

US EPA ARCHIVE DOCUMENT

Port Authority of New York and New Jersey Clean Air Strategy

The Port Authority operates as a landlord that leases its marine terminals to private operators in the Port of New York and New Jersey, which is the largest port on the east coast, the third largest port in the United States, and among the fifteen largest ports in the world. More than 269,000 jobs are associated with the Port's activity with \$11.2 billion in wages and over \$5 billion in tax revenue annually. In addition the Port serves an estimated 21 million consumers in the New York-New Jersey Metropolitan Area, and 100 million more within a one-day drive. The Port provides almost immediate access to one of the country's wealthiest regions and rail and truck access to half the nation. The region was first settled because of the Hudson River Valley's advantages as a harbor, and port commerce was integral in the growth of the New York metropolitan region into the economic and cultural center it is today.

The purpose of this [Clean Air Strategy](#) is to define a commitment by the Port Authority of New York and New Jersey and its partners to ensure that air emissions generated by mobile sources associated with marine terminal operations and activities decline even with anticipated future port growth over the next ten years. The actions identified in this ten year Strategy are meant to address three primary emissions reduction objectives:

1. Reduce maritime-related air quality impacts on human health and the environment from criteria air pollutants, especially those that come from diesel particulate emissions;
2. Reduce maritime-related contribution to greenhouse gas emissions associated with climate change; and
3. Contribute to the effort to bring the New York/Northern New Jersey/Long Island Non-Attainment Area into attainment.

Sustainable Port Partnership, Port Authority of New York and New Jersey and Port of Rotterdam

Along with activities to reduce the impacts of potentially harmful air emissions associated with port operations, Port Authority of New York and New Jersey is evaluating technologies to assist in the reduction of emissions from equipment used in port operations. The Port is also interested in working with its international port partners to raise awareness about air pollution and to achieve emission reductions. The Port Authority of New York and New Jersey and the Port of Rotterdam Authority began a Sustainable Port Partnership in 2007 ([EPA Takes Innovative Approach to Clear the Air at the Nation's Ports](#)) to investigate emission reduction project of mutual interest to the parties, such as the hydraulic hybrid yard hostler demonstration. The yard hostler is a type of truck that moves cargo within the terminal boundary. The hostler project is part of EPA's Clean Ports and SmartWay Programs and uses a technology developed by EPA staff and their Contractors at EPA's research facility in Ann Arbor, Michigan ([Hydraulic Hybrid Technology – A Proven Approach](#)). This technology allows the yard hostler to operate mainly on a hydraulic pump system with a small diesel engine when extra power is needed. Over 40 percent of a yard hostler's working hours are spent waiting at the port with the engine idling. The vehicle's engine-off power steering and heating systems allow the engine to be shut off during these waiting periods. The unique series hybrid design also enables the engine to be automatically turned off when it is not needed, such

as during braking. The hydraulic hybrid system is expected to reduce emissions such as carbon dioxide by 30 percent and increase fuel efficiency 50-60 percent. The prototype is expected to be undergoing testing in the Port of New York and New Jersey by summer 2010.

Camden Community Action for a Renewed Environment, South Jersey Port Corporation

In 2006, \$250,000 was awarded to Clean Air Communities (CAC) to reduce pollution at the Camden Waterfront as part of EPA's Community Action for a Renewed Environment (CARE) program, which supports communities in creating and using collaborative partnerships to reduce environmental risks. The Camden area residents live amongst a heavy concentration of industries ranging from scrap-handling facilities, Camden County's municipal waste combustor and sewage treatment plant, and the world's largest licorice processing plant. The neighborhood also sits between two busy urban port facilities owned and operated by the South Jersey Port Corporation. It has been estimated that as many as 77,000 trucks travel through the neighborhood to local industries in a year. CAC, a non-profit organization and subsidiary of Northeast States for Coordinated Air Use Management, partnered with the New Jersey Department of Environmental Protection, the South Jersey Port Corporation, Heart of Camden, the Camden County Municipal Utilities Association and South Camden Citizens in Action to carry out the project. Through this CARE project and \$500,000 in funding committed by New Jersey Department of Environmental Protection, equipment upgrades and retrofits at South Jersey Port Corporation were made possible.

