

Environmental  
Protection Agency

Commissioner  
Governor  
Lt. Governor  
Director

August 17, 2011

RE: CUYAHOGA COUNTY  
CITY OF CLEVELAND  
I-90 INNERBELT PROJECT  
NPDES PERMIT NO. OHC000003  
OHIO EPA PERMIT NO. 3GC04733\*AG  
CONSTRUCTION STORM WATER

Mr. Kirk Gegick, Project Engineer  
ODOT District 12  
2301 Scranton Road  
Cleveland, OH 44113

Dear Mr. Gegick:

On August 11, 2011, Tim McParland and I conducted an inspection of the I-90 Innerbelt Project located at I-90 from I-490 to I-77, City of Cleveland, Cuyahoga County. Ohio EPA records indicate that the site is covered by the General National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Associated with Construction Activity (General Storm Water Permit), permit No. 3GC04733\*AG. We were accompanied by Jonathan Bowerman and Frank Kordinak of Independence Excavating, contractor responsible for installation and maintenance of sediment and erosion controls (ESCs), Paul Bowyer of PSI Inc, ESC inspection subcontractor for HDR, Jack Rimac, ESC inspector that conducts the weekly and rain event inspections required by the NPDES permit, and Randall Morris, consultant representing ODOT.

Our inspection documented the following. For clarity, our inspection findings are organized by area of activity. References to specific BMPs match the name in the corresponding Storm Water Pollution Prevention Plan (SWP3). Areas of activity west of the Cuyahoga River are Fairfield Avenue (West Side Fill Activity) and Cold Storage Building Demolition Area, while areas of activity east of the Cuyahoga River are West 3<sup>rd</sup> Street, East 9<sup>th</sup> Street Extension and Orange Avenue:

**Fairfield Ave (West Side Fill Activity)**

- ***The construction entrance on the south side of Fairfield Avenue at the I-90 overpass is inadequate.*** Due to the excessive slope of the construction drive, sediment-laden runoff travels down it and discharges onto Fairfield Ave. Please install a water bar across the drive to divert runoff away from the entrance and prevent it from reaching Fairfield Ave (See Enclosure and Figure 1). The water bar should tie into a diversion channel or berm. Runoff should be diverted to a sediment pond (see following comment). Further, this construction entrance is not shown on the SWP3. Please amend the SWP3 to show the location of this control.

- ***Silt fence is not an appropriate sediment control.*** Due to the size and excessive slope of the site, silt fence is not a sufficient sediment control. Rather, runoff should be collected through a series of diversion channels and/or berms and be directed to a sediment pond. This comment applies to construction areas on **both sides** of Fairfield Avenue. We suggested the installation of a sediment pond in the NW corner of the active area south of Fairfield Avenue and in the SW corner of the active area north of Fairfield Avenue. Please amend the Storm Water Pollution Prevention Plan (SWP3) accordingly and be sure that the sediment ponds are sized per NPDES permit requirements (See Figure 2 and Enclosures).
- ***Storm drain inlet protection on Fairfield Avenue has not been constructed per the specifications contained in the SWP3.*** The catch basin located at the base of the fill on Fairfield Ave. had straw bales placed on pavement and a compost filter sock along the curbside of the inlet. This is not an appropriate form of inlet protection. Please refer to the SWP3 for detail drawings of appropriate inlet protection (i.e. Dandy Bags, Silt Sacks, etc.) as well as the enclosed specifications (See Figure 3).

