



## Ship Emissions: Air Pollution Across the Ocean

Large ocean-going vessels – cargo and container ships, cruise ships, and oil tankers – are one of the fastest growing, least-regulated sources of air pollution in the United States. As more consumer goods are imported from Asia, cargo shipping is expected to double or even triple by 2020 – especially in high-traffic ports such as Oakland, Los Angeles and New York. Cruise ship passenger capacity has doubled in 20 years and continues to expand rapidly. As marine traffic increases, so does the threat to our oceans, marine life, and public health.



Air pollution from all ocean-going vessels in U.S. waters is expected to grow by 150 percent over the next three decades. A single cargo ship coming into New York harbor can release as much pollution as 350,000 current-model-year cars in one hour. In the Ports of Los Angeles/Long Beach, the 16 container ships each day in port produce as many smog-forming emissions as one million cars. In one port visit, a single cruise ship generates the emissions of more than 12,400 cars.

A 2003 study found that large ships generate 30 percent of global nitrogen emissions – twice the previous estimates of 14 percent. These ships also produce 16 percent of sulfur emissions from all petroleum sources. Port communities suffer the most from the diesel exhaust emitted by ships, where elevated cancer risk from diesel exhaust has been documented. In Santa Barbara, ship emissions that blow onshore are larger than those produced by all cars and trucks on land.

### Dirty Fuels and Lack of Air Pollution Controls

Despite the fact that ships are more energy efficient than other forms of commercial transportation, marine engines operate on extremely dirty fuels. Most large ships use the dirtiest and least expensive diesel available. Known as bunker oil, this fuel is the collection of residue from the production of higher grade fuels and contains significant concentrations of toxic compounds banned from use in most other industrial and consumer applications. It is thick as asphalt and must be heated to be burned.

To compound the problem, engines on ocean-going ships are currently not required to meet air pollution controls as cars and trucks are required to do. These engines are inadequately regulated in the U.S. and an international shipping treaty on shipping pollution will provide minimal benefits once it finally enters into force sometime in the future.

### Solutions

Burning cleaner diesel fuels in port can significantly reduce air emissions from ships. Turning off the engines and hooking up to shoreside power and the electrical grid reduces smokestack emissions by nearly 100 percent. New engine technologies can also make ships far, far cleaner than today's engines. These solutions are feasible and available, but won't be implemented until communities, policymakers and regulators join forces to advocate for immediate action and seek accountability for the impact on public health and the environment from the shipping industry.

### EPA Lawsuit

Bluewater Network settled a ground-breaking lawsuit against the U.S. Environmental Protection Agency that required the agency to set air emission standards for ocean-going vessels, which were finalized in January 2003. However, influence from the Bush Administration resulted in new rules that *will not provide any air emissions reductions*. Bluewater Network has, therefore, challenged the standards and is advocating for stronger standards to apply to both domestic and foreign-flagged ships stopping at US ports. We await a ruling on arguments heard in federal court in February 2004.

5/04