOTE: SEWER LOCATIONS ARE APPROXIMATE.

**FIGURE 5**

DRAWING NUMBER  
**107A**

N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT

N



**LEGEND:**

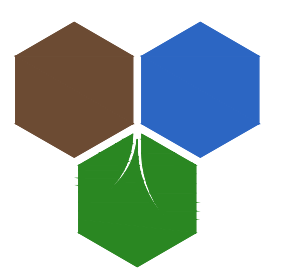
- MANHOLE
- CATCH BASIN
- BOX CULVERT
- NORTH SOUTH STORM SEWER
- NORTH STORM SEWER

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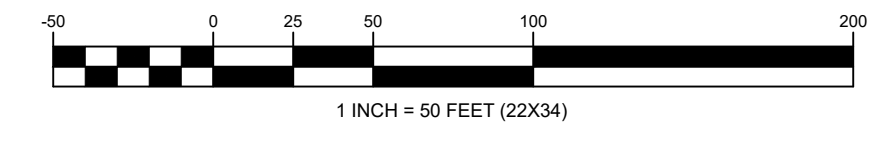
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**FIGURE 6**

DRAWING NUMBER  
**107A**

**D**

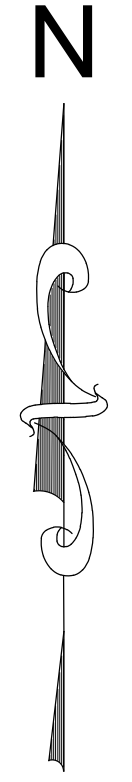


NOTE: SEWER LOCATIONS ARE APPROXIMATE.



**LEGEND:**

- MANHOLE
- CATCH BASIN
- BOX CULVERT
- NORTH SOUTH STORM SEWER
- NORTH STORM SEWER

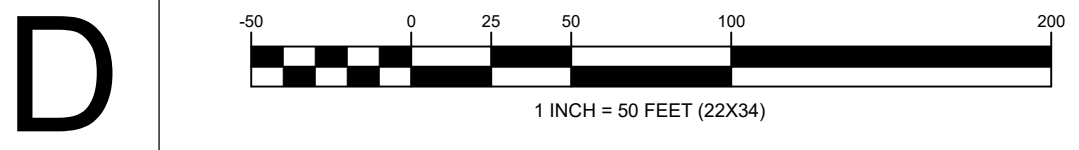


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**FIGURE 7**  
DRAWING NUMBER  
**107A**

## Appendices



## A – Spill History



NYSDEC Spill Incidents Database Search Results (a)				Spill Incident Details						EDR Database Report Details (b)
Spill Number	Date Spill Reported	Spill Name	Spill Date	Date Spill Closed	Material Spilled	Amount	Resource Affected	Cause	DEC Memo Comments	
1	1304468	7/24/2013	TONAWANDA COKE	7/24/2013	7/24/2013	Tar	Unknown	Soil	Unknown	"7/25/13:DUPLICATE OF SPILL NUMBER 1304468 AND SPILL NUMBER 1304471. 7/26/13:SAC ATTEMPTED TO CALL PETER VAN ORDEN BUT WAS UNABLE TO GET THROUGH. WHEN DIALING USING AND LINE RECEIVED AN IRREGULAR BUSY SIGNAL. WHEN ATTEMPTING TO CALL BY CELL PHONE RECEIVED A MESSAGE THAT SAID ALL CIRCUITS ARE BUSY. SENT E-MAIL RESPONSE TO MR. VAN ORDEN NOTIFYING HIM OF SAC INSPECTION AND W/CALL BACK NUMBER IF FURTHER CLARIFICATION REQUIRED. 9/10/13:SAC REVIEW FILE. NO ADDITIONAL MESSAGE FROM MR VAN ORDEN. WILL CLOSE OUT THIS SPILL. FURTHER FOLLOW UP UNDER SPILL NUMBER 1304471. NO PAPER FILE."
2	1312043	3/25/2014	ROUND HOUSE	3/25/2014	Not Closed	Hydraulic Oil	1 Gal.	Soil	Equip. Failure	"5/8/2014: RJJ TELECON ROBERT KOLVEK,TONAWANDA COKE SUPERVISOR,HE SAID THAT ON 3/25/14,THEIR FRONT-END LOADER BROKE A SEAL,CAUSING ~ 1 GAL. OF HYDRAULIC OIL TO SPILL OUT,ALL ON THE GROUND,NEAR THE ROUND HOUSE AREA...TONAWANDA COKE PERSONNEL SCRAPED-UP THE AFFECTED SOIL AND PLACED IT ON THEIR RECYCLING PAD,AWAITING DISPOSAL,AFTER THEY OBTAIN THEIR BUD...NONE OF THE OIL REACHED ANY WATERWAYS,IT HAS BEEN ALL RECOVERED...MR. KOLVEK WILL KEEP ME INFORMED."
3	1401576	5/14/2014	TONAWANDA COKE	5/14/2014	Not Closed	Hydraulic Oil	1 Gal.	Soil	Equip. Failure	Not Reported
4	1402932	6/17/2014	TONAWANDA COKE CORP.	6/27/2014	Not Closed	Motor Oil	2 Gal.	Soil	Abandoned Drums	Not Reported
5	1403658	7/6/2014	TONAWANDA COKE	7/6/2014	Not Closed	Hydraulic Oil	0.5 Gal.	Soil	Equip. Failure	Not Reported
6	1404225	7/18/2014	TONAWANDA COKE	7/15/2014	Not Closed	Unknown Petroleum	Unkown	Soil	Unkown	"7/18/14:SAC TELECON ROB KOLVEK - TONAWANDA COKE. MR.KOLVEK SAID THEY FOUND A GLOB OF UNKNOWN PETROLEUM IN THE ROADWAY NEAR THE COAL STORAGE PILES. MR. KOLVEK SAID THE SOURCE OF THE SPILL WAS UNKNOWN BUT BELIEVES IT IS HISTORIC. THE SIZE OF THE AFFECTED AREA WAS 10 INCHES BY 10 INCHES. THEY SCRAPED UP THE AREA AND TOOK THE CONTAMINATED MATERIAL TO THEIR PROCESSING PAD AND BACKFILLED THE AREA WITH COKE BREEZE. MR. KOLVEK SAID THE SPILL HAPPENED AROUND 1:45 PM TODAY."
7	1406188	9/9/2014	TONAWANDA COKE - EXHAUSTER BLDG	9/9/2014	3/14/2016	Other	50 Gal.	Soil, Impervious Surface	Equipment Failure	Not Reported
8	1411461	3/7/2015	EAST END OF 7 BELT	3/7/2015	Not Closed	Hydraulic Oil	25 Gal.	Soil	Equipment Failure	"3/7/2015: RJJ TELECON BOB KOLVEK,TONAWANDA COKE,HE SAID THAT ONE OF THEIR FRONT END LOADERS BROKE A HYDRAULIC LINE CAUSING ~25 GALS OF HYDRAULIC OIL TO LEAK-OUT,ALL IN THEIR COAL FIELD...TONAWANDA PERSONNEL QUICKLY SCRAPED-UP ALL THE AFFECTED COAL/BREEZE AND PLACED IT ALL ON THEIR RECYCLING PAD,AWAITING DISPOSAL...NONE OF THE HYDRAULIC OIL REACHED ANY WATERWAYS,IT WAS ALL RECOVERED...I WILL INSPECT AREA ON MONDAY. 3/9/2015: RJJ AT SITE AT 0900...MEET WITH PAT CAHILL & ED DINSMORE,ENVIRONMENTAL MANAGER,AND THEY SHOWN ME WHERE THIS SPILL OCCURED AT IN THEIR COKE FIELD...THEY SCRAPED-UP ALL THE AFFECTED COKE/BREEZE(AN AREA ~10'X2'X7"(4 TONS),AND PLACED THIS MATERIAL ON THEIR RECYCLING PAD...THE CLEAN-UP IS ACCEPTABLE...BOB KOLVAK WILL SEND ME THEIR REPORT."
9	1506305	9/14/2015	OUTSIDE IN FIELD	9/3/2015	11/8/2016	Unknown Petroleum	Unknown	Soil	Unknown	"9/15/2015: RJJ AT SITE AT 0900 WITH MICHAEL TREMBOWICZ,TCC...HE SHOWN & EXPLAINED ME WHERE THERE IS AN AREA ~20'X20',WHERE A TAR-LIKE SUBSTANCE,APPEARS TO HAVE SEEPED-UP FROM THE SUBSURFACE,AND HAS STARTED TO SOLIDIFY ON THE SURFACE...THIS AREA IS ALL 'BREEZE' MATERIAL...MR. TREMBOWICZ SAID THAT THEY DIDN'T REPORT THIS ON 9/3/2015,WHEN IT FIRST OBSERVED,BECAUSE THEY DID NOT THINK THIS WAS A 'SPILL'...I TOLD HIM THAT I WILL DISCUSS THIS WITH GREG SUTTON,DEC SPILL ENGINEER, AND CALL HIM LATER...FOR NOW,THIS AREA HAS BEEN SURROUNDED WITH CONCRETE BARRIERS,TO CONTAIN THIS...GPS SAID THAT THEY WILL HAVE TO DIG TEST PITS,TO FIND THE EXTENT OF PETROLEUM,AND OBTAIN CONFIRMATORY TCLP/PCB/SVOC/VOC SOIL ANALYTICAL...I TELECON MR. TREMBOWICZ AND INFORMED HIM...MICHAEL WILL KEEP ME INFORMED. 1/14/2016: RJJ TELECON MIKE TREMBOWICZ,HE SAID THAT THEY HAVE STILL NOT DUG ANY TEST PITS OR SAMPLING,SO I SAID THAT I WILL SEND HIM AN E-MAIL EXPLAINING WHAT WE WILL REQUIRE. 11/7/2016: This area will be managed by R9 DER during the Remedial Investigation of the plant site. Closing and referring to state superfund (PRP Funded). [BMC]"
10	1509056	12/5/2015	INSIDE COKE FACILITY	12/4/2015	11/10/2016	Tar	5000 lbs.	Groundwater	Human Error	"12/5/15:SAC INSPECT SITE. MET W/ED DINSMORE AND BRUCE SCHLAGER - TONAWANDA COKE. SPILL WAS DUE TO HUMAN ERROR. WRONG VALVE WAS OPENED. VALVE IS OUTSIDE OF THE DIKE. PRODUCT FLOWED ACROSS THE ROAD AND ONTO SOIL/SEDIMENT ON TOP OF SQUARE/RECTANGULAR CONCRETE STOM CONDUIT. THEY BELIEVE A SMALL AMOUNT MAY HAVE ENTERED STORM SEWER THROUGH INFILTRATION. COKE BREEZE WAS PLACED ON PRODUCT TO ABSORB IT. MR. DINSMORE AND MR. SCHLAGER SAID THEY WILL RE-INTRODUCE IT INTO THEIR PROCESS AS PART OF THEIR FEED. THEY ARE ALSO REMOVING THE AFFECTED SEDIMENT. 12/15/15; SAC INSPECT SITE WITH BOB SMYTHE - DEC/DIV OF WATER. MET WITH ED DINSMORE AND MIKE TREMBOWICZ. WENT FIRST TO THE STORM WATER RETENTION/SEDIMENTATION PONDS FOR MR. SMYTHE TO INSPECT. AFTER LEAVING THE STORM RETENTION POND AREA, THE NEXT DESTINATION WAS THE SPILL AREA. THE PAVED AREA WAS SCRAPED TO THE PAVEMENT AFTER THE COKE BREEZE HAD BEEN APPLIED. RESIDUAL BREEZE REMAINED ON THE PAVEMENT. THE AREAS ADJACENT TO THE PAVEMENT WERE SCRAPED TO AN UNKNOWN DEPTH. THE SOIL/SEDIMENT WAS SCRAPED AND REMOVED ABOVE THE STORM SEWER CONCRETE TROUGH WHERE THE MATERIAL HAD REACHED. THE SOIL/SEDIMENT WAS REMOVED UNTIL THE TROUGH COVER WAS EXPOSED. AGAIN, RESIDUAL BREEZE WAS OBSERVED IN THIS AREA. MR. DINSMORE EXPLAINED THAT THE TAR MATERIAL WAS THAT WAS SPILLED IS SOLD AS A PRODUCT. THE PRODUCT CONTAINS 10% NAPHTHALENE. MR. DINSMORE BELIEVES THAT THE NAPHTHALENE IS FORMED WHEN THE COAL TAR MATERIAL IS HEATED. HE SAID GAS ALSO COMES OFF AS A BYPRODUCT AND IS BURNED OFF. THERE IS A WATER FRACTION ALSO THAT IS DECANTED AND THIS WATER IS SENT TO THE POTW. PAT CAHILL, PLANT MANAGER CAME TO THE SPILL AREA DURING THE INSPECTION AND EXPLAINED THE CAUSE OF THE SPILL. THERE ARE 2 SEPARATE PROCESSES THAT HAS PIPING COME TOGETHER BEFORE A PUMP INLET. THIS PUMP DISCHARGES TO THE DECANter. ONE OF THE PROCESSES INVOLVES CONDENSATE THAT CONTAINS 5% TAR, WHICH IS COLLECTED IN A SMALL ABOVEGROUND SKID TANK. THERE IS A VALVE ON THE TANK'S EFFLUENT PIPING THAT LEADS TO THE PUMP WHICH DISCHARGES TO THE DECANter. THIS VALVE IS LEFT OPEN DURING MOST OF THE PLANT'S OPERATION. THE OTHER PROCESS INVOLVES MATERIAL THAT CONTAINS 90% TAR. THIS MATERIAL IS DISCHARGED FROM A LARGE TANK INSIDE A DIKE TO THE PUMP AND THEN SENT TO THE DECANter. THIS OCCURS ONCE A DAY. AS PART OF TONAWANDA COKE'S OPERATING PROCEDURE, PRIOR TO DRAINING THIS TANK, THE VALVE ON THE SKID TANK EFFLUENT PIPING SHOULD BE CLOSED TO PREVENT ANY BACK UP INTO THE SKID TANK, BECAUSE THE HEAD PRESSURE IS TOO GREAT. MR. TREMBOWICZ SAID THIS PROCEDURE SAID HAS BEEN IN PLACE FOR THE LAST FEW MONTHS. THE SPILL WAS CAUSED BY THE FAILURE TO CLOSE THE VALVE ALLOWING THE MATERIAL TO FLOW THROUGH THE SKID TANK EFFLUENT PIPING AND INTO THE SKID TANK. THE MATERIAL OVERFLOWED THE SKID TANK SPILLING OUT THE TOP OF THE TANK AND ONTO THE GROUND. THE SKID TANK IS NOT INSIDE A DIKE, SO THE SPILL COULD NOT BE CONTAINED BY A PHYSICAL BARRIER. MR. DINSMORE SAID, AT PRESENT, THERE IS NO PLAN TO MOVE THE SKID TANK INTO THE DIKED AREA. THEY ARE WAITING UNTIL AN ENGINEERING STUDY OF THE PROCESS IS COMPLETED TO DETERMINE WHAT IS RECOMMENDED. THERE WAS BREEZE AROUND THE SKID TANK. MR. CAHILL SAID THE BREEZE IS USED TO CONTAIN THE STEAM CONDENSATE/WATER THAT IS USED FOR HEAT TRACING. SAC OBSERVED TAR MATERIAL SPILLED WITHIN THE DIKE AREA. DURING THE INSPECTION OF THE SPILL AREA, BRUCE SCHLAGER CAME TO THE AREA. SAC DISCUSSED WITH MR. DINSMORE WHY THE SPILL WAS CALLED IN THE NEXT MORNING AFTER IT OCCURRED AT AROUND 9:15 PM THE NIGHT BEFORE. MR. DINSMORE SAID THAT HE BELIEVED THE SPILL WAS CONTAINED TO A SMALL AREA. ALSO, THE SPILLED MATERIAL WAS SIMILAR TO PAVEMENT SEALER AND THE PAVEMENT ONTO WHICH IT WAS SPILLED. IN THE MORNING WHEN HE ARRIVED, HE OBSERVED THE SPILL QUANTITY AND THE AREA WAS LARGER THAN WHAT HE THOUGHT IT WAS THE PREVIOUS NIGHT. TONAWANDA COKE ESTIMATED 5000 LBS OF COAL TAR MATERIAL HAD SPILLED WHICH CONTAINED 10% NAPHTHALENE. THIS MEANT 500 LBS OF NAPHTHALENE WAS SPILLED WHICH EXCEEDED WHAT THEY BELIEVED WAS THE REPORTABLE QUANTITY OF 100 LBS. HE, ALSO, OBSERVED THE MATERIAL HAD FLOWED ACROSS THE ROAD AND ONTO THE SOIL/SEDIMENT ABOVE THE STORM SEWER CONCRETE TROUGH/PIPING. BASED ON HIS OBSERVATION, HE DETERMINE THAT THE MATERIAL MAY HAVE ENTERED INTO THE SEWER, THEREBY CAUSING A POTENTIAL RELEASE. THE POSSIBILITY OF SUCH A RELEASE WAS THE SECOND REASON WHY MR. DINSMORE REPORTED THE SPILL. AFTER LEAVING THE SPILL AREA, THE MIXING PAD WAS INSPECTED WITH MR. DINSMORE AND MR. TREMBOWICZ. MR. DINSMORE AND MR. TREMBOWICZ POINTED OUT THE PILE OF BREEZE THAT WAS USED IN THE CLEANUP. WHEN ASKED WHAT THEY WERE GOING TO DO WITH THIS BREEZE, THEY SAID THAT HAD NOT YET BEEN DETERMINED. 12/18/15:RECEIVED COPY OF INCIDENT REPORT BY GHD FROM HODGSON RUSS. 1/20/16:RECEIVED COPY OF LETTER FROM RICK KENNEDY - HODGSON RUSS TO TERRI MUCHA. 8/30/2016: RCRA Consent Oder executed to address the release. Required submissions by 9/15/16 and 9/30/16, not sure if these have been received. [BMC] 11/8/2016: Still need to followup on RCRA Order, and if it has been completed. [BMC] 11/10/2016: Per OGC, all order requirements have been addressed, and the order is closed. [BMC]"
11	1510463	1/26/2016	TONAWANDA COKE	1/26/2016	1/26/2016	Unknown Material	Unknown	Air	Unknown	"1/26/2016: RJJ AT SITE AT 0745...MEET WITH ROBERT KOLVEK,TCC,AND EXPLAINED THIS COMPLAINT...HE DROVE ME ALL AROUND THEIR FACILITY TO INVESTIGATE THIS ODOR COMPLAINT...WE DROVE AROUND THE PARAMETER AND THROUGHOUT THE INTERIOR OF THIS PROPERTY AND I DID NOT OBSERVE ANY ODORS OF ANY KIND ORIGINATING FROM THIS FACILITY...I THEN DROVE ALL ALONG RIVER RD TOWARD I-190 AND I DID OBSERVE THE USUAL PETROLEUM ODOR AT THE NOCO TERMINAL...THIS MIGHT BE THE ODOR THIS PERSON OBSERVED ON THE I-190,NEAR THE GRAND ISLAND BRIDGE...AFTER MY INVESTIGATION AT TCC,I FOUND NO EVIDENCE OF ANY STRONG ODORS OF ANY KIND AT THIS FACILITY...SPILL CLOSED OUT. ***** NOTE,COMPUTER FILE ONLY *****"
12	1600522	4/15/2016	SOIL	4/15/2016	4/15/2016	Hydraulic Oil	11 Gal.	Impervious Surface	Equipment Failure	"4/15/2016: RJJ AT SITE AT 1300...MEET WITH ROB KOLVAK/MIKE TREMBOWICZ,TCC, AND THEY EXPLAINED/SHOWN ME WHERE A MANLIFF HAD A LOOSE FITTING CAUSING ~11 GALS. OF HYDRAULIC OIL TO SPILL OUT,ALL ONTO THEIR ASPHALT ROADWAY,IN FRONT OF THEIR MAIN GATE...TCC PERSONNEL SPREAD BREEZE ON THIS SPILL, WHICH ABSORBED THE OIL, THEN PLACED IT ON THEIR RECYCLING PAD TO BE PLACED BACK INTO THEIR FACILITY,PER THEIR BUD...NONE OF THE OIL REACHED ANY SOIL OR WATERWAYS,IT HAS BEEN ALL RECOVERED...THE CLEAN-UP IS ACCEPTABLE...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT. ***** NOTE, COMPUTER FILE ONLY *****"



