

20CP Information Package for Construction Compliance

Description:

The Maryland Department of the Environment (MDE) has reissued the State/National Pollution Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity. The new permit will be No. 20-CP (NPDES No. MDRC), effective April 1, 2023. This permit replaces the 14-GP. [The permit applies to stormwater discharges from construction activities in the state of Maryland that will disturb one or more acres of land.](#) MDOT SHA is currently evaluating projects that requires the general authorization to have them converted on or before September 30, 2023. If a project expands the LOD, a redline is required therefore forces the project to comply with 20-CP and any future iterations of the permit.

The following is a summation of new or changed requirements by the 20 CP NPDES permit. All the required reports referenced in the following are accessible on both the MDE website [General Permit for Stormwater Associated with Construction Activity \(maryland.gov\)](#) and in the Quality Assurance Toolkit Reference Documents Section. Note that all reports must be signed by the signatory of the permit or an authorized representative per the permit definition.

Purpose:

To give the immediate stakeholders (Construction Project Engineer (CPE) and the Contractor's Erosion and Sediment Control Manager (ESCM)) on MDOT SHA projects a clear understanding of their roles and responsibilities to comply with 20-CP (NPDES No. MDRC).

Permit Coverage:

The 20-CP NPDES permit issued by the Maryland Department of the Environment (MDE) has several changes to the responsibility by the operator of a project. The following items must be understood for all projects that have been issued a 20-CP NPDES permit. Projects with the 14GP NPDES permit are to continue to follow the current guidance until converted to a 20-CP through the redline process..

On-Site Records and Permit Posting: (changed)

Maintaining records on-site is consistent with the 14GP NPDES except for the posting requirements. On projects that have the 20-CP NPDES permit a posting of coverage must be in a safe publicly assessable location nearest the construction activity in a font visible from the right of way. For linear construction projects that extend over miles and for which a posting may be insufficient to provide notice of permit coverage, any proposed alternative methods of notification must be approved by the inspector (MDE) during the preconstruction meeting.

Storm Water Pollution Prevention Plan (SWPPP): (new)

A Storm Water Pollution Prevention Plan will be developed by SHA and included with the Notice of Intent (NOI) submission. This document will outline how to conduct certain aspects or business on the project that may present a risk of stormwater pollution such as fuel or material storage by referencing the contract SPI and E&S Plan General Notes. The SWPPP requires the designation of a Stormwater Team as noted in the following section. Changes or Plan Modifications directly impacting the NPDES coverage may require updates to the SWPPP by the signatory, (The ADE of Construction).

Stormwater Team: (new)

A stormwater team is now required to be identified and documented as part of a pre-construction meeting. At least one team member must hold a valid MDE Responsible Personnel Certification (RPC). Per the permit language the combination of the Contractors ESCM and the Project Engineer together would qualify as a team by having day-to-day operational control of the activities of the project that are necessary to maintain compliance with the permit, including directing workers at the site to carry out permit compliance activities.

Rain Gauge: (new)

All projects covered by the 20-CP NPDES permit are required to have a rain gauge on site or utilize the nearest National Weather Service (NWS) monitoring station to be able to record rain event data for a project. Per existing specifications, the contractor must submit to the Engineer and REC for acceptance and approval, the location of the nearest official NWS gauge station or submit a proposal to install a gauge station for the specific location(s) of work. Proposals shall include detailed information regarding the type, location, accuracy, methodology, and security of the rain gauge. A [Rainfall log](#) (provided by SHA) must be kept in the record at the field office.

Project Inspections: (changed)

The Project Engineer is responsible for inspecting the project and completing a [Standard Inspection Report](#) (provided by MDE) just as was required in the 14GP NPDES permit. This has been and will continue to be done by an SHA representative on the project. There are several criteria for the frequency of the standard inspection reports.

All projects covered by a 20-CP NPDES permit must conduct 2 inspections per week. Either of the following scenarios will satisfy this requirement

- a. Once each calendar week (Sunday to Saturday), and after a storm event of 0.25 inches or greater within 24 hours (either the same day the rainfall event concludes or the next day)
- b. Once every 4 business days.

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If the project has been identified to be within a Tier II watershed or impaired waters the inspections must be conducted twice every week and when reasonably possible the inspection(s) should occur within 24 hours of any storm event of 0.25 inches or greater

A project may reduce inspections to twice per month for the first month (≤ 14 calendar days apart) in any area of your site where final stabilization has occurred. After the first month, you must inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If “wash-out” of stabilization materials or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required. Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

Any project that has dewatering activities will have additional reporting responsibilities as noted in that section of this document.

