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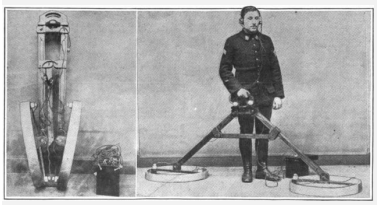
STRUCTURE BULLETIN

NCDOT Construction Unit

Website email

Current Issues: Slurry Disposal

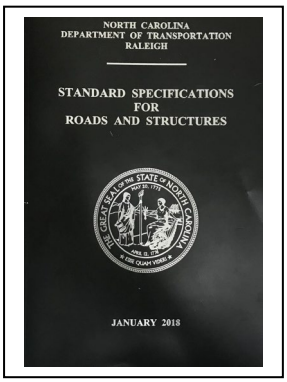
DGS-HOS Disposal DGS (diamond grinding slurry) and HOS hydrodemolition operation slurry) can significantly change surface water pH and must be properly treated. In March our permit with NCDENR regarding handling and disposal of these wastes was renewed. To assist us in complying with the terms of this agreement the Roadside Environmental Unit has developed guidelines, which can be found at the following link: NCDOT Guidelines on Management and Disposal of Concrete Grinding Residuals. They have also developed a Quick Details sheet summarizing the process, which can be found here. If you have a project involving either diamond grinding or hydrodemolition make sure to review this document well in advance of the operation, since it requires a 45 day review period for the slurry management plan.



Metal Detectors:

Did you know you have a metal detector in your phone or tablet? Smartphones are filled with many features, one of which is a compass. The compass sensor can act as a metal detector. By downloading one of the apps below and knowing where the sensor is in your phone or tablet you have a functional metal detector. You can determine the sensor location by passing a nail across the back of the device until the signal is greatest. While it will not be as accurate as the pachometers M&T has, it could be helpful in a pinch.

Android metal detector
Apple metal detector



Standard Specification Questions:

Question: Can I use any water available for curing concrete?

Answer: No. First, we need to make sure to differentiate between water for curing and water to be mixed into the product.

Section 1024-4 states that all water used in the production of grout or concrete must be potable, or drinkable, and conform to the requirements of Table 1024-2. The only way to determine this is to have the water tested. Trying to use an on-site source, such as a stream, is difficult. Even if the water is tested the quality can vary day by day. It may look like a beautiful, clear trout stream, but it could be a stream fed from acidic rock, or a storm could have caused a sediment load in the water. So, if the water is to be mixed in the production of concrete or grout it should be from a tested well or public water supply.

Water for curing should not by definition be incorporated into the mix. It is there to prevent evaporation of water from the concrete mix and ensure proper curing for the prescribed time. It is less of a concern than mixing water, but Section 1024-4 still states that it should be "clear and free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substance. It shall not be salty or brackish." In other words, it should be clear, clean and fresh. When in doubt, don't use it and go for the potable water instead.

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Videos:

Inspection training videos can be found on the Construction Unit YouTube playlist.

Training:

PDF copies of the Winter Inspector Training presentations can be found at the following link:
2018 Structure Inspector Training

Structure Bulletins are now archived on the Construction Unit website under Construction Resources.

If you have a topic you would like to see addressed in a future edition of the Structure Bulletin please email us at either acochran@ncdot.gov or aearwood@ncdot.gov