



Nicholas Kelly, General Permit Team Lead
Department of Agriculture & Natural Resources
Water Quality Program

Department of Agriculture and Natural Resources

Water Quality General Permitting



Program Overview

- Department of Agriculture and Natural Resources (DANR)
 - Office of Water
 - Water Quality Program
 - 3 teams:
 - Water Quality Standards
 - Individual Permitting
 - General Permitting – what we will be discussing today

Contact info:

Shared Email Address: stormwater@state.sd.us

Shared Phone Number: 800-737-8676



Team Members

- Aaron Ward
 - Program Admin
- Nick Kelly
 - General Permit Team Lead
- Katie Adair
 - Program Assistant
- Jacob Suter
 - Environmental Scientist – Watertown Office
- Raul Vasquez
 - Environmental Engineer – Rapid City Office
- Roderick McRae
 - Environmental Engineer – Currently Deployed with the National Guard

Permit Programs





Permit Areas

- 12 General Permits, 7 permit areas:
 - Stormwater
 - Wastewater
 - Drinking Water Treatment
 - Biosolids
 - Pretreatment
 - Pesticide Application
 - Temporary Discharge (dewatering)



Permitting Programs

- National Pollutant Discharge Elimination System (NPDES) is implemented by EPA
- EPA may delegate this responsibility to states that request it and meet the requirements
- NPDES program requires that all point source discharges of pollutants to surface waters obtain a permit
- Point source:
 - Any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged
- For stormwater discharges, classification as a point source is based on activity description, if an activity is “categorical”, a permit is required to perform said activity



Permitting Programs Cont.

- Pretreatment covers the discharge of pollutants to publicly owned treatment works (POTWs)
 - The same “categorical” method used for stormwater also applies to the pretreatment program, if a facility falls into a category, a permit is required to discharge to a POTW
 - Additionally, “significant users”, dischargers with the potential to impact the POTW, are required to be permitted
- Biosolids permitting covers the disposal of sewage sludge
 - Sewage sludge is the solid waste stream from POTWs, consisting of mostly organic matter
 - Disposal of this waste stream is eventually required by all POTWs

Overview of Permits





Stormwater

- Industrial
 - 11 categories split into 29 sectors
 - No Exposure Certification – categorical facilities that do not have pollutants exposed to stormwater
- Construction
 - All sites with disturbed area over 1 acre
 - Area includes support activities, such as vehicle storage or borrow sites
 - Also includes projects that are less than 1 acre but part of a larger common plan of development
- Municipal Separate Storm Sewer Systems (MS4s)
 - “Urbanized Area” with population over 10,000 people





Drinking Water Treatment

- One permit, two discharge sources permitted:
 - Treated Drinking Water from the Distribution System
 - Mostly covers removal of chlorine/ammonia used to disinfect water
 - Incidental discharges of raw intake water and partially treated drinking water
 - Discharges covered under this section are generally not part of normal operation



Wastewater



- Three wastewater permits:
- Discharges to 9, 10 classified streams:
 - Written to meet water quality standards for all streams of a certain classification:
 - 9 – Fish and wildlife propagation, recreation, and stock watering waters
 - 10 – Irrigation Waters
 - Covers routine/continuous discharge
 - Requirements for sanitary sewer overflows, other incidental discharges
- Non-discharging wastewater lagoons:
 - Covers discharges for emergency maintenance purposes
 - Requirements for sanitary sewer overflows, other incidental discharges
- Non-discharging DOT interstate rest areas:
 - Largely the same as no discharge lagoon permit



Biosolids

- One biosolids permit, three disposal options:
- Class A Biosolids:
 - Treated to be essentially pathogen free, can be sold as fertilizer to the general public
- Land Application (Class B):
 - Land application rates – nutrients and, if present, metals
 - Monitoring requirements
 - Pathogen reduction, vector attraction reduction
 - Requirements for site use after application of biosolids
- Landfilling:
 - Must meet landfill requirements: paint filter test, landfills do not accept bulk liquids, Toxicity Characteristic Leaching Procedure, no hazardous waste at most landfills



