

June 2, 2010

Docket Management Facility (M-30)  
U.S. Department of Transportation  
West Building Ground Floor, Room W12-140  
1200 New Jersey Avenue, S.E.  
Washington, DC 20590-0001.

RE: Docket # USCG-2009-0765; Comments on U.S. Coast Guard Port Access Route Study: Approaches to Los Angeles-Long Beach and in the Santa Barbara Channel

**To the U.S. Coast Guard:**

Thank you for the opportunity to provide comments on the Port Access Route Study detailed above. Our comments relate to Question 5 in the Federal Register notice (Vol. 75, No. 66, April 7, 2010) about positive and negative impacts that could result from changes to existing vessel routing measures, or the establishment of new routing measures. In this letter we provide background on negative air quality and public health impacts onshore in Santa Barbara County that result from the current location of the shipping lanes, and potential positive impacts that could result from relocation of the shipping lanes.

Overall, we request that the Study include a thorough assessment of onshore air quality (ozone and diesel particulate matter) and public health impacts associated with vessel routing in the Southern California region from Santa Barbara County to San Diego County. Our specific recommendations are detailed at the end of this letter.

**Background**

Over 40 percent of the nitrogen oxides (NO<sub>x</sub>) emissions in the District's emission inventory are contributed by large ships traveling through the Santa Barbara Channel. The District's emission inventories and Clean Air Plans since 1994 have consistently detailed the large amount of air emissions produced by these ships, and impacts on onshore air quality. Our projections have shown that the air pollution produced by these ships has the potential to overwhelm onshore efforts to reduce NO<sub>x</sub>, which is involved in the formation of ground-level ozone.

In January of 1995, the District Board sent a letter to the U.S. Environmental Protection Agency calling for the agency to expedite the process to relocate the international shipping lanes to outside the Channel Islands to reduce the air emissions coming onshore Santa Barbara County from ships transiting the Channel.

The California Air Resources Board 1994 Ozone State Implementation Plan's Control Measure M-13, "National and International Emission Standards for Marine Vessels," was assigned to the federal government and, among other things, committed to achieving an approximate 30 percent reduction in the cruising emissions from ocean-going ships in 2010. Control Measure M-13 did not mandate a particular control strategy to realize this

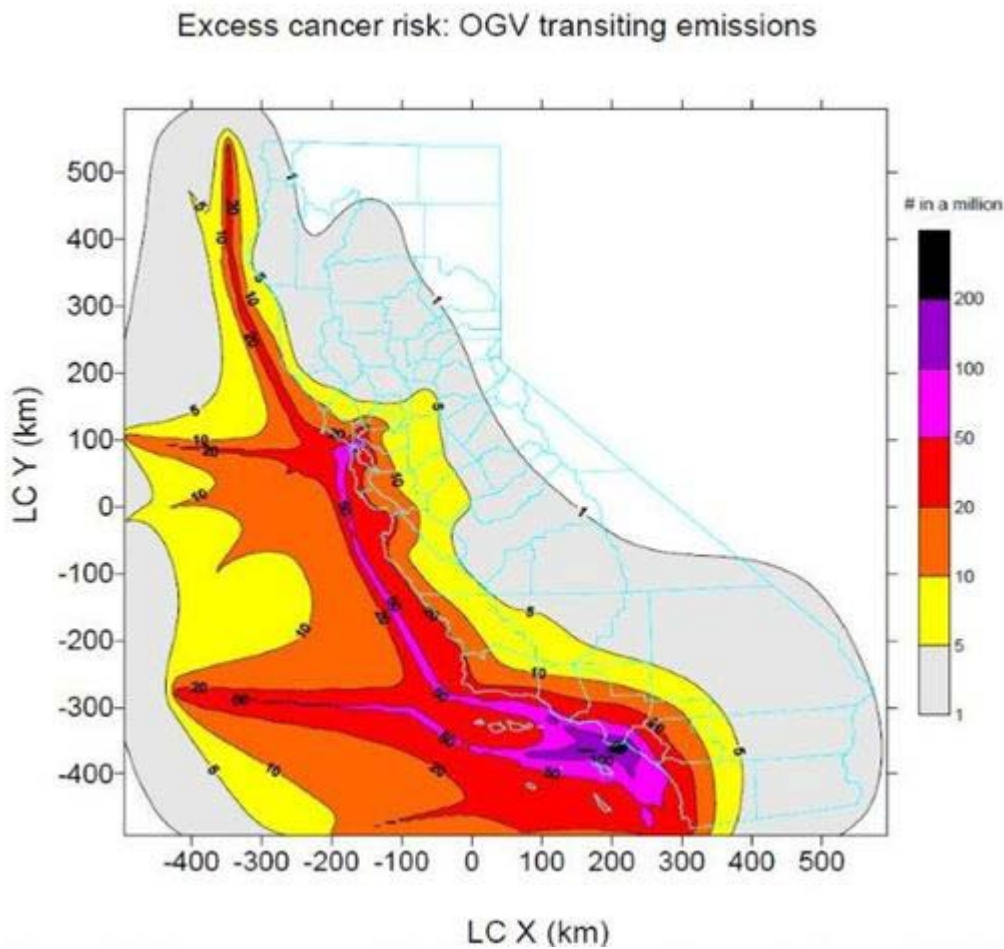
reduction, but did identify two possible operational controls: voluntary speed reduction, and relocation of the existing commercial shipping lanes to an area further offshore.

