IMPLEMENTATION OF GEORGIA'S NEW N.P.D.E.S. INDUSTRIAL STORM WATER REQUIREMENTS

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Abstract. Recent changes in the General National Pollutant Discharge Elimination System (NPDES) industrial storm water permit (herein called the "Permit") are being implemented in Georgia. These changes require that numerous industries evaluate and monitor rainwater or snow runoff from their properties and ensure that the runoff is not carrying contaminants off their properties and into rivers and lakes. The level and intricacies of monitoring are significantly more complicated than the previous industrial storm water permit requirements.

Eleven sites were reviewed and their compliance status to the existing NPDES industrial storm water Permit was evaluated. In all cases, none of the facilities were in compliance. Deficiencies ranged from not being involved in the program, to failing to adequately monitor storm water, to failure in keeping documents current as required by the Permit.

The new requirements are expected to complicate an already difficult-to-implement program. Unless there is more education and enforcement, the likelihood for success will not be fully realized.

INTRODUCTION

Georgia is in the process of implementing a new National Pollutant Discharge Elimination System (NPDES) permit in order to stay in compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), the Federal Clean Water Act, as amended (33 U.S.C.1251 et seq.), and the Rules and Regulations promulgated to each of these Acts (EPD, 2004a). New and existing storm water point sources within the State are required to have a Permit that authorizes the discharge of storm water associated with industrial properties to the waters of the State.

This paper presents a discussion of the new requirements contained in the Permit, steps to implement the new changes, and additional information so that industries can ensure compliance and avoid potential costly fines. There is also a review of the Georgia Environmental Protection Division's (EPD's) enforcement efforts and a review of 11 industrial sites to evaluate their compliance status with the existing and new Permit.

The EPD estimates that currently there are approximately 4,000 facilities that have filed a Notice of Intent (NOI); the first step in complying with the Permit. They also estimate that approximately 10,000 facilities across the State *should* be enrolled in the program (EPD, 2004b). Reportedly, costs for failing to comply with the Permit can range up to $50,000 per day. However, the EPD has not levied such fines on any particular facility but they opt for a more business-friendly solution by seeking to educate and require compliance rather than fine the businesses.

BUSINESSES AFFECTED

Numerous facilities and industries are subject to compliance with the Permit. In general terms, these include businesses subject to:

- Storm water effluent guidelines
- New source performance standards
- Toxic pollutant effluent standards under 40 CFR subchapter N

Additionally, hazardous waste transportation, storage and disposal (TSD) facilities, sewage, sludge, and wastewater treatment facilities, and power generating facilities are subject to the Permit. The Permit references numerous Standard Industrial Classification (SIC) codes, including:

Lumber	Paper
Chemical	Petroleum
Leather	Concrete
Metal Products	Mining
Transportation	Landfills
Scrapyards	Recyclers
Textiles	Leather

IMPLEMENTATION OF THE PERMIT

The first step in obtaining coverage under the general Permit is to determine whether the business is required to have an industrial storm water discharge Permit. The reader is referred to the actual Permit, which will either directly state the industry or make reference to the applicable SIC codes. It should be noted that some industry subgroups within a particular SIC code may be exempt from compliance as outlined in the Permit.

Notice of Intent

Once established that the business is required to have a Permit, it must submit a Notice of Intent (NOI). The NOI is simply a declaration (signed by the person in charge of compliance) that provides basic information to the EPD about the facility, nearby receiving waters, and a commitment to comply with the provisions of the Permit. For many facilities, no other paperwork is required to be submitted, however the permittee is required to keep additional documentation in-house to prove compliance with the Permit.

The applicant must make a determination whether the facility discharges storm water to or within one mile upstream of an *impaired stream segment* (commonly referred to as a *303(d) listed stream segment*). Information regarding locations of impaired stream segments and compounds of concern are available on the Georgia EPD website (www.dnr.state.ga.us/dnr/environ). If the facility discharges to the impaired stream segment, then sampling for the constituents noted along that segment will likely be required. It should be noted that drainage directions must be understood, as it is possible for a facility to be located within one mile of an impaired segment yet runoff from a storm water event may not enter that stream segment.

Storm Water Pollution Prevention Plan

A major portion of compliance with the Permit is the preparation of a Storm Water Pollution Prevention Plan (SWP3). The regulations state the SWP3 must be prepared in accordance with good engineering practices and certified by an individual with the education, experience, and accountability necessary for its implementation. The SWP3 identifies potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) which are to be used to reduce the pollutants in storm water discharges associated with the facility. The SWP3 is an operating manual that requires:

- Identification of a pollution prevention team: those responsible for developing and implementing the SWP3
- A description of potential pollutant sources and identification of the types of pollutants that are likely to be present in storm water
- A site map
- Inventory of exposed materials handled at the site that may potentially be exposed to precipitation
- Measures, sampling procedures and intervals, and controls whereby the facility develops storm water management controls (i.e. Best Management Practices or BMPs) appropriate for the facility
- Employee training
- Record keeping and internal reporting procedures
- Ongoing site compliance and inspections

Monitoring Requirements

Facilities that discharge storm water to or within one mile of an impaired stream segment are required to monitor discharges for the constituents noted in the impaired stream segment. Sampling must commence no later than 90 days after the facility becomes subject to the sampling requirements of the Permit. A report must be submitted to EPD summarizing the results of the sampling on a semi-annual basis. The Permit specifies timeframes regarding sampling and reporting requirements in order to comply with the Permit.

Facilities that exceed Georgia's Instream Water Quality Standards (Georgia Rule 391-3-6-.03) or the applicable parameter benchmark values for the pollutant(s) of concern in more than 25 percent of the storm water discharge samples must apply for an individual NPDES permit or develop and implement a Supplemental Best Management Practices (BMP) Program. Alternatively, the permittee can provide a

written justification explaining why the facility's storm water discharges do not have a reasonable potential to cause or contribute to an instream water quality violation.

