



Storm Water Permit Requirements for Land Disturbance Activities

The Issue

Human activities, such as urbanization, alter drainage patterns and add pollutants to our rivers, wetlands, lakes and streams. Recent studies show that storm water runoff is a major source of water pollution. Polluted water endangers bodies of water being used for drinking, household purposes, recreation and fishing.

Soil sediment that erodes from a construction activity is a large contributor to water pollution. Storm water not only carries soil particles, a major pollutant; but can also carry attached pollutants such as petroleum products, metals, chemicals, pesticides, nutrients and bacteria.

Sediment loading rates from construction sites are typically 10 to 20 times greater than preconstruction rates (North Carolina Department of Environment, Health and Natural Resources, 1993). Over a short period of time, construction sites can contribute more sediment to receiving streams than was previously deposited over several decades.

Background

Since October 1992, the Missouri Department of Natural Resources has regulated the quality of storm water runoff by requiring a land disturbance or storm water permit. The regulations address pollution in storm water runoff that is discharged from certain industrial sites, construction sites disturbing an area of one acre or more and urban storm sewers. The regulations came about because of amendments to the federal Clean Water Act, passed in 1972.

Exemptions

The following is a list of activities that are exempt from permit requirements:

- Facilities that discharge all storm water runoff directly to a combined sewer systems are exempt from current storm water permit requirements. In a combined sewer system, storm water and wastewater drain to the same pipe and are treated.
- Linear, strip or ribbon construction, or maintenance operations as identified in 10 CSR 20-6.200 (1)(B).
- Sites that disturb less than one acre of total land area that are not part of a common plan or sale and that do not cause any violations of water quality standards and are not otherwise designated by the department as requiring a permit.

Agricultural storm water discharges and irrigation return flows. For purposes of this permit, land disturbance activities from Animal Feeding Operations (AFOs) are not considered an agricultural activity and therefore not exempted.

Permit Requirements

An Operating Permit is required when construction activity disturbs land by grubbing, grading, excavating or otherwise destroying or disturbing the root zone, and the surface area disturbed is one acre or more. The one acre includes all land disturbance activities that are part of a common plan or sale. The law applies to the total land area disturbed over the life of the project. Land disturbances that were started prior to October 1992 may still require a permit if the site has not been stabilized. Missouri regulations (10 CSR 20-6.200) should be consulted for specific requirements.

Developers or Landowners who are developing land within Missouri need to apply for a land disturbance storm water permit. The four types of storm water permits are listed below. An Operating Permit must be obtained before any site vegetation is removed or the site disturbed. A plan indicating how erosion, sedimentation and other pollutants will be controlled on the site must be developed for the site before a permit can be issued.

Land Disturbance by a Government Authority with an Approved Erosion Control Plan (permit number MO-R100***)

This permit covers land disturbance activities that impact over one acre and that are performed by or under contract to a city, county or state government agency with a storm water control program approved by the department.

This permit requires that all construction activities conform to the local or government agency storm water control plans. The local government agency should apply to the department for the permit and to seek approval for an approved plan.

A list of active sites of land disturbance greater than one acre shall be provided quarterly to the department. This list shall contain the name of the project, location, receiving stream(s) for each outfall, description of the project, number of acres disturbed and progress toward completion of the project, expressed as a percentage. The reports shall be submitted each January, April, July and October by the first of the month.

Completed applications should be submitted to the department's Water Protection Program, P.O. Box 176, Jefferson City, MO 65102.

Land Disturbance of One Acre or More (permit number MO-R10A-Z)

This is a general permit that authorizes discharges from land disturbances that impact one or more acres and are not covered under either of the permits described above.

This permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be developed before any site vegetation is removed or disturbed and before a permit can be issued. SWPPP should not be submitted with the application unless specifically requested.

SWPPP requires that the permittee use Best Management Practices (BMPs) on-site to reduce the amount of sediment and other pollutants in the storm water associated with the land disturbance activities. The permittee must fully implement the provisions of SWPPP required

under this general permit throughout the term of the land disturbance project. For further details on the applicability and SWPPP best management practice requirements, see the Requirements and Guidelines section of your general permit and the SWPPP section of this fact sheet. Completed applications should be submitted to the appropriate Regional Office. To find the appropriate Regional Office, visit www.dnr.mo.gov/regions/regions.htm.

