

SECTION 818

FLOATING SILT CURTAIN/TURBIDITY BARRIER

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818.01 SCOPE

This specification covers the supply, installation, and operation of a floating silt curtain or turbidity barrier.

Specific locations the Silt Curtain is to be used shall be designated by the Owner's Representative.

818.01.01 General

The Contractor and Subcontractor(s) are required to comply with environmental protection measures contained in this section and all applicable environmental protection regulations of Federal, Provincial, and Municipal Authorities.

This specification is to be used in applications where a floating silt curtain/turbidity barrier is specified to be used around the leading edge of the advancing fill for construction operations to control any silt that may be generated from the bottom of the fill or other materials that may be used in construction of the road or other structure in a submerged portion of a water body. The turbidity barrier is to be a floating silt curtain (such as Brockton Equipment/Spilldam, Inc. Siltdam Type I) meeting the requirements of the Federal Department of Fisheries and Oceans. This item may be designed locally but must adequately control and prevent the migration of silt or other deleterious substances from the work area to the main water body. The turbidity barrier system must be accepted with shop drawings/literature stamped by a professional engineer registered in the province of Newfoundland and Labrador submitted prior to its use.

The turbidity curtain is to consist of the following elements or accepted equivalents: 304 millimetre diameter flotation, 22oz polyvinylchloride (PVC) float cover, 8 millimetres PVC coated top tension cable, silt film skirt to required depth to reach from water surface to the water body bottom, 9.5 millimetres galvanized ballast chain, polyplate/lacing grommets (ends).

The turbidity barrier is to be anchored at 15 metres intervals. The anchoring system will consist of Mushroom style anchors or other suitable type anchors for the bottom condition present, yellow inflatable cautionary mooring buoys, and nylon mooring line or accepted equivalents. Where navigation conditions are present in the area of the turbidity curtain the cautionary buoys shall be lighted and a plan will be required to be submitted for approval showing where the buoys are to be located.

The turbidity barrier shall be a minimum of 100 metres in length but may be otherwise specified in the Unit Price Table. The barrier will form a long arc extending from the shoreline approximately 35 metres, across the work zone (parallel to the shore) approximately 30 metres, and back to the shoreline for approximately 35 metres. The barrier is to be installed to reach the bottom of the water body from the water surface. Installation plan can be seen on the drawing titled "Silt and Bubble Curtain", as shown on Form 1223 of the Specifications.

As the leading edge of the fill advances, and the work site changes, the turbidity barrier will have to be moved and reinstalled. Movement of the turbidity barrier shall be considered incidental to the work and should be included in the price for the turbidity barrier.

In addition to these requirements for use of the turbidity curtain for permanent works in the contract the contractor will be required to use a turbidity barrier for any temporary works requiring installation or removal of fill in the construction in the water body. The contractor may reuse the turbidity barrier required for use for the permanent works installation in the water body for a contract, but at all times during installation or removal of fill in the water a turbidity barrier may be required to be used.

818.02 MEASUREMENT FOR PAYMENT

Measurement will be based on a per contract basis for the Floating Silt Curtain/Turbidity Barrier by the Owner's Representative. Fifty percent of the total of the item will be paid on the progress estimate after which the silt curtain has been deployed for its intended use, and fifty percent will be paid on the last progress estimate where the in water body construction operation has been completed.

818.03 BASIS OF PAYMENT

Payment for the turbidity barrier will be lump sum. Payment shall be for compensation in full for engineering, design, transportation to site, installation, removal, reinstallation, equipment, labour, and all other materials necessary to complete the above, at the locations indicated to be used on the contract.