Appendix A  
Spills Database Findings

13	1603606	7/12/2016	TONAWANDA COKE	7/7/2016	11/8/2016	Unknown Petroleum	Unknown	Soil	Unknown	"7/13/2016: MIKE TREMBOWICZ,TCC,TELECON RJJ HE SAID THAT THEY ENCOUNTERED A 3'X6' AREA WHERE THERE IS A TAR-LIKE SUBSTANCE COMING UP FROM THE SUBSURFACE ON THEIR PROPERTY ON 7/7/2016. 8/4/2016: RJJ/BEN McPHERSON(DER) AT SITE AT 1300...MEET WITH MIKE TREMBOWICZ AND HE SHOWN US THIS TAR-LIKE SUBSTANCE...IT APPEARS TO BE AN OLD COAL OR ASPHALT-LIKE PRODUCT WHICH COULD HAVE BEEN SPILLED THERE A LONG TIME AGO HOWEVER,WE DO NOT KNOW FOR SURE...MIKE WILL KEEP ME INFORMED ON THIS ISSUE. 11/8/2016: BMC notified Alex Czuhanych (DER-Albany) of tar discovery on 7/21/16. Planned to visit site on 8/4/16 with TCC and Mark Sweitzer (Honeywell) to look at tar seep location. Mark was unable to attend due to travel problems. In follow up email (8/8/16) to Mark/Alex stated that the investigation/remediation of this area will be managed by Alex. [BMC]" Not Available
14	1604579	8/5/2016	TONAWANDA COKE	8/5/2016	Not Closed	Waste Oil/Used Oil	12 Gal.	Soil	Equipment Failure	"8/5/2016: RJJ TELECON ROBERT KOLVAK,TCC,HE SAID THAT A DRUM OF WASTE OIL TIPPED OVER SPILLING ~12 GALS. OF WASTE OIL ALL ONTO THEIR STONE DRIVEWAY...TCC PERSONNEL WILL SCRAP-UP THIS AFFECTED STONE,PLACED THE SPILL MATERIAL INTO A DRUM, WHICH WILL SENT OUT FOR DISPOSAL...NONE OF THE OIL REACHED ANY WATERWAYS,IT WILL BE ALL RECOVERED...MR. KOLVAK WILL SEND ME THE DISPOSAL RECEIPTS"
15	1605698	9/6/2016	TONAWANDA COKE CORP FACILITY	9/6/2016	11/4/2016	Hydraulic Oil	0.25 Gal.	Soil	Equipment Failure	"9/6/2016: RJJ TELECON ROBERT KUBERKA,TCC,HE SAID THAT A PIECE OF EQUIPMENT LEAKED OUT ~ 1 QUART OF HYDRAULIC OIL,ALL ONTO THE GROUND,ON THEIR PROPERTY...TCC PERSONNEL SCRAPED-OUT THIS SMALL SPILL AND PLACED ALL THE PETROLEUM IMPACTED SOIL IN A CONTAINER, WHICH WILL BE DISPOSED OF...NONE OF THE HYDRAULIC OIL REACHED ANY WATERWAYS,IT HAS BEEN ALL RECOVERED...MR. KUBERKA WILL SEND ME THE DISPOSAL RECEIPTS. 9/12/2016: BMC was on-site to witness the hydraulic line leak that occurred 9/6/16. The leak occurred from a line on an excavator's arm, near the bucket. The line became pinched/over pressurized while digging Test Pit 9 (TP-9)as part of a Site 108 (#915055, OU3) investigation. Hydraulic oil sprayed onto the ground adjacent to the test pit and also leaked into the test pit (but was later excavated and stockpiled on poly). TCC staff did collect some of the leaking fluid directly from the line before it was repaired, but none of the impacted soil was containerized at this time. The test pit identified the soils in this location as being ~4 ft of brown soil fill underlain by ~8 ft of black fill (apparent cinders or coal/coke fines)."
16	1707802	11/14/2017	TCC - DIESEL SPILL SOUTH OF COKE OVENS	11/14/2017	11/16/2017	Diesel	50 Gal.	Unknown	Equipment Failure	"11/14/17: R. Crossen responds to spill. [BMC] 11/15/17: B. McPherson spoke with Rob Kuberka (TCC). Rob stated that approximately 2.5 cuyd of breeze was used to clean up spill, and has been placed on mixing pad. Due to schedule conflicts, BMC will inspect material and spill 11/16/17 at 0830. 11/16/17: B. McPherson and R. Kuberka (TCC) inspect the site around 0900. Material had already been processed and charged to an oven (in a follow-up voicemail Rob indicated that the material was placed in oven #94). Inspected the spill area. Rob stated that the diesel leaked from a site haul truck. Spilled onto existing breeze material that is located south of the coke ovens near a small brick structure that provides access to underground conveyor belt system. Entire area is covered in breeze. BMC sees no issues with the spill area. 11/16/17: BMC create site map showing approximate location of spill, and upload to D2. 11/16/17: BMC going to close the spill. Spilled material has been recovered and processed in the coke ovens as allowed by a BUD with Division of Materials Management. Any residual diesel impacts will be addressed as part of the Superfund RI/RA."
17	1709090	1/2/2018	TONAWANDA COKE	1/2/2018	1/3/2018	Diesel	50 Gal.	Soil	Equipment Failure	"1/2/18 RMC/ROBERT KUBERKA/PHONE. SPILL BREEZE. COVERED FOR NOW. WILL BE COLLECTED AND USED IN ACCORDANCE WITH BUD. NO SPILL UNIT ACTION REQUIRED. CLOSE OUT. 1/12/18: BMC/Rob Kuberka/Phone. Ben asked about how the fuel was spilled. Rob said a fuel line on a yard truck froze and burst. The impacted breeze has been removed and placed on the Mixing Pad. BMC told Rob he is all set."
18	1805815	8/29/2018	TONAWANDA COKE	8/29/2018	8/29/2018	Unknown Material	Unknown	Air	Unknown	"8/29/18:FORWARDED COPY OF SPILL REPORT TO DEC DIV OF AIR. NO FURTHER WORK REQUIRED BY SPILLS."
19	1805973	9/3/2018	TONAWANDA COKE	9/3/2018	9/4/2018	Unkown Hazardous Material	Unknown	Air	Unknown	"09/03/18 RMC/FILE. TALKED TO JIM CHATHAM, OFFICER IN THE FIRE DEPARTMENT. THEIR DISPATCH RECEIVED SEVERAL CALLS REPORTING A STRUCTURE FIRE AT TONAWANDA COKE. FIRE DEPT REPORTS THAT NO FIRE WAS OBSERVED UPON ARRIVAL AND AFTER A DELAY IN ENTRY WAS OVERCOME, THEY INSPECTED AND WERE TOLD THAT: THE PLANT LOST POWER. BEFORE A GENERATOR COULD BE STARTED THE PROCESS 'RAN AWAY' RESULTING IN A FIRE. ONCE THE POWER WAS RESTORED THE FIRE WAS. NO WATER OR OTHER EXTINGUISHING AGENT WERE USED. THE FIRE DEPARTMENT HAS LEFT THE SCENE. RMC REPORTED ABOVE TO MM WHO FORWARDED TO THE APPROPRIATE DEC UNITS. CLOSE OUT AS A SPILLS ISSUE AS THE MATTER WILL BE ADDRESSED BY OTHER UNITS."

