

MCM 4: Erosion and Sediment Control Code Changes

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Ohio EPA MS4 Program

Minimum Control Measure 4:

Construction Site Runoff Control

Developing, implementing and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land.

Ohio EPA MS4 Permit

- An ordinance to require erosion and sediment controls, as well as sanctions to ensure compliance.
- Ordinance, at a minimum, must be equivalent with the technical requirements in the OEPA NPDES General Storm Water Permit(s) for Construction Activities
 - General Construction Permit OHC000003
April 21, 2008
- Communities must revise ordinances or other regulatory mechanisms within 2-years (2011).

Updates to E&S Code

- Review the changes to **Ohio Construction General Permit (CGP) OHC000003** that will change community code.
- Highlight those changes in CRWP and NOACA model codes that coincide with CGP changes.

Part III.E - Duty to Inform Contractors and Subcontractors

The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures of each individual contractor shall be obtained prior to their commencement of work on the construction site.

Code Updates - CRWP

Chapter XXXX.09 Performance Standards

Add:

“The SWP3 shall identify all subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3.”

Code Updates - NOACA

Construction Site Conservation Plan (page 4)

Add:

“The SWP3 shall identify all subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3.”

Part III.G.2 - Controls

Sediment Settling Pond (Part III.G.2.d.ii, Page 17)

A sediment settling pond is required for any one of the following conditions:

- concentrated storm water runoff (e.g., storm sewer or ditch);
- runoff from drainage areas, which exceed the design capacity of silt fence or other sediment barriers;
- runoff from drainage areas that exceed the design capacity of inlet protection; or
- runoff from common drainage locations *with 10 or more acres of disturbed land.*

Part III.G.2 - Controls

Sediment Settling Pond (Part III.G.2.d.ii, Page 18)

The volume of the dewatering zone shall be a minimum of 1800 cubic feet (ft³) per acre of drainage (67 yd³/acre) with a minimum 48-hour drain time for sediment basins serving a drainage area over 5 acres.

Part III.G.2 - Controls

Sediment Settling Pond (Part III.G.2.d.ii, Page 18)

- The depth of the dewatering zone must be less than or equal to five feet.
- The configuration between inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length: width ratio), *however, a length to width ratio of 4:1 is recommended.*

Code Updates – CRWP, Chapter XXXX.09.d.2

Sediment settling ponds. A sediment settling pond, or equivalent best management practice upon approval from the [community] Engineer and/or the [county] SWCD, is required for any one of the following conditions, as determined in Table 3 below:

- A. Concentrated storm water runoff.
- B. Runoff from drainage areas that exceeds the design capacity of silt fence or inlet protection.
- C. **10-acres of disturbed drainage.**

The sediment-settling pond shall provide both a sediment storage zone and a dewatering zone. **The volume of the dewatering zone shall be at least 67 cubic yards of storage per acre of total contributing drainage area and have a minimum of 48-hour drain time for sediment basins serving a drainage area over 5 acres.**

The volume of the sediment storage zone shall be calculated by one of the following methods:

- A. The volume of the sediment storage zone shall be 1000ft³ per disturbed acre within the watershed of the basin.
- B. The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with a generally accepted erosion prediction model.

Code Updates – CRWP

Chapter XXXX.09.d.2 Sediment Settling Ponds
Second Paragraph Add:

- *The depth of the dewatering zone must be less than or equal to five (5) feet.*
- The configuration between the inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length:width ratio), *however a length to width ration of 4:1 is recommended.*

Code Updates - NOACA

Modifications to Minimum Standards Section 9
Add new Section A:

A sediment settling pond is required for any one of the following conditions:

- *concentrated storm water runoff (e.g., storm sewer or ditch);*
- *runoff from drainage areas, which exceed the design capacity of silt fence or other sediment barriers;*
- *runoff from drainage areas that exceed the design capacity of inlet protection; or*
- *runoff from common drainage locations with 10 or more acres of disturbed land.*

