Cleaning Up New England

# New Bedford Harbor Superfund Site

U.S. EPA | HAZARDOUS WASTE PROGRAM AT EPA NEW ENGLAND

THE SUPERFUND PROGRAM protects human health and the environment by investigating and cleaning up often-abandoned hazardous waste sites and engaging communities throughout the process. Many of these sites are complex and need long-term cleanup actions. Those responsible for contamination are held liable for cleanup costs. EPA strives to return previously contaminated land and groundwater to productive use.

# **NEW BEDFORD HARBOR CLEANUP UPDATE:** CONFINED AQUATIC DISPOSAL CELL (CAD) DESIGN START

SUPERFUND

EPA has prepared this information to directly address questions and concerns raised by the community of New Bedford regarding the use of a "confined aquatic disposal" cell in the Superfund cleanup of the Harbor, and whether this method can safely contain some of the moderately contaminated fill within the Harbor.

#### WHAT IS A CAD CELL?

The New Bedford Harbor Superfund CAD cell will be a man-made, capped underwater containment cell. First the area for the CAD cell is dug into the harbor floor, excavating the sediment to create the space for the CAD. The original material is excavated and taken to an approved off-shore facility or reused for beneficial uses if appropriate. Contaminated sediment from the harbor will then be placed into the CAD cell, allowed time to consolidate and then capped. The contaminated sediment is held in place by existing clean sediments on the sides and bottom of the cell, and a cap on the top. CAD cells have been used successfully for contaminated navigational sediments in New Bedford as well as many other ports and waterways including Boston and Providence. A simplified schematic of how the CAD cell will be constructed is shown below.

## WHEN DID EPA DECIDE TO USE A CAD CELL?

The decision to build the CAD cell was made in March 2011 by the US EPA after public comment. The CAD cell is being designed now - early in 2012. Construction is expected to begin later in the year. The CAD cell will be located in a state-approved area in New Bedford Harbor between the I-195 and Rt. 6 bridges.

## WHY HAS EPA CHOSEN TO USE A CAD CELL IN **NEW BEDFORD HARBOR?**

The CAD cell will enable completion of the lower harbor cleanup more quickly, and at a lower cost. The CAD cell was selected for the disposal of 300,000 cubic yards of sediment containing between 50-190 ppm of PCBs located mostly in the lower harbor south of the I-195 bridge. These levels are much lower than the levels found in the upper harbor, which range up to four thousand ppm of PCBs.

# HOW LONG WILL THE CAD CELL PROJECT TAKE TO COMPLETE?

The CAD cell is anticipated to be dug beginning this year and completed in 2013. The time and cost to complete the harbor cleanup, including the filling of the CAD cell with contaminated material and the capping of the CAD cell, depends entirely on annual funding appropriations. Keeping in mind the decades-long timeframe that remains for cleanup of the harbor, there can be no guarantee what future funding levels will be.

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# HOW MUCH OF NEW BEDFORD HARBOR WILL BE CLEANED UP AS A RESULT OF USING THE CAD CELL?

After the CAD cell is filled, more than 80% of the geographic area of (the Upper and Lower Harbor Operable Unit) the New Bedford Harbor Superfund Site requiring cleanup under the Superfund program will be safely disposed of into the CAD cell. Specifically, almost all of the sediment exceeding Superfund cleanup levels located between Sawyer Street to the north and the hurricane barrier to the south (approximately 300,000 cubic yards) will be disposed of into the CAD cell.

# HOW DO YOU KNOW IT WILL BE SAFE TO INSTALL THE CAD CELL AND KEEP IT SEALED?

Data collected and evaluated during the construction of other CAD cells, including in New Bedford, supports EPA's determination that a CAD cell is a safe, permanent solution for disposing of contaminated Harbor sediment. EPA has also conducted computer modeling of potential leakage of contaminants which shows that a CAD cell located in New Bedford Harbor would be stable and not subject to leakage to the environment.. EPA will conduct an extensive program of monitoring air, water, and sediment during the project and make the data available to the public. As with any cleanup site, if significant issues arise during design and construction of a remedy, we would re-evaluate the issue(s) to make sure that our remedy protects human health and the environment. EPA does not intend to move forward with any remedy that does not protect the health of New Bedford citizens, or the harbor,

## WHO IS PERFORMING THE DESIGN AND CONSTRUCTION?

The work is being performed through a cooperative agreement that EPA has signed with the New Bedford Harbor Development Commission (HDC) which has extensive experience with the construc-



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USEPA Region 1 - 2009

tion and filling of CAD cells. The HDC has hired APEX Companies, LLC to design and construct the CAD cell. APEX has prior experience designing and overseeing construction of navigational CAD cells in New Bedford Harbor.

## WHAT ARE SOME ELEMENTS OF A TAG?

The TAG program provides money to community groups to pay for technical advisors to interpret and explain technical reports, site conditions, and EPA's current and future cleanup plans

Once EPA has provided the \$50,000 grant, it can be used for up to three years with extensions possible if needed and Additional TAG funds may be available. Only one TAG can be given for each Superfund site.

The next meeting of the technical working group with the TAG advisor is scheduled for March 1, 2012 at the Buzzards Bay Coalition's offices at 114 Front Street in New Bedford.

# HOW CAN I GET MORE INFORMATION ABOUT THE CAD CELL PROJECT?

In addition to ongoing community outreach, EPA has funded a "Technical Assistance Grant" or "TAG" to the Buzzard's Bay Coalition. Dr. Frank Bohlen of the Department of Marine Sciences at the University of Connecticut has been hired with TAG funds to review technical information about the project. As part of the EPA decision to design, construct, and fill a CAD cell, a technical workgroup (TWG) open to individuals and organizations interested in the project was formed to review and discuss design and construction documents. Dr. Bohlen will be attending the TWG meetings to provide technical input to the group, address community questions about technical aspects of the project, and provide feedback to EPA.