EDR Report NYSpills Database Search Results (c)				Spill Incident Details						EDR Database Report Details
Spill Number	Date Spill Reported	Spill Name	Spill Date	Date Spill Closed	Material Spilled	Amount	Resource Affected	Cause	DEC Memo Comments	
20	0210041	1/4/2003	Not Reported	1/4/2003	1/7/2003	Not Reported	Not Reported	Not Reported	Not Reported	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RJJ 1/4/2003: LARRY SITZMAN, DUTY OFFICER, TELECON RJJ AT 0800, SAID THAT THERE IS A FIRE AT THE TONAWANDA COKE PLANT ON RIVER ROAD AND OUR RESPONSE IS REQUESTED...RJJ AT SITE AT 0830...MEET WITH PLANT SUPERINTENDENT DANIEL HOOLEY, HE EXPLAINED THAT IN THEIR 2000' UNDERGROUND CONCRETE TUNNALS, A FIRE STARTED ON THE COAL CONVEYER...THE FIRE DEPT. KEEP SPRAYING WATER TO PUT OUT THE FIRE, BUT IT TOOK A LONG TIME...SINCE THE FIRE/COAL WAS UNDERGROUND, AND ALL CONTAINED IN THE TUNNALS, NONE OF THE COAL OR ANY WATER LEFT THE SITE...DAN HOOLEY SAID THAT THEY WILL VAC-UP ALL THE WATER AND THE COAL AND PLACE IN THEIR YARD TO SETTLE, THEN THEY WILL COLLECT THE COAL AND REUSE IT...SINCE THE COAL WILL BE REUSED, AND NO RUNOFF OCCURED, NO FURTHER ACTION IS NEEDED...SPILL CLOSED OUT. **** NOTE, THERE IS NO PAPER FILE FOR THIS SPILL *****"
21	9306743	9/1/1993	Not Reported	8/10/1993	9/20/1993	Not Reported	Not Reported	Not Reported	Unknown	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJS 09/20/93: MJS SITE INSPECT. FOUND CONTAMINATED AREA. STAINING ON GROUND. NOT EXCESSIVE FOR THIS TYPE OF OPERATION. "DURING PBS INSPECTION, MR. COWAN DISCOVERED 20' X 15' AREA NEAR DIESEL TANK LOADING AREA THAT APPEARS TO BE CONTAMINATED."
22	1804001	7/11/2018	Not Reported	6/20/2018	Not Reported	Not Reported	Not Reported	Not Reported	Housekeeping	DURING A PBS INSPECTION, 4 AREAS OF PETROLEUM CONTAMINATION WERE OBSERVED: 1) OUTSIDE THE SECONDARY CONTAINMENT FOR PBS TANK #B-1, 2) IN THE MAINTENANCE SHOP WHERE PBS TANKS K01-K05 ARE LOCATED, 3) IN THE SECONDARY CONTAINMENT FOR PBS TANK D02, & 4) A PETROLEUM SPILL NEAR THE CBS TANK 103 TRANSFER STATION SECONDARY CONTAINMENT."
23	0750710	8/16/2007	Not Reported	8/1/2007	12/12/2007	Not Reported	Not Reported	Not Reported	Deliberate	"08/16/07 RMC/FILE. DISCUSSED WITH DKK, DELIBERATE DUMPING COMPLAINT. REFERRED TO LE. COPIED DOW. CLOSE OUT AS A SPILLS ISSUE. NO PAPER FILE. 8/21/07: SAC TELECON ECO JAMES HUNT - DEC LAW ENFORCEMENT/TODAY'S DESK OFFICER. ECO HUNT WAS CONTACTED BY ECO CHUCK LOHR WHO WAS FOLLOWING UP ON COMPLAINT. ECO HUNT SAID THAT ECO LOHR RELATED TO HIM THAT WHILE HE WAS INSPECTING THE COMPLAINT, HE OBSERVED LEAKING TRANSFORMERS AT THE SITE AND A LEAKING DRUM AND REQUESTED A SPILL RESPONDER COME TO SCENE TO ASSIST. SAC AGREED TO COME TO SITE. 8/21/07: SAC INSPECT SITE. MET WITH ECO LOHR & ECO CHUCK WILSON AND MARK KAMHOLZ - TONAWANDA COKE. THERE WERE 8 OR 9 TRANSFORMERS ON SITE WITH SOME LEAKING. TRANSFORMERS WERE STAGED ON CONCRETE BUT SMALL AMOUNT DID REACH A SMALL AREA OF GRASS/SOIL. OIL FROM THESE TRANSFORMERS WAS GOING TO BE USED AS PART OF REGULAR PRACTICE TO PUT ONTO COAL PILE AND HEATED TO 2000 DEGREES. SAME IS TRUE FOR THE OIL FROM THE DRUM AND ANY OIL THAT IS USED AT THE SITE. 3 OF THE TRANSFORMERS HAD THE OIL TESTED AND WITH THE HIGHEST BEING 15 ppm. OTHER TRANSFORMERS WILL HAVE OIL TESTED BEFORE BEING USED SIMILARLY. IF OIL TESTS GREATER THAN 50 ppm IT IS NOT USED AND DISPOSED AS A HAZARDOUS WASTE. SAC ASKED IF THERE WAS A PERMIT ALLOWING THIS PRACTICE AND MR. KAMHOLZ DID NOT BELIEVE THERE WAS SINCE IT WAS NORMAL PRACTICE WITH THE OIL BEING A FEEDSTOCK AND THE TEMPERATURES USED WOULD LEAD TO THE DESTRUCTION OF THE OIL AND ANY PCBs. IT WAS AGREED TO HOLD OFF ON CLEANUP OF THE TRANSFORMER AREA UNTIL CLARIFICATION COULD BE DETERMINED WHETHER THIS WAS ACCEPTABLE. 8/22/07: SAC MET W/LARRY SITZMAN - DEC/DIV OF AIR. ALTHOUGH FACILITY HAS A DEC DIV. OF AIR PERMIT, MR. SITZMAN RECOMMENDING DISCUSSING W/SOL & HAZ MATERIALS REGARDING USED OIL REGS. SAC SPOKE TO TOM CORBETT. MR. CORBETT CHECKED INTO THE USED OIL REGS AND SAID THAT THIS PRACTICE OF PLACING OIL ONTO THE COAL PILE FOR PROCESSING UNDER THE FOLLOWING TWO CONDITIONS: 1) THE OIL WOULD HAVE TO BE BLENDED WITH OTHER OIL UNTIL THE MIXED PRODUCT HAD A CONCENTRATION OF 2 ppm OR LESS 2) USING OIL LIKE THIS STILL REQUIRES A BENEFICIAL USE DETERMINATION (BUD) PERMIT FROM DIV OF SOLID WASTE LEGALIZING THE PROCEDURE. MR. CORBETT TO FOLLOW UP WITH AN INSPECTION OF THE FACILITY TODAY. 8/22/07: SAC TELECON CAMERON O'CONNOR - NYSDOH REGARDING CLEANUP LEVELS. MR. O'CONNOR LOOKED UP CLEANUP GUIDANCE LEVELS AND FOR INDUSTRIAL SITES, CLEANUP LEVEL IS 25 ppm PCBs. BASED ON LEVELS OF ANALYZED OIL FROM THE THREE TRANSFORMERS NO CONFIRMATORY SAMPLES WILL BE REQUIRED FOR SPILL FROM THIS AREA. OTHER AREA WILL BE BASED ON THE ANALYTICAL RESULTS OF THE OTHER TRANSFORMERS' OIL. 8/22/07: SAC SPOKE TO TOM CORBETT. MR. CORBETT INSPECTED SITE. HE MET W/MARK KAMHOLZ AND DISCUSSED REQUIREMENTS W/HIM INCLUDING THE REQUIREMENT OF A BUD PERMIT. NO CLEANUP WILL TAKE PLACE UNTIL THE PERMIT IS IN ORDER. MR. CORBETT WILL FOLLOWUP ON PERMIT W/ RP AND NOTIFY SAC ONCE IT IS IN PLACE. SAC SPOKE TO LARRY SITZMAN NOTIFYING HIM OF RESULTS OF MR. CORBETT'S INSPECTION. SAC SPOKE TO DKK AND IT WAS AGREED BECAUSE OF THE LEAKING TRANSFORMERS AND DRUM TO RE-OPEN SPILL WHICH HAD BEEN CLOSED AFTER THE REFERRAL TO LAW ENFORCEMENT. 8/27/07: SAC TELECON ECO CHUCK LOHR. SAC NOTIFIED MR. LOHR OF THE STATUS. 8/27/07: SAC TELECON LARRY SITZMAN. MR. SITZMAN VISITED TONAWANDA COKE ON 8/24. BASED ON DISCUSSIONS W/MR. KAMHOLZ, THEY WILL STILL BE USING OIL AS PART OF THE PROCESS SO THERE WILL NEED TO BE A BUD FOR THIS, BUT THE TRANSFORMER OIL WILL NOT BE PART OF THIS SO THEY WILL DISPOSE OF THE TRANSFORMER OIL CONTAMINATED SOIL OFF-SITE. 8/27/07: SAC TELECON MARK KAMHOLZ. HE CONFIRMED THAT THE TRANSFORMER OIL CONTAMINATED SOIL WILL BE DISPOSED OF OFF-SITE. HE RECEIVED THE RESULTS OF THE OTHER TRANSFORMER OIL SAMPLES AND THEY WERE ND. HE WILL FAX IN THE RESULTS TO SAC. MR. KAMHOLZ SAID BASED ON HIS DISCUSSION AND AGREEMENT W/MR. CORBETT, HE WOULD NOT BEGIN ANY CLEANUP UNTIL HE SPOKE TO MR. CORBETT AGAIN. 8/27/07: RECEIVED RESULTS FROM MARK KAMHOLZ. RESULTS FOR 3 OIL SAMPLES CAME BACK NO FOR PCBs. RESULTS FOR 1 OIL SAMPLE CAME BACK HAZARDOUS FOR PCBs. RESULTS FOR 1 SOIL SAMPLE CAME BACK HAZARDOUS FOR PCBs. 8/28/07: GAVE COPY OF RESULTS TO TOM CORBETT. 9/20/07: SAC SPOKE TO TOM CORBETT. MR. CORBETT IS FOLLOWING UP ON THE ADMINISTRATIVE ASPECTS W/TONAWANDA COKE BUT SAID THAT ANY SPILL CLEANUP CAN BEGIN. 9/21/07: SAC TELECON MARK KAMHOLZ. DISCUSSED CLEANUP. MR. KAMHOLZ SAID THAT HE HAS HAD WASTE TECHNOLOGIES AT THE SITE TO LOOK AT THE WORK FOR A QUOTE. HE IS WAITING TO HEAR BACK FROM THEM. HE ALSO WAS WAITING TO HEAR FROM TOM CORBETT BEFORE PROCEEDING BUT SAC TOLD MR. KAMHOLZ, THAT MR. CORBETT SAID THAT THIS IS A SPILLS ISSUE AND THE CLEANUP CAN PROCEED WITHOUT WAITING FOR HIM. MR. KAMHOLZ SAID HE WILL BE IN CONTACT SOON ONCE HE FINISHES ARRANGING FOR THE WORK WITH WASTE TECHNOLOGIES. 10/5/07: SAC TELECON MARK KAMHOLZ. MR. KAMHOLZ SAID THAT WASTE TECHNOLOGIES WILL BE ON-SITE WEDNESDAY 10/10 TO REMOVE THE TRANSFORMERS AND EXCAVATE THE CONTAMINATED SOIL INTO A ROLLOFF. 10/16/07: SAC SPOKE TO TOM CORBETT. MR. CORBETT WAS CONTACTED BY MARK KAMHOLZ THAT ADDITIONAL WORK WOULD BE DONE TODAY. MR. CORBETT RECEIVED MANIFESTS FOR MATERIAL THAT HAS BEEN REMOVED. 10/25/07: SAC TELECON MARK KAMHOLZ. MR. KAMHOLZ SAID THAT CONTRACTOR IS SCHEDULED TO RECOMMENCE THE CLEANUP TOMORROW. 11/16/07: SAC INSPECT SITE. FOUND AREA OF SOIL EXCAVATED AND ADJACENT AREA OF CONCRETE REMOVED. AREA WHERE NON-PCB OIL TALL TRANSFORMERS WERE, WAS A CONCRETE PAD. ROLLOFF CONTAINING CONTAMINATED MATERIAL WAS STILL ON-SITE. DRUMS OF OIL HAVE ALSO BEEN DISPOSED. MR. KAMHOLZ SAID CONFIRMATORY SAMPLE RESULTS WERE BELOW 25 ppm PCBs. ONCE HE RECEIVES ALL DOCUMENTATION INCLUDING FORMAL LABORATORY REPORT OF THE CONFIRMATORY SAMPLE ANALYSIS AND THE DISPOSAL RECEIPTS, HE WILL FORWARD THEM TO SAC. 12/6/07: RECEIVED DISPOSAL RECEIPTS AND A HISTORY OF WASTE TECHNOLOGY SERVICES SITE INVOLVEMENT ALONG W/A TABLE OF ANALYTICAL RESULTS FOR CONFIRMATORY SAMPLES. SENT COPY OF REPORT TO ECO AND GAVE COPY TO TOM CORBETT. 12/7/07: SAC TELECON MARK KAMHOLZ. SAC REQUESTED A COPY OF THE ANALYTICAL REPORT FOR THE CONFIRMATORY SAMPLE ALONG WITH AN EXCAVATION SITE DRAWING SHOWING THE SAMPLE LOCATIONS. MR. KAMHOLZ SAID HE WILL TRY TO SEND IN DOCUMENTATION NEXT WEEK. 12/11/07: RECEIVED CONFIRMATORY ANALYTICAL RESULT REPORTS. SENT COPY OF REPORT TO ECO LOHR AND GAVE COPY OF REPORT TO TOM CORBETT. NO FURTHER ACTION REQUIRED BY SPILLS."
24	1312126	3/27/2014	Not Reported	3/27/2014	Not Reported	Tar	60 Gal.	Not Reported	Equipment Failure	"3/28/2014: RJJ TELECON BOB KOLVEK, TONAWANDA COKE, HE SAID THAT YESTERDAY, THEIR FRONT END LOADER BROKE A SEAL ON ONE OF THE HOSES CAUSING ~30 GALS OF HYDRAULIC FLUID TO LEAK-OUT, ALL ONTO THE ASPHALT DRIVEWAY, NEAR THEIR TRUCK SCALES...TONAWANDA COKE PERSONNEL SPREAD THEIR 'BREEZE' ON THIS SPILL, TO SOAK-UP ALL THE HYDRAULIC FLUID, THEN PLACED ALL THE MATERIAL ON THEIR CONCRETE RECYCLING PAD, WHICH WILL BE STAGED THERE UNTIL THEY OBTAIN A 'BUD' WHICH WOULD THEN ALLOW THEM TO REUSE THIS MATERIAL IN THEIR FACILITY...FOR NOW, THIS MATERIAL WILL REMAIN THERE...I WILL INSPECT NEXT WEEK. 4/1/2014: RJJ AT SITE AT 1300...MEET WITH BOB KOLVEK AND HE SHOWN ME WHERE THE SPILL OCCURED...TONAWANDA COKE PERSONNEL SPREAD THEIR 'BREEZE' ON THIS SPILL THEN SCRAPED-UP THE AFFECTED AREA AND PLACED IT ON THEIR CONCRETE RECYCLING PAD (IN THE SOUTHWEST CORNER OF THIS PAD), UNTIL THEY OBTAIN A 'BUD' FROM DEC...THE CLEAN-UP IS ACCEPTABLE."
25	1311845	3/19/2014	Not Reported	3/18/2014	11/8/2016	Petroleum	30 Gal.	Not Reported	Equipment Failure	"3/20/2014: RJJ TELECON BOB KOLVEK, TONAWANDA COKE, HE SAID THAT TUESDAY, 3/18, AT 1400 HRS...ONE OF THEIR HYDRAULIC MAN-LIFTS BROKE A HYDRAULIC LINE, CAUSING ~5 GALS. OF HYDRAULIC OIL TO LEAK-OUT, ALL ONTO THE GROUND WHICH IS COVERED WITH THEIR COKE FINES (BREEZE)...THEY USED THEIR EXCAVATOR AND SCRAPED-UP ALL THE AFFECTED AREA AND THEN PLACED IT ON THEIR COKE RECYCLING CONCRETE PAD, WHICH WILL BE USED IN THEIR FACILITY...I ALSO INFORMED MR. KOLVEK THAT THIS SPILL SHOULD HAVE BEEN REPORTED WITHIN 2 HOURS, NOT A DAY LATER...HE SAID THAT THEY WILL REPORT ANY FUTURE SPILLS WITHIN 2 HOURS...AFTER DISCUSSING THIS WITH GPS, HE SAID WE WILL LEAVE THIS 'OPENED' UNTIL/IF THEY OBTAIN A BUD (BENEFICIAL USE DETERMINATION) FROM OUR DEC MM DIVISION. 4/1/2014: RJJ AT SITE AT 1300...MEET WITH BOB KOLVEK AND HE SHOWN ME WHERE THIS SPILL OCCURED...TONAWANDA COKE PERSONNEL THEN SCRAPED-UP THE AFFECTED AREA AND PLACED THIS MATERIAL ON THEIR CONCRETE RECYCLING PAD, IN THE SOUTHWEST CORNER WITH THEIR OTHER PETROLEUM SPILLS...THIS MATERIAL WILL REMAIN THERE UNTIL THEY OBTAIN A 'BUD' FROM THE DEC...THE CLEAN-UP IS ACCEPTABLE. 9/22/2015: RECEIVED THE PROPOSED WORKPLAN, FROM TCC, FOR THE REMEDIATION OF THIS PROPERTY, WHICH WILL BEGIN LATER THIS WEEK, IF GPS APPROVES IT... (THIS ALSO INCLUDES SPILL # 1207205) 10/6/2015: ROBERT ADAMS, CONESTOGA-ROVERS & ASSOCIATES ENGINEER, TELECON RJJ, HE SAID THAT THEY WILL BEGIN THE REMEDIATION OF THE PROPERTY, PER THE APPROVED WORKPLAN FROM GPS, SOON AND HE WILL CALL ME WITH AT LEAST, 5 DAYS NOTICE OF THIS WORK. 10/30/2015: RJJ TELECON MICK TREMBOWICZ, TCC ENVIRONMENTAL ENGINEER, HE SAID THAT TODAY, THEY HAVE DUG A TEST PIT, PER THEIR WORKPLAN, IN AREA 'G' AND FOUND A CONCRETE PAD, ~3' BFG, WHICH IS COVERING AN OLD ELECTRICAL CONDUIT...THEY DID OBTAIN A SOIL SAMPLE ABOVE THIS PAD, AND WILL SEND IT FOR ANALYSIS...MIKE WILL SEND ME THOSE RESULTS. 11/5/2015: RECEIVED THE FINAL REPORT, VIA E-MAIL, FROM TCC...TCC DUG A TEST PIT, ~3' BFG, AND ENCOUNTERED A CONCRETE PAD, WHICH IS COVERING AN OLD ELECTRICAL CONDUIT...THEY ALSO DID NOT OBSERVE ANY PETROLEUM STAINED SOIL, ODORS IN THIS 'BREEZE', WHICH IS ABOVE THE PAD...THEY HOWEVER, DID NOT OBTAIN A SOIL SAMPLE FOR ANALYSIS, SO I WILL DISCUSS THIS WITH GPS. 11/12/2015: RJJ AT SITE AT 0930...MEET WITH MIKE TREMBOWICZ, HE SAID THAT YESTERDAY, THEY DUG 3-5' TRENCHES IN AREA 'C', AS PER THE WORKPLAN, TO SEE IF THERE IS ANY PETROLEUM CONTAMINATED SOIL OR ANY ODORS IN THE SUBSURFACE...TODAY, THESE 3 TRENCHES ARE HALF-FULL OF WATER, DUE TO HEAVY RAINS, HOWEVER, I OBSERVED NO STAINED SOIL OR ANY ODORS OF ANY KIND...MIKE WILL FORWARD THEIR REPORT. 1/15/2016: RECEIVED AN E-MAIL FROM MIKE TREMBOWICZ EXPLAINING THAT THEY HAVE SUSPENDED THEIR REMEDIATION ON THE SITE, DUE TO THE FROZEN GROUND, UNTIL BETTER WEATHER ARRIVES...MIKE WILL KEEP ME INFORMED. 8/23/2016: MIKE TREMBOWICZ, TCC, TELECON RJJ, HE SAID THAT THEY HAVE STATED THEIR REMEDIATION ON THE SITE IN AREA 'B' (FORMER DIESEL STORAGE AST) AND HAVE ENCOUNTERED A 'TAR-LIKE' SUBSTANCE ~2-3' BFG IN A LAYER ~6-10" IN DEPTH...TCC HAS STAGED THIS 'TAR' ON PLASTIC, ON-SITE, AWAITING OUR DECISION ON HOW TO PROCEED...THEY HAVE ALSO STOPPED WORKING TILL WE DECIDE... (THIS IS ALSO PART OF AND INCLUDES SPILL # 1207205) 9/12/2016: Mike Trembowicz (TCC) and Kathy Gallante (GHD) call with BMC. TCC discovered tar in Area B spill remediation and propose to stop excavation due to change in conditions. Want to use former berm material (from Area B) as backfill. BMC said ok, berm soil met industrial SCOs except for 4 SVOCs, but they did meet protection of GW SCOs. BMC instructed to place a demarcation layer between existing soil and backfill so extent of excavation is known. Area will need further investigation to determine extent of tar material. [BMC] 11/8/2016: Closing spill, investigation and remediation will continue under Superfund. [BMC]"

