

### Did You Know?

- Eliminating unnecessary freight idling can save thousands of gallons of diesel fuel per day.
- Low sulfur fuels have a cleaning effect on the engine, which reduces maintenance costs and extends oil change intervals.
- Switching to fuels with lower sulfur levels reduces sulfur dioxide and PM emissions and enhances the effectiveness of retrofit technologies.
- Diesel particulate filters used with ultra-low sulfur diesel fuel reduce PM by 90 percent.
- Diesel oxidation catalysts reduce PM by 20 to 40 percent.

*“Clean Ports USA has proven to be an invaluable resource to port authorities. With funding and support from the National Clean Diesel Campaign and regional diesel collaboratives, port authorities are reducing emissions for the benefit of their communities and workers.”*

**Michael Leone, Executive Director  
MASSPORT**

### For More Information

To learn more about Clean Ports USA, visit [www.epa.gov/cleandiesel/ports](http://www.epa.gov/cleandiesel/ports).



## Clean Ports USA

*Navigating  
Toward  
Cleaner Ports*

### About the National Clean Diesel Campaign (NCDC)

EPA established NCDC to promote strategies that reduce harmful emissions from America's diesel engines. Through regulatory and innovative approaches, NCDC addresses new diesel engines as well as the millions already in use.



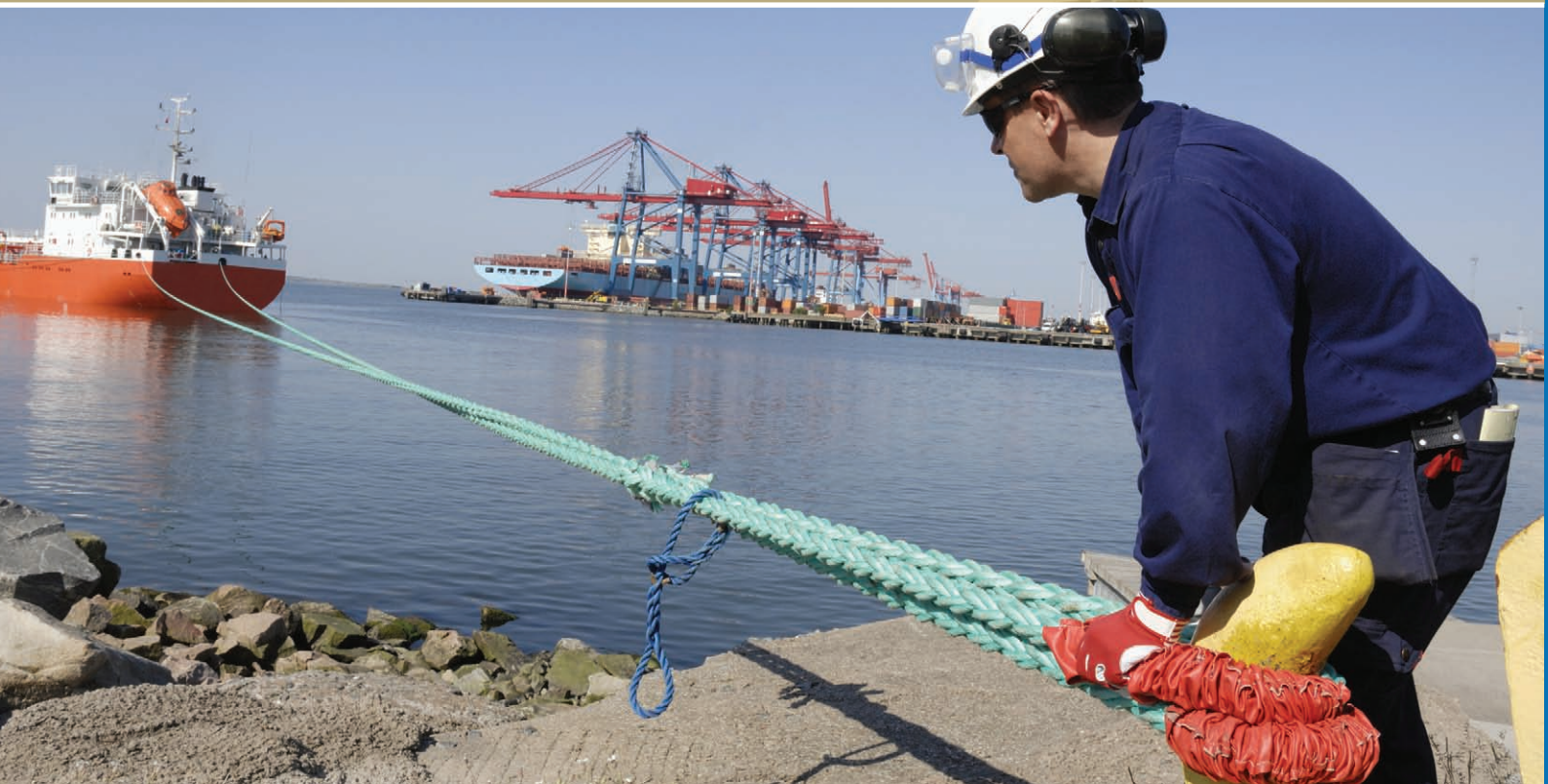
National Clean Diesel Campaign

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National Clean Diesel Campaign  
[www.epa.gov/cleandiesel/ports](http://www.epa.gov/cleandiesel/ports)