#### **Cold Storage Building Demolition Area**

- ***Runoff is conveyed down University Street and leaves the site untreated.*** The curb along University Street acts as a diversion that conveys runoff directly to the Cuyahoga River under the railroad trestle. There are two options to correct this issue: either (a) the runoff needs to be diverted to Sediment Basin SB-2 located at the base of the slope along the Cuyahoga River, or (b) a separate sediment trap needs to be created near the trestle and sized appropriately in accordance with its contributing drainage area (See Figure 4).
- ***Sediment Basin SB-2 has not been installed per the specifications contained in the SWP3.*** The basin has not been installed to the size specified in the plan nor has the outlet structure been constructed per the detail drawing contained in the plan. Please review the drainage area being conveyed to Sediment Basin SB-2, accounting for how you will address the prior and next comments, and amend the SWP3 accordingly, if needed.
- ***Sediment Basin SB-3 has not been installed.*** At this point, all runoff is being diverted to Sediment Basin 2 rather than being partially diverted to Sediment Basin SB-3, as depicted in the SWP3. There are two options to correct this issue: either (a) Sediment Basins SB-2 and SB-3 need to be installed per specifications in the SWP3 or, (b) Sediment Basin SB-2 needs to be enlarged to compensate for the entire contributing drainage area of the site and the SWP3 needs to be amended accordingly (See Figure 5).

### West 3<sup>rd</sup> Street Area

- ***There are storm sewer catch basins with inadequate inlet protection or no inlet protection at all.*** The catch basin by Pier 8 had a compost filter sock wrapped around it. The filter sock is not an appropriate form of inlet protection, and must be replaced by acceptable inlet protection as specified in the SWP3 (i.e. Dandy Bags, Silt Sacks, etc.). In addition, inlet protection #IP-11 was not installed at all. Please install inlet protection as specified in the SWP3 immediately (See Figure 6 & 7).
- ***Controls must be installed to prevent sediment-laden discharges from dewatering activities at pier excavations.*** During the visit, ground water from the Pier 7 pit excavation was being pumped to an unprotected catch basin. The discharge appeared clear at the time of inspection; however, it was apparent that water that collects within pier excavations can be sediment-laden after a rain event. Although we noted the presence of a dewatering bag on site, it was not in use nor situated correctly at the time of inspection. Dewatering bags must be located on stabilized ground with no potential for treated water to re-accumulate sediment after discharging from the bag and before entering the catch basin (See Figure 7). Other acceptable methods for dewatering include pumping to a sediment pond or dewatering through a sump consisting of a perforated standpipe wrapped in geotextile and embedded in stone after allowing at least 24 hours for sediment to settle (see Enclosure). We noted the presence of sumps within the pier excavations, but it was not evident that they had been wrapped in geotextile.

### E. 9<sup>th</sup> Street Extension

- ***Sediment Basin SB-2 has not been installed per the specifications contained in the SWP3.*** Due to the fact that a 10-ft. cut still needs to be done, it is understandable that a temporary version of Sediment Basin SB-2 has been implemented. However, even the temporary controls must be built to size and specification required by the NPDES permit in order to be an acceptable control measure. Please review the design of the temporary sediment basin and amend the SWP3, as needed, to show its location and to provide detail specifications for its construction.
- ***An additional sediment pond needs to be installed.*** Much of the runoff south of the alignment for the proposed East 9<sup>th</sup> Street Extension flows to an area near the pre-existing building shown on Sheet 9 of 26 of the SWP3 titled *CUY-90-14.90 East of Cuyahoga River*. This area lies south of STA 16 of the proposed roadway. Although silt fence has been installed, the drainage area directed to it is too large and the silt fence is overwhelmed. It will continue to collapse and need to be maintained regularly. Instead, please implement a sediment pond here. Please amend the SWP3 accordingly. The pond must be sized based on the contributing drainage area diverted to it.

- ***Please review contributions from existing storm sewers that bring off-site water onto the project.*** We observed a pre-existing storm sewer that was exposed during site work. It appears that flow from this pipe is also directed to either SB-2 or the area where Ohio EPA recommends the installation of an additional sediment pond. Please ensure that sediment pond sizing has accounted for the drainage area brought into the pond by this storm sewer or, divert off-site flows away from disturbed areas (see Figures 8 & 9).
- ***Minkon Ave. needs to be swept of sediment.*** Minkon Ave. is used as a construction entrance off of Commercial Ave, and was completely covered with sediment during the visit. This access drive should be swept regularly of sediment to prevent off-site tracking and the discharge of sediment-laden runoff when it rains. In addition, a rock construction entrance should be implemented at the transition from asphalt to soil to reduce the amount of sediment transferred onto Minkon Ave. Also, please be sure to clean the Dandy Bag on Minkon Ave. as necessary in order to function properly (See Figure 10).

