# REPORT

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**TO:** Regional Council
Energy and Environment Committee

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**SUBJECT:** S. 1499 (Senators Boxer and Feinstein) - Support

**EXECUTIVE DIRECTOR'S APPROVAL:** Hasan Ikhrata

## RECOMMENDED ACTION: SUPPORT

The bill's objectives are consistent with provisions of the 2008 SCAG Legislative Program supporting regulatory action to reduce mobile source emissions.

## BACKGROUND:

S. 1499, the Marine Vessel Emissions Reduction Act, would address the problem of large marine vessels, including foreign-flagged ships, which are mostly unregulated and are a substantial source of pollutants. Marine vessels burn fuel with extremely high sulfur content known as bunker fuel, which averages approximately 27,000 parts per million (ppm) sulfur. Most equipment in the U.S. is required, or will be required, to burn fuel with no more than 15 ppm sulfur.

Emissions from marine vessels in and around U.S. ports have severe health effects. Such vessels emit pollutants including nitrogen oxides (NOx) and sulfur oxides (SOx), both of which are precursors of smog and particulates, and release cancer-causing diesel particulate matter which affect surrounding ports, as well as downwind regions. Foreign-flagged ships are responsible for about 90% of marine vessel emissions.

The high sulfur content of bunker fuel causes ships to emit over 50% of the SOx pollution in Southern California. Also, ship emissions in the region will soon become the single largest source of NOx. If that region is to attain the federal PM2.5 standard by the 2014 deadline, marine vessel SOx emissions must be reduced by over 90%. Such attainment by the federal deadline is not possible without the prompt adoption and implementation of vessel controls such as low sulfur fuels. Further, a recent analysis by the South Coast Air Quality Management District (SCAQMD) concluded that over 700 premature deaths would be prevented every year in the South Coast Basin if the marine vessel controls in the State Implementation Plan were implemented. This accounts for over one third of the health benefits of the entire SIP to attain the annual PM2.5 standard in the South Coast.

### Bill Provisions

S. 1499, the Marine Vessel Emissions Reduction Act, would achieve landmark reductions in emissions. The bill requires U.S. EPA to establish rules limiting fuel sulfur content in both domestic and foreign-flagged

ships traveling to U.S. ports, both along the coastal waters and within the Great Lakes. The limit, which would apply only within a certain number of miles from the U.S. coastline, would reduce fuel sulfur content to 1,000 - 2,000 ppm sulfur by 2011. This is a substantial but feasible reduction from current fuel sulfur levels of 27,000 ppm in large ocean-going ships. The bill would also require EPA to establish "maximum achievable" NOx, SOx and particulate emissions reduction standards for main & auxiliary ship engines.

Provisions of the Marine Vessel Emissions Reduction Act are as follows:

- EPA is to limit the sulfur content of fuel used by domestic and foreign-flagged marine vessels, both in their main and auxiliary engines, when they enter or leave U.S. ports beginning December 31, 2010;
- EPA must set the fuel content limit at no more than 1,000 ppm sulfur unless EPA determines that such a level is not technically feasible by December 31, 2010;
- EPA may set an interim standard as high as 2,000 ppm sulfur, but must lower the standard to 1,000 ppm sulfur by the earliest date that level is achievable;
- The fuel content limit will apply within 200 miles of the U.S. west coast and within a distance to be determined by EPA for all other applicable U.S. coastlines / shorelines;
- The EPA Administrator may provide for an alternative compliance mechanism if a vessel employs a control technology that reduces SOx and particulate emissions to at least the same degree as the reduction that would be achieved by compliance with the applicable fuel sulfur content limitation.
- EPA is to set standards for new and in-use main and auxiliary engines in domestic and foreign-flagged oceangoing vessels that enter or leave U.S. ports. The standards are to require the maximum degree of emission reduction technologically achievable for NOx, particulate matter, hydrocarbons and carbon monoxide by no later than January 1, 2012.

S. 1499 will result in substantial emission reductions and, further, the marine vessel standards in the bill are feasible. For example, Maersk, the largest marine carrier in the world, recently began voluntarily using 2,000 ppm sulfur fuel within 24 miles of California ports.

S. 1499 was heard in the Senate Environment and Public Works Committee on February 14, 2008 where testimony in support was taken from the South Coast Air Quality Management District, Natural Resources Defense Council, New Jersey Department of Environmental Protection, and other health based organizations; opposition to the bill was given by the Louisiana Ports Association and the Offshore Marine Services Association. The Administration has taken no formal position on S. 1499, though at hearing testified that its provisions are generally consistent with positions advocated by the Administration to the International Maritime Organization to establish more stringent international standards on diesel ship emissions. The bill currently resides in the Senate EPW Committee with no hearings currently scheduled.

**Reviewed by:**

*Division Manager*

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*Department Director*

**Reviewed by:**

*Chief Financial Officer*