



Our Vision  Clean Air

Agenda Date: March 15, 2007
Agenda Placement: Regular
Estimated Time: 10 minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Terry Dressler, Air Pollution Control Officer

CONTACT: Ron Tan, Planning and Technology Supervisor (961-8812)

SUBJECT: Marine Shipping Overview and Resolution

RECOMMENDATION:

Adopt the attached resolution recognizing the magnitude of and the projected growth in international marine vessel emissions and direct the Air Pollution Control Officer to take necessary actions to mitigate emissions from this source.

SUMMARY:

The Santa Barbara County Air Pollution Control District's (APCD) 2001, 2004 and draft 2007 Clean Air Plans identify emissions from ocean-going vessels as a significant threat to local air quality. Since 2001, your Board has taken numerous actions supporting APCD involvement in issues relating to emissions from ocean-going vessels. The expected increases in cargo transport and the associated growth in vessel sizes, and transits indicate that by 2020 emissions of oxides of nitrogen (NO_x) from marine shipping activities will outweigh reductions made from all on-shore sources in the county. Staff recommends that your Board adopt the attached resolution directing the Air Pollution Control Officer to take necessary actions to mitigate emissions from marine shipping activities.

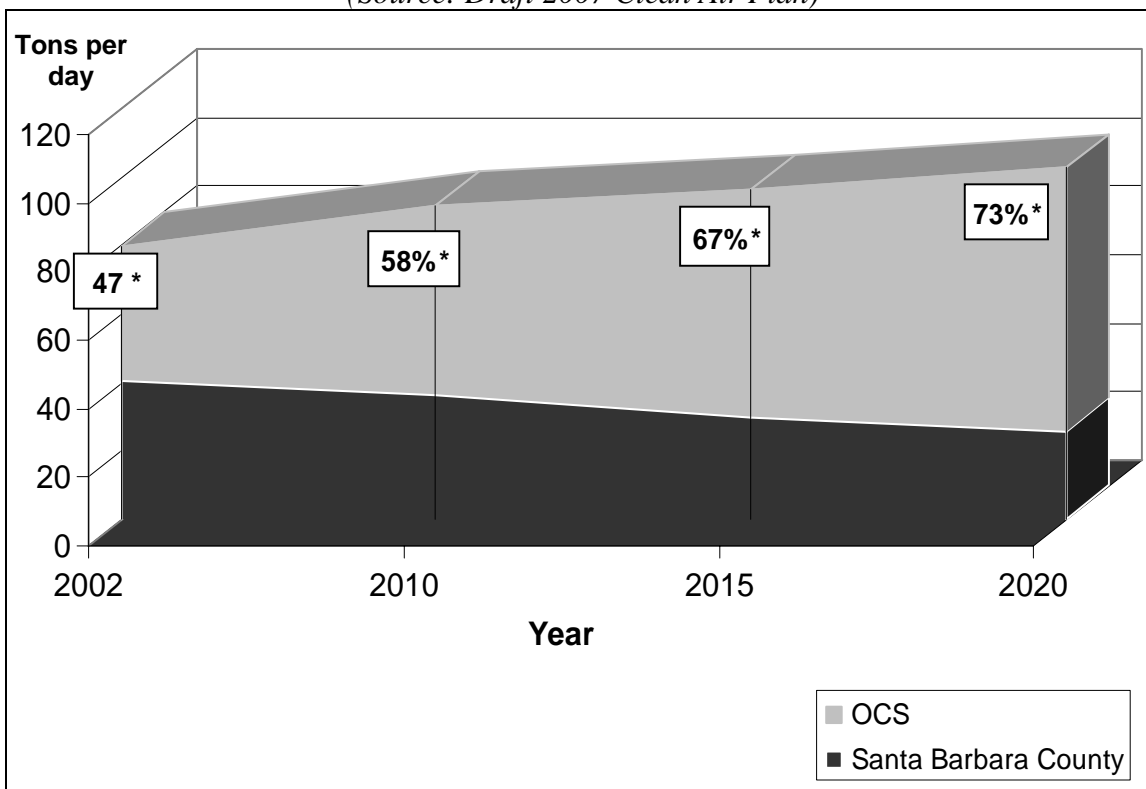
DISCUSSION:

Marine Shipping

Although Santa Barbara County does not have a port, the county has 130 miles of coastline that are heavily traveled (about 19 transits per day in 2005) by ocean-going vessels mostly heading to or from the ports of Long Beach, Los Angeles and Hueneme. Given the location of the Santa Barbara Channel Islands, large ships are often traveling and emitting pollutants along the North and South bound shipping lanes just ten to fifteen miles off our coastline. A majority of these ships are foreign flagged, are powered by engines large enough to be considered power plants, burn the dirtiest fuel available, and are virtually unregulated in terms of their air emissions.

According to the detailed emissions inventory developed for APCD's draft 2007 Clean Air Plan, large ships going through the Santa Barbara Channel currently produced close to one-half of the oxides of nitrogen (NO_x) emissions in Santa Barbara County, which is more than all of the on-road NO_x emissions from cars, trucks and buses combined (See Figure 1). Due to increasing cargo volumes these emissions are projected to make up close to three-quarters of the NO_x emissions in the County by 2020. While some of the air pollution from ships is dispersed before it reaches shore, the magnitude of these emissions is of concern for onshore air quality.

Figure 1: Santa Barbara County and OCS NO_x emissions forecast including marine vessels
(Source: Draft 2007 Clean Air Plan)



* Percentage of total NO_x emissions from Other Mobile Sources – Foreign and US Ships-in transit.

