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## **Chapter 6**

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# **Erosion and Pollution Control**

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**645.0600 Introduction**

There are three categories of pollution associated with construction of conservation engineering measures: erosion and sediment production, chemical pollution, and air pollution. Natural Resources Conservation Service (NRCS) policy on minimizing erosion and sediment during construction can be found in Title 210, National Engineering Manual (NEM), Part 520, Subpart A, Section 520.1, which states “NRCS must include practices and techniques to minimize erosion and sediment for construction operations carried out under all programs.” Agency policy on pollution abatement in 210-NEM, Part 521, Subpart A, Section 521.2, requires that project activity work “Include appropriate provisions to minimize pollution.” Policy on air pollution at project construction sites in 210-NEM, Part 529, Subpart A, Section 529.2, states that “Appropriate provisions will be included to minimize excessive contributions to ambient air concentrations or management of the emissions so as to mitigate impacts on receptors of concern.”

The three categories of pollution are addressed in Title 210, National Engineering Handbook (NEH), Part 642, Construction Specification 5, entitled “Pollution Control.” This specification should be included in the specification package for NRCS project works and may be used in nonproject works.

A permit for stormwater discharges from construction activities is required for most groundcover-disturbing construction activities. The permitting authority will either be the Environmental Protection Agency (EPA), a State agency, or any other agency having EPA-delegated authority to administer a stormwater permit. Although permitting authorities may have requirements that are more stringent than EPA requirements, all stormwater permitting programs must comply with EPA Construction and Development (C&D) rules. Since changes can occur at any time, the inspector should always refer to the permitting authority’s regulations for the most current information. Some construction activities are exempted from needing a permit, including construction that disturbs less than 1 acre of land and those that are part of normal, ongoing farming, ranching, and forestry activities that meet the agricultural exemption criteria. But generally, if the construction involves more than one acre of land or is

part of a development that covers more than one acre of land, coverage under a permit is required.

This chapter will explain the inspector’s responsibilities related to erosion and pollution control as specified in Construction Specification 5 and will describe items that must be inspected to verify compliance with permit requirements. Even if Construction Specification 5 is not being used or the site is exempt from permit requirements, the aforementioned NRCS policy requires erosion and sediment control and pollution abatement on all conservation engineering construction activities. Thus, the guidance given in this chapter is relevant to all construction activities where NRCS is involved.

## 645.0601 Installation

### (a) Permitting requirements

Since all stormwater permitting programs must comply with EPA rules, the EPA's National Pollution Discharge Elimination System (NPDES) permitting program is the program from which all other permitting programs are patterned. Each permitting agency (the authority) has a Construction General Permit (CGP) that contains pollution control requirements that must be carried out. The construction inspector must be aware of these requirements and verify that all operators on the construction site comply with these requirements. It is also important to keep abreast of changes in the CGP requirements. Questions and answers about permitting requirements listed below.

#### (1) What is a CGP?

A CGP is a document listing stormwater controls that, when implemented, will allow ground-disturbing construction to comply with the authority's regulations. It is provided by the authority so that the operator does not have to develop an individual permit document written specifically for each project. The time and cost of developing and receiving approval for an individual permit is avoided by obtaining coverage under the CGP. The CGP includes guidelines and practices that, if followed and implemented, are known to reduce pollution from stormwater runoff discharge to an acceptable level. Coverage under the CGP means the operator has obtained permission from the authority to operate the construction site under the CGP guidelines.

#### (2) Who must obtain coverage under the CGP?

Some authorities require a single entity, usually the land owner or easement holder, to be the permittee for a given construction project. Other authorities and EPA require all relevant entities to obtain permit coverage, as co-permittees, for a given construction project.

#### (3) Who is the authority?

EPA is the authority in some States, territories, Tribal lands, and specific areas within States that otherwise have their own State-run authority. States that have

their own State-run authority may also delegate that authority to local units of government. All authorities must abide by EPA Stormwater rules, but some authorities may implement their programs differently or may have more stringent rules than those imposed by EPA regulations. The EPA maintains current information on States and territories authorized to administer the NPDES permit program on their Web site, at <http://water.epa.gov/polwaste/npdes/basics/State-and-Tribal-Program-Authorization-Status.cfm>.

