



THE CRANEY ISLAND CONNECTION

CRANEY ISLAND EASTWARD EXPANSION NEWS AND INFORMATION

VOLUME 4 ISSUE 3

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THE CRANEY ISLAND CONNECTION IS PUBLISHED MONTHLY UNDER THE AUSPICES OF THE VIRGINIA PORT AUTHORITY AND THE U.S. ARMY CORPS OF ENGINEERS, TO PROVIDE READERS WITH REPORTS RELATED TO THE DEVELOPMENT OF THE EASTWARD EXPANSION OF CRANEY ISLAND. ARTICLES PRINTED HEREIN ARE FOR INFORMATIONAL PURPOSES ONLY. WE INVITE READERS TO COMMENT ON ARTICLES AND SUGGEST FUTURE TOPICS FOR CONSIDERATION.

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As the Craney Island Eastward Expansion project nears the start of construction, we are reminded of the need for the Expansion and future marine terminal. The dual-purpose project will provide land for a new state-of-the-art marine terminal while also allowing dredged material to continue being pumped into the Craney Island facility. This development will be needed when cargo volumes increase at the Port, thus creating the demand for more capacity. Many factors contribute to cargo capacity at the Port of Virginia, including the international economic climate. As the economy continues to improve and cargo demand remains high, The Port's capacity will be affected by the efficiency and quality of its operations and facilities.

Shipping lines, as well as distribution, logistics, and manufacturing supply companies, locate in Hampton Roads because of its proximity to the Port of Virginia's deep channels, unobstructed waterways, and intermodal connections to markets around the country. The Port's ongoing environmentally-friendly operational initiatives, which are a high priority for businesses today, also attract customers. The Virginia Port Authority (VPA) is committed to green leadership in order to protect the region's environment, including its valuable natural harbor. Following are some of the voluntary environmental initiatives implemented by The Port of Virginia.

ENVIRONMENTAL MANAGEMENT SYSTEM

The Port of Virginia earned the ISO 14001 certification for its environmental management system in June 2008. ISO 14001 is an international standard which specifies the requirements for an environmental management system, and applies to those environmental aspects over which an organization has control. The Port of Virginia is the first major port on the East Coast to receive the certification. As of June 30, 2010, it was the only East Coast port to have all its marine terminal facilities certified.

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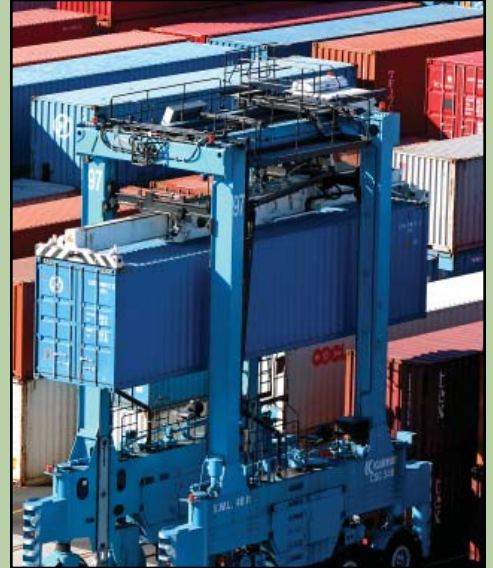
CIDMMA

The Craney Island Dredged Material Management Area (CIDMMA), benefits the environment by allowing the Army Corps of Engineers, the Navy, the VPA, and private terminals in Hampton Roads to reduce fuel and emissions from transporting dredge material. Dredge material from projects in Hampton Roads Harbor can be transported to nearby Craney Island, instead of an ocean disposal area 38 nautical miles away in the Atlantic Ocean.

AIR QUALITY PROGRAMS

Cargo Handling Equipment Replacement and Voluntary Use of Ultra Low Sulfur Diesel Fuel and 5% Biodiesel

In 1999, the Port of Virginia voluntarily implemented an emissions reduction program through revisions to its equipment purchasing policies. All new cargo handling equipment at port facilities now have the lowest emission engines available on the market. From 1999 to 2005, air emissions from cargo handling activities decreased by 30%, despite a 55% increase in cargo volume. From 2005 to 2015, emissions are expected to decline by an additional 38%, while cargo volumes are forecasted to increase 49%. In addition, in July 2007, Virginia International Terminals (VIT) voluntarily began using ultra-low sulfur diesel fuel port-wide, three years ahead of a federal mandate. This switch has resulted in a 30% reduction in particulate matter emissions and a 99% reduction in sulfur-oxide emissions. In July 2010, VIT began using 5% biodiesel fuel in its cargo handling equipment.



A straddle carrier moves containers of cargo using ultra-low sulfur diesel fuel.



The Green Goat uses half as much fuel on a daily basis as a regular locomotive.

