
CHAPTER 5

MAINTENANCE AND INSPECTION

This Chapter discusses the general maintenance and inspection for proper implementation of a Storm Water Pollution Prevention Plan. Maintenance and inspection of storm water pollution control measures is as important to pollution prevention as selection and installation. This section is presented in a question and answer format. By answering these questions, you will gain an understanding of how you can plan and perform inspection and maintenance on the pollution prevention controls for your project. The following sections address four components which are critical to a Storm Water Pollution Prevention Plan: inspection, maintenance, recordkeeping, and training.

Q: What areas of the construction site will you have to inspect and maintain?

You should inspect and maintain all the disturbed areas of your site, and the areas for material storage. You should also inspect all of the erosion and sediment controls which you identified in the Storm Water Pollution Prevention Plan. These measures may include (but are not limited to) any of the following:

- Seeded areas (permanent or temporary)
- Mulched areas
- Areas stabilized with geotextiles
- Sod stabilized areas
- Silt fences
- Earth dikes
- Brush barriers
- Drainage swales
- Sediment traps
- Subsurface drains
- Pipe slope drains
- Level spreaders

- Storm drain inlet protection measures
- Rock outlet protection
- Reinforced soil retaining systems
- Gabions
- Sediment basins.

Q: How long will you have to continue to inspect and maintain these measures?

You should inspect and maintain the pollution prevention measures on your construction site as long as a portion of the site remains disturbed. Check the requirements of your permit for the frequency at which inspection and maintenance is required.

Q: At what point should you begin to consider inspection and maintenance requirements?

You should begin to consider maintenance requirements at the same time you choose BMPs. You will notice that some practices take a good deal more maintenance than others and you may wish to be aware of this when you are deciding which measures to use.

Q: What does a maintenance and inspection plan include?

Appendix C includes a sample maintenance and inspection plan. A good maintenance and inspection plan should do the following:

- Identify all of the areas/measures that will be inspected and maintained
- Provide an inspection schedule for each area/measure
- List the typical maintenance procedures for each measure
- Describe the procedure to follow if additional repair is required, e.g., who will be responsible or who to call
- Provide forms and instructions for record keeping practices
- List the names of personnel assigned to each task
- Indicate what training employees will need to be able to do the job.

5.1 INSPECTION

Inspection is the process by which you can evaluate if the pollution prevention measures which have already been installed or applied are still effective. In most cases, inspection of pollution prevention measures requires that an inspector look at all of the disturbed areas and sediment controls on the site and make some measurements of sediment accumulation (depending upon the measures).

Q: How frequently should inspections take place?

Inspections of pollution prevention measures should be performed on a regular interval plus after every significant rainfall. Check your permit to determine the how frequently your site should be inspected and what constitutes a significant rainfall. A regular inspection and maintenance program can reduce the chance of polluting the storm water by finding and correcting problems before the next rain.

Q: What should an inspector look for?

The inspector should look at each measure to determine if it is still effective. Appendix B contains fact sheets with figures and specifications on many of the measures. The inspector should consult these fact sheets or the description included in the Storm Water Pollution Prevention Plan and determine if the measures still meet the minimum requirements. For example: the fact sheet for a silt fence shows the bottom of the fabric is placed in a trench and buried with soil or stone. The inspector could compare this detail with the silt fence installed on the site. If the bottom of the fabric is not buried as shown on the detail, the inspector should note this on the report form.

The fact sheets also list the specific maintenance tasks which are often triggered by some observation about the measure. For example, the fact sheet for a silt fence states that accumulated sediment should be removed from the silt fence when it reaches a height of one third to one half the height of the fence. Based upon this the inspector should measure the accumulated sediment on the silt fence at each inspection.

There are primarily three things an inspector should look for when inspecting a pollution prevention measure. They are: whether or not the measure was installed/performed correctly; whether or not there has been damage to the measure since it was installed or performed; and finally what should be done to correct any problems with the measure.

Q: What should an inspector do with his/her observations?

An inspector should prepare a report documenting his/her findings (see Section 5.3). An inspector should request the required maintenance or repair for the pollution prevention measures, and if the Storm Water Pollution Prevention Plan should be changed to allow for unexpected conditions, then the inspector should make the changes or notify the appropriate person to make the changes.

5.2 MAINTENANCE

Maintenance of pollution prevention measures involves the upkeep and repair of the measures which have been installed to reduce pollution of storm water. Maintenance is important because the control measures you implement may be of little or no use if they have not been properly maintained. Good maintenance helps to insure that these measures are in proper working order when they are really needed under storm or spill conditions.

EPA BASELINE GENERAL PERMIT REQUIREMENTS

Definition of Maintenance

Part IV.D.3

Maintenance includes those procedures used to maintain in good and effective operating condition vegetation, erosion and sediment control measures, and other protective measures identified in the site plan.

Q: When do you perform maintenance?

Maintenance should be performed either on a interval specified in the pollution prevention plan or when the inspection finds that it is necessary for the measure to be effective. For example, if an inspector found that sediment had accumulated in a sediment trap to the depth of one half of its storage depth the inspector should request that the accumulated sediment be removed from the trap. Appropriate maintenance practices for erosion and sediment controls are discussed in the Fact Sheets in Appendix B.

Q: What types of activities can be included in maintenance activities for construction sites?

Maintenance activities for erosion and sediment controls are fairly basic. For example, sedimentation structures require removal (and proper disposal) of accumulated sediments to ensure effective trapping capacity. This technique is also appropriate for temporary sediment traps, sediment basins, and silt fences.

5.3 RECORDKEEPING

It is important to document the inspection of the pollution prevention measures. These records can be used to request maintenance and repair and to prove that the inspection and maintenance were performed.

Q: What kinds of records should be kept for maintenance and inspection?

It is recommended that inspection and maintenance forms be prepared prior to the start of the construction activity. The inspection forms should be specific to the construction project and the Storm Water Pollution Prevention Plan. The forms should list each of the measures to be inspected on the site. The form should include blanks for the inspector to fill in: his or her name, the date of inspection, the condition of the measure/area inspected, maintenance or repair performed and any

changes which should be made to the Storm Water Pollution Prevention Plan to control or eliminate unforeseen pollution of storm water. (See Appendix C for a sample format).

The inspector could take a blank copy of the form and fill in the appropriate information as he/she inspected the site. This would reduce the time spent preparing the report and would make sure that all the items requiring inspection are covered.

5.4 TRAINING

The inspector of pollution prevention measures should understand what he/she is inspecting. Training and experience are the best way to develop an understanding for pollution prevention measures. Training inspection personnel will improve the chances for the Storm Water Pollution Prevention Plan to be effective.

Q: How should inspection personnel be trained?

Many States and organizations offer general training programs in sediment and erosion control. This sort of training will be helpful. The inspector should also have detailed knowledge about the site's Storm Water Pollution Prevention Plan particularly the following portions:

- The location and type of control measures
- The construction requirements for the control measures
- Maintenance procedures for each of the control measures
- Spill prevention and cleanup measures
- Inspection and maintenance recordkeeping requirements.

5.5 SUMMARY

This Chapter has addressed a crucial part of the Storm Water Pollution Prevention Plan. Without inspection and maintenance of control measures, it is not likely that the measures will remain effective for long periods of time. Without proper training of inspection staff and recordkeeping, it is difficult to determine what maintenance is required. Therefore, do not consider the pollution prevention plan to be something you do only at the beginning and end of a project. You should instead think of it as an ongoing process from start to completion.