

CHAPTER 21-3.3 CONSTRUCTION SITE STORM WATER DISCHARGE

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A. Purpose

This section provides guidelines to ensure that the construction of Indian Health Service (IHS) health care facilities and quarters comply with the National Pollutant Discharge Elimination System (NPDES) for storm water discharges from construction sites.

B. Scope

This section includes requirements for new IHS construction, renovation, and/or alteration of healthcare facilities and staff quarters.

The criteria referenced may not cover all possible conditions and requirements. Problems, arising from specific project conditions not covered herein, shall be resolved through the exercise of sound judgment and prudent design practice, compatible with the references delineated in this section.

C. Executive Orders, Laws, Codes, and Standards

Health care facilities and quarters design and construction shall comply with the following:

- Codes and Standards required in this section and Chapter 21-2 "General/Architectural guidelines" in Volume III, Part 21;
- EPA Storm Water Pollution Prevention plans - <http://cfpub.epa.gov/npdes/stormwater/swppp.cfm>;
- Clean Water Act, Storm water control program;
- Executive Order 11988, Floodplain Management, May 24, 1977;
- State and Local Codes: It is the practice of IHS to comply with state, local, or tribal codes and ordinances wherever feasible. If such compliance presents a major cost impact, the local Government or tribal representative shall be advised;
- Rules and regulations of the local utility companies; and

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- Applicable standards of the following organizations:
 - . AWWA American Water Works Association,
 - . HI Hydraulics Institute,
 - . NFPA National Fire Protection Association,
 - . PDI Plumbing and Drainage Institute, and
 - . WEF Water Environment Federation.

D. Reference Standards

- (a) The EPA Storm Water Program at http://cfpub.epa.gov/npdes/home.cfm?program_id=6 provides guidance on the development of storm water pollution plans and identification of appropriate best management practices (BMPs) for construction activities. It provides technical assistance and support for construction activities subject to pollution prevention requirements established under the NPDES permits for storm water point source discharges.
- (b) Clean Water Act of 1987, mandates that EPA establishes a storm water control program in two phases. Phase I application requirements were published on November 16, 1990, and Phase II regulations, on December 8, 1999.

Phase I regulates medium and large construction activities of five acres or larger (or less if part of a common plan of development or sale), and industrial activities.

Phase II extends the regulations to small construction activities that disturb one to less than five acres (or less than 1 acre if part of a common plan of development or sale).

E. Policy

It is the intent of Indian Health Service to comply with national policies for storm water discharges from construction sites for its health care facilities and staff quarters projects. Indian Health Service construction projects shall comply with the Environmental Protection Agency (EPA) requirements established under the NPDES permit program.

As authorized by the Clean Water Act, the NPDES program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. There are at least five states, Colorado, Delaware, Texas, Vermont, and Washington, in which the State has general NPDES authority but EPA retains permitting authority for federal facilities. EPA administers the NPDES program for entities located on most Native American lands.

The NPDES permitting process also includes the Endangered Species Act (ESA) requirements where significant habitat modification or degradation would

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significantly impair essential behavioral patterns of fish or wildlife. Refer to <http://endangered.fws.gov/policies/index.html> which also includes information on working with Native American Tribes.

Some American Indian and Alaska Native governments with responsibility for issuing certified permits have established water quality standards that may add more stringent requirements. Verification with the Tribal authorities with regards to special permits should be done early in the construction project planning and design phases.

Destruction of vegetation that previously slowed runoff and reconfiguration of natural site grading contribute to erosion problems. The pollution prevention plan for construction (which includes demolition) should be designed to reduce pollution at the construction site before it can cause environmental problems. The plan requires that the following objectives be met:

- Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse;
- Prevent sedimentation of storm sewer or receiving stream;
- Prevent polluting air with dust and particulate matter.

The EPA publication EPA-833-R-92-001 describes two types of measures that can be used control sedimentation and erosion:

- (a) Stabilization - to prevent soil erosion, includes temporary seeding, permanent seeding, and mulching;
- (b) Structural Controls - implemented to retain sediments after erosion has occurred; includes earth dikes, silt fencing, sediment traps, and sediment basins.

The application of these measures depends on the conditions of the specific site.

