

Environmental Law Update

EPA Effluent Guidelines for Discharges from the Construction and Development Industry to Take Effect on February 1, 2010

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On December 1, 2009, the United States Environmental Protection Agency (EPA) published a final rule in the *Federal Register* establishing non-numeric and, for the first time, numeric effluent limitation guidelines (ELGs) nationally on stormwater discharges from construction sites. Generally targeting real estate developers and other construction site operators that make up the Construction and Development (C&D) Point Source Category under 40 CFR 450, these effluent guidelines will impose regulatory controls to mitigate discharges of sediments and other pollutants from construction sites when the final rule takes effect on February 1, 2010.

As V&E [previously reported](#), EPA published the proposed rule outlining technology-based effluent guidelines for C&D dischargers in the *Federal Register* on November 28, 2008. Effluent guidelines are national standards that apply to stormwater and wastewater discharges to surface and publicly owned treatment facilities. EPA effluent guidelines under Title III of the Clean Water Act control pollution from categories of existing and new sources. The prior federal effluent guidelines did not outline national performance standards or require monitoring for C&D dischargers.

Implementation

After February 1, 2010, EPA and state environmental agencies must incorporate the regulatory requirements of the final rule into the National Pollution Discharge Elimination System (NPDES) permit programs overseen by EPA or delegated to the various states. All permits issued by EPA or state NPDES permitting authorities must include the numeric and non-numeric ELGs outlined in the final rule. Although C&D dischargers with existing NPDES permits are not required to take action to adhere to these requirements on February 1, 2010, C&D dischargers must be prepared to comply with the new numeric and non-numeric ELGs in all NPDES permits issued or re-issued after February 1, 2010.

C&D dischargers must also recognize that the final rule establishes a new minimum level of performance or regulatory “floor” for NPDES permit programs administered by state environmental agencies. EPA issues permits for construction activities in four states, the District of Columbia, and certain U.S. territories and tribal areas. The remaining states (including Texas), with authority delegated from EPA to regulate stormwater discharges, are allowed to impose more stringent requirements than those articulated in the final rule.



Owners and operators of covered construction sites with NPDES permits issued after February 1, 2010, must implement an assortment of erosion and sediment control measures as well as pollution prevention practices to control the discharge of pollutants from construction sites. The final rule also requires owners and operators to sample stormwater discharges and comply with a numeric standard for pollutant turbidity in these discharges effective August 2011. The following sections provide a brief overview of the numeric and non-numeric ELGs articulated within the final construction stormwater discharge rule.

Non-Numeric ELG Requirements

The final rule requires owners and operators of construction sites to implement erosion and sediment control best management practices (BMPs) and pollution prevention measures to reduce the amount of pollution in stormwater discharges. Owners and operators of construction sites that disturb one acre or more, including smaller sites in a larger common plan of development or sale, must obtain a NPDES permit for their stormwater discharges.

NPDES permittees with permits issued after February 1, 2010, must implement BMPs related to: (1) erosion and sedimentation controls; (2) soil stabilization controls; (3) dewatering requirements; and (4) pollution prevention measures. The final rule provides guidance on the minimum requirements for these BMPs.

Erosion and Sedimentation Controls: NPDES permittees with permits issued after February 1, 2010, must design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the controls must:

1. Control stormwater volume and velocity within the site to minimize soil erosion;
2. Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
3. Minimize the amount of soil exposed during construction activity;
4. Minimize the disturbance of steep slopes;
5. Minimize sediment discharges from the site. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity, and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;



6. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible; and
7. Minimize soil compaction and, unless infeasible, preserve topsoil.

Soil Stabilization Requirements: NPDES permittees under the final rule must also initiate soil stabilization measures immediately whenever earth disturbing activities, including clearing, grading, or excavating, have permanently ceased on any portion of the construction site and will not resume for 14 calendar days. EPA or state NPDES permitting authorities will determine the requisite time period that stabilization activities must be completed within. EPA requires C&D dischargers to initiate vegetative stabilization measures as soon as practicable in arid areas where vegetative stabilization cannot be immediately initiated.