Appendix A  
Spills Database Findings

26	0890582	7/8/2008	Not Reported	7/8/2008	7/11/2008	Hydraulic Oil	5 Gal.	Not Reported	Other	"07/08/08 RMC/FILE. DOA WILL FOLLOW UP. NOTIFIED DAN KING, DOW ALREADY INSPECTED. NO SPILL ACTION REQUIRED. AT THIS TIME. 7/8/08:SAC NOTIFIED BY BOB SMYTHE - DEC/DIV OF WATER, REGARDING INCIDENT. SAC LET MR. SMYTHE KNOW, SPILLS HAD BEEN CONTACTED BY DIV OF AIR REGARDING THE FIRE. MR. SMYTHE SAID HE CALLED THE FACILITY AND WAS TOLD THAT THERE WAS NO RUNOFF DISCHARGE BUT AN ACCUMULATION OF WATER WITHOUT A SHEEN. SAC SPOKE TO DKK REGARDING MR. SMYTHE'S AND CHERYL WEBSTER'S (DIV OF AIR) COMMENTS. BASED ON THEIR COMMENTS, NO ONE FROM DEC HAD BEEN TO THE SCENE. DKK CALLED MR. SMYTHE AND MS. WEBSTER TO CONFIRM THEY WERE NOT AT THE SITE TODAY. SINCE NO ONE HAD BEEN TO THE SITE DKK REQUESTED SAC INSPECT. SAC INSPECT SITE. MET W/MARK KAMHOLZ - TONAWANDA COKE. MR. KAMHOLZ SAID THEY WERE IN THE PROCESS OF SCRAPPING AN OLD RAILROAD CAR WHEN A SPARK FROM THE TORCH TRAVELED AND IGNITED THE COAL DUST AROUND AN OLD OUT OF SERVICE RIVETED TANK. WATER FROM THE EXTINGUISHING REMAINED PONDED IN THE DIKE AREA. NO PETROLEUM SHEEN NOTED. MR. KAMHOLZ SAID THAT THERE WOULD BE NO EFFORT TO COLLECT THE WATER AND IT WOULD BE ALLOWED TO DISSIPATE. SAC CALLED DKK AND LEFT MESSAGE OF REGARDING RESULTS OF INSPECTION. 7/9/08:SAC SPOKE TO BOB SMYTHE TO NOTIFY HIM OF INSPECTION RESULTS. SAC SPOKE TO DKK. DKK BRIEFED DAN DAVID - DEC REGION 9 ENV. QUALITY ENGINEER REGARDING RESULTS OF INSPECTION. SINCE INCIDENT INVOLVES NON-PETROLEUM MATERIAL AND THE WATER WAS CONTAINED W/NO OFF-SITE IMPACT, NO FURTHER FOLLOW UP REQUIRED BY SPILLS. 7/11/08:SAC SENT COPY OF PICTURES TO BOB SMYTHE. NO FURTHER WORK REQUIRED."
27	1400418	4/12/2014	Not Reported	4/12/2014	Not Reported	Hydraulic Oil	30 Gal.	Not Reported	Not Reported	"04/12/14 RMC/FILE. CALLED ROBERT KOLVEK TO OBTAIN UPDATE. SEAL FAILURE ON LOADER. CLEAN UP UNDERWAY. TO STOCKPILE AT STORAGE AREA. UPDATED GS. RMC TO INSPECT MONDAY 04/14/14 RMC/ROBERT KOLVEK, RKOLVEK@TONAWANDACOKE.COM/SITE. CLEAN UP WAS COMPLETED. HAVE 2 TO 3 YARDS STOCKPILED IN THE STORAGE AREA. LOCATED EAST END OF COAL FIELD HEAD OF 7. 02/13/15 RMC/FILE. RMC CHECKED WITH LEGAL. PRP HAS YET TO DISPOSE OF THE WASTE GENERATED. UPDATE 5/30/15. 08/25/15 RMC/FILE. STILL IN LEGAL. UPDATE 1/1/2016 09/19/16 RMC/FILE. STILL IN LEGAL UPDATE 1/1/17 11/07/16 RMC/FILE. PER LEGAL SPILL TRANSFERRED TO BJM."
28	1310569	1/31/2014	Not Reported	1/31/2014	6/4/2014	Coal Tar	Not Reported	Not Reported	Equipment Failure	"2/4/14:SAC INSPECT SITE. MET W/BOB KOLVEK - TONAWANDA COKE. MR. KOLVEK SAID THERE WAS NO COAL TAR SPILL AND THAT THERE IS NO TAR IN THIS AREA. MR. KOLVEK SHOWED SAC LOCATION WHERE EXPLOSION TOOK PLACE. FLOOR INSIDE BUILDING WAS DRY. THERE WERE SOME AREAS OUTSIDE THAT WERE BLACK WITH A SHEEN ON THE WATER PUDDLES. BLACKISH AREAS AND SHEEN APPEARED TO BE AS A RESULT OF COKE DUST. NOTE TO FILE: PUBLIC NOTIFICATION WAS MADE THROUGH OTHER CHANNELS AS FIRE DEPT AND MEDIA WERE AWARE OF THE INCIDENT PRIOR TO DEC NOTIFICATION. 6/3/14:SAC DISCUSS STATUS OF SPILL FILE WITH GPS. GPS REQUEST SAC CLOSE FILE. NO FURTHER ACTION REQUIRED. NO PAPER FILE."
29	1803893	7/11/2018	Not Reported	6/20/2018	Not Reported	Sodium Hydroxide	Not Reported	Not Reported	Not Reported	"NOTE TO FILE: SPILL WAS INTO SECONDARY CONTAINMENT DIKE W/VERY LITTLE LEACHING OUT OF THE CONTAINMENT. SPILL AREA IN THE MIDDLE OF PLANT AND NOT AN IMMEDIATE ENVIRONMENTAL THREAT. THEREFORE, NO MANDATORY PUBLIC NOTIFICATION." "DURING A CBS INSPECTION, A RELEASE OF SODIUM HYDROXIDE (50% concentration) FROM TANK # 103 WAS OBSERVED. THE DEC CBS INSPECTOR (PETER REUBEN) ESTIMATED 6-8 OF PRODUCT WAS RELEASED FROM THE TANK AND IN THE SECONDARY CONTAINMENT. THE INSPECTOR WALKED AROUND THE SECONDARY CONTAINMENT AND OBSERVED THAT THE PRODUCT IN THE SECONDARY CONTAINMENT WAS SLOWLY BEING RELEASED THROUGH THE BASE OF THE OUTER WALL."

- (a) NYSDEC Spills Incidents Database accessed 9/25/2019. Search parameters for 3875 River Rd, Erie County, Tonawanda, NY for dates between 9/1/1979 and 9/24/2019.  
(b) "DEC Memo" comments (if available) from EDR Database report for 3875 River Rd, Erie County, Tonawanda, NY dated 8/23/2019. EDR database matched to Spill Number.  
(c) NY Spills EDR database search results for 3875 River Road, Erie County, Tonawanda, NY dated 8/23/2019. Records/details shown if not included in the NYSDEC Spills Incident Database referenced in Note (a) above.

B – IWD Permit No. 331



Permit No. 331  
Modified Date: \_\_\_\_\_

**TOWN OF TONAWANDA**

**INDUSTRIAL SEWER CONNECTION PERMIT**

Company Name: Riverview Innovation Technology Campus

Division Name (if Applicable) \_\_\_\_\_

Mailing Address: 333 Ganson Street  
Street or P.O. Box  
Buffalo, NY 14203

City, State and Zip Code

Facility Address: 3875 River Road  
Street or P.O. Box  
Tonawanda, NY 14150

*The above Industrial User is authorized to discharge industrial wastewater to the Town of Tonawanda sewer system in compliance with the Town's Sewer Use Ordinance Number 2-2000, any applicable provisions of Federal or State law or regulation, and in accordance with discharge point(s), effluent limitations, monitoring requirements, and other conditions set forth herein.*

*This permit is granted in accordance with the application filed on October 15, 2019 in the office of the Pretreatment Administrator, and in conformity with plans, specifications, and other data submitted to the Town in support of the above application.*

Effective Date: November 1, 2019

Expiration Date: September 30, 2022

Permit No. 331

Date: 11/1/19

Signed: \_\_\_\_\_



Paul Morrow  
Town of Tonawanda  
Pretreatment Coordinator

Permit No. 331

Modified Date: \_\_\_\_\_

**WASTEWATER STREAMS AUTHORIZED FOR DISCHARGE**

WASTEWATER STREAM	APPROXIMATE FLOW(GPD)	YES	NO
A. Sanitary	<u>2,000</u>	<u>x</u>	_____
B. Boiler Blowdown	_____	_____	_____
C. Treated Stormwater from Diked/Bermed Areas	<u>53,000</u>	<u>x</u>	_____
D. Equipment Decon water from Investigation	<u>2,000</u>	<u>x</u>	_____
E. Other	_____	_____	_____

Permit may have additional wastewater streams added at a later date after results of any Environmental Investigation is received by this office. Each waste stream must be approved by this office and permit may be modified. All Equipment Cleaning water and water from dikes/ bermed areas must be treated by the same equipment the EPA used on discharge water.

**PART 1 - WASTEWATER DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

**A. LOCALLY DERIVED LIMITATIONS**

*The industrial user shall comply with the following locally derived effluent limitations effective as of: November 4, 2019*

MONITORING LOCATION: Sampling Manhole near Guard Gate

SAMPLE TYPE: 24 Hour Composite for all parameters except pH and SGT-HEM which will be grabs

PARAMETERS	SAMPLE FREQUENCY	LIMIT	PURPOSE
pH	Monthly	5.0-9.5 SU	Compliance
SGT-HEM	"	100 ppm	"
Total Cyanide	"	1.1 mg/l	"
Biochemical Oxygen Demand	"	250 mg/l	Surcharge
Total Suspended Solids	"	"	"
Total Phosphorus	"	6.0 mg/l	"
Total Mercury	"	0.001 mg/l	Compliance
Total Arsenic	"	0.5 mg/l	Compliance
Total Selenium	"	-----	Compliance <sup>1</sup>
Total Recoverable Phenolics	"	-----	Monitoring
Priority Pollutant PAH's (625)	"	-----	"
Total Ammonia	"	-----	"

SGT-HEM= Silica Gel Treated Hexane Extractable Materials  
Flow must be reported by the 10<sup>th</sup> day of the month for the preceding month.

*Note: The complete list of discharge limitations for dischargers to the Town Treatment Plant is contained in the Town's Local Law 2-2000. On the basis of the application and previous monitoring, parameters deemed applicable to this discharge have been excerpted and their limitations included above. The discharger should be aware that all other limitations apply and should consider all such limitations when considering process changes or plant modifications.*

Permit No: 331\_\_\_\_\_

Modified Date: \_\_\_\_\_

**PART 1 - WASTEWATER DISCHARGE LIMITATIONS AND MONITORING  
REQUIREMENTS ( Continued )**

**B. USEPA CATEGORICAL PRETREATMENT STANDARDS**

*The industrial user covered by this permit has been identified as may be subject to the following USEPA categorical pretreatment standard: 40 CFR Part,420 entitled, Iron & Steel, By-product Coke making, Merchant. Under those regulations, the permittee is required to meet the following limitations and perform the following monitoring:*

No discharge of Categorical wastewater is allowed by this permit.

Permit No.: 331

**PART II - SPECIAL CONDITIONS/COMPLIANCE SCHEDULE**

1. *The Industrial User shall develop, within 6 months of the effective date of this permit, an accidental spill prevention/slugs control/SPCC plan(s) to eliminate or minimize the accidental or slug discharge of pollutants into the sewer system, which could have an effect on the Town's treatment plant, sludge, or cause the Town to violate its SPDES permit.*

**PART III - REPORTING REQUIREMENTS**

1. *All Industries requiring submittal of self-monitoring reports (SMR's) must submit all laboratory results on all discharged samples. If a lab analysis was performed using an EPA approved test method, then those results must be included in the SMR. Persons signing SMR's must be a responsible company official, ie; owner, corporate manager, or supervise more than two hundred fifty (250) employees. Any of the above may appoint a company representative to sign SMR's but written notice must be supplied to this office authorizing said employee to sign.*

*The following statement will be required on all SMR's and baseline monitoring reports (BMR):*

***“ I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.”***

2. *If an Industrial User knows in advance of the need for a bypass, it shall submit prior notice to the Town, if possible at least ten days before the date of the bypass. An Industrial User shall submit oral notice of an unanticipated bypass or slug discharge that exceeds applicable Pretreatment Standards to the Town within 24 hours from the time the Industrial User becomes aware of the bypass or slug discharge. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the bypass or slug discharge. The written submission shall contain a description of the bypass or slug discharge and its cause; the duration of the bypass/ slug discharge , including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass/ slug discharge. The Town may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.*
3. *The Industrial User shall notify the Town 30 days prior to the introduction of new wastewater or pollutants or any substantial change in the volume or characteristics of the wastewater being introduced into the POTW from the User's industrial processes. The Industrial User Is required to notify the Town immediately of any changes to its facility affecting its potential for slug discharge.*



4. *Any upset experienced by the Industrial User of its treatment that places it in a temporary state of non-compliance with wastewater discharge limitations contained in this permit or other limitations specified in the Town's Ordinance shall be reported to the Town within 24 hours of first awareness of the commencement of the upset. Immediate resampling for the non-compliance pollutant shall begin. A detailed report shall be filed within 5 days.*
5. *The Industrial User is required to submit to the Town reports on the results of its sampling of the pollutants specified in Part I of this Permit. This report shall also contain monthly flows.*
6. *Analytical procedures must be performed in accordance with 40 CFR Part 136. Additional pollutants not contained in Part 136 must be performed using validated analytical methods approved by EPA (40 CFR 403.12 [g] [4]).*
7. *All self-monitoring reports shall be submitted to the following address by the 25<sup>th</sup> day of the month following the reporting period:*  
***Paul Morrow, Pretreatment Coordinator  
Wastewater Treatment Facility  
Two Mile Creek Road  
Tonawanda, New York 14150***

#### **PART IV - STANDARD CONDITIONS**

1. *The Industrial User shall comply with all the general prohibitive discharge standards in Article IV of the Local Law 2-2000.*
  - a. *BOD 250 mg/l, SS 250 mg/l, P 6 mg/l are not to be construed as discharge limits of the above pollutants but as a baseline for generating abnormal sewer charges. Permittees that sample more frequently than required for surchargeable parameters and have a greater than 30% variation in flow per reportable day will have a flow averaged used for surcharge calculation.*

#### **2. RIGHT OF ENTRY**

*The Industrial User shall, after reasonable notification by the Town, allow the Town or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the User, at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the Industrial User is operating any process which results in a process wastewater discharge to the Town's sewerage system.*

#### **3. RECORDS RETENTION**

*The Industrial User shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and all summaries thereof, relating to monitoring, sampling and chemical analysis made by or in behalf of the User in connection with its discharge.*

- a) *All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the Town shall be retained and preserved by the Industrial User until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.*

**4. CONFIDENTIAL INFORMATION**

*Except for data determined to be confidential under Article VII, Section 4 of the Town's Ordinance, all reports required by this permit shall be available for public inspection at the office of the Pretreatment Coordinator, Wastewater Treatment Facility, Two Mile Creek Road, Tonawanda, New York 14150.*

**5. RECORDING OF RESULTS**

*For each measurement or sample taken pursuant to the requirements of this permit, the user shall record the following information:*

- a) *The exact place, date and time of sampling;*
- b) *The dates the analyses were performed;*
- c) *The person(s) who performed the analyses;*
- d) *The analytical techniques or methods used, and*
- e) *The results of all required analyses.*
- f) *Where sanitary sewer discharge is measured by a mechanical or electronic device, accuracy of device shall be certified correct every year by the manufacturer*
- g) *Where sanitary sewer discharge is measured as consumed water, the water meter must be certified as per the following schedule: meter size 5/8 to 1 inch every ten years, meter size 1 inch to 4 inch every five years, and meter size 4 inches and larger every year.*

**6. DILUTION**

*No Industrial User shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit*

**7. PROPER DISPOSAL OF PRETREATMENT SLUDGES AND SPENT CHEMICALS**

*The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.*

**8. TOXIC SUBSTANCES**

*All waters shall be maintained free of toxic substances in concentrations that are toxic to or produce detrimental physiological responses in human, plant, animal, or aquatic life.*

**9. SIGNATORY REQUIREMENTS**

*All reports required by this permit shall be signed by a principal executive officer of the User, or his designee.*

**10. REVOCATION OF PERMIT**

*The permit issued to the Industrial User by the Town may be revoked when after inspection, monitoring or analysis it is determined that the discharge of wastewater to the sanitary sewer is in violation of Federal, State, or local laws, ordinances, or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to the permit application or any other required reporting form, shall be cause for permit revocation.*

**11. LIMITATIONS ON PERMIT TRANSFER**

*Transfer of permit. Industrial waste permits are issued to a specific user for a specific operation. In the event of any change in ownership of the industrial facility, the permittee shall notify the new owner of the existence of the permit by letter, a copy of which shall be forwarded to the Pretreatment Administrator 30 days prior to change of ownership. A new industrial waste permit must be issued to the new owner.*

**12. FALSIFYING INFORMATION OR TAMPERING WITH MONITORING EQUIPMENT**

*Knowingly making any false statement on any report or other document required by this permit or knowingly rendered any monitoring device or method inaccurate, may result in punishment under the criminal law of the Town, as well as being subjected to civil penalties and relief.*

**13. MODIFICATION OR REVISION OF THE PERMIT**

- a) *The terms and conditions of this permit may be subject to modification by the Town at any time as limitations or requirements as identified the Town's Ordinance, are modified or other just cause exists.*
- b) *This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.*
- c) *The terms and conditions may be modified as a result of EPA promulgating a new federal Pretreatment standard.*
- d) *Any permit modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.*

**14. DUTY TO REAPPLY**

*The Town shall notify a User sixty (60) days prior to the expiration of the User's Permit. Within thirty (30) days of the notification, the User shall reapply for re-issuance of the permit on a form provided by the Town.*

**15. SEVERABILITY**

*The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.*

**16. LIMITATIONS**

*The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or Local regulations.*

**17. ENFORCEMENT OF THE SEWER USE LAW AND PERMITS**

*The Town has developed and received USEPA approval of its Enforcement Response Plan which details the standard responses to be taken by the Town when it encounters various violations of the Sewer Use Law or the terms of this permit. Copies of this document are available at the office of the Pretreatment Administrator. Town of Tonawanda Sewer Use Ordinance 2-2000 Article VI 165-33 allows for punitive Administrative fines of up to \$5,000 per day. The Town of Tonawanda may also maintain an action or proceeding in the name of the Town of Tonawanda in a court of competent jurisdiction for injunctive relief of any violation Article 6 of the Town Sewer Use Ordinance 2-2000*

Footnote 1- The Town of Tonawanda Wastewater Treatment Plant SPDES permit states that the Pretreatment Program will, "Require through Permits each SIU to collect one 24 hour flow proportioned sample composite (where feasible) effluent sample every six months and analyze each of those samples for all priority pollutants that can reasonably be expected to be detectable in that discharge at levels greater than level found in domestic sewage." Upon historical data review analysis marked with this footnote were added to your permit to comply with our SPDES permit.