#### (4) Who is the operator?

EPA and other permitting authorities consider an "operator" to be any party associated with a construction project, other than subcontractors, that meets either of two criteria:

- The party has operational control over construction drawings and specifications, including the ability to make modifications to those drawings and specifications.
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

If the construction is being performed under a contract between the NRCS and a contractor, then both are operators. If the construction is being performed under a contract between a contracting local organization (CLO) or a landowner and a contractor, then the CLO or landowner and the contractor are operators.

#### (5) What are the notice-of-intent (NOI) requirements?

Operators of a construction activity must notify the authority, with a written notice-of-intent (NOI or eNOI if the notice is submitted electronically through the authority's Web site). The NOI notifies the authority of the intent to operate a construction activity under the authority's CGP. In 2012, the EPA CGP required that to be covered under the CGP, all operators must file a NOI 14 days prior to construction. This means that the ground cannot be disturbed until 14 days after the NOI has been filed.

#### (6) Are NOI requirements different for emergency work?

CGP requirements are likely to have different NOI submitting requirements for emergency-related work (e.g., natural disaster, such as a tornado or hurricane,

widespread disruption in essential public services, flooding, etc.). The EPA NPDES program grants immediate coverage for emergency-related construction to begin before submitting the NOI. Under the EPA program, each operator must file a NOI related to emergency work within 30 days after the beginning of construction. Other permitting authorities generally have similar requirements.

#### **(7) Who must sign the NOI?**

The NOI must be signed by a responsible corporate officer. If NRCS is an operator, the state conservationist is considered the responsible corporate officer. By signing and submitting the NOI, the operator is certifying that the information submitted is true, accurate, and complete and that the operator has met the eligibility requirements and intends to comply with the permit conditions.

#### **(8) When is the notice-of-termination (NOT) submitted?**

Within 30 days from the time that an operator ceases to have control of the drawings and specifications or construction activities on the site, the operator is required to submit a notice-of-termination (NOT or eNOT) certifying that they are no longer operating under the CGP. The contractor is generally the first operator to submit a NOT. After the contractor completes the work and submits the NOT, the contracting agency or owner must continue to operate under the CGP until the site is stabilized. The contracting agency or owner may be able to submit the NOT soon after the contractor's NOT is submitted or may have to wait until substantial vegetation is established to meet the CGP definition of stabilized. In some cases, the determination of stability of the site is more subjective than objective. The owner must learn of what the permitting agency deems as stable.

#### **(9) What are the posting requirements?**

Generally, the CGP requires the operator to post and maintain a sign or other notice conspicuously at a safe, publicly accessible location in close proximity to the project site. The notice must include the permit tracking number (a number assigned to the operator after successful submission of the NOI) and a contact name and phone number for obtaining additional project information. Where applicable, the notice must be

located so that it is visible from the public road that is nearest to the active part of the construction site and it must use a font large enough to be readily viewed from the road. It is common to post this sign near the hard hat sign that is required at the construction site entrance.

#### **(10) Who develops and signs the stormwater pollution prevention plan?**

CGPs require a stormwater pollution prevention plan (SWPPP) be developed and signed by the each operator. It is common for one operator to develop the SWPPP that is then signed and carried out by all of the operators. However, it is important to keep in mind that all operators are jointly responsible for development and implementation of the SWPPP. The SWPPP must be signed by a responsible corporate officer or someone delegated in writing to represent the operator's responsible corporate officer. If NRCS is an operator, the state conservationist or someone assigned in writing by the state conservationist is required to sign the SWPPP.

#### **(11) Can operations deviate from the SWPPP?**

The SWPPP must be revised whenever it becomes necessary to deviate from the plan. Where a new pollution control device or measure is installed and made operational, or a modification is made to an existing measure, the SWPPP must be updated (generally the authority requires it be updated within 7 days of the change) to reflect these site changes. It is a good idea to have all of the operators initial any changes to the SWPPP.

