

Waste solidification contractor Dry Dredge Inc. of Boston, MA, utilized a Maxon 10 cubic yard Maxcrete to solidify 60,000 yards of contaminated harbor sludge from the New Bedford Harbor. The Maxcrete mixed the harbor sludge with a proprietary mix of reagents to create a solidified and encapsulated material. The resulting material was then used to cap a brownfield site adjacent to the harbor.



10 cubic yard Maxon Maxcrete is charged with dredged soils from the pump barge while continuously blending with dry reagents. Maxon equipped the Maxcrete with a 20' discharge conveyor and three 50' placing conveyors, allowing the system to distribute the flowable mixed material onto one of three concrete pads. After drying for three days, the solidified material was spread over the vacant lot creating a cap on the former brownfield site.



Barge-mounted crane excavator with dredge bucket excavates contaminated soils from the harbor. Soils are screened and pumped 1400' to shore via floating pipe line.



Dredged material is placed into an elevated heavy-duty screen plant which directly fed a trailer mounted concrete pump on the barge.

Job Report: New Bedford Soil Solidification - Maxcrete



At a former brownfield site directly adjacent to the harbor, Dry Dredge erected two silos, the Maxcreters and conveyors to mix the dredged soils with the reagents. Prior to starting the job, Dry Dredge poured three concrete pads onto which the mixed materials could be dispersed and allowed to dry.



The large hydraulically operated discharge gate of the Maxcrete allowed the contractor to open/close the gate to adjust the retention time in the mixer depending on the moisture content of the excavated soils and the volume of solidifying agent.



Above: The Maxcrete was fitted with a 20' discharge conveyor that could be swung to hit one of the three 50' placing conveyors.

Right: The three 50' placing conveyors supplied by Maxon allowed the contractor to distribute the mixed material over a different concrete pad each day. After allowing the material to dry for three days, the contractor utilized the solidified material to reclaim and cap the vacant brownfield site where the mixing was taking place. By reutilizing the resulting material, the contractor saved thousands of dollars which would have been spent in hauling the material to the landfill.



Production rates approached 100 cubic yards hour, with the limiting factor being the ability to have the dredge/pump barge keep up with the pace of the Maxcrete solidification system. "The system supplied by Maxon worked great," commented Tom Trafton of Dry Dredge. "The Maxcrete allowed us to modify our mixing design and retention time in the mixer based on moisture content, so we could ensure the material would achieve the consistency we needed by the third day."

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