Code Updates - NOACA

Modifications to Minimum Standards Section 9
Amend existing Section B:

Each facility's storage capacity shall *consist of a dewatering zone and a sediment storage zone. The dewatering zone shall be no less than 1800 cubic feet per acre of total contributing drainage area (with a minimum 48-hour drain time for sediment basins serving a total contributing drainage area over 5 acres). The sediment storage zone shall be no less than 1000 cubic feet per disturbed acre within the total contributing drainage area.*

Code Updates - NOACA

Modifications to Minimum Standards Section 9
Amend existing Section D:

The design configuration between inlet(s) and the outlet of settling ponds must provide at least two units of length for each one unit of width (>2:1 length to width ratio). *A length to width ratio of 4:1 is recommended.*

Part III.G.2 - Controls

Silt Fence and Diversions: (Part III.G.2.d.iii, Page 18)
Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour downslope of the disturbed area. This permit does not preclude the use of other sediment barriers designed to control sheet flow runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in the table below.

Code Update - CRWP

Chapter XXXX.09.d.3 Silt Fence and Diversions

- Add the following language to the Silt Fence Section.
"Placing silt fence in parallel does not extend the permissible drainage area to the silt fence."
- Clarify Information from Rainwater and Land Development Manual

Part III.G.2 - Controls

Inlet Protection: Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond. *All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.* (Part III.G.2.d.iv, Page 19)

Code Updates - CRWP

Chapter XXXX.09.d.4 Inlet protection

Add the *Italicized* language:

Erosion and sediment control practices, such as boxed inlet protection, shall be installed to minimize sediment-laden water entering active storm drain systems. *All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.* Straw or hay bales are not acceptable forms of inlet protection.

Code Updates - NOACA

Modifications to Minimum Standards Section 10

Add new Section B:

All storm sewer inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.

Part III.G.2.i - Inspections

- The inspection frequency may be reduced to at least once every month if the site is temporarily stabilized or runoff is unlikely due to weather conditions.
- Once a definable area has been finally stabilized, mark on SWP3, and no further inspection requirements apply to that portion of the site.

Part III.G.2.i - Inspections

A waiver of inspection requirements is available during frozen conditions until one month before thawing is expected if:

- Frozen conditions for extended periods of time (> 1 month);
- Disturbance activities have been suspended; and
- Beginning and ending dates of waiver period are documented in the SWP3.

Part III.G.2.i - Inspections

The inspection form shall include:

- The inspection date.
- Names, titles and qualifications of personnel making the inspection.
- Weather information for the period since the last inspection.
 - Best estimate of the beginning of each storm event,
 - Duration of each storm event and approximate amount of rainfall for each storm event in inches, and
 - Whether any discharges occurred.
- Weather information and a description of any discharges occurring at the time of inspection.

Part III.G.2.i - Inspections

The inspection form shall include:

- Locations of:
 - Discharges of sediment or other pollutants from site.
 - BMPs that need to be maintained.
 - BMPs that failed to operate as designed or proved inadequate for a particular location.
 - Where additional BMPs are needed that did not exist at the time of inspection.
- Corrective action required including any necessary changes to the SWP3 and implementation dates.

Code Updates - CRWP

Chapter XXXX.09.h Internal Inspections
Add new language from CGP Part III.G.2.i

Code Updates - NOACA

Modifications to Minimum Standards Section 20

Modify Section C and add new Section D to incorporate new language from CGP Part III.G.2.i

Part VII.T – Definitions

Qualified Inspection Personnel: Means a person knowledgeable in the principles and practice of erosion and sediment controls, who possesses the skills to assess all conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.

Part VII. AA – Definitions

Surface Waters of the State or Water Bodies: means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.

Code Updates – CRWP and NOACA

Part VII.T and AA – Definitions

- CRW Model - Chapter XXXX.02
 - Add Definitions to Section
- NOACA Model
 - Add to Definitions Section