#### **(12) How often must the site be inspected for SWPPP compliance?**

Periodic site inspections are required by each authority to assess the adequacy of the implemented plan. These inspections are generally required once every 7 or 14 calendar days depending on the CGP requirements, and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. The required frequency of inspection may be less in arid climates, or more for sites discharging into sensitive waters. The required frequency of inspection should be stated in the SWPPP. A form provided by the authority is used to document the site inspection.

**(13) Who conducts compliance inspections?**

Whoever is charged with conducting the inspections must be a “qualified person”. A qualified person is one who:

- is knowledgeable in the principles and practice of erosion and sediment control and pollution prevention
- possesses the skills to assess conditions at the construction site that could impact stormwater quality
- possesses the skills to assess the effectiveness of stormwater control measures installed to meet the requirements of the permit
- is certified by a recognized organization that they are qualified to inspect erosion and sediment control measures if required by the authority

The construction inspector must be a qualified person to conduct inspections or oversee these inspections when they are conducted by another qualified person. Inspections should be noted in the job diary and the construction inspector should maintain a copy of the inspection forms with other site related documentation for the duration of the construction performance time or as otherwise directed.

**(14) What are the documentation requirements?**

The NOI, SWPPP, inspection reports, and the full text of the CGP must be maintained onsite by the person identified on the notice that is posted near the site entrance. Historically, operators have agreed to have the NRCS construction inspector keep this information in the inspector’s onsite construction office. These items should be kept together in a notebook or a divided folder. Electronic copies may be kept onsite in lieu of hardcopies. These should be organized into one main electronic folder that can be readily accessed and reviewed by the construction inspector and provided to the authority’s inspector if requested during a permit compliance inspection.

**(15) How long are records kept?**

Records must be maintained for a specified period after the last NOT is submitted. In 2012, the EPA required the SWPPP and supporting documentation be retained for a period of 3 years after completion of the project. Each of the owner-operators should maintain

a copy of the SWPPP for the 3-year period (or longer if specified by the authority) in case of potential litigation.

The inspector’s responsibilities related to permitting requirements include verifying that:

- construction does not begin until NOI submittal requirements are met
- the notice is posted and maintained per CGP requirements
- the SWPPP is implemented and revised as necessary
- site inspections are conducted and documented as required by the CGP
- the NOI, SWPPP, inspection reports, and the full text of the CGP are maintained on site, readily accessible for audit by the authority
- after construction, records are transmitted along with other contract documents to be maintained for the specified period

**(b) Erosion and sediment control measures and works**

The SWPPP will contain a list of best management practices (BMPs) required for the control of erosion and sediment. There is a list of common BMPs in section 3 of Construction Specification 5.

Periodic inspection of BMPs is required to verify that they are being maintained and are functioning as intended. Some require particular attention and more inspection and maintenance than others because their function is highly dependent on maintenance items such as frequent sediment removal. Others will continue to function properly without sediment removal, but may need maintenance to address erosion, provide for a stable outlet, or repair any damaged portion of the BMP.

BMPs that will remain in place after the work is completed should be evaluated for functionality while the site is under construction. It may be necessary to redesign and modify a BMP so that it can function as a permanent fixture after the site work is completed. The construction inspector should observe BMP operation and document items such as depth of flow or erosion relative to the amount of rainfall observed.

This should be done when it appears the amount of flow is approaching or exceeds the actual maximum capacity limit of the BMP. This information should be kept with the other documents required by the CGP and provided to the responsible engineer so that any redesign or modifications can be accomplished before the contractor demobilizes from the site.

The BMPs that are listed in section 3 of Construction Specification 5 are:

- staging of earthwork activities
- seeding
- mulching
- diversions
- stream crossings
- sediment basins sediment filters
- waterways

These are the most common BMPs associated with NRCS engineering work and are further described below.