Hybrid and Ultra-Low Emission Locomotives

In July 2008, the Port of Virginia received a grant from the Environmental Protection Agency for the purchase of a 2,000-horsepower hybrid locomotive and two 2,000-horsepower ultra-low emission genset locomotives. These locomotives are expected to reduce nitrogen oxide emissions by 80%. The hybrid locomotive, also known as the "Green Goat," has been in use for 18 months and uses approximately 90 gallons of diesel fuel a day, compared with 180 gallons a day for a conventional locomotive.

"Green Operator" Truck Retrofit Program

The Port of Virginia has teamed with the Virginia DEQ and the EPA to launch a diesel retrofit program. The Green Operator "GO" program encourages trucking companies that service the Port to voluntarily retrofit and replace diesel trucks in order to reduce emissions. Virginia was the first state in the nation to implement a voluntary program specifically for creating a cleaner and more fuel-efficient fleet of local trucks. The GO program is serving as a model for ports throughout the Mid-Atlantic and Southeast regions, with 210 retrofitted or replaced trucks as of September 30, 2010. With more than 25 local trucking companies committed to the program, up to 400 trucks, or 25% of the pre-2004 trucks that enter Port facilities daily, will be retrofitted or replaced by June 30, 2011.

WATER QUALITY PROGRAMS

Beach Recycling

Recycling cans have been placed on Virginia Beach's North End to promote recycling along the resort's beaches. The receptacles are located on the North End of the oceanfront between 68th and 79th streets, where cargo vessels can be seen entering Chesapeake Bay on their way to the marine terminals. The project is a community partnership between the Virginia Port Authority and the City of Virginia Beach Department of Public Works.



Recycling bins on local beaches encourage citizens to clean up after themselves in an environmentally-friendly manner.

Inter-Terminal, Intra-Harbor Barge Service

The James River Barge Line service, which was launched in 2008 and designated a Federal Marine Highway in September 2010, is a cost-effective, environmentally-friendly, congestion relieving, and reliable alternative to truck freight shipments to and from Hampton Roads. The line connects the Port of Virginia to the Port of Richmond's multimodal freight and distribution gateway, located 100 miles inland by highway. The tugboats for this service are powered by low-emissions engines that are voluntarily fueled with ultra-low sulfur diesel.

In 2009, the Barge Line Service eliminated 12,000 truck trips from local streets and highways, reducing greenhouse gas emissions by 45%. The volume of containers carried by barge is expected to double in 2010, removing an estimated 24,000 trucks from local highways. In addition, the service will be expanded in 2011 to transport containers between the terminals in Norfolk and Portsmouth. The barge service has the potential to eliminate approximately 1,500 tons of nitrogen oxides over the next five years.

FUTURE INITIATIVES

Craney Island Eastward Expansion Mitigation Plan

Developed over three years by multiple state and federal agencies and local non-profit interest groups, the U.S. Army Corps of Engineers and VPA's mitigation plan will restore a three mile stretch of the Southern Branch of the Elizabeth River, covering 411 acres. Using a "landscape approach" recommended by the Virginia Institute of Marine Science (VIMS) to encourage the preservation of biodiversity, the plan includes wetland restoration, oyster reef creation, and sediment remediation.

Energy Management and Conservation Measures

The VPA is in the process of installing web-based and real-time energy management and monitoring technology at Norfolk International Terminals (NIT). The system will identify and monitor the energy conservation benefits of operations and infrastructure improvements at port facilities. The initial phase will begin at the terminal's police headquarters in January 2011. The Port Authority's goal is to expand the technology to the entire terminal in order to reduce emissions. The program also includes installing LED lighting throughout NIT, which is forecasted to reduce energy consumption by more than 40%.

CONCLUSION

For over a decade, The Virginia Port Authority has been working to reduce air emissions, save energy, and improve water quality through a variety of environmental initiatives. While continuing to improve current programs, plans are in place to launch new ones that will allow the Port to maintain environmentally-friendly facilities. Future plans for the Craney Island Marine Terminal include sustainable design and operational practices.

U.S. Army Corps of Engineers: Keeping Local Waterways Clean

One of the USACE Norfolk District's most visible projects is its Drift and Debris Removal Program, which ensures the safety and conduct of commercial and recreational boaters in the harbor by keeping the navigation channels clear of floating debris. The project area includes Hampton Roads, the harbors of Norfolk and Newport News, and tributary waters including the James, Elizabeth, and Nansemond Rivers.

Three-person crews on two vessels patrol the waterways from morning to evening, seven days a week, and upon special request. The crews also assist the Coast Guard when search and rescue or debris removal help is needed. Removing debris is essential for the safety of the port, homeland security, the U.S. Navy and commercial shipping traffic.

USACE survey and navigation support teams also keep local waterways clean during the Chesapeake Bay Foundation's annual Clean the Bay Day. This year, the crew of two vessels picked up floating debris that could potentially damage vessels, as well as 450 pounds of trash. Most of the trash that is collected daily includes aluminum cans, styrofoam containers and cups; and plastic bottles and bags.



A large piece of debris is removed from the water by a USACE vessel. Much of the driftwood and biodegradable debris collected from local waterways is disposed of at CIDMMA.

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