Dewatering Practices: (changed)

MDE has historically required monitoring of dewatering activities utilizing visual observation to ensure discharge clarity. A project that has the 20-CP NPDES permit and impacts Tier II or impaired waters will require more stringent monitoring than in the past.

On projects that have the 20-CP NPDES permit and impact Tier II or impaired waters, the contractors ESCM be required to conduct one turbidity test per day for each dewatering discharge location. This measurement is to be recorded on a Turbidity Log to be submitted to the Project Engineer. The turbidity limit in this permit is a maximum of 150 NTUs. If the test result is above 150 NTUs then the associated dewatering operation must stop, and correction must be taken immediately (see Corrective Actions in the next section of this document).

When dewatering operation(s) are occurring a Dewatering Inspection Report (provided by MDE) must be completed daily for each dewatering location. This is an independent report from the overall project inspections. Even with an acceptable turbidity measurement the discharge must be monitored throughout the operation to ensure no change in condition occurs.

Within 28 days of the end of each monitoring quarter (listed on report) the permittee must summarize the dewatering test data for each discharge point using the Turbidity Monitoring Report (provided by MDE in Appendix D). This report is to be submitted through the ePermits system and maintained in a log for 3yrs. This report will be completed by SHA utilizing the Turbidity Log and Dewatering Inspection Reports provided by the contractor.

Collecting and Analyzing Turbidity Benchmark Monitoring Samples

The protocol below outlines the appropriate steps for collecting a grab sample for turbidity benchmark monitoring. A grab sample is a single sample obtained by filling up a container directly from the source. Always wear clean, disposable, powder-free gloves during sampling activities. To avoid sample contamination, dispose of the gloves after using them once. You should refer to the turbidity meter manufacturer's instructions for details on calibrating and using your meter.

1. Conduct a daily calibration verification consistent with the manufacturer's instructions.
2. Fill the cuvette (or other sample container) directly from the sampling location. Make sure not to set its opening on the ground, or against the mouth of the discharge point, to avoid contaminating the sample.
3. If you have used a different container to collect the sample, transfer the sample to the cuvette.
4. Gently agitate or mix the sample before transferring to keep the solids in suspension during the transfer.
5. Pour the sample onto the interior wall of the cuvette to avoid bubble formation.
6. Wipe the outside of the cuvette with a clean cloth or tissue and gently agitate the sample to disperse the solids before inserting the turbidity meter.
7. Run the meter and record the result in NTUs on the sampling form.
8. Empty the cuvette and other sampling container (if you used one). Rinse and dry them before collecting and analyzing another sample.



If you are taking multiple dewatering samples for analysis with a benchtop turbidity meter in the trailer, be sure to properly label the containers so the sample results can be matched to each sampling location.

Corrective Action related to dewatering: (new)

On projects that have the 20-CP NPDES permit and impact Tier II or impaired waters the Contractors ESCM will be required to document the corrective actions taken when the turbidity monitoring results exceed the allowed 150 NTUs. The follow-up correct actions must be recorded on the Corrective Action Log (provided by MDE). When the corrective actions have been completed the dewatering activity can be resumed and additional testing must be conducted/documentated to ensure the correction was effective.

Correction of dewatering issues could be a wide range of actions and may include:

1. Maintaining the portable sediment tank or replacing the sediment bag
2. Reducing the discharge rate (slowing the pump)
3. Adding additional devices to increase capacity
4. Requesting a modification for other dewatering methodologies
5. Requesting a modification to utilize chemical additives

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The following timeframes must be followed for the first Triggering Event

1. Immediately stop the dewatering activity to minimize or prevent pollutant discharge
2. Immediately assess the cause of the improper discharge
 - a. If needed contact QAD REC to discuss possible corrective actions.
3. Make corrective actions prior to resuming operations

Using Chemical Additives: (new)

The 20CP NPDES Permit allows for a project to utilize chemical additives (Flocculants) for sediment control. If the use of chemical additives is not already allowed in the NOI submittal then approval must be granted prior to use. If the contractor's ESCM wants to utilize chemical additives for sediment control is to submit a modification through the standard process for review by PRD and MDE. Chemical additives will most likely have additional requirements in monitoring when approved for use.

Bypass: (changed)

A Bypass is a situation where sediment laden water is discharged by the project without utilizing a sediment control device such as a Dewatering Tank or Sediment Bag.

On projects that have the 20CP NPDES permit the Project Engineer (the permittee as the SHA representative on the project) must notify MDE within 24 hours of becoming aware that a bypass has occurred. If the notification is verbal, it must be followed by a written submission within five days of the permittee becoming aware of the event.