**Staging of earthwork activities** is utilized to limit the amount of earth that is exposed to erosion at any one time during construction. For example, consider the construction of a dam where the borrow area is located upstream and must be cleared of trees. If all of the borrow area is cleared before the dam construction begins, there would be potential for the maximum possible erosion and sediment production from the denuded borrow area. But, if clearing of the borrow area is limited to, say five acres at any one time, the remaining borrow area would be protected from erosion and sediment production until it is needed. This limits the time of exposure and by the time another five acres of borrow area is cleared enough of the dam may be constructed to deter discharge of sediment from the construction site.

**Seeding** is a BMP that may be temporary or permanent. Temporary seeding is generally specified whenever construction in a denuded area will cease for some period of time. The specification may state “areas that are denuded that will remain idle for a period of 14 days or longer must be seeded with temporary seeding”. The species of temporary vegetation is generally a species that will germinate quickly and

provide some protection against the erosive effects of rainfall impacting unprotected ground.

Unless otherwise protected from erosion, permanent seeding is required after the work in an area has been completed and the ground is graded to the specified lines and grades. Species for permanent seeding may be native plants or improved varieties that are well suited for the local environment and known to provide good erosion protection. In addition to or in place of seeding, sprigging or sodding may be specified. Irrigation may be required to promote germination and rapid vegetation growth.

In some instances, the specification may require that the contractor obtain a stand of grass that covers a specified area. For example, the specification may read “successful vegetation is required so that 70 percent of the denuded area is covered with the specified vegetation.”

Permits typically require that at least one operator continue to maintain site control until the site is stabilized. Often, site stabilization is defined as obtaining enough vegetation to equal 70 percent of the background vegetation. This means that if the site is located in an area where grass is the typical vegetation and grass generally covers 100 percent of the ground, then before the last NOT is submitted 70 percent of the ground must be covered with grass. But if the site is located in an arid climate where very little or no vegetation is common, the last NOT may be submitted with the site having very little or no vegetation.

**Mulching** is a BMP that is specified to provide temporary protection of the soil surface from erosion. Hay or straw are common types of mulch. Wood mulch may also be used, especially if it is produced onsite as a disposal method for cleared woody vegetation. The amount of mulch may be specified by weight or volume or by the thickness of the mulch. Generally hay or straw is specified by weight or volume in a manner such as “the mulch must be evenly distributed at a rate of 2 tons per acre.”

The construction inspector must verify that the specified type of mulch is evenly distributed at the specified rate to completely cover the area to be mulched and, when specified, that mulch is anchored over the entire mulched area.

**Diversions** are often specified to divert water from work areas and to collect water for treatment and safe disposition. Diversions may be temporary and removed when no longer required, or permanent and remain in place after construction. The height, top width, and side slopes are generally specified and some degree of compaction and moisture control should be required.

Although diversions are installed as erosion and sediment control measures, they can contribute to erosion if not properly installed. Diversions with excessively steep grades can cause channel erosion. Those with flat or reverse grades will tend to pond water and fill the diversion channel with sediment. Sometimes a diversion outlet may require protection with rock riprap or other mechanical structure to prevent erosion. When inspecting the site to assess the function and condition of BMPs, the inspector should pay particular attention to diversions and associated outlets to verify that they are diverting the water as intended and remain stable.

**Stream crossings** are often required to provide temporary access for construction equipment. These may be culverts, bridges, or low-water crossings made from concrete, rock, or other material. A stream crossing is considered a BMP because, in addition to providing a place to cross the stream, it serves to limit sediment production. They generally require routine maintenance to allow crossing without promoting erosion and sediment production. Temporary crossings must be removed and the area fully restored as specified when they are no longer needed.

By observing changes in the turbidity of the water downstream of a crossing as equipment crosses, it should be obvious if sediment is being produced. Any signs of sediment production or stress of the crossing that may lead to failure should quickly be remedied. The construction inspector should verify that stream crossings are properly installed and maintained so that they function with the intended result of little or no sediment production. Earthen stream crossings or coffer dams that have a high likelihood of failure during a heavy stream flow should not be allowed.