## C – Surface Water Sampling Data





Outfall 002																								
PARAMETER	FORMER TCC PERMIT REQUIREMENT			QUANTITY OR CONCENTRATION (USEPA SITE MANAGEMENT PERIOD)																				
	SAMPLE DATE >			23-Oct-18	23-Oct-18	Dec. 12 and 13, 2018	Feb. 5 and 6, 2019	Feb. 26 and 27, 2019	Mar. 19 and 20, 2019	Apr. 16 and 17, 2019	May 20 - 22, 2019	Jun. 18 - 20, 2019	Jul. 29 and 30, 2019	Aug. 28 and 29, 2019	Sept. 23 and 25, 2019		26-Nov-19	17-Dec-19	Summary					
	MINIMUM	MAXIMUM	UNITS	Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Maximum	Minimum	Average
Flow		Monitor Only	GPM	NS	1 inch		1 inch		1 inch		1 inch		1 inch		1 inch		NM					0	0	0
Flow		Monitor Only	GPD	NS																		0	0	0
pH	6.0	9.0	S.U.	7.99	6.92	8.2	7.1	7.2	6.7	7.4	7.8	7.3									8.2	6.7	7.4	
Temperature		Not on TCC	°F	50.9		48.7	NM	50.9	47.1	64.2		70.9									70.9	47.1	55	
Total Suspended Solids		50	mg/l	NS	<10U	50	11	11	10 U	10 U	10 U										50	11	24	
Iron		4	mg/l	0.1	0.74	3.44	1.35	0.79	0.759	0.702	0.469	0.860	0.187	0.0595				1.02	0.196	0.459	0.498	3.44	0.060	0.775
Cyanide		0.1	mg/l	<0.01U	0.021L													0.042	.010U	0.022	0.022	0.042	0.022	0.0287
Copper		0.2	mg/l	<0.01U	NS													0.010U	.020U					
Nickel		0.5	mg/l	<0.02U	0.042													0.020U	.020U		0.042	0.042	0.042	
Zinc		0.5	mg/l	<0.02U	0.142													0.406	0.0207	0.035	0.0349	0.406	0.0207	0.12772
Surfactant		0.5	mg/l		<0.10U															U				
Aluminum		1	mg/l	0.25	0.147													0.247	.100U	0.16	0.164	0.25	0.15	0.19
Manganese		1	mg/l	0.047	0.818													0.289	0.126	0.252	0.253	0.818	0.047	0.298

Outfall 004																								
PARAMETER	FORMER TCC PERMIT REQUIREMENT			QUANTITY OR CONCENTRATION (USEPA SITE MANAGEMENT PERIOD)																				
	SAMPLE DATE >			23-Oct-18	23-Oct-18	Dec. 12 and 13, 2018	Feb. 5 and 6, 2019	Feb. 26 and 27, 2019	Mar. 19 and 20, 2019	Apr. 16 and 17, 2019	May 20 - 22, 2019	Jun. 18 - 20, 2019	Jul. 29 and 30, 2019	Aug. 28 and 29, 2019	Result/Duplicate									
	MINIMUM	MAXIMUM	UNITS	Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		Result/Duplicate		NMR						
Flow (May 1 to Oct. 31)		Monitor Only	GPM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM							
Flow (May 1 to Oct. 31)		Monitor Only	GPD																					
Temperature (First Bi-monthly) (May 1 to Oct. 31)		Monitor Only	°F	57	41	43.2	39.9	49.1	50.9	66.5	72.5	70.9	71.3	73.9										
Temperature (Second Bi-monthly) (May 1 to Oct. 31)		Monitor Only	°F																					
Mercury		50	ng/l		<50U				50U															
pH		Monitor Only	S.U.	8.44		6.7	7.2	7.5	7.1	7.6	7.7	7.3	7.1	7.4										

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Notes:
- 1 mg/l - 8.345 x 10<sup>-6</sup> pounds per gallon
  - Detection Limit greater than former discharge standard.
  - Calculated Value

D – Tanks, Buildings and Structures





Rail Cars						
Designation	Type	Volume	Former Contents	Location (Note: Location at time of Identification, Some have been removed)		
RC01	Tank		Unknown	X33	Along Southern Property Line, East of Wastewater Treatment	
RC02	Tank		Unknown	X33	Along Southern Property Line, East of Wastewater Treatment	
RC03	Tank		Unknown	Y32	Along Southern Property Line, East of Wastewater Treatment	
RC04	Tank		Empty	AP22	Along Southern Border, south of east end of Thawing Shed, Partially buried	
RC05	Gondola		Empty	AQ14	East End, Near 110	
RC06	Gondola		Empty	AP14	East End, Near 110	
RC07	Gondola			AG15	South Side of Thawing Shed	
RC08	Gondola			AH15	South Side of Thawing Shed	
RC09	Gondola			AI15	South Side of Thawing Shed	
RC10	Tank		Liquid, suspected rain water	AS3	By Gas Ball	
RC11	Gondola			BA2	Northeast portion of Site, Northwest of Site 110	
RC17	Tank (Stainless Steel Lined?)		North Side, Lined with SS, Was Spray Oil Tank	M2	North Site Boundary, North of Warehouse	
RC18	Locomotive			L2	North, Near Maintenance Shop	
RC28	Locomotive			K3	North, Near Maintenance Shop	
RC29	Gondola			D14	At Coke Truck Loading Area	
RC30	Gondola			Z11	Near Coke Dock	

ST Tanks	DEC No.	Type		Former Contents		Location
Designation						
ST01		Horizontal	10 Feet Diameter by 25 Feet Long	Unknown, Currently contains liquid to a depth of 1/3 of the diameter of the tank.	G11	Southern Side of Light Oil Production
ST02		Horizontal	10 Feet Diameter by 25 Feet Long	"Out of Service" Empty	G11	Southern Side of Light Oil Production
ST03		Horizontal	33000	Out of Service	L7	Southeast of Light Oil Building
ST04	PBS - B01	Horizontal	33000	Diesel	M7	Southeast of Light Oil Building
ST05	PBS - B10	Vertical	967 Gallons	Gasoline	M8	Southeast of Light Oil Building
ST06	CBS - B03	Horizontal	500	Sealing Mud (Clay and anti-freeze)	R10	Near Coal Bin and Charging Building
ST07	PBS - D02	Horizontal (Former UST)	10000	Waste Oil	P13	Near Coal Breaking Building
ST08		Poly Tank	1900 Gallons	<1 foot in bottom	AA8	South of Boiler House
ST09	CBS - I03	Fiberglass Caustic Tank	<1,000 Gallons	Caustic	AD6	North of Boiler House next to Stacks
ST10		Steel	4000	Removed Before Property Transfer	AC5	North of Boiler House immediately north of Stacks
ST11	PBS - E02	Double-walled Steel	1000	Diesel - NOCO Tank Leased to USEPA - Removed	Y2	North Property Line, North of Fire Water Tank
ST12	PBS - K01	Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST13	PBS - K02	Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST14	PBS - K03	Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST15	PBS - K04	Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST16	PBS - K05	Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST17		Oil Storage, Horizontal	275 Gallons	Contents recycled by NOCO	I5	Oil House
ST18		Oil Storage, Horizontal	275	Contents recycled by NOCO	I5	Oil House
ST19		Oil Storage, Horizontal	275	Contents recycled by NOCO	I5	Oil House
ST20		Water Treatment, Vertical AST	10000	Out of Service in 2010, Unknown	G32	Water Treatment, Southwest Corner of Site
ST21		Water Treatment, cut to 10 feet, AST	4000000	Fuel converted to Water Treatment	F34	Water Treatment, Southwest Corner of Site
ST22		EQ Tank	6,000,000 Gallons	Fuel converted to Water Treatment	I34	Water Treatment, Southwest Corner of Site
ST23		Water Treatment	6,000,000 Gallons	Some Sludge and Tar (1 Foot each)	K34	Water Treatment, Southwest Corner of Site
ST24		Water Treatment	500000	Out of Service	M33	Water Treatment, Southwest Corner of Site
ST25		Tar		Unknown	L7	Unknown, Tar and Liquor
ST26		Tar		Unknown	M7	Unknown, Tar and Liquor
ST27		Tar		Empty	U5	North of Tar Handling, not installed

Table D-1  
Tanks and Process Vessels  
Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

CONFIDENTIAL

PT Tanks	Designation	Type	Volume	Former Contents		Location
	PT01	Horizontal	8 Feet Diameter by 27 Feet Long	Unknown	E9	Newer Tank, Southwest of Electrical Department
	PT02	Vertical	30 Feet Diameter by 30 Feet Tall	Weak Ammonia Liquor	G10	Center of Light Oil Production Area
	PT03	Vertical	30 Feet Diameter by 30 Feet Tall	Weak Ammonia Liquor	H10	Center of Light Oil Production Area
	PT04	Horizontal	10 Feet Diameter by 30 Feet Long	Light Oil (benzene, toluene, and xylenes)	I8	Southwest of Offices and Breakroom, Northeast corner of Light Oil Production
	PT12	Light Oil Decanter		Unknown	I9	Immediately South of PT04
	PT13	Horizontal		Unknown - "Muck Tank" on 2010 PFD	I9	Immediately South of Light Oil Decanter
	PT05	Horizontal	10 Feet Diameter by 25 Feet Long		U7	Tar Handling Area
	PT06	Horizontal	10 Feet Diameter by 30 Feet Long		U7	Tar Handling Area
	PT07	Horizontal	10 Feet Diameter by 30 Feet Long	Tar, Primary Unloading for Offsite Use	S6	Tar Handling Area
	PT08	Horizontal	10 Feet Diameter by 30 Feet Long	Tar, Storage for High Volume Production	S6	Tar Handling Area
	PT11	Rectangular		Old Tar Decanter	T8	Tar Handling Area
	PT14	Rectangular		Tar Decanter	T8	Tar Handling Area
	Water Treatment					
	WT1	Vertical		Water Treatment	Z6	Boiler House
	WT2	Vertical		Water Treatment	Z6	Boiler House
	WT3	Vertical		Water Treatment	Z6	Boiler House
	WT4	Vertical		Water Treatment	Z6	Boiler House
	Quench and Fire Protection Water					
	FP01	Elevated Tank on Tower		Empty, Former Quench Water	H11	Light Oil Production Area
	FP02	Standpipe		Empty, Fire Protection, River Water	Y5	North of Boiler House
	FP03	Elevated Tank on Tower		Empty, Former Quench Water	AC9	East Of Battery No. 2
	Gas Handling					
	GH1	Gas Holder "Gas Ball"		Empty	AN6	Purged with Nitrogen, Bottom Valve Left Open.
	Hot Water Tank					
	HW1	Horizontal		Unknown	E20	North end of Locker Building

Notes:

1. The designations ST- and PT- we assigned before the previous functions of the vessels were known. They do not necessarily indicate a Storage Tank or Process Tank.
2. PBS - Petroleum Bulk Storage Tank on the NYSDEC PBS Number 9-030058
3. CBS - Chemical Bulk Storage Tank on the NYSDEC CBS Number 9-000065
4. The Grid References are for ease of locating Designated Vessels. Some vessels cover more than one grid reference.

Printed 5/16/2020

CONFIDENTIAL

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses	
		Former	Current
	3875 River Road		
	Brownfield Cleanup Program Site Only		
	Production Area		
BCP-1	Mansion	Offices	Empty
BCP-2	Large Stormwater Sump	Stormwater Management	Stormwater Management
BCP-3	Office Trailer	Offices	None
BCP-4	Maintenance Shop (a/k/a Roundhouse)	Locomotive and Heavy Equipment Repair	Maintenance, limited storage
BCP-5	Maintenance Shop Pole Building (Annex to Maintenance Shop)	Storage	Container Accumulation by USEPA and RITC
BCP-6	Oil House	Oil Storage	Oil Storage
BCP-7	Instrument Shop	Instrument Repair	None
BCP-8	Laboratory/Electrical Department/Machine Shop (Sections have a mezzanine)	Laboratory, Offices, Machine Shop, Break Room	Pat and Dale's Office; Inventum Office
BCP-9	Welding Shop	Welding Shop	None
BCP-10	Buildings in Light Oil Production Area	Pump and Motor Room	None
BCP-11	Secondary Containment in Light Oil Production Area		
BCP-12	West Quench Tower	Quenching Coke	None
BCP-13	West Water Tower	Quench Water Storage	Empty
BCP-14	Light Oil Building	Light Oil Processing	None
BCP-15	Gas and Cylinder Building	Gas Bottle Storage	May have left over bottles
BCP-16	Storage Building Unknown - "The Gray Shed"	Unknown	Drum and Tote Storage by USEPA
BCP-17	West Flare	Flaring excess COG	None
BCP-18	Warehouse	Warehouse	Warehouse
BCP-19	Former "By-Products" Area	Multiple Towers, overhead and underground piping	None
BCP-20	Exhauster Building	COG Collection and Distribution	None
BCP-21	Sump #1	Collection of Tar and Liquor from Drip Legs	Filled with stone by the USEPA
BCP-22	Sump #2	Collection of Tar and Liquor from Drip Legs	Filled with stone by the USEPA

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

			Uses	
			Former	Current
BCP-23	Sump #3	Collection of Tar and Liquor from Drip Legs	Filled with stone by the USEPA	
BCP-24	Sump #4	Collection of Tar and Liquor from Drip Legs	Filled with stone by the USEPA	
BCP-25	Tar Management Area and Control Building	Pump Control	None	
BCP-26	Tar Decanter	Separation of Light Oil from Tar	May be holding Tar Decanter Sludge	
BCP-27	Old Tar Decanter	Separation of Light Oil from Tar	Cleaned decades ago	
BCP-28	Primary Cooler	COG Cooling	None	
BCP-29	Secondary Cooler	COG Cooling	None	
BCP-30	Ammonia Scrubber - West			
BCP-31	Ammonia Scrubber - East			
BCP-32	Gas Scrubber #1			
BCP-33	Gas Scrubber #2			
BCP-34	Gas Scrubber #3			
BCP-35				
BCP-36				
BCP-37				
BCP-38	Pump House	Pumping of Wash Oil and cooling	None	
BCP-39	Electrical Room	Controls for Cooling	None	
BCP-40	Former Diesel Generator	Back-up Power	Removed	
BCP-41	Transformers south of former diesel generator			
BCP-42	Railroad Scale House	Scale House	None	
BCP-43	Boiler Building	Boiler House	None	
BCP-44	Amonia Still	Boiler House	None	
BCP-45	Boiler - Circa 1940 Boiler	Boiler House	None	
BCP-46	Boiler - New #1	Boiler House	None	
BCP-47	Boiler - "New" - #2	Boiler House	None	
BCP-48	Stacks			
BCP-49	Northeast	Stack for Boiler House	None	
BCP-50	Northwest	Stack for Boiler House	None	
BCP-51	South	Stack for Battery Combustion	None	
BCP-52	Fire Water Standpipe	Fire Suppression Water Storage	Empty	
BCP-53	West Quench Tower	Coke Quenching	None	
BCP-54	West Water Tower	Quench Water Storage	Empty	