Land Disturbances within Valuable Water Resource Areas (permit number MO-R109***)

This permit covers land disturbance activities that impact one acre or more that are near valuable water resources. These areas are

- Within 1,000 feet of a lake used primarily as a public water supply,
- outstanding resource waters, such as cold water trout streams
- lakes participating in EPA's Clean Lakes Program, at or within 100 feet of major reservoirs
- permanent streams (except the Missouri or Mississippi Rivers); and
- sinkholes, losing streams or other direct conduits to ground water.

This permit also requires the development of a SWPPP. Please see SWPPP requirements section of this fact sheet.

Completed applications should be submitted to the appropriate Regional Office. To find the appropriate Regional Office, visit www.dnr.mo.gov/regions/regions.htm.

The SWPPP for the MO-R109*** must be submitted with the application.

Work in defined drainages or watercourses may require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act.

There are no regular sampling requirements in the permits. However, the department may require sampling and reporting as a result of illegal discharges, compliance issues, complaint investigations or other such evidence of off-site contamination from activities at the site. If such an action is needed, the department will specify in writing any additional sampling requirements, including such information as location, extent and parameters. These general storm water permits are not transferable. The existing permittee who intends to transfer ownership of a lot or parcel of the overall permitted area is still responsible for the terms of the permit and erosion control on that site unless the new owner applies for and receives a land disturbance general permit or other department operating permit for storm water discharges from land disturbance activities.

Permittee shall maintain records at a site that is readily available from the permitted site until final stabilization of the site is achieved. The permittee shall retain copies of the general permit, the SWPPP and all amendments for the site named in the State Operating Permit, results of any monitoring and analysis and all site inspection records required by a general permit. The records shall be retained for a period of at least three years from the date of the Letter of Termination from the department.

Storm Water Pollution Prevention Plan

Storm Water Pollution Prevention Plans are to ensure the design, implementation, management and maintenance of Best Management Practices in order to reduce the amount of sediment and other pollutants in storm water discharges associated with land disturbance activities, comply

with the Missouri Water Quality Standards and ensure compliance with the terms and conditions of the general land disturbance permit.

The SWPPP must include the following at a minimum:

- A site and physical condition description.
- How the drainage area will be protected.
- Description of BMPs that will be used.
- How the disturbed area will be protected from erosion.
- Locations at the site where BMPs will be installed.
- A description of the types of temporary and permanent non-structural BMPs that will be used.
- A description of the types of temporary and permanent structural BMPs that will be used.
- Location of the sedimentation basin for each drainage area with 10 or more acres disturbed at one time.
- Additional Site Management BMPs to be used such as, solid and hazardous waste management, provision of portable toilets, proper storage of construction materials, installation of containment berms and use of drip pans at petroleum product and liquid storage tanks and containers.
- The types of permanent storm water management that will be installed.

Please note that the SWPPP must be amended or updated as appropriate during the term of the land disturbance activity.

Additional SWPPP guidance documents are available from the EPA at <http://cfpub.epa.gov/npdes/stormwatermonth.cfm>.

Best Management Practices

Best management practices for storm water control cover a wide range of methods and techniques.

The following is a list showing some of the more common BMPs:

- Site planning
- Silt fencing
- Straw bales
- Rock dams
- Mulching
- Temporary berms
- Sediment basins
- Temporary seeding
- Permanent seeding
- Maintain vegetation

For more complete coverage of possible best management practices refer to the following documents:

Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, (Document No. EPA 832-R-92-005) published by the U.S. Environmental Protection Agency, September 1992.

Protecting Water Quality: A field guide to erosion, sediment and storm water best management practices for development sites in Missouri, published by the Missouri Department of Natural Resources , November 1995.

The two resources listed above contain information from the *Field Office Technical Guide* , or FOTG, Section 4, *Practice Standards and Specifications*, published by the U.S. Department of Agricultural, Natural Resources Conservation Service, or NRCS. Copies are available by contacting your local NRCS office.

Fees and Application Forms

To obtain current application forms and fee information, call or write to
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300 office
573-526-1146 fax
www.dnr.mo.gov/env/wpp/index.html

In the St. Louis Region, obtain current application forms and fee information from
Missouri Department of Natural Resources
St. Louis Regional Office
7545 S. Lindbergh, Ste. 210
St. Louis, MO 63125
314-416-2960
www.dnr.mo.gov/regions/slro.htm

For More Information

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