**Sediment basins** collect and store sediment from eroding areas to limit impact to properties and streams downstream of the construction site. They are generally comprised of an embankment and a small diameter

pipe designed to release the water slowly. Collecting and slowly releasing the water allows time for the sediment to settle out in the basin to significantly reduce the amount of sediment discharged downstream of the basin. These temporary basins require monitoring and sediment removal to continue to function throughout the construction operation. Because of this, sediment basins are one of those BMPs that require particular attention when making the required periodic site inspections and may require more frequent inspections.

The sediment that is removed from sediment basins must be disposed of as specified. This generally requires that it be excavated and hauled to be spread over an upland area that is less prone to erosion.

**Sediment filters** are composed of geotextile sediment fences, also known as silt fences, that trap sediment from areas of limited runoff. These may be the most commonly used BMP and are often misused. They are often located where they can be seen by the public but where they have little impact on erosion or sediment control. To be effective, they must be located so that they intercept the sediment laden runoff and allow it to flow through the filter. If too much water enters the filter, it may overtop or be diverted around the filter. Either way, the sediment filter would not be doing the job of trapping the sediment.

Sediment filters must be properly anchored to prevent the flow of water under them and to support the lateral load of the sediment held by the filter. Sediment collected by each filter must be removed as needed to maintain adequate capacity. Like sediment basins, sediment filters require particular attention during periodic inspections and may require more frequent inspections to verify they are being maintained and are functioning as intended.

**Waterways** may be temporary or permanent and serve as an outlet for diversions, sediment basins, etc. To be nonerosive, waterways must be gently sloping or protected with grass or other erosion resistant material. Sometimes they are lined with turf reinforcement materials that are made from geosynthetics or organic materials. They may be lined with rock or have rock lined portions such as the outlet where the grade warrants additional protection.

Waterway grades that are too flat or otherwise improperly designed may result in excess sediment buildup in some areas. Over time, this silting in will lessen the effectiveness of the waterway due to reduced capacity.

When inspecting waterways, pay attention to areas that are eroding and those that appear to be collecting sediment. Since they are often temporary, it may be acceptable to repair eroded areas and remove sediment without any other modification to the waterway. If the waterway is to remain a permanent fixture, any problems with erosion and silting must be assessed and the waterway modified so that the problem is alleviated before it is put into permanent service.

**Other** BMPs may be employed on a construction site for the purpose of controlling erosion and sediment production, but the ones mentioned are the most common. It is important that the construction inspector be familiar with the specified BMPs and understands how each aspect, such as material, location, orientation, grade, etc. affects its functionality.

The BMP will likely require some modification and adjustment in location and layout from what is specified or shown in the SWPPP. Construction activities and equipment travel routes may necessitate relocating or realignment of BMPs. Operators should work together to assess the need for changes. These changes are generally within the scope of the work and should not require a modification to the contract. The pollution control specification should emphasize that the contractor is jointly responsible, as an operator, for development and implementation of the SWPPP, including any necessary revisions.

The contractor can be compensated for constructing and maintaining BMPs in one of three ways. Compensation may be made a part of a bid item for pollution control, which is generally bid as a lump sum bid item. Alternatively, the compensation may be subsidiary to one or more bid items such as clearing, excavation, or earthfill. Some BMPs, such as sediment filters, may be paid for as standalone bid items that will require measurement to determine payment quantities. The inspector must be aware of these payment methods and monitor quantities as they are being installed to verify that the quantities installed are within the variations allowed by the contract. If it appears that significantly more or less than the anticipated quantity of the BMP will be needed, a contract modification will be

in order. This is mentioned here because it is difficult to estimate the quantity of some BMPs (e.g., sediment filters) and it is common to have the final quantity vary significantly from the anticipated quantity. The construction inspector should document the reason for the change and notify the responsible engineer as soon as it becomes apparent that a modification will be needed.