*“Because there are so many ways to reduce emissions, every port can find a way to participate in Clean Ports USA.”*

Meredith Martino  
Manager of Government Relations  
and Environmental Policy  
American Association of  
Port Authorities

## Why Reduce Diesel Emissions from Ports?

Reducing exposure to diesel exhaust from vehicles, equipment, and marine vessels at ports is important for public health and the environment. The exhaust, which contains particulate matter (PM) and nitrogen oxides (NO<sub>x</sub>), increases ozone levels and contributes to regional haze. This pollution has been linked to respiratory and cardiovascular illnesses. Diesel exhaust is also the largest anthropogenic source of black carbon emissions—a contributor to climate change.

Clean Ports USA, part of the U.S. Environmental Protection Agency (EPA)'s National Clean Diesel Campaign (NCDC), partners with ports and fleet owners, as well as national, state, and local entities, to reduce diesel emissions through the use of verified emission control technologies and innovative operational strategies.

## Why Take Action Now?

With freight shipments forecasted to increase, port authorities need to move additional cargo more efficiently and with fewer environmental impacts. Innovative ports are getting ahead of the curve by developing emission inventories and taking advantage of funding and technology assistance available through Clean Ports USA to improve the environmental performance of their fleets.



## How Do Ports Benefit?

By taking voluntary action, port leaders:

- Enrich their bottom line by saving fuel and increasing operational efficiency.
- Measure, track, and reduce emissions.
- Lower public health risks for asthma, respiratory illnesses, and cardiovascular disease for port employees and local communities.
- Enhance relationships with neighboring communities.
- Improve customer relationships by providing incentives to fleet partners.
- Receive national recognition.

## Cost-Effective Strategies

Many technological and operational solutions reduce diesel emissions from cargo-handling equipment, marine and port vessels, ferries, trucks, and rail equipment, while also supporting the port's business interests through improvements in equipment maintenance, safety, and reliability.

Clean technology strategies include:

- Maintaining and operating engines properly.
- Retrofitting equipment, vehicles, and vessels with EPA-verified aftertreatment technologies.
- Repowering old engines with newer, cleaner engines that use cleaner fuel or highway engines manufactured to stricter EPA standards.
- Replacing diesel equipment with more efficient models that meet more stringent EPA standards.
- Using idle reduction technology, including auxiliary power units (APUs), cold ironing, or shore power.
- Using cleaner fuels such as ultra-low sulfur diesel, electricity, emulsified fuel, biodiesel blends, liquefied petroleum gas, or natural gas.
- Using hybrid or genset yard locomotives.

Operational strategies include:

- Improved container management, such as IT in-gate management, cargo tracking, and employee identification; efficient container stacking; and direct intermodal transfers.
- Efficient freight movement, such as on-dock rail in lieu of trucks and use of full rail loads.
- Reduced idling from gate efficiencies, terminal designs, and Web-based appointment systems or chassis pools that shorten queues; as well as idling restrictions and technologies.

NCDC provides a great online resource for port authorities looking to become environmental leaders by reducing diesel emissions. Visit [www.epa.gov/cleandiesel/ports](http://www.epa.gov/cleandiesel/ports) for additional information, including:

- Examples of port authorities' clean air action plans.
- Case studies of EPA grant-funded projects.

- Information on emission reduction technologies and strategies.
- Funding opportunities.
- Sample language for contract specifications for cleaner construction techniques.

## Funding Opportunities

EPA provides grants and innovative financing mechanisms to port authorities and state and local agencies for verified, cost-effective technologies and to help bring emerging technologies to port communities. The Diesel Emissions Reduction provisions in the Energy Policy Act of 2005 are significant funding sources for leading port authorities and state and local agencies as part of Clean Ports USA. Priority is given to projects that maximize public health benefits in areas receiving a disproportionate amount of air pollution from ports, rail yards, terminals, and distribution centers. Visit [www.epa.gov/cleandiesel/grantfund.htm](http://www.epa.gov/cleandiesel/grantfund.htm) for the latest information on funding opportunities.