Where the need for a bypass is known (or should have been known) in advance, this notification must be submitted to the Department for approval at least ten calendar days before the date of bypass or at the earliest possible date if the period of advance knowledge is less than ten calendar days.

Upset: (changed)

An Upset is directly related to Triggering Events. When a Triggering Event occurs on a project the issue must be addressed and the corrective actions report be completed related to the issue. When these events occur MDE must be notified and will then determine if the event constitutes an Upset. A determination of Upset by MDE would be a recognition that even though a non-compliance occurred it is a no-fault situation.

On projects that have the 20-CP NPDES permit the Project Engineer (the permittee as the SHA representative on the project) must submit notification of the upset (triggering event) within 24-hours of becoming aware of the upset in accordance with the reporting requirements of Corrective Actions listed below in this document as they differ from dewatering corrective action reporting. Within five days following the notification of the upset the permittee must then submit documentation to support and justify the upset. MDE will utilize the provided to determine if an Upset determination is valid.

Corrective actions and deadlines not related to dewatering: (new)

On projects that have the 20-CP NPDES permit the Project Engineer must document each corrective action taken on the Corrective Action Log (provided by MDE). Corrective action is outlined in the permit as any of the following.

Conditions Triggering Corrective Action

You must take corrective action to address any of the following conditions identified at your site:

1. A stormwater control needs repair or replacement (beyond routine maintenance)
2. A stormwater control was never installed, or was installed incorrectly
3. Discharges are causing an exceedance of applicable water quality standards
4. A prohibited discharge has occurred
5. Indications exist of significant amounts of sediment discharging such as:
 - a. Earth slides or mud flows
 - b. Concentrated flows of stormwater such as rills, rivulets or channels that cause erosion when such flows are not filtered, settled or otherwise treated to remove sediment
 - c. Turbid flows of stormwater that are not filtered, settled or otherwise treated to reduce turbidity
 - d. Deposits of sediment at the construction site in areas that drain to unprotected stormwater inlets or catch basins that discharge directly to surface waters
 - e. Deposits of sediment from the construction site on public or private streets outside of the permitted construction activity
 - f. Deposits of sediment from the construction site on any adjacent property outside of the permitted construction activity; or
 - g. Discharges from the construction site to municipal conveyances, curbs and gutters, or streams running through or along the site where visual observations show that the discharges differ from ambient conditions in terms of turbidity so as to indicate significant amounts of sediment present in them

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The following timeframes must be followed for the first Triggering Event.

1. One business day after trigger event - Verify compliance with the E&SC plans and SWPPP. Make corrections immediately.
2. Second business day after trigger event - If in compliance, contact QAD REC and MDE Compliance to discuss corrective actions proposed to improve performance
3. Within four days after the trigger event – Implement approved changes, if needed

The following timeframes must be followed for any subsequent triggering event(s):

1. Within three days - Contact QAD and MDE Compliance to discuss features of an improved E&SC plan and/or SWPPP
2. Within fourteen days – submit revised plan(s) to PRD for approval
3. Immediately implement the approved revised plan(s)

Reports and Logs summary:

The following is a list of all the associated report and Logs with notes related to the individual purpose and individual responsible. Clicking the title of the will download the report from the Toolkit reference section.

- **MDE Standard Inspection report**
 - Same as with the current 14-GP NPDES permit, this will be completed by SHA project representative as required at least twice weekly or more.
 - The reason for Inspection and the Rain/Storm event section must be accurate, this may require tracking rain data from sources such as nearest NWS gauge or an on-site rain gauge.
- **Turbidity Benchmark Monitoring Log (E&S General Note 26.D.I)**
 - Completed by the contractor a minimum of once a day for each active dewatering location to measure turbidity readings.
 - Must be provided to PE.
- **Dewatering Inspection Report (E&S General Note 26.E, 12 and 4.I)**
 - To be completed by the contractor at each dewatering location daily.
 - Must be provided to the PE for review and signature.
- **Corrective Action Log (covers 2 different conditions, E&S General Note 4.F and 4.G)**
 - For dewatering this must be completed by the contractor when turbidity is over 150 NTU's and provided to the PE for review and signature
 - For other issues such as a significant control correction or triggering event, this is to be completed by the PE as it is directly related to the Standard inspection report.
- **Turbidity monitoring report form (E&S General Note 26.D.II), Appendix D**
 - Completed by the Signatory or duly authorized representative (SHA-ADE/Project Engineer) and uploaded to the MDE portal quarterly, information from the Dewatering Log and other reports are utilized for completion of this document.
- **Rain Fall Log**

Months	Monitoring Quarter
January 1 – March 31	1
April 1 – June 30	2
July 1 – September 30	3
October 1 – December 31	4