Dewatering Requirements: The final rule requires NPDES permittees to minimize the discharge of pollutants from dewatering trenches and excavations. Discharges from dewatering activities are prohibited unless managed by appropriate controls. The final rule does not define “appropriate controls,” but NPDES permittees must be prepared to comply with any applicable regulations and/or specific provisions of their project NPDES permit addressing dewatering activities.

Pollution Prevention Requirements: Finally, NPDES permittees must design, install, and maintain effective pollution prevention measures to minimize the discharge of pollutants. The pollution prevention measures must:

1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
2. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and
3. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

The erosion and sediment control BMPs and pollution prevention measures required under the final rule will have a broader and more immediate impact of the final rule than the numeric ELG requirement. Any construction site required to secure a NPDES permit must be prepared to implement these measures through NPDES permits issued after February 1, 2010.



Numeric ELG Requirements

Unlike the non-numeric ELGs, EPA is phasing the implementation of the numeric ELG requirements over a period of four years to allow the regulated community adequate time to prepare for compliance. Owners and operators of construction sites that disturb 20 or more acres at one time will be required to conduct monitoring of discharges and comply with the numeric limitation on August 1, 2011. On February 2, 2014, the monitoring requirement and numeric limitation will apply to construction sites that disturb 10 or more acres at one time.

Once effective, the final rule requires NPDES permittees to monitor nephelometric turbidity unit (NTU) amounts to ensure compliance with the limitation. EPA expects that, at a minimum, NPDES permittees will collect three samples per day at each discharge point while a discharge is occurring. State permitting authorities, however, may require more frequent monitoring when incorporating the requirement into state NPDES permit programs. Likewise, NPDES permittees may desire to perform more frequent monitoring to ensure more representative sampling results.

EPA set the maximum daily discharge limitation at 280 NTU. The final discharge limitation represents an order of magnitude increase over the 13 NTU limitation proposed by EPA in November 2008. The numeric effluent limitation is a daily maximum limitation. NPDES permittees may sample the turbidity of construction site discharges multiple times during the course of a day. The average of all daily measurements must not exceed the maximum daily discharge limitation. If one or more sample measurements exceed the limitation but the average turbidity for the day does not exceed the limitation, the NPDES permittee is deemed to be in compliance with the limitation. Therefore, the requirement considers the variability of site discharges by allowing temporary exceedances like intense periods of rainfall.

Impact to the Regulated Community

While NPDES permittees may experience increased engineering, labor, and materials costs for compliance with the non-numeric ELG requirements, the regulated community must now bear the cost of conducting activities to monitor and control stormwater turbidity levels at covered construction sites. Although EPA asserts that turbidity can be easily and inexpensively measured in the field thereby reducing compliance costs for the regulated community, NPDES permittees were not required to monitor, control, and treat turbidity levels under the prior federal effluent guidelines.

NPDES permittees will need to evaluate turbidity control options (including settling, filtration, polymer flocculation, or water treatment) each with varying levels of cost and effectiveness. For example, in estimating compliance costs for the final rule, EPA assumed that most operators would use sediment basins or check dams with polymer addition to enhance settling, rather than a passive sand filter. Real estate developers and other construction site operators will likely need to go through a period of trial and error to



determine the right combination of procedures to ensure that their construction sites comply with the numeric ELG requirement.

Ultimately, EPA estimates that 82,000 firms will be impacted by these regulatory requirements and annual compliance costs will approach \$1 billion for the regulated community. Real estate developers and construction site operators should plan to evaluate the risks and costs of stormwater management when evaluating projects and properties targeted for potential acquisition.

For more information on the new EPA construction stormwater rule or other NPDES stormwater discharge regulatory developments, please contact Vinson & Elkins attorneys [Larry Nettles](#), [Sharon Mattox](#), [Larry Pechacek](#) or [Ted Bosquez](#). Visit our website to learn more about V&E's [Environmental Regulation](#) practice, or e-mail one of the V&E Environmental [practice contacts](#).

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