Paulsboro Terminal, South Jersey Port Corporation Expansion

Ground was broken in November 2009 to begin construction on the Port of Paulsboro, a deep water port that will be built on 190 acres along the Delaware River ([see press release](#)). The project will create thousands of jobs and spur economic growth in Gloucester County and in the South Jersey region. Gloucester County Improvement Authority is acting as the developer of Port of Paulsboro and is overseeing the design and construction of the 190-acre marine terminal with upwards to four berths. The South Jersey Port Corporation, a state agency that owns and operates the Ports of Camden and Salem, has issued \$56 million in bonds to begin the site preparation of the Port, which is anticipated to begin operations within the next three years.

Green Port Initiative, South Jersey Port Corporation, Delaware River Port Authority and Philadelphia Regional Port Authority

The Camden/Philadelphia region's three principal Delaware River agencies agreed to work together to develop projects and programs to benefit the environment and reduce environmental impacts at the Port of Camden and the Port of Philadelphia as well as at new port developments like the planned Port of Paulsboro. The "Green Ports" initiative will assist all three agencies in creating a cooperative approach to develop environmental programs and projects aimed at reducing or neutralizing the impact of port operations upon the environment and the surrounding community. The groups are identifying initiatives to reduce environmental impacts at the ports as the agencies work together to develop environmental education programs, reduce energy consumption, employ cleaner

energy sources, replace and modernize vehicles and other equipment, develop sound planning and development processes and seek additional funding for the [Green Ports Initiative](#).

As outlined in testimony by the SJPC before the New Jersey Clean Air Council to the New Jersey Department of Environmental Protection, some of the steps that are already underway at the Port of Camden and which will be built into the operation and infrastructure of the new Port of Paulsboro include:

1. Installation of a new pier equipped with an electric-powered crane and conveyor system at the Broadway Terminal, eliminating 80,000 diesel-powered truck moves annually.
2. Retrofit of existing diesel-powered cargo handling equipment with emission control devices under a grant and partnership with USEPA and NJDEP.
3. Development of green buffers between the port and the nearby residential community.
4. Implement the use of a Fleet Maintenance software program that allows close tracking of the preventive maintenance and repairs of existing equipment to help ensure they are running optimally to reduce fuel consumption and emissions.

Improved Rail Service at the Port of Albany

In July 2008, the Railway Industrial Clearance Association (RICA), a 650-member international association dedicated to heavy lift and project cargo transportation, recognized Albany as the most improved port in the nation for handling heavy lift cargo ([press release](#)). The organization, with members from the United States, Canada, Mexico and Europe, cited the Albany Port District Commission members "for the vision in ongoing investment in infrastructure," as a major reason for the award. Located on the Upper Hudson River, the Port of Albany/Rensselaer has been a historic transportation hub since the city was founded over 300 years ago. The Hudson River provides access to the state's extensive canal system and area roadways connect with major interstate highways. Rail lines offer the ability for the Port of Albany to deliver cargo in close proximity to any location in North America.

Construction of the Port of the Americas, Puerto Rico

The government of Puerto Rico, through the Port of the Americas Authority, is substantially investing in an alternative Port to alleviate heavy congestion at the Port of San Juan and become a new socioeconomic center. The Port of the Americas Authority is actively developing the [Port of the Americas Project](#) in the existing facilities of the Port of Ponce. The latter, a public port in south coast of Puerto Rico, has been in operation since 1911. The Port of the Americas will consist of 1200 feet of newly built quayside with 100 rail gauge designed for super post panamax cranes, 50 feet depth berths, and a newly built yard with an annual capacity for 250,000 TEU's. Two super post panamax cranes were delivered to the Port of the Americas on January 22, 2010. The cranes cost \$22.7 million and will greatly boost the lifting power of the port.