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses		
		Former	Current	
BCP-55	Coal Bin and Charging Building	Coal Hoppers, Larry Car Loading, Battery Control	Not Usable	
BCP-56	Coke Oven Battery No. 2	Coke Making	Not Usable	
BCP-57	Pusher	Pushing Coke from Ovens	None	
BCP-58	Coke Screening and Loading	Coke Sizing, Preparation, and Rail Loading	Not Usable	
BCP-59	Coal Preparation (Breaking Building)	Crushing and Coal Sizing	Not Usable	
BCP-60	Coke Conveyor, Truck and Rail Loading Area	Conveyor	Collapsing	
BCP-61	Office Trailer 2	Offices	None	
BCP-62	Laboratory 2	Lab	None	
BCP-63	Coke Dock	Coke Loading	None	
BCP-64	Conveyor System	Coke Loading	None	
BCP-65	Thawing Shed	Coal Thawing	None	
BCP-66	Compressor Building	COG Movement	None	
	Pile of Siding on Ground North of Compressor Building			
BCP-67	East Flare	Flaring excess COG	None	
BCP-68	Purifiers	Gas Purification	Not Usable	
BCP-69	Stacker/Reclaimer	Coke Management	None	
BCP-70	Guard Shack	Guard Shed	Guard Shed	
BCP-71	Scale	Scale	Scale	
BCP-72	Coke Truck Loading Area	Unknown	Loading and Balancing Loads	
BCP-73	Electrical Building	High Voltage	Could be Plant Feed	
BCP-74	Main Office Building	Offices	Offices	
BCP-75	Sample Shed - POTW	Unknown	Sampling	
BCP-76	Employee Showers Locker Room	Locker Rooms and Showers	Empty	
BCP-77	Equipment/Controls at Waste Water Treatment	Electrical and Instrumentation	Live	
BCP-78	Coal Conveyor/Transfer Building	Coal Distribution and collection	None	
BCP-79	Stacker Reclaimer	Coal Distribution and collection	None	
BCP-80	Pipe Racks - Throughout	Tar, Light Oil and Water Conveyance	None	
BCP-81	Abandoned Collection Header (Northeast Corner, North of Site 110)	Collection Header	None	
BCP-82	Abandoned Coal Conveyor Tunnel (Under Coal Yard)	Coal Conveyance	None	
4008 River Road				
4008 - 1	River Road Utility Bridge	Pipe Support	Pipe Support	
4008 - 2	Old River Outfall/Intake	Water and discharge		

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses		Condition
		Former	Current	
3800 River Road				
Building Number				
108 - 1	Pump House (3 stories including roof mounted transformers [National Grid])	Pumping River Water	Idle	Good
108 - 2	Propane Storage Building	Fuel for Furnaces	Empty	Poor
108 - 3	Coal Unloading Equipment	Coal Unloading	Abandoned	Poor
108 - 4	Coal Conveyor and piping	Coal movement to plant, support of water and electric utilities.	Support of water and electric utilities.	Poor, damaged sections, vegetation growing through structure.
108 - 5	Metal Building	Unknown, Likely transfer point for conveyor	None	Poor

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses		Condition
		Former	Current	
	Outdoor Equipment			
108 - 6	Transformers within the fence at pumphouse	Transformer	None	Unknown
108 - 7	Transformers outside (north) of the fence at pumphouse)	Transformer	None	Unknown
108 - 8	Transformer south of pumphouse	Transformer	Unknown	Unknown
108 - 9	Possible pole mounted transformers	Transformer	Unknown	Unknown
108 - 10	Tunnel	Coal and Utility	Unknown	Unknown



Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses		Condition
		Former	Current	
3875 River Road				
Site 109				
109 - 1	Small Guard Shack	Guard Shack, Gate Controls	Abandoned	Fair
109 - 2	Concrete Settling Basin	Oil Containment and Treatment	Stormwater Containment and Settling	Excellent
109 - 3	Sample Equipment Enclosure	Sample Equipment weather enclosure	Sample Equipment weather enclosure	Good
109 - 4	Coal Conveyor at Tunnel	Coal movement to plant, support of water and electric utilities.	Support of water and electric utilities.	
	Occupied Gurad Shack (BCP-70)			

Former Tonawanda Coke Plant Site  
Town of Tonawanda, New York

		Uses		Condition
		Former	Current	
3875 River Road				
Site 110				
110 - 1	Coke Breeze	Transportation	Storing Bags of Coke Breeze	No longer road worthy
110 - 2	Furniture	Transportation	Storing Old Office Furniture	No longer road worthy
110 - 3	Fire Truck	Transportation	Fire Equipment	No longer road worthy
	Pickup Truck Remains	Transportation	Scrap	No longer road worthy
	Golf Cart Remains	Transportation	Scrap	No longer road worthy
	Heavy Equipment Tires	Transportation	Scrap	No longer road worthy
	Over the Road Trailers	Transportation	Scrap	No longer road worthy

E - Inspection Checklists





Frequency Daily	Description	Personnel	Observations	Actions Required
Daily Inspection Date: _____				
	Sign In			
	Guard Shack (Building 70)			
	HASP Review			
	Site Inspection			
	Site Roads Trafficable			
	Fence Intact			
	Oil Booms			
	Treatment System			
	Check Secondary Containment (Building 18)			
	Liquid Volume			
	Tank Heater Operating/Effective			
	Check Hoses			
	Weather Station and Perimeter Air Monitoring			
	Operating			
	No Alarm Conditions			
	No obstructions			
	Access Road			
	Snow			
	Ice			
	Pump in Tar Management Area			When weather is below 35 degrees F
	Pump Operating			
	Frozen Piping or Hoses			
	Stormwater Discharge Monitoring			During Precipitation Event and through the Following Day
	Outfall 001 - Settling Ponds			
	Flow (Yes/No)			
	Flowmeter Reading			
	Outfall 002 - EQ Tanks (Grid D31)			
	Flow (Yes/No)			
	Flowmeter Reading			
	Outfall 004 - River Road			
	Flow (Yes/No)			
	Flowmeter Reading			



Frequency Weekly	Description	Personnel	Date	Observations	Actions Required
	Tanks and Secondary Containments Inspection				
	See Tank Inspection Checklist				
	Maintain Water Levels in Secondary Containments and Water Accumulation Areas				
	Weak Ammonia Tank Area (ST01, ST02, PT03, PT04) (Grids F10 - I11)				
	Light Oil Area (PT04, P12, PT13) (Grids H8 - I9)				
	Fuel Storage (ST03, ST04, ST05) (Grids L7 - M8)				
	Tar Management "The Moat" (Grid S6 - U7)				
	Lid Seal (ST06) (R10)				
	Wash Oil (ST07) (P13)				
	Mixing Pad				
	Water Level Below Top of Wall (Freeboard)				
	Runoff Directed away from Mixing Pad?				
	Storm Water Retention Ponds				
	Check Outlets for Debris				
	Booms/Skim Lighter than Water Liquids				
	Inspect Container Storage Areas				
	Buildings 4, 6, and 16				
	Grid Q3				
	Inspect Tank Covers				
	Lid Seal (ST06) (R10)				
	Wash Oil (ST07) (P13)				



Frequency Monthly	Description	Personnel	Date	Observations	Actions Required
	Flow Measurements				
	First Day of Month				
	Last Day of Month				
	Critical Facility Infrastructure				
	Water Lines				
	Flushable Toilets				
	HVAC				
	Building Conditions				
	Breaker Building (Building 63)				
	Coal Charging (Building 55)				
	Coke Loading (Building 58)				
	Sumps and Pits				
	Fencing in Place				
	Water Levels				
	Pond Water Levels				
	Sedimentation Pool #001				
	Sedimentation Pool #002				
	Sedimentation Pool #003				
	Stormwater Detention Basin				
	Concrete Lined Settling Pond				
	Outlets freely draining				
	Standing Water				
	Mixing Pad				
	Coal Yard (North)				
	Coal Yard South				
	Coke Yard				
	Maintain Water Levels in Secondary Containments and Water Accumulation Areas				

Stormwater Discharge Monitoring Log Outfall 001  
 Riverview Innovation & Technology Campus, Inc.  
 Town of Tonawanda, New York



Discharge to Outfall 001	Personnel	Date	Time		Meter Reading		Flow Rate (g.p.m)	Volume (Gallons)	pH	Sample No.	Observations
			Start	Stop	Start	Stop					
First Day of Month											
Last Day of Month											

## F – Erosion and Sediment Controls Specifications





# STANDARD AND SPECIFICATIONS FOR STRAW BALE DIKE



## **Definition**

A temporary barrier of straw, or similar material, used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## **Purpose**

The purpose of a bale dike is to reduce runoff velocity and effect deposition of the transported sediment load. Straw bale dikes have an estimated design life of three (3) months.

## **Conditions Where Practice Applies**

The straw bale dike is used where:

1. No other practice is feasible.

2. There is no concentration of water in a channel or other drainage way above the barrier.
3. Erosion would occur in the form of sheet erosion.
4. Length of slope above the straw bale dike does not exceed these limits.

Constructed Slope	Percent Slope	Slope Length (ft.)
2:1	50	25
3:1	33	50
4:1	25	75

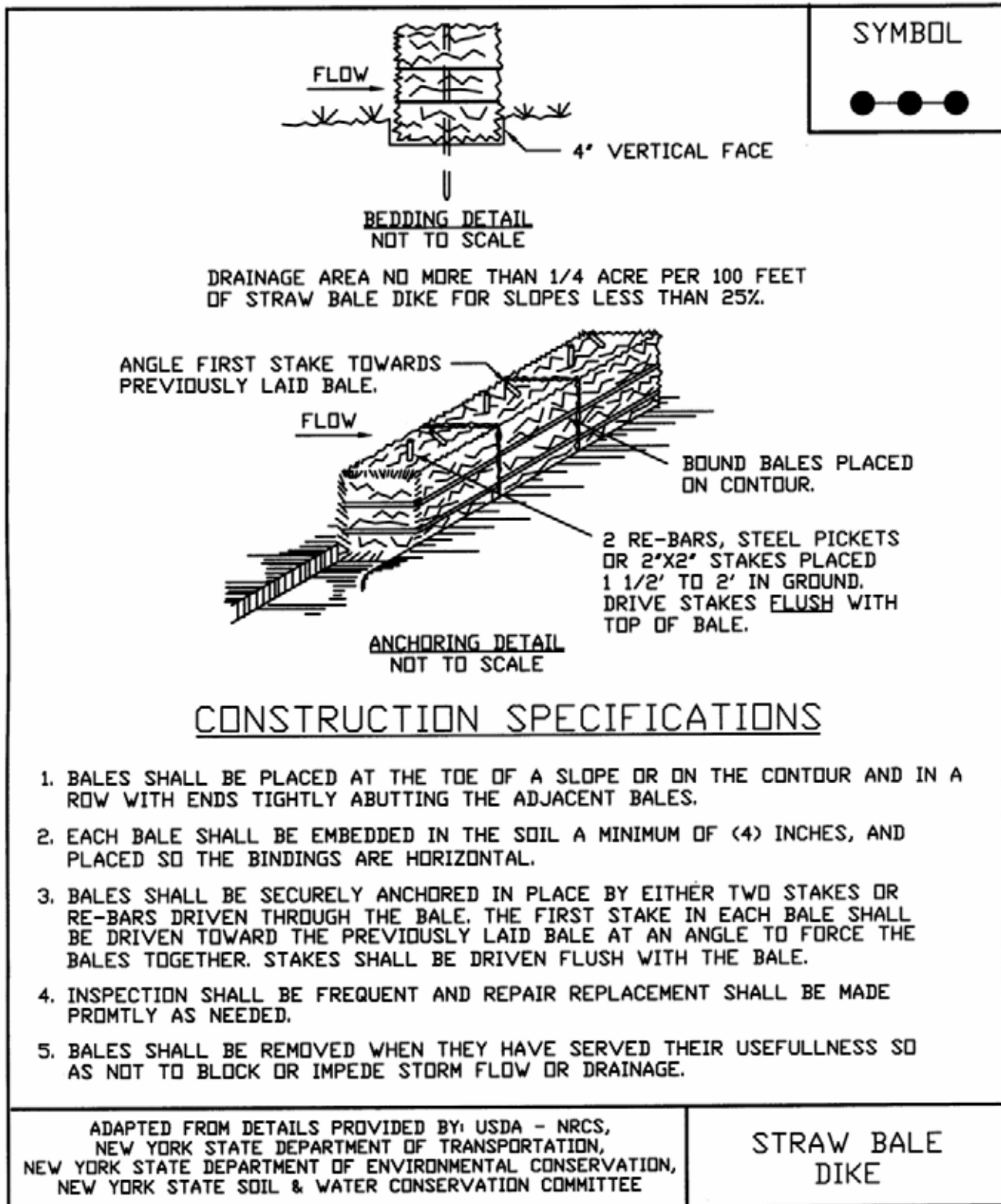
Where slope gradient changes through the drainage area, steepness refers to the steepest slope section contributing to the straw bale dike.

The practice may also be used for a single family lot if the slope is less than 15 percent. The contributing drainage areas in this instance shall be less than one quarter of an acre per 100 feet of fence and the length of slope above the dike shall be less than 200 feet.

## **Design Criteria**

The above table is adequate, in general, for a one-inch rainfall event. Larger storms could cause failure of this practice. Use of this practice in sensitive areas for longer than one month should be specifically designed to store expected runoff. All bales shall be placed on the contour with cut edge of bale adhering to the ground. See Figure 5A.7 on page 5A.18 or details.

**Figure 5A.7  
Straw Bale Dike**



# STANDARD AND SPECIFICATIONS FOR SILT FENCE



## **Definition**

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## **Purpose**

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used (approximately one year).

## **Conditions Where Practice Applies**

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence placed on a slope are:

Slope Steepness	Maximum Length (ft.)
2:1	25
3:1	50
4:1	75
5:1 or flatter	100

2. Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, with maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier.