Pretreatment

- One permit, one categorical user type:
- Metal Finishers :
 - Monitoring for and limits on metals
 - Monitoring for and limits for pH
- POTWs may have approved programs that allow them to permit their own industrial users
- For POTWs without approved programs, the state is the permitting authority



Pesticide Application

- Two permits for pesticide application:
- Discharges of pesticides into waters of the state for treatment of invasive animal species:
 - Used to permit discharges of pollutants necessary to clean out and control zebra mussels and other similar aquatic invasive species
 - Must develop a pesticide discharge management plan:
 - Use the minimum effective amount of pesticide
 - Stop if adverse effects are observed
- General discharge of pesticides:
 - Notice of Intent is waived for most all dischargers of pesticides covered under this permit (dischargers do not need to submit anything to the state to obtain coverage, they are covered automatically)



Temporary Discharges

- One permit, covers discharges less than one year in duration
- Often used to permit dewatering on sites that do not have construction stormwater coverage
- Used on construction sites for dewatering that is not covered under the construction stormwater permit, for example hydrostatic testing

Industrial Stormwater Overview





Categories Requiring Coverage

1. Facilities subject to federal stormwater effluent discharge standards at 40 CFR Parts 405-471
2. Heavy manufacturing (e.g., paper mills, chemical plants, petroleum refineries, steel mills and foundries)
3. Coal and mineral mining and oil and gas exploration and processing
4. Hazardous waste treatment, storage, and disposal facilities
5. Landfills, land application sites, and open dumps with industrial wastes
6. Metals scrapyards, salvage yards, automobile junkyards, and battery reclaimers
7. Steam electric power generating plants
8. Transportation facilities that have vehicle maintenance, equipment cleaning, or airport deicing operations
9. Treatment works treating domestic sewage with a design flow of 1 million gallons a day or more
10. Construction sites that disturb 5 acres or more (permitted separately)
11. Light manufacturing (e.g., food processing, printing and publishing, electronic and other electrical equipment manufacturing, public warehousing and storage)



Physical Considerations

- To minimize pollution in stormwater runoff:
 - Cover all outdoor garbage containers and ensure they do not leak
 - Do not store chemical containers outdoors (unless they are sealed)
 - Protect materials that could contribute pollution to runoff from stormwater
 - Keep any vehicles or machinery stored outdoors well maintained
 - Install velocity dissipation at stormwater outlets to minimize erosion
 - If contact between materials and stormwater is unavoidable, stormwater treatment can be implemented, such as detention basins to allow time for pollutants to settle out, oil/water separators to catch hydrocarbons or grease traps to catch fats
 - Maintain a vegetative buffer where possible to help catch particles mobilized in stormwater, minimize velocity, and promote infiltration
 - Control the flow of stormwater with curbs, gutters, swales, and other features
 - Utilize secondary containment for chemicals stored on site



Operational Considerations

- To minimize pollution in stormwater runoff:
 - If any visible pollution (oil sheen, discoloration, foam, floating solids, etc.) is present, determine the source and implement control measures to remove the source's contact with stormwater
 - Implement good housekeeping practices, clean up and maintain outdoor areas free of trash or things that could be mobilized in stormwater (e.g. rock salt)
 - Perform activities with a high likelihood of spills indoors, such as vehicle maintenance
 - Dispose of unused equipment instead of keeping on site



No Exposure

- To qualify for no exposure:
 - Activities and materials must be maintained in a storm resistant shelter; a storm resistant shelter is a completely roofed building and, if the structure is subject to any run-on or a material may be mobilized by wind, walled
 - Temporary outdoor storage during facility construction and renovation may be allowed if controls are deemed sufficient
 - Drums, barrels and tanks may be stored outside if they are sealed with no operational taps or valves – no access to the contents of the containers may occur outdoors
 - Above ground storage tanks may be exempt, so long as contents are not allowed to contact stormwater and the tanks are not associated with vehicle maintenance
 - Outdoor dumpsters must be lidded
 - Vehicles must be adequately maintained so as to not leak (industrial machinery may not be kept outdoors)
 - Final products intended for outdoor use may be kept outdoors