### Diesel Particulate and Toxic Risk

The District's emission inventories have focused on NO<sub>x</sub> emissions in the past, since our Clean Air Plans are designed to show how the county will attain and maintain federal and state ozone standards. In recent years, more attention has focused on particle pollution, and especially on diesel particulate matter, which includes multiple air toxics and is considered the number one airborne cancer-causing substance in California.

The figure below shows California Air Resources Board modeling that quantifies the excess cancer risk from diesel particulate matter from ocean-going vessels (OGV) transiting along the coast of California (outlined in light blue). As shown below, the coastal areas of Santa Barbara County are in the range between 50 in a million excess cancer risk offshore and 10-20 in a million excess cancer risk onshore. Our California Environmental Quality Act and state air toxics significant risk thresholds are set at 10 in a million for excess cancer risk.

Relocation of the shipping lanes to the south side of the Channel Islands would decrease excess cancer risk levels for Santa Barbara County significantly, very possibly to below our 10 in a million threshold.



Source: California Air Resources Board, *CALPUFF Dispersion Modeling of Ocean-Going Vessels Emissions*, Appendix E1, May 2008

## **Recommendations**

The U.S. Coast Guard should incorporate a thorough and rigorous evaluation of onshore air quality and public health impacts in its consideration of the location of shipping lanes in the Port Access Route Study.

Specifically, the Study should include a detailed modeling analysis of ozone and diesel particulate matter emissions from ships using routes inside the Channel and outside the Channel. The analysis should consider onshore air quality and public health impacts in the Southern California coastal area from Santa Barbara County south to San Diego using the Community Multi-scale Air Quality Model.

The analysis should model emissions and impacts using the following four scenarios, with 2005 base year data:

1. Ships using clean fuel (1,000 parts-per-million sulfur) traveling inside the Santa Barbara Channel.
2. Ships using clean fuel (1,000 parts-per-million sulfur) traveling outside the Santa Barbara Channel.
3. Ships using dirty fuel (the higher sulfur content fuel used before implementation of the state's fuel rule) traveling inside the Santa Barbara Channel.
4. Ships using dirty fuel (same sulfur content as fuel in scenario #3) traveling outside the Santa Barbara Channel.

This modeling analysis would allow the Port Access Route Study to assess the positive benefits for the air quality of Santa Barbara County and the health of our residents that could result from relocation of the lanes to outside the Santa Barbara Channel. The analysis would also allow the Coast Guard Study to assess air quality and public health impacts on areas to the south of us from the existing location of the shipping lanes, and the impacts that might result from the movement of the shipping lanes.

The California Air Resources Board is the appropriate agency to conduct the air dispersion modeling analysis outlined above, and staff there is planning to do the modeling for scenarios one and two above. Data are already available for scenario three.

The agency is not currently able to model scenario four. The analysis would be complete without the need to model scenario four if the fuel standards outlined in the Emission Control Area designation by the International Maritime Organization are implemented in 2015. However, if the standards are not implemented in 2015, then the analysis would be incomplete without scenario four.

Furthermore, the Study should include quantification and analysis of air quality and public health impacts that would result from implementation of a vessel speed reduction requirement for ships traveling through the Channel. Such a requirement would significantly reduce emissions and onshore impacts.

The table below provides our estimates for emissions reductions for a range of pollutants assuming a vessel speed of 12 knots through the Santa Barbara Channel.

**Vessel Speed Reduction (to 12 knots) in the Santa Barbara Channel  
Emission Reduction Estimates**

	2006 (Tons per Year)	VSR	% Reduction
NO <sub>x</sub>	16,730	5,713	65.85
CO <sub>2</sub>	700,508.33	231,619.79	66.94
PM	1,231.28	395.85	67.85
SO <sub>x</sub>	10,543.32	3,498.94	66.81
ROC	539.76	228.76	57.62

In addition, we recommend that the Coast Guard install an AIS (automated identification system) on one of the Channel Islands to supplement existing ship traffic information in the Study, and to provide information on any changes in traffic in the future. The ridge above Yellow Bluff on the south side of Santa Cruz Island is an example of a possible location for an AIS that could track ship traffic along the southern route.

Please contact either myself at 805-961-8853 or [dresslert@sbcapcd.org](mailto:dresslert@sbcapcd.org), or Tom Murphy, Technology and Environmental Assessment Manager at 805-961-8857 or [murphyt@sbcapcd.org](mailto:murphyt@sbcapcd.org) with any questions on these comments, or for more background on this issue.

Thank you for your consideration.

Sincerely,



Terry Dressler  
Air Pollution Control Officer

cc: Peggy Taricco, California Air Resources Board  
Larry Allen, San Luis Obispo County Air Pollution Control District  
Michael Villegas, Ventura County Air Pollution Control District  
Barry Wallerstein, South Coast Air Quality Management District  
Robert Kard, San Diego Air Pollution Control District