Port Authority of New York and New Jersey Clean Air Strategy

The Port Authority operates as a landlord that leases its marine terminals to private operators in the Port of New York and New Jersey, which is the largest port on the east coast, the third largest port in the United States, and among the fifteen largest ports in the world. More than 269,000 jobs are associated with the Port's activity with \$11.2 billion in wages and over \$5 billion in tax revenue annually. In addition the Port serves an estimated 21 million consumers in the New York-New Jersey Metropolitan Area, and 100 million more within a one-day drive. The Port provides almost immediate access to one of the country's wealthiest regions and rail and truck access to half the nation. The region was first settled because of the Hudson River Valley's advantages as a harbor, and port commerce was integral in the growth of the New York metropolitan region into the economic and cultural center it is today.

The purpose of this [Clean Air Strategy](#) is to define a commitment by the Port Authority of New York and New Jersey and its partners to ensure that air emissions generated by mobile sources associated with marine terminal operations and activities decline even with anticipated future port growth over the next ten years. The actions identified in this ten year Strategy are meant to address three primary emissions reduction objectives:

1. Reduce maritime-related air quality impacts on human health and the environment from criteria air pollutants, especially those that come from diesel particulate emissions;
2. Reduce maritime-related contribution to greenhouse gas emissions associated with climate change; and
3. Contribute to the effort to bring the New York/Northern New Jersey/Long Island Non-Attainment Area into attainment.

Sustainable Port Partnership, Port Authority of New York and New Jersey and Port of Rotterdam

Along with activities to reduce the impacts of potentially harmful air emissions associated with port operations, Port Authority of New York and New Jersey is evaluating technologies to assist in the reduction of emissions from equipment used in port operations. The Port is also interested in working with its international port partners to raise awareness about air pollution and to achieve emission reductions. The Port Authority of New York and New Jersey and the Port of Rotterdam Authority began a Sustainable Port Partnership in 2007 ([EPA Takes Innovative Approach to Clear the Air at the Nation's Ports](#)) to investigate emission reduction project of mutual interest to the parties, such as the hydraulic hybrid yard hostler demonstration. The yard hostler is a type of truck that moves cargo within the terminal boundary. The hostler project is part of EPA's Clean Ports and SmartWay Programs and uses a technology developed by EPA staff and their Contractors at EPA's research facility in Ann Arbor, Michigan ([Hydraulic Hybrid Technology – A Proven Approach](#)). This technology allows the yard hostler to operate mainly on a hydraulic pump system with a small diesel engine when extra power is needed. Over 40 percent of a yard hostler's working hours are spent waiting at the port with the engine idling. The vehicle's engine-off power steering and heating systems allow the engine to be shut off during these waiting periods. The unique series hybrid design also enables the engine to be automatically turned off when it is not needed, such

as during braking. The hydraulic hybrid system is expected to reduce emissions such as carbon dioxide by 30 percent and increase fuel efficiency 50-60 percent. The prototype is expected to be undergoing testing in the Port of New York and New Jersey by summer 2010.

Camden Community Action for a Renewed Environment, South Jersey Port Corporation

In 2006, \$250,000 was awarded to Clean Air Communities (CAC) to reduce pollution at the Camden Waterfront as part of EPA's Community Action for a Renewed Environment (CARE) program, which supports communities in creating and using collaborative partnerships to reduce environmental risks. The Camden area residents live amongst a heavy concentration of industries ranging from scrap-handling facilities, Camden County's municipal waste combustor and sewage treatment plant, and the world's largest licorice processing plant. The neighborhood also sits between two busy urban port facilities owned and operated by the South Jersey Port Corporation. It has been estimated that as many as 77,000 trucks travel through the neighborhood to local industries in a year. CAC, a non-profit organization and subsidiary of Northeast States for Coordinated Air Use Management, partnered with the New Jersey Department of Environmental Protection, the South Jersey Port Corporation, Heart of Camden, the Camden County Municipal Utilities Association and South Camden Citizens in Action to carry out the project. Through this CARE project and \$500,000 in funding committed by New Jersey Department of Environmental Protection, equipment upgrades and retrofits at South Jersey Port Corporation were made possible.

