

Emission Control Areas are Critical to Protect Human Health from Shipping Pollution

Historic Emission Control Area was negotiated by broad coalition of U.S. government, industry and health and environmental groups

In 2010, the International Maritime Organization (IMO) approved designation of the North American Emission Control Area (ECA). The standards guiding the ECA are contained in amendments to Annex VI of the IMO's MARPOL treaty, adopted in 2008. The U.S. and Canadian governments, cruise lines, major shipping companies, health groups and environmental groups all participated in negotiations leading to the adoption of these important health protections.

Within 200 nautical miles of North American coastlines, large ocean-going ships must use cleaner fuels and reduce smog-forming oxides of nitrogen. ECAs provide the most protective clean air standards available under international law to address high polluting shipping emissions. In the ECA, the sulfur content in fuel will be limited to 10,000 parts per million (ppm) beginning in August 2012 and 1,000 ppm in 2015. Within an ECA, ships must also achieve an 80 percent reduction in smog-forming oxides of nitrogen (NO_x) starting in 2016.

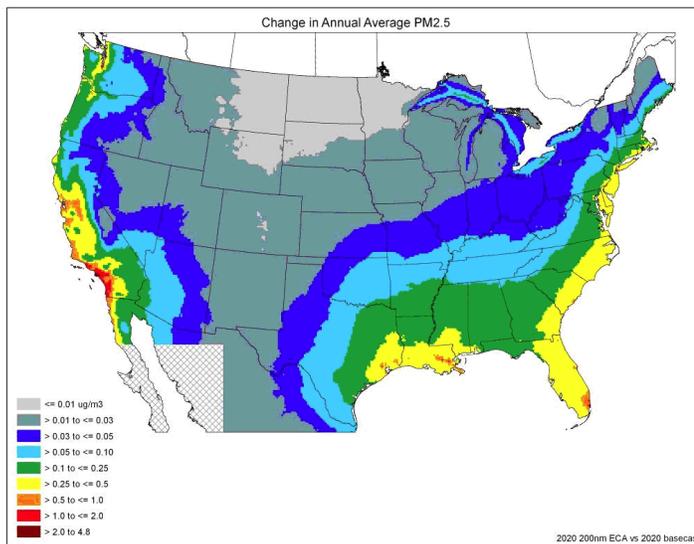
Ocean-going ships are the largest ships on the water and include cruise ships, container ships, tankers, and bulk carriers. These large vessels travel all over the world, making international shipping a significant factor in U.S. port traffic and emissions – 90% of ship calls on U.S. ports are made by foreign-flagged vessels.

Health protections of ECA will be felt in port areas and hundreds of miles inland

U.S. Environmental Protection Agency (EPA) estimates that by reducing harmful pollution from oceangoing vessels, the ECA will prevent up to 14,000 premature deaths every year by 2020 and over 30,000 premature deaths annually by 2030.

A study by two leading researchers on shipping pollution, Corbett and Winebrake, shows shipping-related particulate matter emissions contribute to approximately 60,000 global deaths annually, with impacts concentrated in coastal regions on major trade routes.

Ocean-going ships impact air quality in U.S. coastal cities and ports and even send pollution hundreds of miles inland. This EPA air quality analysis map shows the significant reduction in dangerous particulate pollution provided by the North American ECA, improving the air for millions of Americans across the nation.



Absolute Improvement in Annual Average PM2.5 Concentrations in 2020 Resulting from North American ECA

Commercial ships burn extremely dirty fuel and emit high levels of harmful air pollution

The container ships, tankers and other large sea-going vessels that dock at more than 100 U.S. port cities currently burn low grade "bunker fuel," a major source of air pollution. This residual fuel contains sulfur levels averaging about 27,000 ppm of sulfur – 1,800 times greater than U.S. law allows for other diesel engines.

The EPA estimated that in 2009, ocean-going ships emitted:

- ✓ Over 71,000 tons of fine particulate matter – comparable to the pollution from 75% of the nation's coal-fired power plants
- ✓ Almost 913,000 tons of NO_x pollution—comparable to the NO_x emissions from more than 1 billion of today's new cars
- ✓ Nearly 597,000 tons of sulfur dioxide (SO₂) – 80% of the total SO₂ from the U.S. transportation sector