#### Orange Avenue

- ***The construction entrance near E. 9<sup>th</sup> is inadequate.*** This construction entrance is not depicted on the SWP3, however, it must be added to the SWP3 and constructed per the specifications for rock construction entrances contained in the SWP3 (See Figure 11).
- ***The concrete washout pit shown on Sheet 13 of 26 of the SWP3 has not been installed.*** There were signs of concrete washout on disturbed earth. A concrete wash out pit needs to be constructed to serve this portion of the project and all concrete wash water must be conveyed into this pit. Concrete wash water is wastewater and must be treated as such (See Figure 12).
- ***Controls must be installed to prevent sediment-laden discharges from dewatering activities at the forward excavation for Bridge 13.*** No signs of a dewatering bag or sump pit were visible at this location, yet a hose is set up to dewater this excavation. If any further dewatering is to be done at this site, please implement appropriate dewatering techniques immediately.
- ***Non-sediment pollutant controls were missing.*** Any trash must be stored in a dumpster, and must be covered by a tarp if a lid is not included. In addition, all chemicals must be stored on a containment tray and be completely sealed or covered, or must be stored in a trailer, or under some other equivalent shelter when not in use. Also, there was no spill kit in place near the fuel tank in case of emergency. Although a protective dike was in place, spill kits must be provided in areas of chemical and fuel storage as well.

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Please provide me with a letter of response indicating the actions you will take to address the deficiencies noted above. Your response must be received and corrective action completed by August 30, 2011. If corrective action cannot be completed by this date, your response should include the date by when corrections will be completed. **In your response, please identify the post-construction best management practices that will be installed for each of the areas of activity.** Should you have any questions regarding this matter, please contact me at your earliest convenience at (330) 963-1145 or via e-mail at [dan.bogoevski@epa.state.oh.us](mailto:dan.bogoevski@epa.state.oh.us).

Sincerely,



Dan Bogoevski  
District Engineer  
Division of Surface Water

DB/mt

cc: Randall Morris, P.E., ODOT QA QCP/Audit Engineer  
Jonathan Bowerman, Independence Excavating, Inc.  
Paul Bowyer, PSI  
Jack Rimal, P.E., McCoy Associates, Inc.  
Rachid Zoghaib, City of Cleveland, Dept. of Water Pollution Control  
David Cooper, City of Cleveland, Dept. of Building & Housing  
Todd Houser, Cuyahoga SWCD

ec: Ron Trivisonno

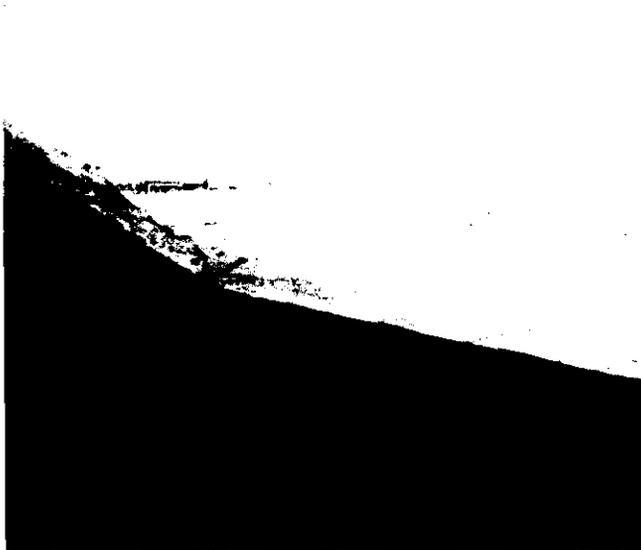


Figure 1. A water bar needs to be installed across the construction entrance.



Figure 2. The silt fence is not appropriate. Runoff should be conveyed to a sediment pond via a diversion at the base of the slope.



Figure 3. Inlet protection consists of straw bales on pavement and compost filter sock on the curb.



Figure 4. Runoff is conveyed down University Street and leaves the site untreated.

