



Challenges of Handling Storm Water Runoff Through Municipal Sewer Systems

A South Carolina Case Study

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Presentation Overview

- Introduction
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- Site History and Operational Changes
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- Project Timeline (2012 – 2013)
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Introduction

- Existing rail facilities often discharge storm water, especially if comingled with wastewater to municipal sewer systems.
- Increased regulations on storm water are leading municipalities to change permitting practices.
- As a result, facilities are facing the challenge of reducing or eliminating storm water discharges to comply with sewer ordinances.



Introduction

- What are the municipalities doing?
 - Charging storm water discharge fees.
 - Requiring industrial areas to be covered to eliminate exposure.
 - Requiring facilities to segregate storm water from wastewater (no comingling)
 - Prohibiting storm water discharges completely.
 - Combinations of the above.



Site Location

■ Hayne Yard, Spartanburg,
South Carolina

Site History and Operational Changes

- Facility previously conducted locomotive fueling, lubrication and sanding.
- In 2012, all locomotive servicing ceased.

Permitting Conditions (2012)

- Oil/water separator discharges
 - Industrial Wastewater Discharge Permit (POTW Permit), expired Dec. 2012.
- Storm water runoff
 - NPDES General Permit, expires Jan. 2016.

The image shows the cover page of an NPDES General Permit. At the top center is the DHEC logo with the text 'PROMOTE PROTECT PROSPER' and 'South Carolina Department of Health and Environmental Control'. Below the logo is the title 'NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (EXCEPT CONSTRUCTION)'. The main body of text explains that the permit is issued in compliance with the Clean Water Act and the South Carolina Pollution Control Act, authorizing storm water discharges from industrial facilities. It lists general requirements and refers to Part 8, Appendices A through K for industry-specific requirements. At the bottom, there is a signature line for Ann K. Clark, Director of the Outreach, Storm Water, Agricultural and Dams Permitting Division, Bureau of Water. The permit number is SCR000000, issued on November 12, 2010, and effective from January 1, 2011, to January 1, 2016.

The image shows the cover page of an Industrial Wastewater Discharge Authorization. The title is 'SPARTANBURG SANITARY SEWER DISTRICT INDUSTRIAL WASTEWATER DISCHARGE AUTHORIZATION NO. 039' with SIC NO. (S) 9011. The text states it is issued in compliance with the Federal Clean Water Act and the General Pretreatment Regulations. It includes a table with the following entries:

Industry Name	312 W. Liddel Street, Charlotte, NC, 28206
Industry Address	
Contact person, name & Phone #	325 Southern Ave. Spiba, SC

Below the table, it states that the authorization grants permission to discharge wastewater into the treatment facilities of the Spartanburg Sanitary Sewer District. It lists conditions for the authorization, including that the Industrial Wastewater Survey Questionnaire/Discharge Authorization Application, dated January 11, 2004, must be approved. The authorization becomes effective on January 1, 2008, and expires on December 31, 2013, unless superseded. At the bottom, there is a signature line for John W. Westcott, Director of Water Quality Manager, dated 12-1-07.

Project Timeline

- August 2012 – November 2012: POTW Permit Renewal Process.
 - Local municipality requests NS prepare and submit a renewal application.
 - NS submits renewal application describing current operation conditions.
 - Municipality evaluates the application for reissuance.

Project Timeline

- November 2012:
POTW Permit Reissued
 - Valid for only 1 year.
 - Facility must make modifications to terminate storm water discharges to sewer system.

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November 26, 2012

Mr. Gaymeon Gibson
Environmental Compliance Officer
1200 Peachtree Street, NE-Box 13
Atlanta, GA 30309

Dear Mr. Gibson:

Enclosed is Authorization No. 039 issued to Norfolk-Southern Corporation located at 235 Southern Ave. Spartanburg, SC. We have reviewed the latest Industrial/Non-Domestic Wastewater Survey Form submitted for the Norfolk-Southern facility and found that the discharge consist primarily of storm water and little to no process wastewater. Spartanburg Sanitary Sewer District is aware of the need to discharge wastewater in a proper manner so that it can be treated and reclaimed for further reuse within our environment; however storm water discharges are typically handled by facilities obtaining a general permit from the South Carolina Department of Health and Environmental Control (SCDHEC) for such discharges. It is Spartanburg Sanitary Sewer District's goal to eliminate storm water discharges from entering our collection system.

Based on the information provided by Norfolk-Southern, Authorization No. 039 has been issued for only a year (effective date January 1, 2013; expiration date December 31, 2013), during this time period Norfolk-Southern should determine the necessary steps to eliminate this discharge to the District and obtain permission and permit requirements to discharge the storm water generated at the site through a SCDHEC issued general permit. Please contact me at (864) 598-7277, if you have any questions.

Respectfully,

A handwritten signature in black ink that reads "David S. Crosby".

David S. Crosby
Industrial Pretreatment Coordinator

Enclosure

cc: Gilbert Turner, Norfolk-Southern

P.O. Box 251 • Spartanburg, SC 29304
200 Commerce Street • (864) 583-7361 (Business Office) • (864) 525-9142 (Engineering) • (864) 582-5375 (Customer Service)
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Project Timeline

- December 2012 – June 2013: Evaluate alternatives for discharging storm water.
 - What flows can be eliminated?
 - Can discharges be rerouted?
 - Where can reroutes be discharged?
 - How to permit rerouted water?



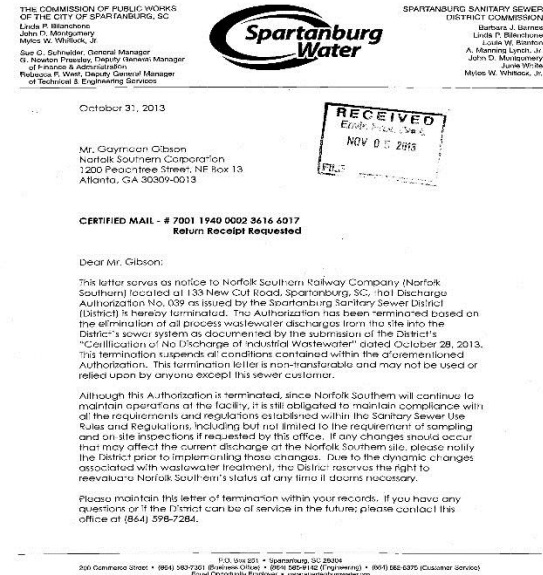
Project Timeline

- June 2013 – September 2013: Initiate and Complete Site Modifications.
 - All locomotive servicing infrastructure removed.
 - Oil/water separator cleaned and retained as a Best Management Practice (BMP).
 - Receives only non-industrial storm water and its discharge is covered by the general permit.



Successful Outcome

- October 2013: No Discharge Certification submitted to municipality.
- November 2013: Municipality approved site modifications upon site visit and issued no discharge certification.



Lessons Learned

- Knowledge of local sewer ordinances and permitting requirements is crucial.
- Important to work with both local and state regulatory agencies.
 - To reduce delays in the permitting process.
 - To ensure environmental compliance.
 - To avoid discharge fees.
- Proactive approach (engineering design) may be needed.

What Questions Do You Have?