F. Storm Water Runoff Construction Permit Process

The EPA requires that construction activities occurring under each phase be performed under either a permit or a waiver. The permit issued by the EPA is called the construction general permit (CGP). It has already been published since it is general in nature (note that permit coverage is actually provided by legally separate and distinctly numbered permits covering each of the areas where EPA is the permitting authority). It specifies the conditions and under which the permit is provided. The EPA's CGP can be found from a link at

<http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>. Note that the EPA's CGP is only applicable in those areas (i.e., states, Indian lands, or territories) where the EPA is the permitting authority. These are areas where the local government does not have primacy and have not been authorized by the EPA to administer their own programs). A listing of permitting coverage areas, authorities, permit numbers, and whether or not additional permit conditions apply within the US can be found at <http://cfpub.epa.gov/npdes/stormwater/authorizationstatus.cfm>.

The EPA's CGP has three primary elements, which are explained below: (note that these should be core requirements with other permitting authorities as well)

- 1) Notice of Intent (NOI)
 - a. The NOI is a form (see http://www.epa.gov/npdes/pubs/cgp_appendixe.pdf) that includes general information regarding the anticipated project/contract activities.
 - b. The NOI requires a certification that the activity will not impact endangered or threatened species (note that this may not be a requirement of other permitting authorities (i.e., states, Indian country, or territories who have primacy)).
 - c. The NOI must be postmarked to one of the addresses below or submitted electronically via <http://cfpub.epa.gov/npdes/stormwater/enoi.cfm> at least two days prior to commencement of any work at the site. Note that more than one NOI may be required. The EPA requires an NOI to be filed by each "operator" (entity with control over plans and specifications and/or the day-to-day site operations). EPA, therefore, could require the Government, Tribe, as well as the construction contractor to each file a NOI.

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The NOI filing addresses are listed below:

For Regular U.S. Mail Delivery:

Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

- 2) Storm Water Pollution Prevention Plan (SWPPP)
 - a. The SWPPP describes the site including potential pollutant sources and other information.
 - b. The SWPPP describes the planned best management practices (BMPs) for controls over
 - i. erosion and sediment
 - ii. storm water management, and
 - iii. other related issues.
 - c. The SWPPP describes the plan for regular inspections of areas which have not been stabilized, exposed materials storage areas, structural controls, and vehicle entrances and exits.
 - d. The SWPPP describes the plan for regular maintenance of controls.
 - e. The SWPPP includes the signature of at least one person responsible for submitting the NOI.
 - f. The SWPPP must be accessible at the construction site.
 - g. The SWPPP does not have to be sent in to the EPA.

- 3) Notice of Termination (NOT)
 - a. The NOT is a form(see http://www.epa.gov/npdes/pubs/cgp_appendixf.pdf) that includes claim of termination of project/contract activities which has to be provided to the EPA within 30 days of
 1. Final stabilization, or
 2. When another entity has assumed control.
 - b. The NOT must be e-mailed or mailed to one of the addresses listed above under 1c.

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In addition to obtaining a permit through the CGP, the phase II regulations allow another potential option for addressing the construction permitting requirement for small sites. This option involves applying for a waiver. There are three methods which can be used to qualify for a waiver as follows:

- 4) Rainfall Erosivity Waiver
 - a. The Rainfall-erosivity waiver can be used successfully in arid or semi-arid areas or for projects which could be completed entirely within a dry part of construction season.
 - b. It must include calculation of anticipated storm water erosivity associated with the site for the planned construction period (see instructions at <http://www.epa.gov/npdes/pubs/fact3-1.pdf>).
 - c. These calculations are based on the revised universal soil loss equation (RUSLE); see <http://www.epa.gov/npdes/pubs/ruslech2.pdf>).
- 5) Total Maximum Daily Loads (TMDL) Waiver
 - a. The TMDL Waiver can only be used if the EPA has established or approved a TMDL (see <http://www.epa.gov/owow/tmdl> for TMDL reports) that addresses the pollutant(s) of concern (e.g., sediment related pollutants such as total suspended solids, turbidity, and siltation) for the body of water potentially receiving the storm water discharge from the construction site; and
 - b. It can only be used if the EPA has determined from the established or approved TMDL that controls on storm water discharges are not necessary.
- 6) Equivalent Analysis Waiver
 - a. The Equivalent Analysis Waiver can only be used for non-impaired waters (i.e., waters which have been determined to not be at risk).
 - b. It requires a technical analysis allocating the potential pollutants which may be introduced to a receiving stream compared to the pre-existing pollutant levels.

Note that waivers must be submitted and approved by the EPA before any construction activities begin.