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UCSD's Mark Thiemens found that ships account for a large share of air pollutants seen in samples from Scripps' pier. *Peggy Peattie / U-T*

State, local programs to cut diesel pollution

By Mike Lee
STAFF WRITER

San Diego's skies are about to get cleaner thanks to state and local programs designed to reduce diesel pollution from ships, which have long been a major cause of sooty air in port cities.

The Unified Port of San Diego approved \$7.6 million this week to install giant electrical plug-ins at its cruise-ship and 10th Avenue terminals so visiting vessels can shut down their diesel engines while in port. The agency also will

New ship rules strike a blow for clean air

tap about \$5 million in grants for the work, which should be completed in August 2011 — more than two years ahead of California's mandate.

Another coastal pollution measure took effect statewide July 1. The regulation forces all oceangoing ships to use cleaner-burning fuels when they are within 24 nautical miles of California's shoreline. It will prevent an estimated 3,600 premature deaths between 2009 and 2015, according to the California Air Resources Board, which is driving the changes.

The combined efforts are part of the most rigorous campaign in the nation to clamp down on ship pollution, which has largely gone unregulated until now. The

rules come after years of debate among lawmakers, environmentalists and industry groups.

"Clearly (these rules) were the right thing to do. They will have an effect," said Mark Thiemens, dean of the division of physical sciences at the University of California San Diego. "They will serve as a model for other places."

Diesel exhaust contains a variety of harmful gases and more than 40 other substances known to cause cancer. Diesel particulate emissions from oceangoing vessels elevate the risk of cancer for at least 7 million people in California, state regulators said.

▶ AIR QUALITY CONTINUED FROM A1

Ship toxins often blow into poor areas near ports

A8

If the new pollution measures succeed, Thiemens eventually will detect fewer diesel particles with his air-sampling device on the Scripps Institution of Oceanography pier in La Jolla.

His analysis has shown that more than half of the sulfur-rich air pollutants in his samples are from ships, some of which are docked in San Diego and Los Angeles, and others cruising along the coast.

Those numbers surprised Thiemens and convinced him of the need for the regulations California adopted in 2007 and 2008. The rules are intended to drive down air pollution by using shore-based power for docked ships, upgrading old port machines and forcing ships to switch to cleaner fuels.

Thiemens said a major question is how many contaminants come from docked ships versus ships at sea, whose emis-

SEE Air quality, A8

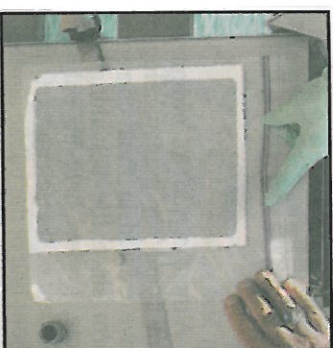


Mark Thiemens of UCSD's physical sciences division prepared to climb atop the lab at the end of Scripps Pier, where researchers have been taking air samples. *Peggy Peattie / U-T photos*

sions drift onto land. He aims to keep sampling air at the pier because "there is no long-term, continuous measurement at that level of detail anywhere (else) in the world." California's low-sulfur fuel requirement — the one that start-

ed this month — will affect about 2,000 oceangoing vessels per year. The law forces ships to replace the highly polluting oil often called bunker fuel with more environmentally friendly but also more expensive fuel. Complying with the regulation

costs about \$30,000 per port visit, state air officials said. "This comparatively simple switch for ships will have huge benefits," said Mary Nichols, chairwoman of the air resources board. Her agency estimates that



UCSD air quality researchers showed a filter that had been in a collection device on the Scripps pier in La Jolla.

initially, the fuel switch will trim about 75 percent of the diesel particles and more than 80 percent of the sulfur oxides that ships emit near shore. Reductions will be greater when the sulfur-content benchmark is lowered again in 2012.

The air board also has clamped down on emissions by passenger, container and refrigerated ships while docked at major ports such as those in San Diego, Long Beach and Oakland. Those vessels typically run their engines when they are in port to power lights and on-board machines. Toxic compounds from the ships' smokestacks commonly

blow into low-income communities closest to the ports. Levels of diesel particles in Barrio Logan and Sherman Heights are more than 1,000 percent higher than the county average, according to the Environmental Health Coalition, an advocacy group in National City.

"When we open our windows to let in the air, oftentimes there is black dust that we assume is coming from the boats that are docked at the 10th Avenue Marine Terminal," Maria Martinez, a mother of three who lives in the community, said through a translator.

She has spent more than three years working with the health coalition to raise public awareness and support for cleaner air. Martinez praised the port district for pledging to install shore power for ships. The practice of connecting ships to dockside power is commonly called cold-tronig.

Port leaders acknowledged the air board's pressure for agencies statewide to make such upgrades but emphasized their efforts to beat the deadline.

"The board has been proactive in addressing this issue," said Michelle White, an environmental official at the port.