Paulsboro Terminal, South Jersey Port Corporation Expansion

Ground was broken in November 2009 to begin construction on the Port of Paulsboro, a deep water port that will be built on 190 acres along the Delaware River ([see press release](#)). The project will create thousands of jobs and spur economic growth in Gloucester County and in the South Jersey region. Gloucester County Improvement Authority is acting as the developer of Port of Paulsboro and is overseeing the design and construction of the 190-acre marine terminal with upwards to four berths. The South Jersey Port Corporation, a state agency that owns and operates the Ports of Camden and Salem, has issued \$56 million in bonds to begin the site preparation of the Port, which is anticipated to begin operations within the next three years.

Green Port Initiative, South Jersey Port Corporation, Delaware River Port Authority and Philadelphia Regional Port Authority

The Camden/Philadelphia region's three principal Delaware River agencies agreed to work together to develop projects and programs to benefit the environment and reduce environmental impacts at the Port of Camden and the Port of Philadelphia as well as at new port developments like the planned Port of Paulsboro. The "Green Ports" initiative will assist all three agencies in creating a cooperative approach to develop environmental programs and projects aimed at reducing or neutralizing the impact of port operations upon the environment and the surrounding community. The groups are identifying initiatives to reduce environmental impacts at the ports as the agencies work together to develop environmental education programs, reduce energy consumption, employ cleaner

energy sources, replace and modernize vehicles and other equipment, develop sound planning and development processes and seek additional funding for the [Green Ports Initiative](#).

As outlined in testimony by the SJPC before the New Jersey Clean Air Council to the New Jersey Department of Environmental Protection, some of the steps that are already underway at the Port of Camden and which will be built into the operation and infrastructure of the new Port of Paulsboro include:

1. Installation of a new pier equipped with an electric-powered crane and conveyor system at the Broadway Terminal, eliminating 80,000 diesel-powered truck moves annually.
2. Retrofit of existing diesel-powered cargo handling equipment with emission control devices under a grant and partnership with USEPA and NJDEP.
3. Development of green buffers between the port and the nearby residential community.
4. Implement the use of a Fleet Maintenance software program that allows close tracking of the preventive maintenance and repairs of existing equipment to help ensure they are running optimally to reduce fuel consumption and emissions.

Improved Rail Service at the Port of Albany

In July 2008, the Railway Industrial Clearance Association (RICA), a 650-member international association dedicated to heavy lift and project cargo transportation, recognized Albany as the most improved port in the nation for handling heavy lift cargo ([press release](#)). The organization, with members from the United States, Canada, Mexico and Europe, cited the Albany Port District Commission members "for the vision in ongoing investment in infrastructure," as a major reason for the award. Located on the Upper Hudson River, the Port of Albany/Rensselaer has been a historic transportation hub since the city was founded over 300 years ago. The Hudson River provides access to the state's extensive canal system and area roadways connect with major interstate highways. Rail lines offer the ability for the Port of Albany to deliver cargo in close proximity to any location in North America.

Construction of the Port of the Americas, Puerto Rico

The government of Puerto Rico, through the Port of the Americas Authority, is substantially investing in an alternative Port to alleviate heavy congestion at the Port of San Juan and become a new socioeconomic center. The Port of the Americas Authority is actively developing the [Port of the Americas Project](#) in the existing facilities of the Port of Ponce. The latter, a public port in south coast of Puerto Rico, has been in operation since 1911. The Port of the Americas will consist of 1200 feet of newly built quayside with 100 rail gauge designed for super post panamax cranes, 50 feet depth berths, and a newly built yard with an annual capacity for 250,000 TEU's. Two super post panamax cranes were delivered to the Port of the Americas on January 22, 2010. The cranes cost \$22.7 million and will greatly boost the lifting power of the port.