



OBJECTIVE

The purpose of this chapter is to:

- Understand the steps to complete a final inspection.

Final Inspection Stage

What triggers the final inspection?

- A) A contracted installer installs the system.
- B) The installer or the homeowner will communicate with the SEO to schedule the final inspection.



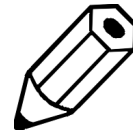
How long does an SEO have to make a final inspection?

FINAL INSPECTION

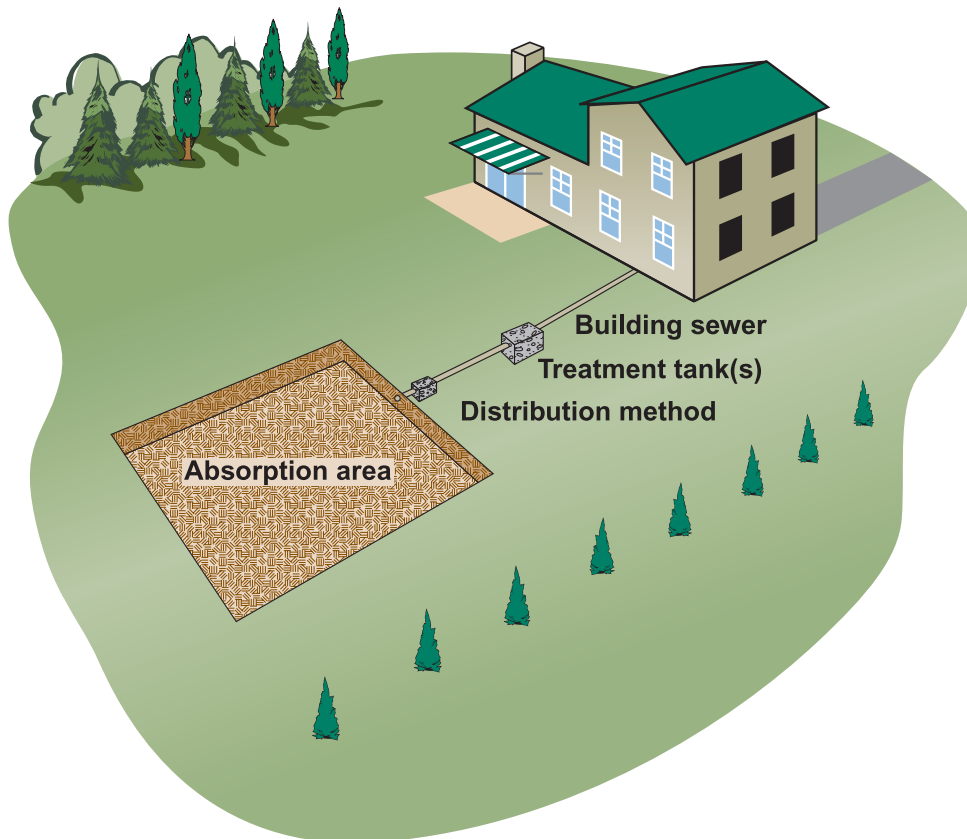
The purpose of a final inspection is to make sure the system is installed according to the permit that the SEO issued. The SEO will walk through the whole system to make sure that all the components of the system were installed correctly. This may take place over a course of a few interim inspections.

Interim inspections are recommended, but since they are not mandated, the local agency should back up these inspections legally with an ordinance.

After the final inspection is completed, the system can be covered and used.



NOTES



FINAL INSPECTION CHECKLIST

The following checklist can be used during a final inspection. This is a checklist created for the academy; it is not an official DEP document. To help you study for the certification exam, you could write in the regulations for each part of the final inspection.

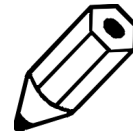
Sample Final Inspection Form

Name: _____ Application #: _____

Subdivision: _____ Lot #: _____

Location: _____

Township/County: _____ Contractor: _____



NOTES

THE FOLLOWING CHECKED ITEMS APPEAR TO MEET REGULATIONS AT THIS TIME:

_____ Isolation Distances

_____ Building Sewer

_____ Pipe material: durable material acceptable to DEP or local agency (Schedule-40)

_____ Pipe diameter: $\leq 1,000$ gpd = min. 3 in.; $> 1,000$ gpd = min. 6 in.

_____ Grades: drop of 1/8 in./ft. min., 1/4 in./ft. max., last 10 ft. before septic tank

_____ Joints: watertight

_____ Angles: bends cannot exceed 45 degrees

_____ Cleanouts: junction of building drain and building sewer and at least every 100 ft.

_____ Treatment Tank(s)

_____ Sized according to approved plan; check dimensions

_____ Inlet pipe: min. 3 in. above bottom of outlet pipe

_____ Inlet baffle: min. 6 in. below liquid depth

_____ Outlet baffle: penetrates to depth equal to 40% of liquid depth

_____ Gas deflector/solids retainer: required on final tank/compartment

_____ Manhole extension (one per tank or compartment): max. 12 in. below grade; inside dimension min. 20 in. square or 20-in. diameter; removable cover

_____ Inspection port: max. 4 in. to grade, located over inlet baffle

_____ Pipe Going Away from Treatment Tank

_____ Diameter: min. 3 in.

_____ Grades: min. 1/4 in./ft. drop

_____ Joints: sealed with hydraulic cement or mechanical seals (no Portland cement)

_____ Distribution Box (if applicable)

_____ Outlets to lateral pipes: all level; min. 4 in. above bottom of box

_____ Inlet pipes: min. 1 in. above outlet pipe

_____ Lid: removable

_____ Header Pipe (if applicable)

_____ Pipe: level; solid; delivery pipe enters header pipe between two laterals

_____ Footer pipe: level; solid; connecting to all laterals to make complete circuit

- _____ Dosing Tank (if applicable)
 - _____ Min. capacity: two times designed dose volume
 - _____ Manhole extension: watertight; to grade; min. 20-in. square or 24-in. diameter
 - _____ Pump: sized according to plan; intake min. 6 in. from bottom of tank
 - _____ Electrical connections: moisture resistant; securely fastened high in tank
 - _____ Quick disconnect: located for ease of pump removal
 - _____ Alarm: separate circuit from pump
 - _____ Floats: on and off switches securely fastened and correct distance apart to achieve calculated dose

- _____ Pipe from Dosing Tank to Absorption Area
 - _____ Grade: intake of dosing pump at lower elevation than lowest lateral

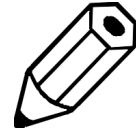
- _____ Absorption Area (Gravity Flow)
 - _____ Laterals: min. 3-in. diameter pipe; premanufactured perforated; max. 6 ft. between laterals (for bed); max. 100 ft. in length; slope tolerance of up to 4 in. of drop per 100 ft.
 - _____ Position of holes: 4 and 8 o'clock
 - _____ AASHTO no. 57 type B aggregate: min. 6 in. below piping
 - _____ 2-5 ft. border between ends and sides of laterals and edge of absorption area (for bed)
 - _____ Depth and length-to-width ratio of aggregate as specified in design

- _____ Absorption Area (Pressure Dosed)
 - _____ Laterals (<2,500 sq. ft. bed,): 1½-in. diameter pipe; hole size – min. 5/16 in. for siphon and min. ¼ in. for pump, drilled by installer
 - _____ AASHTO no. 57 type B aggregate
 - _____ 2-5 ft. border between ends and sides of laterals and edge of absorption area (for bed)
 - _____ Head: min. 3 ft. at terminal end of lateral
 - _____ Subsurface sand filter: min. 12-in. sand depth; max. excavation depth from original grade to bottom of sand is 60 in.
 - _____ Seepage bed: nonperforated manifold in center of system; min. 1½-in. diameter manifold for systems 200 to 1,199 square ft.; min. 2-in. diameter manifold for systems 1,200 to 2,500 square ft.

- _____ Seeding and Grading
 - _____ Soil suitable for growth of vegetation
 - _____ Seeded to control erosion

-
- _____ Sewage disposal system appears to meet regulations at this time.
 - _____ Absorption area must be covered within five days (weather permitting).