## **Design Criteria**

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

## **Criteria for Silt Fence Materials**

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682

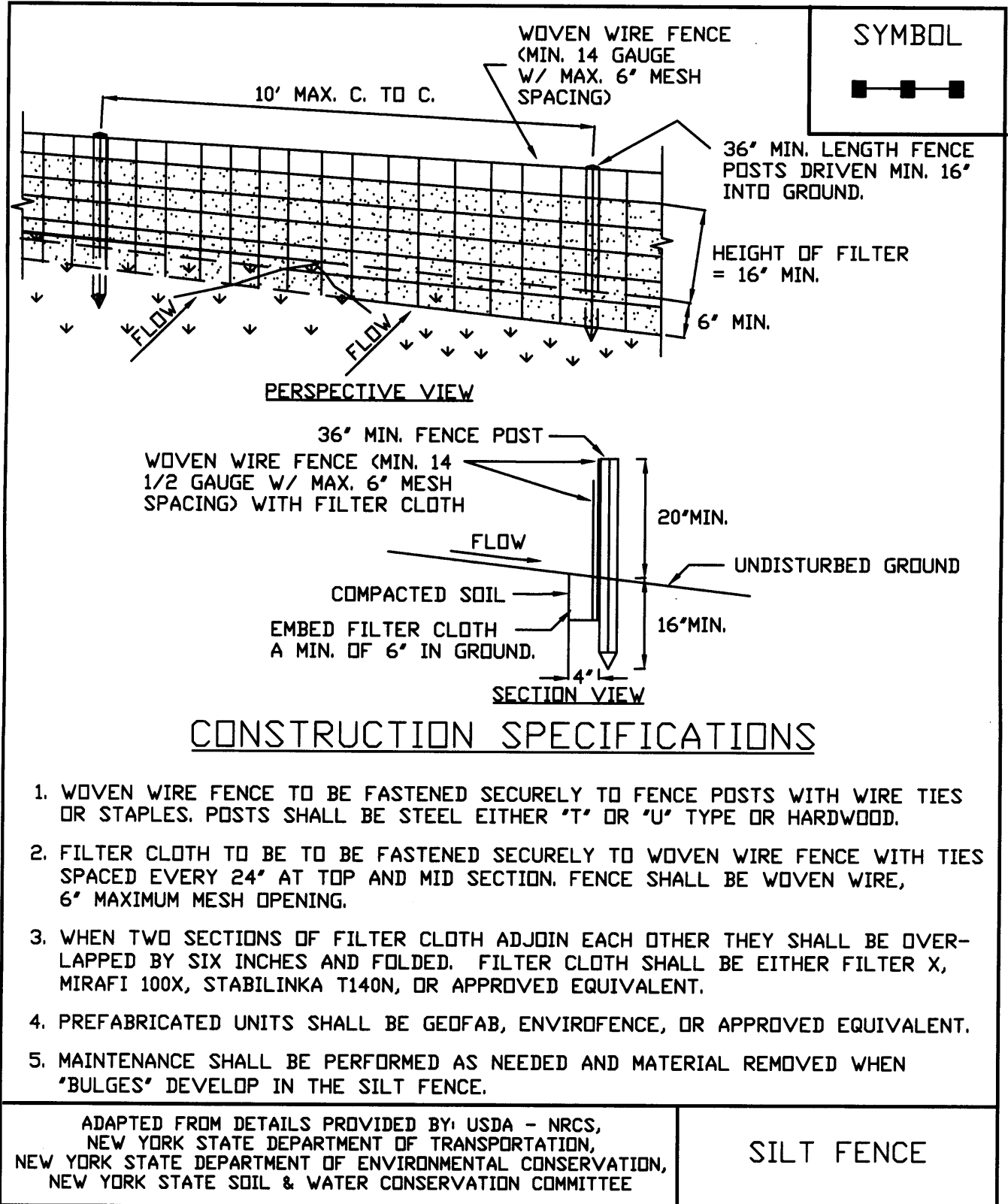
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

**Figure 5A.8**  
**Silt Fence**





# STANDARD AND SPECIFICATIONS FOR CHECK DAM



## **Definition**

Small barriers or dams constructed of stone, bagged sand or gravel, or other durable material across a drainage way.

## **Purpose**

To reduce erosion in a drainage channel by restricting the velocity of flow in the channel.

## **Condition Where Practice Applies**

This practice is used as a temporary or emergency measure to limit erosion by reducing velocities in small open channels that are degrading or subject to erosion and where permanent stabilization is impractical due to short period of usefulness and time constraints of construction.

## **Design Criteria**

**Drainage Area:** Maximum drainage area above the check dam shall not exceed two (2) acres.

**Height:** Not greater than 2 feet. Center shall be maintained 9 inches lower than abutments at natural ground elevation.

**Side Slopes:** Shall be 2:1 or flatter.

**Spacing:** The check dams shall be spaced as necessary in the channel so that the crest of the downstream dam is at the

elevation of the toe of the upstream dam. This spacing is equal to the height of the check dam divided by the channel slope.

Therefore:

$$S = h/s$$

Where:

S = spacing interval (ft.)

h = height of check dam (ft.)

s = channel slope (ft./ft.)

Example:

For a channel with a 4% slope and 2 ft. high stone check dams, they are spaced as follows:

$$S = \frac{2 \text{ ft.}}{.04 \text{ ft./ft.}} = 50 \text{ ft.}$$

**Stone size:** Use a well graded stone matrix 2 to 9 inches in size (NYS – DOT Light Stone Fill meets these requirements).

The overflow of the check dams will be stabilized to resist erosion that might be caused by the check dam. See Figure 5A.9 on page 5A.24 for details.

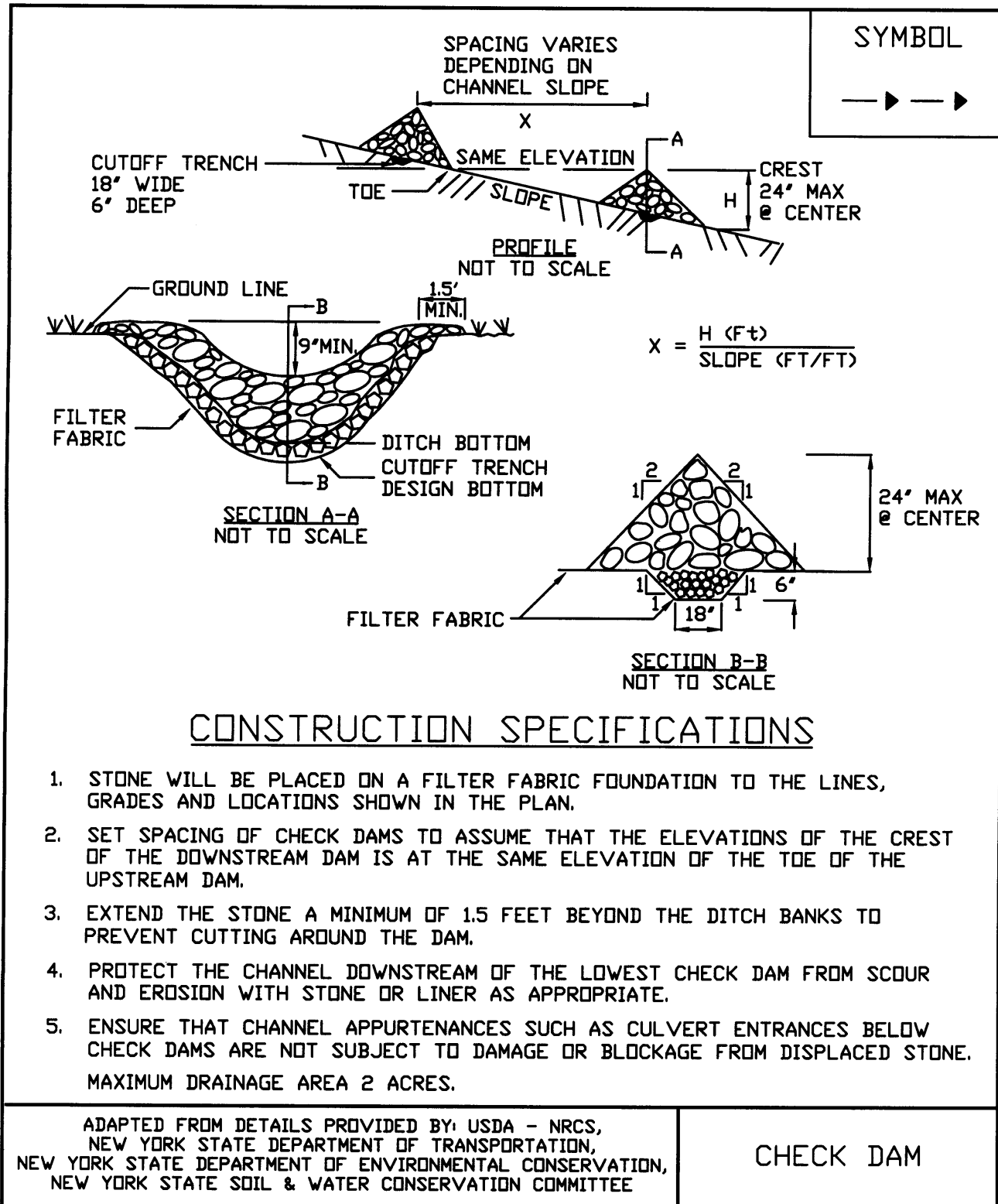
Check dams should be anchored in the channel by a cutoff trench 1.5 ft. wide and 0.5 ft. deep and lined with filter fabric to prevent soil migration.

## **Maintenance**

The check dams should be inspected after each runoff event. Correct all damage immediately. If significant erosion has occurred between structures, a liner of stone or other suitable material should be installed in that portion of the channel.

Remove sediment accumulated behind the dam as needed to allow channel to drain through the stone check dam and prevent large flows from carrying sediment over the dam. Replace stones as needed to maintain the design cross section of the structures.

**Figure 5A.9  
Check Dam**





# STANDARD AND SPECIFICATIONS FOR ROCK DAM



## Definition

A rock embankment located to capture sediment.

## Purpose

To retain sediment on the construction site and prevent sedimentation in off site water bodies.

## Conditions Where Practice Applies

The rock dam may be used instead of the standard sediment basin with barrel and riser. The rock dam is preferred when it is difficult to construct a stable, earthen embankment and rock materials are readily available. The site should be accessible for periodic sediment removal. This rock dam should not be located in a perennial stream. The top of the dam will serve as the overflow outlet. The inside of the dam will be faced with smaller stone to reduce the rate of seepage so a sediment pool forms during runoff events.

## Design Criteria

**Drainage Area:** The drainage area for this off stream structure is limited to 50 acres.

**Location:** The location of the dam should:

- provide a large area to trap sediment
- intercept runoff from disturbed areas
- be accessible to remove sediment
- not interfere with construction activities

**Storage Volume:** The storage volume behind the dam shall be at least 3,600 cubic feet per acre of drainage area to the dam. This volume is measured one foot below the crest of the dam.

## **Dam Section:**

Top Width	5 feet minimum @ crest
Side Slopes	2:1 upstream slope 3:1 downstream slope
Height	6' max to spillway crest

**Length of Crest:** The crest length should be designed to carry the 10 yr. peak runoff with a flow depth of 1 foot and 1 foot of freeboard.

Rock at the abutments should extend at least 2 feet above the spillway and be at least 2 feet thick. These rock abutments should extend at least one foot above the downstream slope to prevent abutment scour. A rock apron at least 1.5 feet thick should extend downstream from the toe of the dam a distance equal to the height of the dam to protect the outlet area from scour.

**Rock Fill:** The rock fill should be well graded, hard, erosion resistant stone with a minimum  $d_{50}$  size of 9 inches. A "key trench" lined with geotextile filter fabric should be installed in the soil foundation under the rock fill. The filter fabric must extend from the key trench to the downstream edge of the apron and abutments to prevent soil movement and piping under the dam.

The upstream face of the dam should be covered with a fine gravel (NYS-DOT #1 washed stone or equal) a minimum 3 feet thick to reduce the drainage rate.

**Trapping Efficiency:** To obtain maximum trapping efficiency, design for a long detention period. Usually a minimum of eight (8) hours before the basin is completely drained. Maximize the length of travel of sediment laden water from the inlet to the drain. Achieve a surface area equal to 0.01 acres per cfs (inflow) based on the 10-year storm.

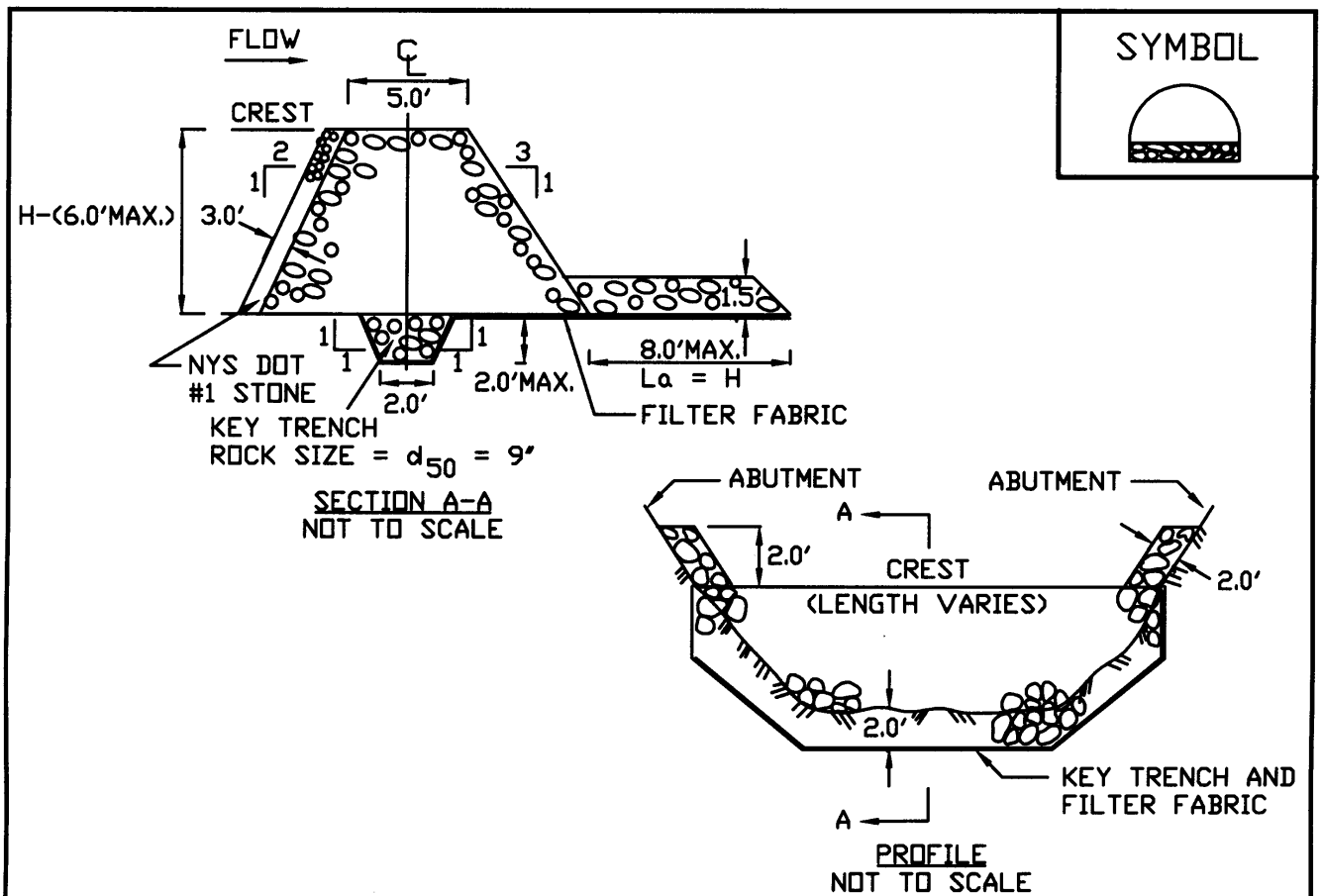
See Figure 5A.10 on page 5A.26 for details.

## Maintenance

Check the basin area after each rainfall event. Remove sediment and restore original volume when sediment accumulates to one-half the design volume. Check the structure for erosion, piping, and rock displacement after each significant event and replace immediately.

Remove the structure and any sediment immediately after the construction area has been permanently stabilized. All water should be removed from the basin prior to the removal of the rock dam. Sediment should be placed in designated disposal areas and not allowed to flow into streams or drainage ways during structure removal.

**Figure 5A.10  
Rock Dam**



### CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER THE ROCK DAM SHALL BE CLEARED AND STRIPPED OF ROOTS AND OTHER OBJECTIONABLE MATERIAL. THE RESERVOIR SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT REMOVAL.
2. DIMENSIONS SHOWN ARE MINIMUM. TRENCH SHALL BE EXCAVATED FROM ABUTMENT TO ABUTMENT ON THE DAM CENTERLINE. FILTER FABRIC SHALL BE PLACED FROM UPSTREAM EDGE OF KEYTRENCH TO DOWNSTREAM EDGE OF APRON. JOINTS WILL LAP A MINIMUM OF 1 FT. WITH UPSTREAM STRIP ON TOP.
3. CONSTRUCT THE ROCK EMBANKMENT TO THE DIMENSIONS SHOWN ON THE DRAWING. ROCK ABUTMENTS SHALL BE MAINTAINED 2 FT. ABOVE THE CREST.
4. THE ROCK DAM SHALL BE CONSTRUCTED PRIOR TO CLEARING THE BASIN AREA. STABILIZE ALL DISTURBED AREAS, EXCEPT THE BASIN AREA, WITH TEMPORARY SEEDING.
5. FENCES AND WARNING SIGNS SHOULD BE PLACED AS APPROPRIATE.

MAXIMUM DRAINAGE AREA: 50 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,  
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,  
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,  
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

ROCK DAM

# STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION



## Definition

A temporary, somewhat permeable barrier, installed around inlets in the form of a fence, berm or excavation around an opening, trapping water and thereby reducing the sediment content of sediment laden water by settling.

## Purpose

To prevent heavily sediment laden water from entering a storm drain system through inlets.

## Conditions Where Practice Applies

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a trapping device, and watertight blocking of inlets is not advisable. **It is not to be used in place of sediment trapping devices.** This may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with low slope angle.