Marine Shipping Board Actions

The 2001, 2004 and draft 2007 Clean Air Plans identify marine shipping as a significant contributor to our existing emissions and as an emission source that is anticipated to grow substantially in future years. Your Board has directed the Control Officer to “take aggressive actions to influence the United States Environmental Protection Agency (U.S. EPA) to reduce the air quality impacts of emissions from marine shipping.” (APCD Board Resolution 01-10) In an update to your Board in April 2002, staff discussed the fact that much of the effort to reduce emissions from marine shipping is focused on new ships and emissions at ports. Therefore, staff presented a plan for the Board’s consideration to encourage emission reductions from the existing fleet by making District grant money available for ship retrofit programs. On January 16, 2003, the Board authorized the Chair to send a letter to U.S. Senate Foreign Relations Committee urging ratification of Annex VI, Regulation for Prevention of Pollution From Ships. In October 2003, your Board received another update on marine shipping activities and approved District grant funds for a Marine Shipping Retrofit Project (MSRP), using up to \$100,000 in Innovative Technology Group Funds.

On August 17, 2006, your Board received updates on the MSRP and ocean-going vessel emissions in Santa Barbara County waters. At this meeting, your Board approved the APCD’s role in the project as recipient and distributor of funds for the emissions testing by authorizing the Air Pollution Control Officer (Control Officer) to execute a Memorandum of Agreement between the contributing agencies. On October 19, 2006 your Board authorized the Control Officer to execute agreements for the in-use emission testing of an ocean-going vessel retrofitted with emissions control technologies using partner contributions and up to \$22,500 of APCD Innovative Technology Group funds.

Control Officer Actions

APCD has participated in a federal, state and local agency effort to demonstrate the feasibility and cost-effectiveness of retrofitting an in-service ocean-going vessel with emission control equipment. This multi-agency collaboration has been working with the shipping company APL and a major marine engine manufacturer on retrofitting the vessel the APL SINGAPORE with a water-in-fuel emulsion system and slide valves that are projected to reduce about 17 tons of NO_x and 1 ton of particulate matter (PM) per year in Santa Barbara County waters.

The District has submitted numerous letters in support of control measures targeting ocean-going vessel emissions, including those to the California Air Resource Board regarding their ocean-going vessel auxiliary engine regulation and the ocean-going vessel portion of the Goods Movement action plan. Comments were also provided to the U.S. EPA regarding their Category 3 marine engine emission standards, and the need for more stringent international standards. Finally a letter was written in support of the ratification of the International Maritime Organization’s MARPOL Annex VI. Ratification would make the U.S. a party to Annex VI and would then allow the US to participate in current negotiations discussing possible amendments to strengthen the regulations.

The District has also attended, participated in, and helped plan conferences pertaining to the reduction of emissions from ships. These conferences have primarily focused on bringing together government agencies, ship owners, engine manufacturers, and community groups to engage in discussions about emission control technologies, voluntary reduction measures, and potential regulatory development. Finally staff have given several presentations on the impacts that shipping emissions has, and is projected to continue to have on Santa Barbara County.

Given the growing impact that marine shipping emissions are projected to have in Santa Barbara County, staff recommends that your Board adopt the resolution in Attachment 1 adopting a District policy in support of all reasonable and necessary programs and efforts necessary to reduce and mitigate ocean-going vessel emissions within California coastal waters adjacent to the County and directing the Control Officer to take the necessary actions in support of this policy. The necessary actions may include, but are not limited to, the development and proposal of mitigating legislation and support for the strictest possible marine engine emissions standards and control measures at the state, federal and international level. The Control Officer will periodically update your Board on the progress of its actions.

Attachment 1

**RESOLUTION NO. 07-__ OF THE
SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT**

WHEREAS, The Air Pollution Control District Board of Directors has adopted policies encouraging the reduction and mitigation of emissions from ocean-going vessels and has previously directed the Control Officer to, “take aggressive actions to influence the United States Environmental Protection Agency (EPA) to reduce the air quality impacts of emissions from marine shipping.”;

WHEREAS, Santa Barbara County is in attainment of the federal eight-hour ozone standard, but does not meet the state one-hour or eight-hour ozone standard;

WHEREAS, the expected growth of international marine vessels and transits offshore of Santa Barbara County will result in a significant increase in the emissions of nitrogen oxides (NOx) in the Outer Continental Shelf;

WHEREAS, the emission inventories for the 2001 and 2004 Clean Air Plans as well as the Draft 2007 plan show that the emissions from international marine vessels are the single largest category of emissions represented in the inventory;

WHEREAS, the combination of the magnitude of these emissions with the expected increase in vessel size and activity results in NOx emission increases that, without the development of stricter regulations, are projected to be greater than the NOx emission reductions from control measures implemented onshore in Santa Barbara County;

NOW, THEREFORE, BE IT RESOLVED that the Board hereby again recognizes the magnitude of and the projected growth in international marine vessel emissions, reaffirms the Board’s policy of encouraging and advocating for the reduction and mitigation of emissions from ocean-going vessels and directs the Control Officer to take the necessary actions to mitigate the emissions from this source including, but not limited to, the participation in the development and proposal of legislation, and support for the strictest possible marine engine emission standards and control measures at the state, federal and international level.

PASSED AND ADOPTED by the Air Pollution Control District Board of Directors of the County of Santa Barbara, State of California, this 15th day of March, 2007.

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

Chair, Santa Barbara County Air Pollution
Control District Board

Deputy Clerk