Partial Approval Approved Not Approved

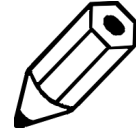


NOTES



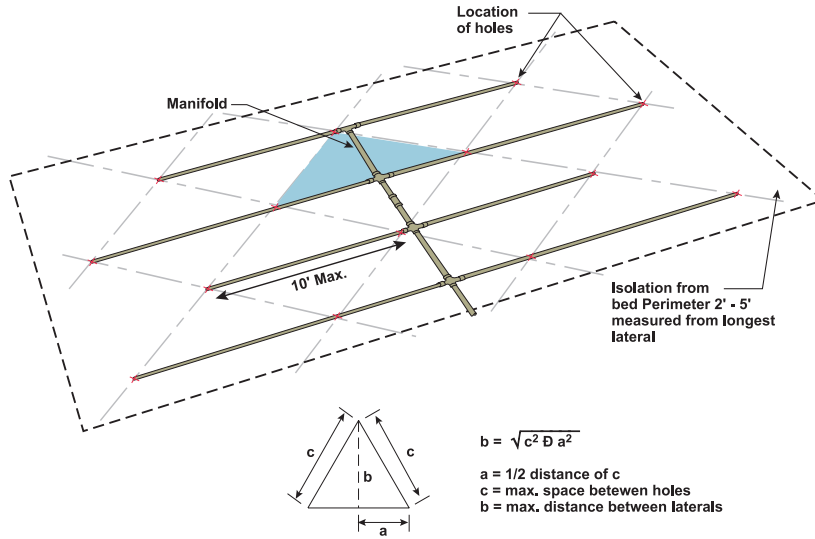
LARGE SYSTEM LAYOUTS

Section 73.44(c)



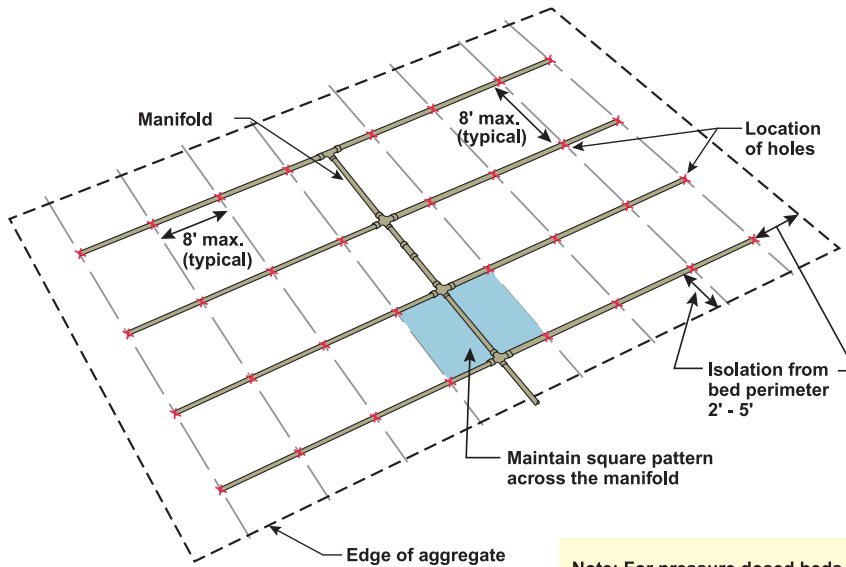
NOTES

Equilateral Triangle Hole Pattern – 10 feet maximum



Note: For pressure dosed beds >2,500 square feet in area.

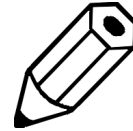
Square Hole Pattern – 8 feet maximum



Note: For pressure dosed beds >2,500 square feet in area.

Completed Final Inspection

- **Passes** – The SEO signs the permit.
 - ✓ The SEO should sign the permit under “Approval to Cover.”
 - ✓ The permit application is initialed and dated by the SEO under final inspection in the “Action” box.
- **Fails** – The corrections must be made before the permit can be signed.
- **Revoked permit** – Reference Section 72.28 of the regulations to find reasons to revoke a permit.



NOTES

Sample Filing System

(after final inspection)

Note: The first two files 1) pending and 2) permit issued were discussed in chapter 16.

- 3) **Completed** – When the final inspection is complete, the white copy with attached design information is filed in this file.
- 4) **Reimbursement** – The green copy of the permit application is filed in this file.

OTHER SITUATIONS



Permit revoked – Stage IV

Reference Section 72.28 of the regulations for reasons to revoke a permit.

- 1) White copy and attachments are filed in the completed file.
- 2) Green copy is filed in the reimbursement file.

Appendix 18-A has a sample letter for a revoked permit.

Permit expired – Stage IV

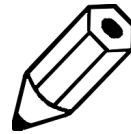
An applicant has three years from when a permit is issued to install a system or the permit expires.

- 1) White copy and attachments are filed in the expired file.
- 2) Green copy is filed in the reimbursement file.



KEY POINTS

- Make sure the system was installed according to the permit and the regulations.
- An SEO has a regulatory responsibility to the state, the local agency, the owner, and the future owners to follow the regulations.



NOTES