## Types of Storm Drain Inlet Practices

There are four (4) specific types of storm drain inlet protection practices that vary according to their function, location, drainage area, and availability of materials:

- I. Excavated Drop Inlet Protection
- II. Fabric Drop Inlet Protection
- III. Stone & Block Drop Inlet Protection
- IV. Curb Drop Inlet Protection

## Design Criteria

Drainage Area – The drainage area for storm drain inlets shall not exceed one acre. The crest elevations of these practices shall provide storage and minimize bypass flow.

### **Type I – Excavated Drop Inlet Protection**

See details for Excavated Drop Inlet Protection in Figure 5A.11 on page 5A.29.

Limit the drainage area to the inlet device to 1 acre. Excavated side slopes shall be no steeper than 2:1. The minimum depth shall be 1 foot and the maximum depth 2 feet as measured from the crest of the inlet structure. Shape the excavated basin to fit conditions with the longest dimension oriented toward the longest inflow area to provide maximum trap efficiency. The capacity of the excavated basin should be established to contain 900 cubic feet per acre of disturbed area. Weep holes, protected by fabric and stone, should be provided for draining the temporary pool.

Inspect and clean the excavated basin after every storm. Sediment should be removed when 50 percent of the storage volume is achieved. This material should be incorporated into the site in a stabilized manner.

### **Type II – Fabric Drop Inlet Protection**

See Figure 5A.12 for details on Filter Fabric Drop Inlet Protection on page 5A.30.

Limit the drainage area to 1 acre per inlet device. Land area slope immediately surrounding this device should not exceed 1 percent. The maximum height of the fabric above the inlet crest shall not exceed 1.5 feet unless reinforced.

The top of the barrier should be maintained to allow overflow to drop into the drop inlet and not bypass the inlet to unprotected lower areas. Support stakes for fabric shall be a minimum of 3 feet long, spaced a maximum 3 feet apart. They should be driven close to the inlet so any overflow drops into the inlet and not on the unprotected soil. Improved performance and sediment storage volume can be obtained by excavating the area.

Inspect the fabric barrier after each rain event and make repairs as needed. Remove sediment from the pool area as

necessary with care not to undercut or damage the filter fabric. Upon stabilization of the drainage area, remove all materials and unstable sediment and dispose of properly. Bring the adjacent area of the drop inlet to grade, smooth and compact and stabilize in the appropriate manner to the site.

If straw bales are used in lieu of filter fabric, they should be placed tight with the cut edge adhering to the ground at least 3 inches below the elevation of the drop inlet. Two anchor stakes per bale shall be driven flush to bale surface. Straw bales will be replaced every 4 months until the area is stabilized.

### **Type III – Stone and Block Drop Inlet Protection**

See Figure 5A.13 for details on Stone and Block Drop Inlet Protection on page 5A.31.

Limit the drainage area to 1 acre at the drop inlet. The stone barrier should have a minimum height of 1 foot and a maximum height of 2 feet. Do not use mortar. The height should be limited to prevent excess ponding and bypass flow.

Recess the first course of blocks at least 2 inches below the crest opening of the storm drain for lateral support. Subsequent courses can be supported laterally if needed by placing a 2x4 inch wood stud through the block openings perpendicular to the course. The bottom row should have a few blocks oriented so flow can drain through the block to dewater the basin area.

The stone should be placed just below the top of the blocks on slopes of 2:1 or flatter. Place hardware cloth of wire mesh with ½ inch openings over all block openings to hold stone in place.

As an optional design, the concrete blocks may be omitted and the entire structure constructed of stone, ringing the outlet (“doughnut”). The stone should be kept at a 3:1 slope toward the inlet to keep it from being washed into the inlet.

A level area 1 foot wide and four inches below the crest will further prevent wash. Stone on the slope toward the inlet should be at least 3 inches in size for stability and 1 inch or smaller away from the inlet to control flow rate. The elevation of the top of the stone crest must be maintained 6 inches lower than the ground elevation down slope from the inlet to ensure that all storm flows pass over the stone into the storm drain and not past the structure. Temporary diking should be used as necessary to prevent bypass flow.

The barrier should be inspected after each rain event and repairs made where needed. Remove sediment as necessary to provide for accurate storage volume for subsequent rains. Upon stabilization of contributing drainage area, remove all materials and any unstable soil and dispose of properly.

Bring the disturbed area to proper grade, smooth, compact and stabilized in a manner appropriate to the site.

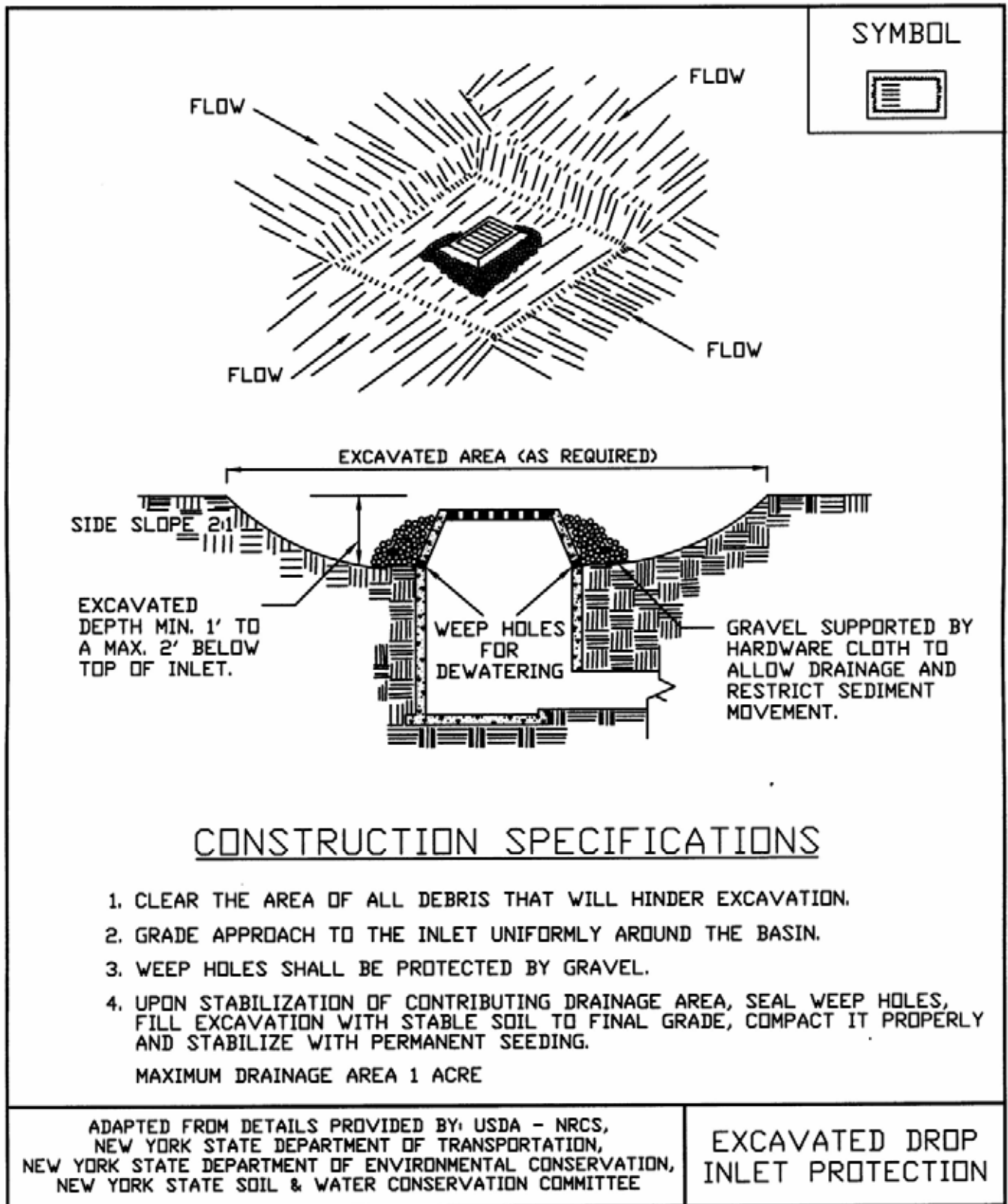
### **Type IV – Curb Drop Inlet Protection**

See Figure 5A. 14 for details on Curb Drop Inlet Protection on page 5A.32.

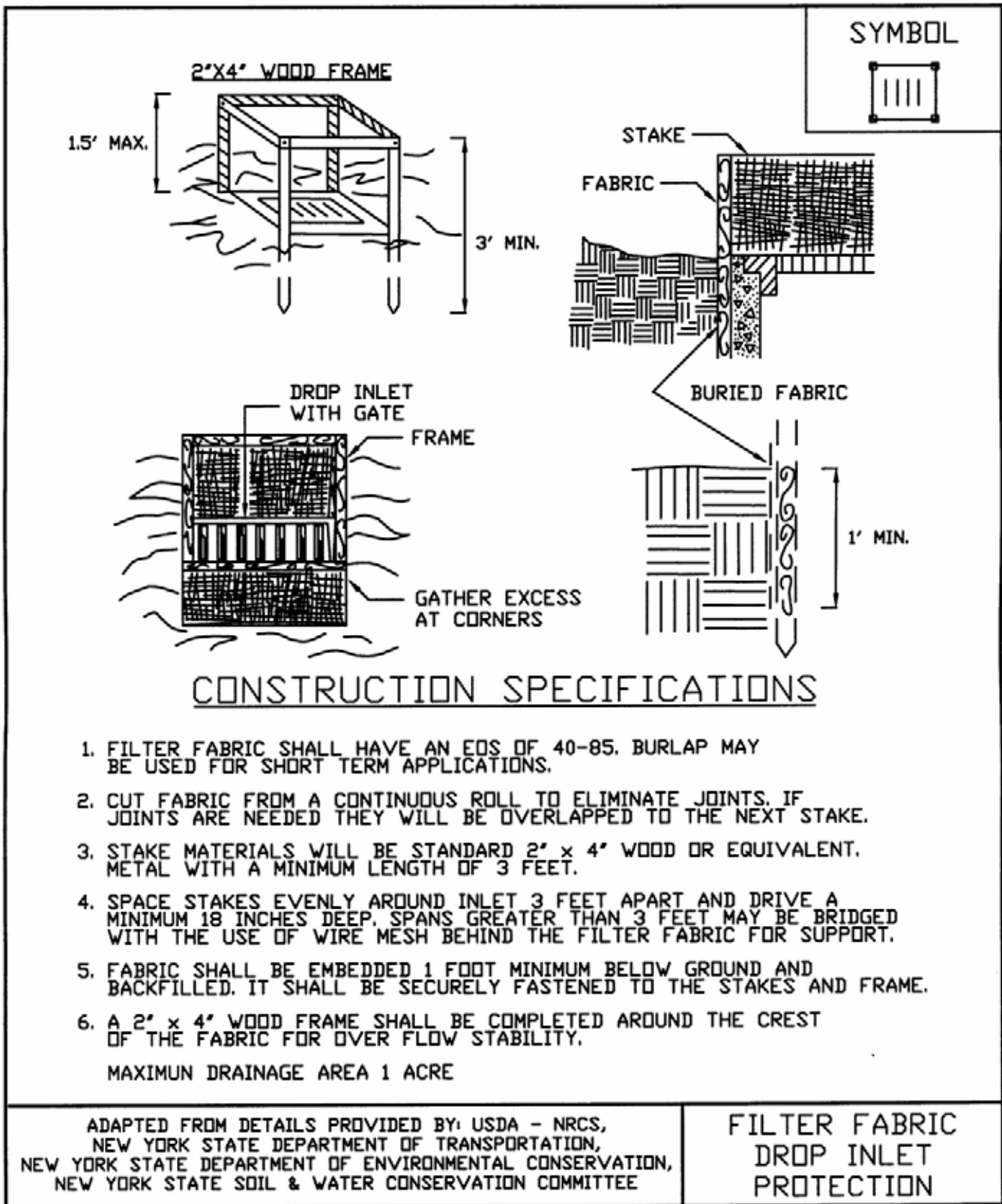
The drainage area should be limited to 1 acre at the drop inlet. The wire mesh must be of sufficient strength to support the filter fabric and stone with the water fully impounded against it. Stone is to be 2 inches in size and clean. The filter fabric must be of a type approved for this purpose with an equivalent opening size (EOS) of 40-85. The protective structure will be constructed to extend beyond the inlet 2 feet in both directions. Assure that storm flow does not bypass the inlet by installing temporary dikes (such as sand bags) directing flow into the inlet. Make sure that the overflow weir is stable. Traffic safety shall be integrated with the use of this practice.

The structure should be inspected after every storm event. Any sediment should be removed and disposed of on the site. Any stone missing should be replaced. Check materials for proper anchorage and secure as necessary.

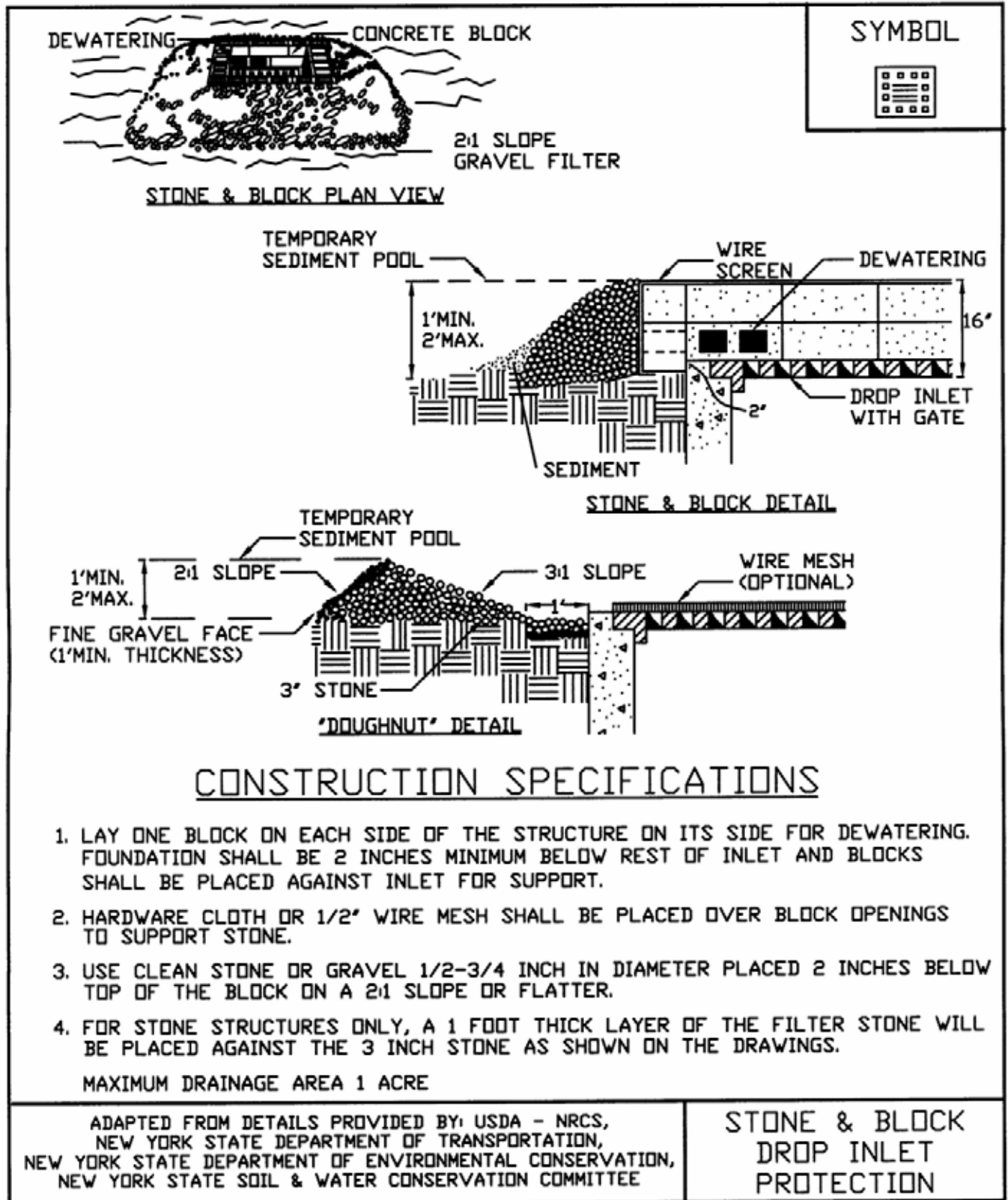
**Figure 5A.11  
Excavated Drop Inlet Protection**



**Figure 5A.12**  
**Filter Fabric Drop Inlet Protection**



**Figure 5A.13**  
**Stone & Block Drop Inlet Protection**



ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,  
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**STONE & BLOCK  
DROP INLET  
PROTECTION**