Those facilities that develop a Supplemental BMP Program in lieu of applying for an individual NPDES permit must submit a copy of the Supplemental BMP Program to EPD prior to implementation. The Supplemental BMP Program must address the storm water discharge(s) that have a reasonable potential to cause or contribute to an instream water quality standards violation and establish appropriate BMPs designed to prevent such exceedences in the storm water discharge(s) to the impaired stream segment.

A minimum of 12 additional samples must be collected over a 12-month period and analyzed for the impaired segment pollutant(s) of concern to evaluate the effectiveness of the Supplemental BMP Program. If the actions taken while under the Supplemental BMP Program have not reduced the pollutant(s) to levels below the Instream Water Quality Standards or the applicable parameter benchmark values in at least 75 percent of the samples, then the facility must apply for an individual NPDES permit. Alternatively, the permittee can provide justification explaining why the facility's storm water discharges do not have a reasonable potential to cause or contribute to an instream water quality violation.

It should be noted that certain facilities, whether or not they are within one mile of an impaired stream, must sample their storm water discharges. The facilities include:

Primary metals	Landfills
Battery reclaimers	Incinerators
Wood wastes/treatment	Coal pile runoff
Airports	Animal/meat packing
Salvage/recycling yards	Cement/Concrete/Asphalt

These facilities have special sampling requirements and parameters that must be analyzed for in order to remain in compliance with the Permit.

Reporting Requirements

Many facilities will not be required to submit reports to the EPD, but rather maintain them on their premises in compliance with the Permit requirements. Those facilities that discharge to or within one mile of an impaired stream as well as those facilities specifically called out in the Permit (primary metals facilities, battery reclaimers, etc.) are required to submit reports. It should be understood that if the EPD were to request reports or supporting documentation, the Permit holder has a duty to comply within a specified time frame.

The Permit requires that the permittee retain the SWP3 for at least one year after coverage under the Permit terminates. Additionally, the permittee must retain all records of all visual monitoring information, copies of all reports required by the Permit, and records of all data used to complete the Notice of Intent for at least one year after coverage under the Permit terminates.

For dischargers subject to sampling and analytical testing requirements, they are required to retain their records for a three-year period from the date of sample collection or for the term of the Permit, which ever is greater.

Exceptions to the Permit

In certain instances a facility may be able to show that none of its storm water discharges come in contact with industrial facilities or chemicals (such as a facility which has all of its operations within a building). In such instances, the facility can submit an Industry No Exposure Exclusion Form, where the facility indicates it does not discharge any storm water that would be impacted with the chemicals of concern to the State.

EVALUATION OF ACTUAL PERMITTEES

As part of this investigation, a Georgia Open Records Act request was made to evaluate what were 11 randomly selected facilities and their compliance with the Permit. These facilities would all likely be required to maintain an industrial storm water NPDES Permit based on their industry classification. They included:

- Two large transportation facilities
- A large manufacturing plant
- Three chemical plants
- A paper/pulp facility
- A large industrial government contractor
- Two smaller battery manufacturers/reclaimers
- A power generating company

The intent was to look at a variety of facilities, both large and small, to evaluate how close they were to complying with the requirements of their existing Permit. Below is a summary of the findings:

- Five of the 11 facilities failed to respond to the EPD request
- All facilities that did respond had incomplete SWP3 documents (missing required sections specifically

called out in the Permit)
- None of the SWP3 documents were current (another requirement of the Permit)
- Many documents did not have current (or any) records of storm water sampling
- Of the 11 facilities investigated, one had been inspected by the EPD and deficiencies were noted. There were neither records of reparation of the deficiencies nor any subsequent inspections.

CONCLUSIONS

Georgia is in the process of implementing a more-rigorous General NPDES industrial storm water Permit. The Permit requires that numerous industries evaluate, monitor, and sample rainwater or snow runoff from their properties and ensure that the runoff is not carrying contaminants off their properties and into rivers and lakes. The level and intricacies of monitoring are significantly more complicated than the previous industrial storm water permit requirements. Compliance with the new regulations associated with the new Permit will likely decrease as the Permit's complexity has increased.

Eleven sites were reviewed and their compliance status to the existing NPDES industrial storm water Permit was evaluated. In all cases, none of the facilities were in compliance. Deficiencies ranged from not being involved in the program, to failing to adequately monitor storm water, to failure in keeping documents current as required by the Permit.

DISCUSSION AND RECOMMENDATIONS

The new Permit requirements are expected to complicate an already difficult-to-implement program. Discussions with the EPD indicate that the number of personnel assigned to ensure compliance to these Permits is very limited. Furthermore, there appears to be limited personnel able to investigate and audit the data that they do receive. The problem does not appear to be in the program or the staff currently administering the program. Rather, the problem appears to be insufficient staff in the department. The EPD should be commended for its work in implementing the program, however, if there continues to be a lack of wholehearted support to the program (including efforts toward education and enforcement of the Permit), the likelihood for success will not be fully realized.

ACKNOWLEDGMENTS

I would like to gratefully acknowledge the information and assistance provided by the Georgia EPD.

AUTHOR'S NOTE

It should be noted the information presented herein is based on the author's interpretation of the items discussed. The reader is directed to the actual language of the Permit to determine their duty to comply and methods of compliance.

REFERENCES

Georgia Environmental Protection Division, 2004a. *Proposed 2004 – 2009 NPDES General Permit for Storm Water Associated with Industrial Activity*, Revised Sept 2004, http://www.dnr.state.ga.us/dnr/environ/

Georgia Environmental Protection Division, 2004b. Personal communications with EPD staff.