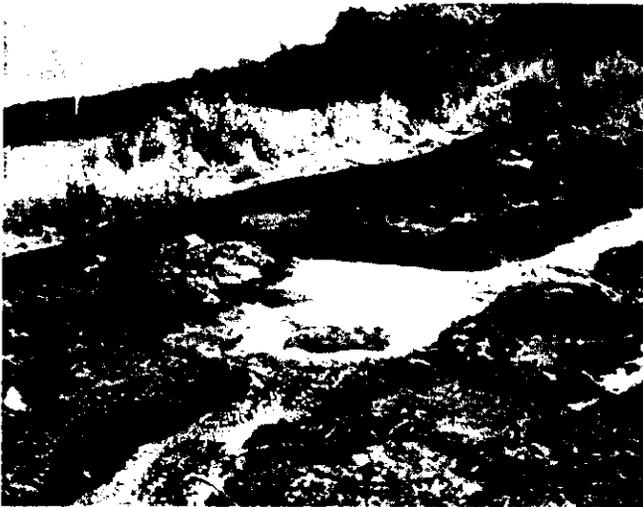


Figure 5. Sediment Basin 2 needs to be resized appropriately per specs. in the SWP3.



Figure 6. Compost filter socks are not approved as an inlet protection measure.

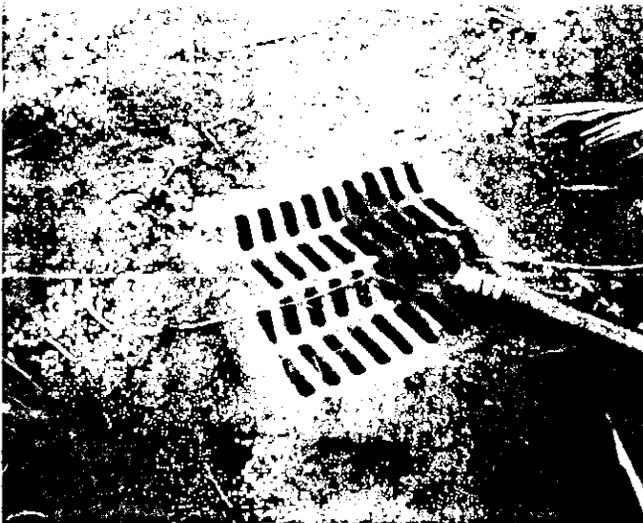


Figure 7. Unprotected catch basin with Pier 7 dewatering directly into it.



Figure 8. A sediment trap should be implemented at this location of E 9<sup>th</sup> St Ext.

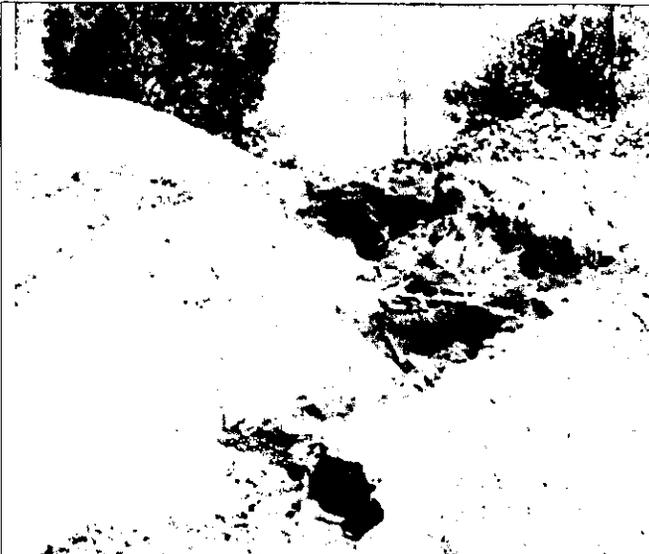


Figure 9. The pre-existing storm sewer conveys runoff onto the project. Either divert this flow around the construction site or direct it to a sediment basin.



Figure 10. Dandy Bag is full of sediment and must be cleaned.



Figure 11. Construction entrance off E. 9<sup>th</sup> is not built to standard specifications



Figure 12. Concrete wash out must be done in a concrete wash pit.