

NS-12 CONCRETE CURING

Refer to: ITD Standards and Specifications for Highway Construction, Section 502.03.J, 510.03.F.



BMP Objectives

- Perimeter Control
- Slope Protection
- Borrow and Stockpiles
- Drainage Areas
- Sediment Trapping
- Stream Protection
- Temporary Stabilizing
- Permanent Stabilizing

Definition and Purpose

Concrete and pavement curing is used in the construction of structures such as bridges, retaining walls, and pump houses. Concrete curing includes the use of both chemical and water methods. Proper procedures minimize pollution runoff during the concrete curing process.

Appropriate Applications

All concrete elements of a structure (i.e., footings, columns, abutments, stems, soffit, and deck) and concrete pavements are subject to curing requirements.

Limitations

None identified.

Chemical Curing

- Avoid over-spray of curing compounds. Apply an amount of compound that covers the surface but does not allow any runoff of the compound.
- Minimize the drift of chemical cure as much as possible by applying the curing compound close to the concrete surface.
- Use proper storage and handling techniques for concrete curing compounds. Refer to WM-2 (Material Delivery and Storage).
- Protect drain inlets prior to the application of curing compounds. Refer to SC-6 (Inlet/Outlet Protection).
- Refer to WM-5 (Spill Prevention and Control).

Water Curing for Bridge Decks, Retaining Walls, and other Structures

- Manage curing water as a non-stormwater discharge.
- Direct cure water away from inlets and watercourses to collection areas for disposal in accordance with all applicable permits.
- When practical, collect cure water and transport or dispose of water in a non-erodible manner.
- Utilize wet blankets or a similar method that maintains moisture while minimizing the use and possible discharge of water.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications.
- Ensure that employees and subcontractors implement appropriate measures for storage, handling, and use of curing compounds.
- Replace lining and remove debris as necessary.