The inspector's responsibilities related to erosion and sediment control measures include verifying that:

- BMPs are implemented or installed and maintained in accordance with Construction Specification 5 and the SWPPP
- particular attention is given to inspecting and maintaining BMPs that require periodic sediment removal or other maintenance
- the functionality of BMPs that are to remain permanent fixtures is documented and conveyed to the responsible engineer in time to make modifications before the contractor demobilizes equipment
- BMPs are operating as planned or are modified to allow them to function as intended
- significant added work to address an erosion or sediment production problem has been approved by the owner or contracting officer (CO) prior to beginning the work
- BMP quantities are within the allowed variation or the responsible engineer is notified that a modification is prepared to adjust the quantity
- temporary BMPs are removed when no longer needed and before the contractor demobilizes from the site

### (c) Chemical pollution

Various chemicals associated with construction have the potential for polluting the ground, groundwater, and surface water. These include, but are not limited to, fuel, lubricants, cleaning fluids, soaps, paint, Portland and other types of cement, pozzolans, waste concrete, concrete curing compounds, concrete sealers and coatings, fertilizers, and chemicals for sanitary facilities. Most common among these are fuel and lubricants.

State and Federal regulations require proper storage and disposal of chemicals. Fuel that is stored on site must be properly stored so as to prevent pollution that may occur during filling or in the event of a leak. Lubricants such as spent oil must be collected and disposed of in accordance with regulations.

Chemical toilets and septic tanks should be located to avoid polluting streams in case of an accidental discharge. Toilets should be properly anchored on sites where high winds could blow them over. They must be properly maintained and disposed of so that they do not contaminate ground or surface waters.

A list of potential site-specific pollutants should be included in the SWPPP along with a description of regulation compliant storage and disposal methods. Inspection of the storage and disposal of chemicals should be a part of any periodic inspection to assess the functionality of the SWPPP.

All chemical spills should be promptly addressed. Spills should be reported to authorities in accordance with all Federal, State, and local regulations, particularly when they are not fully contained and may have entered the ground or surface waters.

The inspector's responsibilities related to chemical pollution is to:

- know what chemicals are on the site and how to reduce their potential for polluting.
- understand regulation requirements related to construction chemicals.
- inspect and verify proper chemical use and disposal.
- inspect and verify proper maintenance of sanitary facilities.
- verify compliance with regulations governing fuel storage and fueling of equipment.
- disallow use of equipment that is leaking fuel or lubricants.
- verify that all chemical spills are promptly addressed.
- verify that the proper authorities have been notified by the contractor if a chemical spill has potentially polluted the ground or surface waters.

## (d) Air pollution

Common forms of air pollution, such as dust, smoke, and any additional site-specific forms of air pollution, should be addressed in the construction specifications. The practices that are specified to address air pollution should be listed in the specification items of work and construction details. Inspection of these practices should be ongoing to verify compliance.

If burning is allowed, a permit may be required and the permit may place restrictions on when burning can take place based on wind velocity, wind direction, and humidity. Some specifications or local laws require any onsite burning in a controlled manner, such as by *forced-air burning* or in an incinerator designed to limit air pollution and prevent a wildfire.

Forced-air burning results in very little smoke and significantly less air pollution, but with the need for added precaution due to the associated high temperatures. The fire pit must be located far enough from any structure, utilities, fuel storage areas, or equipment to avoid damage to these items. Also, the blower must be set far enough back from the pit to avoid damage caused by excessive heat. Since the forced-air is required until all of the material is consumed, the blower must be operable for the full duration of the burn.

Any burning, regardless of type, has the potential for initiating an unwanted fire. Measures must be taken to prevent and extinguish any unwanted fire. No burning can be allowed if the site is under a burn ban. Common sense and fire safety are paramount any time fires are started.

Dust production is common on construction sites in arid climates or whenever the ground surface is dry. Watering access roads and trafficked areas is the most common method of suppressing dust. Chemical dust suppressants may also be employed unless they are banned from use in the area where the site is located.

Handling and dispensing fine materials that are easily airborne is necessary on some construction sites. Onsite production of concrete entails transporting, storing, and dispensing Portland cement and possibly a pozzolan, such as fly ash. Portland cement and fly ash are fine materials that are easily airborne and are typically regulated to require an air filter (particulate collector) to reduce the potential for air pollution. A

permit may be required in some areas to allow the contractor to dispense these materials. The permit may require these materials only be dispensed when the measured wind velocity at the site is below a specified limit.

Soil modification involves the application of lime, soda ash, Portland cement, or other materials containing fine particles. Since these materials are generally deposited directly from a truck or trailer onto the ground, it is best to shield the falling material from wind until it lands on the ground. Other options are to mix the material with water before application or use a material with larger particle size, when available, that is less subject to being airborne. Limiting application of fine materials to calm less windy times should be specified.

The inspector's responsibilities related to air pollution include verifying that:

- items of work that have potential for contributing to air pollution comply with specification requirements
- the contractor has obtained required permits prior to commencing with the work
- burning is conducted in a safe manner only after all precautions are taken and measures are in place to prevent and extinguish wildfires
- all burning, especially forced-air burning, is conducted in a location to avoid damage to any structure, utilities, fuel storage areas, and equipment
- the blower for forced-air burning is positioned so that it can be operated and maintained for the duration of the burn
- dust suppression measures are in place and fully functioning to limit dust production
- fine materials are handled in a manner that limits dust production
- where required, filters or dust suppressors are utilized to limit dust production that would otherwise be caused by handling and dispensing fine materials

## 645.0602 Sampling and testing

Sampling and testing may be needed to verify that materials, such as seed, mulch, rock, or sediment filters, comply with specification requirements. Testing may also be needed to verify that earthfill required for diversions and sediment control structures meets specified moisture and density requirements. Soils that are contaminated may be sampled and tested to determine the level of contamination. Surface water turbidity may require testing to verify that permit requirements are being met.

The inspector is responsible for knowing applicable sampling and testing requirements and verifying that all required sampling and testing is accomplished as required.

## 645.0603 Records and reports

The following records and reports are related to erosion and pollution control:

- Notice of intent (NOI)—This notice is completed by the operator(s), signed by a responsible corporate officer, and submitted to the permitting authority prior to beginning construction. Time of submittal relative to beginning of construction varies by permitting authority and whether or not the job is considered emergency construction. The NOI form is obtained from the permitting authority's Web site. Most NRCS projects will require at least two NOIs (one for the contractor and one for NRCS) and possibly more.
- Daily diary—Used to record the day-to-day activities of construction including those related to erosion and pollution control.
- Notice of SWPPP—This notice is posted near the site entrance and includes information for an authority's inspector to locate the SWPPP and person responsible for maintaining onsite records.
- Inspection form—This form is used to document the adequacy of the SWPPP or need for maintenance of BMPs and to document the need to revise the SWPPP. Inspection forms are provided by the permitting authority or the authority will provide guidance for developing site specific inspection forms. The CGP will specify the required frequency of inspections.
- Notice of termination (NOT) – This notice is completed by the operator, signed by a responsible corporate officer and submitted to the authority after the site is stabilized per CGP requirements or once their operational control over the site has ended. The NOT form is obtained from the permitting authority's Web site. Every entity that submitted a NOI for the project will at some point have to submit a NOT to close out their CGP responsibilities.

There are no relevant blank worksheets provided in appendix B. Except for the daily diary, the records and reports listed are specific to and generally provided by the permitting authority. These may be obtained from

the authority's Web site along with guidance on how to properly complete each form. The NOI and NOT are generally available in electronic format and are submitted electronically. A copy of all forms and notices are to be maintained by the permittee for the length of time specified by the permitting authority. The construction inspector should obtain copies of all forms and notices generated onsite and submit them to the COR or GR, along with other contract documents, after construction is completed. These contract records are then submitted to the State office (or as otherwise dictated by State policy) to be filed.

There are two appendix items directly related to erosion and pollution control. Appendix A contains checklist 645 CL 3.1 entitled Construction Erosion and Pollution Control Checklist. Appendix C contains an example of a typical diary entry related to erosion and pollution control.

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## 645.0604 References

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